



National Health Research Symposium 2017

“Promoting Research Culture by sharing evidence Based Research,
Best Practices and Innovations”

Abstract Booklet



Education, Training and Research Unit
Ministry of Health, Nutrition and Indigenous Medicine

National Health Research Symposium – 2017

Ministry of Health, Nutrition and Indigenous Medicine,

Sri Lanka

in collaboration with

National Health Research Council



**“Promoting Research Culture by Sharing
Evidence Based Research, Best Practices and Innovations”**

- Proposed Dates - 4th Monday and 5th Tuesday December 2017
Proposed Venue - BMICH, Colombo, Sri Lanka
Chief Guest - Hon. Prime Minister of Sri Lanka

Organized by

Education, Training and Research unit
Ministry of Health, Nutrition and Indigenous Medicine
Sri Lanka



Contents

	Page Number
National Health Research Symposium – 2017	6
Abstract Reviewing Process	7
General Information	8
Site Map and Access	9
Program at a Glance	10
Organizing Committee	12
Panel of Reviewers	15

Abstracts for Free Paper Sessions

Summary of Abstracts for Oral Presentations	34
1. Patient Perspectives	52
2. Occupational Health	57
3. Clinical Medicine and Paediatrics	60
4. Communicable Diseases	64
5. Health Implications due to Microbial / Parasitic Infections and Infestations	68
6. Mental Health	72
7. Social Health	77
8. Surgery and Anaesthesia	81
9. Epidemiology	86
10. Diagnostics	92
11. Mental Ill-Health as Co-Morbidity	96
12. Environmental Health	100
13. Oral Health	104
14. Non Communicable Diseases	108
15. Pharmaceuticals	112
16. Health Informatics	117
17. Capacities of Health Professionals	122
18. Nutrition	127
19. Maternal and Child Health	131
20. Radiology	135

21. Health Systems	138
22. Health Literacy	142
23. Toxicology	146
24. Miscellaneous	152
25. Rheumatology and Rehabilitation	156
26. Quality and Safety	162
27. Education and Training	167
28. Oncology	173

Abstracts for Poster Sessions

Summary of Abstracts for Poster Sessions	180
1. Patient Perspectives	205
2. Occupational Health	206
3. Clinical Medicine and Paediatrics	215
4. Communicable Diseases	224
5. Health Implications due to Microbial / Parasitic Infections and Infestations	228
6. Mental Health	238
7. Social Health	242
8. Surgery and Anaesthesia	248
9. Epidemiology	251
10. Diagnostics	252
11. Mental Ill-Health as Co-Morbidity	262
12. Environmental Health	263
13. Oral Health	269
14. Non Communicable Diseases	276
15. Pharmaceuticals	288
16. Health Informatics	295
17. Capacities of Health Professionals	306
18. Nutrition	317

19. Maternal and Child Health	323
20. Radiology	329
21. Health Systems	330
22. Health Literacy	340
23. Toxicology	357
24. Miscellaneous	358
25. Rheumatology and Rehabilitation	361
26. Quality and Safety	366
27. Education and Training	379
28. Oncology	382
Delayed Reception	387

National Health Research Symposium – 2017

National Health Research Symposium is a timely felt need of the National Health Research Council (NHRC) and the Education, Training and Research Unit of the Ministry of Health.

Year 2017 is the inaugural year of the symposium and then it will expect to be an annual event in the calendar of the Education, Training and Research unit of the Ministry of Health.

Theme:

The Theme of the symposium is “Promoting Research Culture by Sharing Evidence Based Research, Best Practices and Innovations”.

Objectives of the National Health Research Symposium 2017:

1. To promote research culture by sharing evidence among health professionals.
2. To promote the interaction between ministries, coordinators and researchers on monitoring and evaluation process of research allowance payment
3. To create a platform for sharing evidence
4. To develop competencies among health professionals in research methodology
5. To announce the current national research priorities

There are some unique characteristic in this symposium, other than being the first ever national research symposium organized by the Ministry of Health. The symposium was made open to all healthcare professionals in Sri Lanka and therefore it is a collection of diverse research from multi-disciplinary, trans-disciplinary and inter-disciplinary spheres and spectra. It was evident by the reception of 504 abstracts from various disciplines of Sri Lankan health sector.

Additionally, it is a collection of high quality research abstracts, innovative projects and best practices from all categories of Sri Lankan health professionals, which was carefully chosen through a stringent and an anonymous review process by eminent national and international scholars in their respective disciplines. Each abstract was reviewed by two scholars and ultimately these were scrutinized for ethical issues by an expert committee on ethics.

ABSTRACT REVIEWING PROCESS

National Health Research Symposium received 504 abstracts in diverse disciplines from all categories of health professionals working in Sri Lanka, including Ministry of Health and Private Institutions. Abstract Review Committee was formulated to carry out the coordination of review process and for providing the technical inputs.

This Committee set the guidelines to accommodate the review of abstracts related to research, innovations and best practices. The online template for abstract submission was the first ever experience of a similar kind for the staff of the Health Information Unit and the Education, Training and Research unit of the Ministry of Health. Despite it being a major challenge for our staff, it laid the concept of developing a future online journal from Ministry of Health.

The abstract review process was a mammoth task. Two reviewers were assigned for each abstract- a content specialist and a research specialist. Approximately 200 specialists contributed to the process, which include specialists from international institutions. Their intellectual contribution amidst their busy schedules is sincerely acknowledged by the Abstract Review Committee

A common instrument and marking scheme was used to arrive on standardized decisions. The ethical aspect of presented abstracts was ensured by tracking the ethical clearance certificates. Ethical aspects were further scrutinized by representatives of National Health Research Council.

A core abstract review group made the final decisions and the mode of presentation. An intensive protocol was maintained to ensure that all accepted abstracts will be presented at the sessions by tracking the authors and ensure their presence at the conference.

Finally, 118 oral abstracts will be presented in 28 thematic free paper sessions and 173 posters will be presented at the National Health Research Symposium - 2017. The details are as follows;

Total No. of abstracts received	- 504	
Total No. Rejected	- 213	
Rejected during the review process		- 152
Rejected during ethical review process		- 035
Rejected due non conformity of resubmission		- 026
Total No. Selected	- 291	
Selected for Oral Presentation		- 118
Selected for Poster Presentation		- 173

The sessions will continue annually and we will be committed to the theme of the symposium - towards establishing a research culture in Sri Lanka.

General Information

Venue: Bandaranaike Memorial International Conference Hall,

Date: 4th to 5th December. (For access and site map – Please refer Page 06)

Registration: Participants are kindly requested to register at the registration desks located at the entrance to the Venue. No registration fee is required. Registration desks are open throughout the symposium except during the initial phase of the Inauguration Ceremony. Registration will be done according to the following categories;

1. Registration Area 1 – Ministry Officials and others
2. Registration Area 2 – Reviewers, Judges and Panelists
3. Registration Area 3 – Oral Presenters
4. Registration Area 4 – Poster Presenters

Pre and Post Congress Workshops:

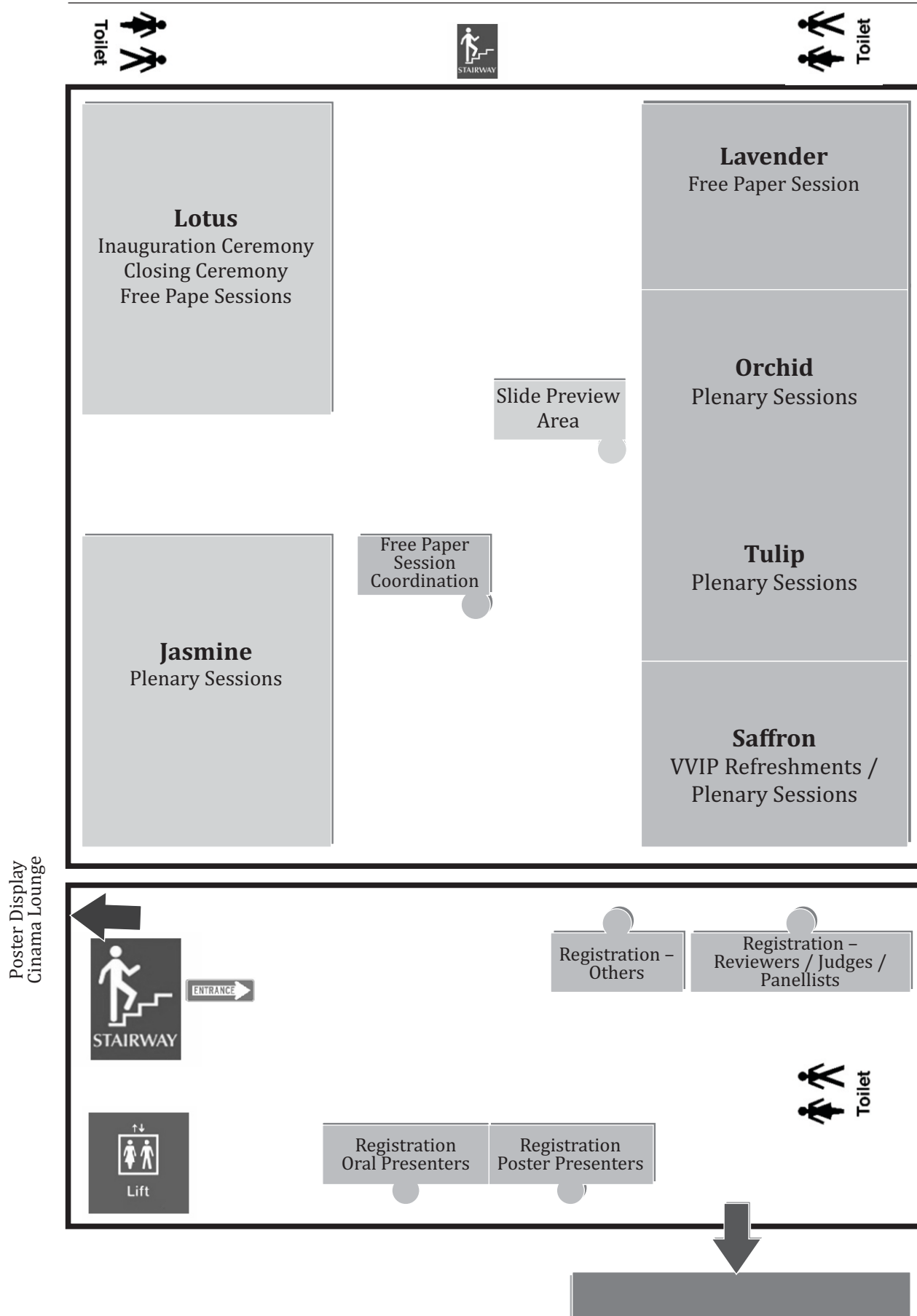
1. Pre-Congress workshop on Abstract writing
2. Pre-Congress workshop on Research priorities
3. Pre-Congress workshop to introduce the online course on research methodology
4. Post Congress workshop on Global Burden of Diseases (by invitation only)
5. Post Congress workshop on refining research priorities for Sri Lanka (by Invitation only)

Scientific Sessions: There will be 28 plenary sessions on different disciplines at 5 committee Rooms (oral presentations will take place at Lavender, Saffron, Tulip, Orchid and Lotus.) Posters will be displayed at Cinamaloung at the ground floor Please refer Pages 24 and 25 for the conference program and Page 06 for the site map for locations of oral and poster sessions.

Refreshments: Please be kind enough to note that, refreshments will be served only for the reviewers, judges, panelists and oral / poster presenters. Morning and Evening Tea will be served in front of committee rooms and Lunch will be served in the Banquet Hall. Please be kind enough to produce the Meal Tickets attached to conference program, which is enclosed within your name tag.

For more information: Please visit the website of the National Health Research Symposium; <http://www.health.gov.lk/nhrs2017/>

Site Map and Access



National Health Research Symposium

04th December 2017

8.30 a.m. - 9.45 a.m.	Registration of Participants and Morning Tea / Arr		
9.45 a.m. - 10.00 a.m.	Preparation for the Inauguration Ceremony - Registrants are seated		
10.00 a.m. - 12.30 p.m.	Inauguration Ceremony -		
12.30 p.m. - 1.30 p.m.	<i>Lunch: VIP - SAFFRON and Other Participants - BANQUET</i>		
1.30 p.m. - 2.30 p.m.		Free Paper Session 1 Venue - Tulip Theme - Patient Perspectives	Free Paper Venue - Theme - Occup
2.30 p.m. - 3.30 p.m.	Free Paper Session 5 Venue - Saffron Theme - Health Implications due to Microbial / Parasitic Infections and Infestations	Free Paper Session 6 Venue - Tulip Theme - Mental Health	Free Paper Venue - Theme - So
3.30 p.m. - 4.30 p.m.	Free Paper Session 10 Venue - Saffron Theme - Diagnostics	Free Paper Session 11 Venue - Tulip Theme - Mental Ill-Health as a Co-morbidity	Free Paper Venue - Theme - Enviro
4.30 p.m. - 5.30 p.m.	Evening Tea / Viewing and Jud		

05th December 2017

8.00 a.m. - 9.00 a.m.	Free Paper Session 15 Venue - Saffron Theme - Pharmaceuticals	Free Paper Session 16 Venue - Tulip Theme - Health Informatics	Free Paper Venue - Theme - Ca Health Pro
9.00 a.m. - 10.00 a.m.	Guest Speech - I - "Global Research Collaboration" -		
10.00 a.m. - 10.30 a.m.	Morning Tea		
10.30 a.m. - 11.30 a.m.	Guest Speech - II - "Research into Practice" - F		
11.30 a.m. - 12.30 p.m.	Free Paper Session 20 Venue - Saffron Theme - Radiology	Free Paper Session 21 Venue - Tulip Theme - Health Systems	Free Paper Venue - Theme - He
12.30 p.m. - 1.30 p.m.	Lunch - - BANQUET / Viewing and		
1.30 p.m. - 3.00 p.m.	Free Paper Session 25 Venue - Saffron Theme - Rheumatology and Rehabilitation	Free Paper Session 26 Venue - Tulip Theme - Quality and Safety	Free Paper Venue - Theme - Ed Trai
3.00 p.m. - 3.30 p.m.	Closing Ceremony - Ve		
3.30 p.m. - 4.30 p.m.	Evening Tea - VIP -		

Symposium - 2017 - Program at a Glance

September 2017 (Monday)

Morning Tea / Arrangement of Posters - Venue LAVENDER

Guests are seated inside the Venue for the Inauguration - Venue - LOTUS

Inauguration Ceremony - Venue - LOTUS

Registration - BANQUET / Viewing and Judging of the Posters

Free Paper Session 2 Venue - Jasmine Theme - Occupational Health	Free Paper Session 3 Venue - Orchid Theme - Clinical Medicine	Free Paper Session 4 Venue - Lotus Theme - Communicable Diseases	Poster Session Venue: Lavender
Free Paper Session 7 Venue - Jasmine Theme - Social Health	Free Paper Session 8 Venue - Orchid Theme - Surgery	Free Paper Session 9 Venue - Lotus Theme - Epidemiology	Poster Session Venue: Lavender
Free Paper Session 12 Venue - Jasmine Theme - Environmental Health	Free Paper Session 13 Venue - Orchid Theme - Oral Health	Free Paper Session 14 Venue - Lotus Theme - Non Communicable Diseases	Poster Session Venue: Lavender

Viewing and Judging of the Poster

September 2017 (Tuesday)

Free Paper Session 17 Venue - Jasmine Theme - Capacities of Health Professionals	Free Paper Session 18 Venue - Orchid Theme - Nutrition	Free Paper Session 19 Venue - Lotus Theme - Maternal and Child Health	Poster Session Venue: Lavender
---	---	--	---

Keynote Address - "Innovation" - Prof. Athula Sumathipala - Venue - Lotus

Morning Tea

Workshop - "Practice" - Prof. Asitha De Silva - Venue - Lotus

Free Paper Session 22 Venue - Jasmine Theme - Health Literacy	Free Paper Session 23 Venue - Orchid Theme - Toxicology	Free Paper Session 24 Venue - Lotus Theme - Miscellaneous	Poster Session Venue: Lavender
--	--	--	---

Viewing and Judging of the Posters

Free Paper Session 27 Venue - Jasmine Theme - Education and Training	Free Paper Session 28 Venue - Orchid Theme - Oncology		Poster Session Venue: Lavender
---	--	--	---

Inauguration Ceremony - Venue - Lotus

Morning Tea - VIP - Saffron

Organizing Committee

CHAIRPERSON

Dr. Sunil De Alwis - Deputy Director General (Education, Training & Research)

SECRETARY

Dr. L. A. C. S Dahanayake - Director – Research

ABSTRACT COMMITTEE

Dr. Ruwan Ferdinando – Co-Chair Deputy Director
National Institute of Health Sciences

Dr. Dilantha Dharmagunawardene – Co-Chair
Director – Training
Education, Training and Research

MEMBERS OF THE ABSTRACT COMMITTEE

Dr. Supun Wijesinghe - Consultant Community Physician
Dr. Sameera Senanayake - Senior Registrar, Community Medicine)
Dr. Buddhika Senanayake – Senior Registrar (Community Medicine)
Dr. Buddhika Mahesh – Senior Registrar (Community Medicine)
Dr. Hemali Jayakody – Senior Registrar (Community Medicine)
Dr. Sashimali Wickramasinghe – Senior Registrar (Community Medicine)
Dr. Aruni Gallage – Lecturer – Department of Community Medicine, Faculty of
Medicine, University of Colombo
Dr. A.P. Sandanayake - Registrar (Medical Administration)
Dr. P.D. Koggalage - Registrar (Medical Administration)
Dr. M.P. Kumbukage - Registrar (Community Medicine)
Dr. N.D.W. Widanapathirana - Registrar (Community Medicine)
Dr. N.T. Wellappuli - Registrar (Community Medicine)
Dr. Chathura Wijesundara - Registrar (Community Medicine)
Dr. Sumudu Hewage - Registrar (Community Medicine)
Dr. Sinha De Silva - Registrar (Community Medicine)
Dr. Samantha Ranasinghe - Registrar (Medical Administration)

STEERING COMMITTEE

Dr. Sudath Samaraweera

Director – National Cancer Control Program, Consultant Community Physician

Chair – Event Management Committee

Dr. Champika Wickramasinghe - Deputy Director General (NCD)
Dr. S. Sridharan - Deputy Director General (Planning)
Dr. Dilantha Dharmagunawardene - Director (Training)

Dr. Palitha Karunapema - Director (Quarantine)
Dr. Sumal Nandasena Deputy Director (Field Services - NIHS)
Dr. Pradeep Ratnasekara - Deputy Director (MRI)
Dr. Dedunu Dias - Deputy Director (Rehabilitation Hospital, Ragama)
Dr. Supun Wijesinghe - Consultant Community Physician
Dr. Santhushya Fernando - Senior Registrar (Community Medicine)
Dr. Sameera Senannayake - Senior Registrar (Community Medicine)
Dr. M.S. Umashankar - Senior Registrar (Medical Administration)
Dr. Imesh Prathapasinghe - Senior Registrar (Medical Administration)
Dr. A.P. Sandanayake - Registrar (Medical Administration)
Dr. Samantha Ranasinghe - Registrar (Medical Administration)
Dr. Hamdani Anver - Registrar (Medical Administration)
Dr. M.C.M. Mallawarachchi - Registrar (Medical Administration)
Dr. P.D. Koggalage - Registrar (Medical Administration)
Dr. Y.M.M. Priyangani - Registrar (Medical Administration)
Dr. I.D. Pathirage - Registrar (Medical Administration)
Dr. Ashok Perera - Registrar (Medical Administration)
Dr. D.A.R.K. Dilrukshi - Registrar (Medical Administration)
Dr. S.D.U.M. Ranga - Registrar (Medical Administration)
Dr. Chinthaka Perera - Registrar (Medical Administration)
Dr. Dimuth Ponweera - Registrar (Medical Administration)
Dr. K.D. Jayalath - Registrar (Medical Administration)
Dr. Prabath Amarasinghe - Registrar (Medical Administration)
Dr. T.W.M.A.J. Bandara - Registrar (Medical Administration)
Dr. Neranga Liyanaarachchi - Registrar (Health Informatics)
Dr. Prasad Ranathunga - Registrar (Health Informatics)
Dr. Chamila Abeywickrama - Medical Officer - ET&R Unit
Dr. Maheshika Wanniachchi - Medical Officer - ET&R Unit
Dr. Sankeesha Kariyawasam - Medical Officer - ET&R Unit
Dr. Dhammika Rathnayake – Medical Officer - ET&R Unit
Dr. Pathmasiri Warnakulasuriya - Senior Lecturer - University of Sri Jayewardenepura
Dr. Bimali Weerakoon – Lecturer - University of Peradeniya
Dr. Nithushi Samaranyake - Senior Lecturer - University of Sri Jayewardenepura
Dr. Dilmi Aluwihare Samaranyake
Dr. Champa Senanayake - Principal - School of Dental Therapy
Ms. Asoka Abeynayake - Principal - Post Basic College of Nursing

Mr. Wimalarathne Dissanayake - Principal – Nurses Training School, Colombo
Ms. Janaki Silva - Principal School of MLT, MRI
Mr. Rohana Perera - Principal -School of Physiotherapy, NHSL
Mr. Wimalasena Vitharana - Principal -School of Radiography, NHSL
Ms. Shirani Jayawardene - Principal School of Ophthalmic Technology, NEH
Mr. Jeewantha Sasika - Principal - School of Prosthetists and Orthotists, RRH
Mr. Najith Sumnasena - Principal - School of Entomology, MRI
Ms. Champa Premakumari - Principal - School of Cardiography, NHSL
Mr. RMSK Rathnayake - Principal - School of Electro Encephalography, NHSL
Mr. Harendra Kuruppu - Senior Tutor - School of Pharmacy, NHSL
Mr. Iranga Aluthge - Senior Tutor - School of Physiotherapy, NHSL
Mr. Bhanaka Fernando - Senior Tutor - School of Physiotherapy, NHSL
Ms. Disna Gomez – Senior Tutor - School of Cardiography, NHSL
Ms. Nelupa Subasinghe – Senior Tutor - School of Cardiography, NHSL
Ms. Sudharma Subasinghe – Senior Tutor - School of Electro Encephalography, NHSL
Mr. Upali Seekubadu - Senior Tutor - School of Ophthalmic Technology, NEH
Ms. K.M. Sriyani Padmalatha – Nursing Officer - National Hospital of Sri Lanka
Mr. K.K.M Piumal - Information Communication Technology Officer
Mr. V. Tharsinath - Information Communication Technology Officer
Mr. Ranjan Vipulashantha – Program and Planning Officer – North Western Provincial Health Department
Ms. Thilaka Narangoda – Program and Planning Officer – ET&R Unit
Mr. Anushka Wijewardene – Development Officer – ET&R Unit

Editing and Compilation of the Conference Book and Abstract Book

Dr. Dilantha Dharmagunawardene – Director (Training) – ET&R Unit
Dr. Ruwan Ferdinando – Deputy Director (Training) - NIHS
Dr. N.D.W. Widanapathirana - Registrar (Community Medicine)
Dr. A.P. Sandanayake - Registrar (Medical Administration)
Dr. Chamila Abeywickrama - Medical Officer - ET&R Unit

Abbreviations

ET&R – Education, Training and Research	MRI – Medical Research Institute
MLT – Medical Laboratory Technology	NEH – National Eye Hospital
NHSL – National Hospital of Sri Lanka	RRH – Ragama Rehabilitation Hospital
NIHS – National Institute of Health Sciences	

Panel of Reviewers – Group No. 01

With a deep sense of appreciation we thank the following reviewers who contributed to the anonymous review process amidst their very busy schedules with generous commitment and dedication

- 1 **Prof. Samath D Dharmaratne, MBBS, MSc, MD**
Associate Professor and Consultant Community Physician
Department of Community Medicine, Faculty of Medicine, University of Peradeniya

- 2 **Prof. Vajira H. W. Dissanayake, MBBS, PhD, FNASSL**
Chair Professor of Anatomy; Director, Human Genetics Unit; Chairperson
Specialty Board in Biomedical Informatics
University of Colombo, Sri Lanka

- 3 **Prof. Anoja Fernando, MBBS (Ceylon), BA, FRCP (London)**
Emeritus Professor
University of Ruhuna

- 4 **Prof. Priyadarshani Galappatthy, MBBS, MD, MRCP, Dip. Med Tox, FCCP, FRCP (Lond)**
Professor in Pharmacology
Department of Pharmacology, Faculty of Medicine, University of Colombo

- 5 **Prof. Tan Kok Hian, MBBS, MMed, MBA, FAMS, FRCOG**
Professor
SingHealth Duke-NUS Academic Medical Centre

- 6 **Prof. Saroj Jayasinghe, MBBS, MD (Col), MD (Bristol), MRCP (UK), FRCP (Lond), PhD (Col), FCCP**
Chair Professor of Medicine, University of Colombo
Faculty of Medicine, University of Colombo

- 7 **Prof. Nishan Sudheera Kalupahana, MBBS, MPhil, Ph.D.**
Professor in Human Nutrition
Faculty of Medicine, University of Peradeniya.

- 8 **Prof. Indika Karunathilake, MBBS. (Col.), MMedEd. (UK), DMedEd. (UK), CTHE (Col.), FHEA (UK), FCGP (SL. Hons.)**
Professor of Medical Education,
Department of Medical Education, Faculty of Medicine, University of Colombo

- 9 **Prof. Samudra T Kathriarachchi, MBBS, MD, FCCP, FSLCPsych**
Senior Professor
Department of Psychiatry, University of Sri Jayewardenepura

- 10 **Prof. Ponnudurai Kuperan**, FRCP (London) FRCPA , FRCPath
Associate Professor
Tan Tock Seng Hospital, Singapore
- 11 **Prof. Neelika Malavige**, MBBS(Col), MRCP(UK), DPhil(Oxon),
FRCP(Lond), FRCPath(UK)
Professor in Microbiology
University of Sri Jayewardenapura
- 12 **Prof. Rasnayaka M Mudiyanse**, MBBS DCH MD MRCP
Professor in Paediatrics
Faculty of Medicine University of Peradeniya
- 13 **Prof. Senaka Rajapakse**, MBBS, MD, FRCP, FRCPE, FACP, FCCP
Professor, Department of Clinical Medicine
Faculty of Medicine, University of Colombo,
- 14 **Prof. Shalini Sri Ranganathan**, MBBS, DCH, MD, MRCP, Dip Med Tox, PhD
Professor in Pharmacology and Specialist in Paediatrics
Faculty of Medicine, University of Colombo
- 15 **Prof. Rohini de Alwis Seneviratne**, MBBS(Hon)(Cey), MD(Col),
MMedEd(UK), Dip.Med.Ed(UK), FCCP(SL)
Senior Professor in Community Medicine, and Dean Research and
Development, Faculty of Medicine, General Sir John Kotelawala Defence
University
- 16 **Prof. Athula Sumathipala**, MBBS, DFM, MS, FRCGP, (Sri Lanka),
MRCpsych, CCST,(UK), PhD(Lon)
Professor of Psychiatry
Research Institute for Primary Care & Health Sciences, Faculty of Medicine
& Health Sciences, Keele University
Honorary Consultant Psychiatrist, South Staffordshire and Shropshire
Healthcare NHS Foundation Trust
Hon. Director, Institute for Research and Development, Sri Lanka
- 17 **Prof. Chandrika N Wijeyaratne**, MBBS., DM (Col)., MD., FRCP
Professor in Reproductive Medicine, Consultant Physician Endocrinologist
Faculty of Medicine University of Colombo
- 18 **Prof. Surangi G. Yasawardene**, MBBS; PhD
Chair Professor of Anatomy and Dean, Faculty of Medical Sciences
University of Sri Jayewardenapura
- 19 **Dr. Prasad Abeysinghe**, MBBS, MD (Clinical Oncology)
Consultant Clinical Oncologist
National Cancer Institute, Maharagama

- 20 **Dr. (Ms.) Dilmi Aluwihare-Samaranayake**, PhDN (University of Alberta, Canada), MBA (PGIM, University of Sri Jayawardenepura, Sri Lanka), CTHE (University of Colombo, Sri Lanka and SEDA, UK), MSN (University of British Columbia, Canada), BScN (Hons) (University of Manchester, UK)
- 21 **Dr. Piyusha Atapattu**, MBBS, MSc (Med Ed), MD, FRCP (Edin.)
Senior Lecturer in Physiology
Department of Physiology, Faculty of Medicine, University of Colombo
- 22 **Dr. (Ms.) D.C. Atukorale**, MBBS (Colombo), MD Paediatrics (Col), Diploma in Child Health (Col)
Consultant Paediatrician
Hemas Hospital, Thalawathugoda
- 23 **Dr. Himantha Atukorale**, MBBS (Colombo), MD
Consultant in Rheumatology and Rehabilitation
District General Hospital, Vavuniya
- 24 **Dr. Myo Nyein Aung**, MBBS, MSc, PhD
International Faculty
WHO Collaborating Center for Medical Education, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand
- 25 **Dr. W.V.R.T.D.G. Bandara**, B.Sc (Hons) Human Biology Special Degree, M.Phil, PhD.
Senior Lecturer and Head of the Dept. of Medical laboratory Science
Faculty of Allied Health Sciences, University of Ruhuna, Galle
- 26 **Dr. Madawa Chandratilake**, MBBS (Colombo), MMed (Dundee), PhD (Dundee)
Senior Lecturer and Head, Department of Medical Education
Faculty of Medicine, University of Kelaniya
- 27 **Dr. L. B. H. Denuwara**, MD in Medical Administration
Former Director Nutrition, Ministry of Health
- 28 **Dr. Sunil De Alwis**, MD (Lvov), M.Sc. (Community Medicine), PGDnM (SL), PGDDFA, MBA (SL), MD (Medical Administration)
Deputy Director General (Education, Training and Research)
Education, Training and Research Unit, Ministry of Health
- 29 **Dr. Dileep De Silva**, BDS (Pera), MSc (Col), MD-Com Dent (Col), MBA (Col), PhD (UK)
Consultant in Community Dentistry and Head of HR Coordinating Division
Ministry of Health
- 30 **Dr. Jayamal De Silva** M.B.B.S. (Colombo), M.D. (Psychiatry)
Department of Psychiatry
Faculty of Medical Sciences, University of Sri Jayewardenepura

- 31 **Dr. Anoj Dharmawardhane**, MBBS, MS, FRACS
Consultant General Surgeon
Toowoomba Hospital, Australia
- 32 **Dr. Shavindra Dias**, B.A. Biochemistry (Oxford, UK), M.B.B.S (Colombo),
Postgraduate Dip in Applied Psychology (Colombo), MD in Psychiatry
(Colombo)
Consultant Psychiatrist / Head – Department of Psychiatry,
Faculty of Medicine, University of Peradeniya
- 33 **Dr. (Ms.) M. Madhuwanthi Dissanayake**, MBBS, MD (Ophthalmology),
CTHE, SEDA (UK)
Senior Lecturer/ Consultant Eye Surgeon
Faculty of Medicine, University of Colombo
- 34 **Dr. (Ms.) Dilshani WN Dissanayake**, MBBS, PhD(UK)
Senior Lecturer, Neuroscientist in charge of Neurophysiology Research
Laboratory and Director of RPF
Department of Physiology, Research Promotion and Facilitation Centre,
Faculty of Medicine, University of Colombo
- 35 **Dr. (Ms.) D.M.B. Thushari Dissanayake**, MBBS, Diploma in Medical
Microbiology, MD in Medical Microbiology
Senior Lecturer / Consultant Microbiologist
Faculty of Medical Sciences, University of Sri Jayewardenepura
- 36 **Dr. Manjula Dissanayake**, MBBS, Post graduate Diploma in Pathology, MD
(Chemical Pathology)
Consultant Chemical Pathologist
Department of Pathology, Teaching Hospital Karapitiya
- 37 **Dr. Kithsiri Edirisinghe**, MBBS, MSc, MD(Medical Administration),
Master Trainer (Australia), TAE (Australia), Cert. IVLP (USA)
Chief Executive Officer / Founder International Institute of Health
Sciences, Welisara
- 38 **Dr. (Ms.) Nishali Ekanayaka**, MBBS, D Path , MD Path
Consultant Pathologist
Medical Research Institute, Colombo
- 39 **Dr. Ruvan Ekanayaka**, MBBS, MD, MRCP(UK), FRCP(Lond), FRCP(Edin),
FRCP(Glasg), FACC, FCCP
Consultant Cardiologist
Nawaloka Hospitals, Colombo
- 40 **Dr. (Ms.) Buddhika L. Fernando**, BDS (University of Peradeniya), LLM,
Medical Law and Ethics (Lancaster University), UNESCO Master Trainer in
Bioethics, Attorney-at-Law, PhD Scholar
Institute for Primary Care and Health Sciences, Faculty of Medicine, Keele
University, Staffordshire, United Kingdom

- 41 **Dr. Manoj Fernando**, M.B.B.S., M.Phil., CTHE.
Senior Lecturer in Health Promotion
Rajarata University of Sri Lanka, Mihintale
- 42 **Dr. (Ms.) Charuni Gamage**, MBBS (Colombo), MD Psychiatry (Colombo)
Consultant Psychiatrist, Senior Lecturer (KDU)
General Sir John Kotelawala Defence University, Kandawala Rd, Ratmalana
- 43 **Dr. L.P.S Gamini**, B.Sc. (Bus. Ad), M.Com, Ph.D
Senior Lecturer
Department of Management Studies, The Open University of Sri Lanka,
Nawala
- 44 **Dr. Inuka Kishara Gooneratne**, MBBS (Col), MD (Col), MRCP(UK),
MRCP(Lon)
Consultant Neurologist
National Hospital of Sri Lanka, Colombo
- 45 **Dr. Bandu Gunasena**, MD, MRCP, FCCP, FRCP
Consultant Respiratory Physician
National Hospital for Respiratory Diseases – Welisara
- 46 **Dr. Roshan Gunathilake**, MBBS MD FRACP
Specialist in Geriatric Medicine and General Medicine, Conjoint Lecturer
University of Newcastle, NSW, Australia
- 47 **Dr. Punsith Gunewardene**, MBBS(Colombo), MS(Colombo)
Consultant Neurosurgeon
Nawaloka Hospitals PLC.
- 48 **Dr. H.M.J. Priyanka Herath**, Diploma in Pathology, MD in Haematology
Consultant Haematologist
Medical Research Institute, Colombo
- 49 **Dr. (Ms.) Neelamani S. Rajapaksa Hewageegana**, PhD (Sheffield Hallam
UK), Board certified Specialist in Medical Administration, MD (Medical
Administration), M.Sc. (Medical Administration), M.D.(Rumania)
Senior Lecturer Faculty of Medicine Peradeniya
President College of Medical Administrators Sri Lanka
- 50 **Dr. Roshan Hewapathirana**, MBBS, MSc, MIEEE
Visiting Lecturer
Postgraduate Institute of Medicine, University of Colombo
- 51 **Dr. A I Jagoda**, MBBS MSc (Med Admin) MD (Med Admin)
Director Health Information
Ministry of Health Nutrition & Indigenous Medicine
- 52 **Dr. (Ms.) S. Wasana Jayarathne**, MBBS, MD Med, Dip in Med, Cert in Med
Lecturer
Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka

- 53 **Dr. A. J. M. L. S .B. A. Jayasekara**, MBBS, Diploma in Transfusion Medicine,
MD Transfusion Medicine
Consultant Transfusion Physician
National Blood Transfusion Service, National Blood Centre
- 54 **Dr. (Ms.) Chamila N W Jayasekera**, MBBS, MD (Anaesthesiology)
Consultant Anaesthetist
Kethumathi Maternity Hospital, Panadura
- 55 **Dr. (Ms.) Kushlani Jayatilleke**, MBBS (Colombo), Diploma Medical
Microbiology, MD Medical Microbiology
Consultant Microbiologist,
Sri Jayewardenapura General Hospital, Nugegoda
- 56 **Dr. (Ms.) Pradeepa Jayawardane**, MBBS (Colombo), PhD (Peradeniya)
Senior Lecturer in Pharmacology
Department of Pharmacology, Faculty of Medical Sciences, University of
Sri Jayewardenepura
- 57 **Dr. Indu Asanka Jayawardane**, MBBS, MD (O&G), CTHE (Col.), Mphil
(Nottingham), MRCOG
Senior Lecturer and Consultant in Obstetrics and Gynaecology
Faculty of Medicine, University of Colombo.
- 58 **Dr. Nuradh Joseph**, MB BS MD MRCP FRCR
Consultant Oncologist
Teaching Hospital, Jaffna
- 59 **Dr. (Ms.) Indira Kahawita**, MBBS (Colombo), MD Dermatology (Sri
Lanka), DTM&H (London)
Consultant Dermatologist
Base Hospital Homagama
- 60 **Dr. Lilani Karunanayake**, MBBS, Pg.Dip (Med. Microbiol), MD
Consultant Clinical Microbiologist
Department of Bacteriology, Medical Research Institute
- 61 **Dr. Nimal D. Kasthuriarachchi**, MBBS. (Cey), Ph.D.(Princeton)
Medical Social Scientist
- 62 **Dr. Mahen Kothalawala**, MBBS MD MPH
Consultant Clinical Microbiologist
Teaching Hospital Kandy, Kandy
- 63 **Dr. Sanjeewa Kularatna**, PhD
Senior Research Fellow in Health Economics
Australian Centre for Health Service Innovations, Queensland University
of Technology
- 64 **Dr. (Ms.) M.W.S.J. Kumari**, B.A.M.S.(Hons), M.D.(Ayu), PhD (Ayu)
Senior Lecturer
Institute of Indigenous Medicine, University of Colombo, Rajagiriya.

- 65 **Dr. MTD Lakshan**, MBBS, MS ORL, DOHNS, FEB ORL HNS FRCSED ORL HNS
Consultant ENT and Head and Neck Surgeon
Nawaloka Hospitals Colombo
- 66 **Dr. Sanath Mahawithanage**, PhD
Senior Lecturer
Faculty of Medical Sciences, University of Sri Jayewardenepura
- 67 **Dr. Aishath Mahfooza**, Doctor of Clinical Physiotherapy (Aus), MSc Physiotherapy (Aus), BSc Physiotherapy (Aus), Diploma in Physiotherapy (SrL)
Principal Physiotherapist / Vice Dean - Administrative Affairs
Physiotherapy Department / National Healthcare Academy, Indira Gandhi Memorial Hospital, Male', Maldives
- 68 **Dr. Rohana Basil**. Marasinghe, MBBS, MPhil, PhD
Head, Department of Medical Education and Health Sciences,
Department of Medical Education and Health Sciences, Faculty of Medical Sciences, University of Sri Jayewardenepura
- 69 **Dr. (Ms.) MKDL Meegoda**, PhD, MSc Nursing, BSc. Nursing, Dip. in Nursing, Dip. in Teaching and Supervision, Registered as a Nurse, Registered as a Midwife, Dip. in English
Senior Lecturer
University of Sri Jayewardenepura
- 70 **Dr. Sachith Mettananda**, MBBS, MD(Paed.), DPhil(Oxon)
Senior Lecturer and Consultant Paediatrician
University of Kelaniya
- 71 **Dr. (Ms.) Chamari Mudalige**, MBBS(Colombo) MD (Psychiatry)
Consultant Psychiatrist
- 72 **Dr. Lal Panapitiya**, MBBS, MSc, MD (Medical Administration), Consultant in Medical Administration & Health Management
Director (Medical Supplies)
Medical Supply Division, Ministry of Health
- 73 **Dr. K.G.R.V. Pathirathna**, MBBS, MSc, MD
International Research Fellow
University of Lincoln, United Kingdom
- 74 **Dr. (Ms.) M. R. S. Peiris**, B.A.M.S. (Hon) Colombo, M.Sc. (Food and Nutrition), MD (Ayu-Panchakarma) India, D.Ac.
Consultant Ayurveda Physician
Bandaranaike Memorial Ayurveda Research Institute, Nawinna, Maharagama
- 75 **Dr. Reggie Perera**, MD (Community Medicine),
Board Certified Consultant in Community Medicine
Director / Senior Fellow Institute for Health Policy
Institute for Health Policy, 72, Park Street, Colombo 02

- 76 **Dr. Maduwage Kalana Prasad**, MBBS, MPhil, Ph.D (Aust.)
Senior Lecturer
Department of Biochemistry, Faculty of Medicine, University of Peradeniya
- 77 **Dr. G. A. Prathapasinghe**, BVSc (SL), MSc (Canada), PhD (Canada)
Senior Lecturer & Head Department of Livestock & Avian Science, Faculty
of Livestock, Fisheries & Nutrition, Wayamba University of Sri Lanka
- 78 **Dr. Mithrajee Premaratne**, MD (Anaesthesiology)
Consultant Anaesthetist
Lady Ridgeway Hospital, Colombo 8
- 79 **Dr. Ajantha Rajapakse**, MBBS, MD, MRCP
Consultant Cardiologist
Provincial General Hospital, Kurunegala
- 80 **Dr. Mahesh Rajasuriya**, MD (Psychiatry)
Senior Lecturer/ Consultant Psychiatrist
Department of Psychiatry, Faculty of Medicine, University of Colombo
- 81 **Dr. (Ms.) Ranthilaka R. Ranawaka**, MBBS MD
Consultant Dermatologist
General Hospital Kalutara, Kalutara
- 82 **Dr. Kumari Malkanthi Rathnayake**, B.Sc. Special in Nutrition (Wayamba,
SL), M.Phil in Food and Nutrition (P'deniya, SL), PhD in Human Nutrition
(Reading, UK)
Senior Lecturer
Department of Applied Nutrition, Faculty of Livestock, Fisheries and
Nutrition, Wayamba University of Sri Lanka
- 83 **Dr. M.D.A. Rodrigo**, MBBS (SL), MSc, MD (Med. Admin.)
Senior Registrar in Medical Administration
Ministry of Health
- 84 **Dr. Asiri Rodrigo**, MBBS, MD (Psych.), MRCPsych (UK), FRANZCP (Aus.),
Adv. Cert. Psych. Psychotherapies (Aus.)
Consultant Psychiatrist / Lecturer in Psychiatry
Colombo North Teaching Hospital, Ragama / University of Kelaniya,
Ragama
- 85 **Dr. (Ms.) Shanthini Rosairo**, MBBS, MD (Radiology)
Senior Lecturer
Department of Radiology, Faculty of Medicine, University of Peradeniya,
- 86 **Dr. Nilakshi Samaranayake**, MBBS, PG Dip Med. Micro, PhD
Senior Lecturer
Department of Parasitology, Faculty of Medicine, University of Colombo

- 87 **Dr. Nithushi Rajitha Samaranayake**, B.Sc (Pharmacy), PhD
Senior Lecturer
B. Pharm Degree Program, Department of Allied Health Sciences, Faculty of Medical Sciences, University of Sri Jayewardenepura
- 88 **Dr. S A S C Senanayake**, MBBS, Dip. Med. Microbiology, MD (Medical Parasitology)
Senior Lecturer
Department of Parasitology, Faculty of Medicine, University of Colombo
- 89 **Dr. Lalith Senarathna**, PhD
Senior Lecturer
Health Promotion Division, Faculty of Applied Sciences, Rajarata University of Sri Lanka
- 90 **Dr. Sudarshi Seneviratne**, MBBS, MD (Psych), CCP, MRCPsych
Senior Lecturer and Honorary child and adolescent psychiatrist
Department of Psychiatry, Faculty of Medicine, University of Colombo
- 91 **Dr. Kanchana Singappuli**, MBBS (Colombo), MS, FRCSEd
Consultant Cardiothoracic Surgeon
Lady Ridgeway Hospital for Children, Colombo
- 92 **Dr. Pandula Siribaddana**, MBBS, PhD, PGDip, SEDA (UK)
Senior Lecturer
Postgraduate Institute of Medicine, University of Colombo
- 93 **Dr. Yamuna Siriwardana**, MBBS, PhD
Senior Lecturer
Department of Parasitology, Faculty of Medicine, University of Colombo.
- 94 **Dr. Chathurarya Siriwardena**, MBBS (Colombo), MD Derm., MRCP (London)
Consultant Dermatologist
Base Hospital Dambulla
- 95 **Dr. S Sridharan**, MD (USSR), M.Sc., MD (Medical Administration), MBA (Commonwealth)
Deputy Director General (Planning)
Ministry of Health
- 96 **Dr. (Ms.) Kumarasinghe Arachchigey Sriyani**, Ph.D. (USJP), B.Sc. Nursing (OUSL), Post Basic Diploma in Teaching & Supervision, RN.
Lecturer
Department of Nursing, Faculty of Health Sciences, The Open University of Sri Lanka.
- 97 **Dr. Sankarapillai Sujendran**, PhD (Colombo), MNSc. (Adelaide), B.Sc. (Hons) Nursing, PBDN, Dip. in Nursing, RN
Senior Lecturer in Nursing
Faculty of Health-Care Sciences, Eastern University Sri Lanka

- 98 **Dr. Chathurie Suraweera**, MBBS (Colombo), MD (Psychiatry), MRCPsych (UK)
Consultant Psychiatrist, Senior Lecturer in Psychiatry
Department of Psychiatry, Faculty of Medicine, University of Colombo
- 99 **Dr. Suchintha Tillakaratne**, MBBS, MD Surgery, MRCS
Lecturer
Department of Surgery, Faculty of Medicine, University of Kelaniya.
- 100 **Dr. J.J.K.H. Udupihille**, MBBS, MD (Radiology)
Senior Lecturer, Consultant Radiologist,
Department of Radiology, Faculty of Medicine, University of Peradeniya
- 101 **Dr. D.S. Vidanagama**, MBBS (Colombo), Dip (Med. Micro), MD (Med. Micro)
Consultant Clinical Microbiologist
National Tuberculosis Reference Laboratory, Welisara
- 102 **Dr. S.S.P Warnakulasuriya**, PhD
Senior Lecturer
Faculty of Medical Sciences, University of Sri Jayewardenapura
- 103 **Dr. (Ms.) Bimali Sanjeevani Weerakoon**, BSc, PhD
Lecturer, Department of Radiography/Radiotherapy, Faculty of Allied Health Sciences, University of Peradeniya
- 104 **Dr. G. Weerasinghe**, MD(USSR), MSc, MD(Col), FRCP (Glasg)
Consultant Venereologist
National STD/AIDS Control Programme, Ministry of Health
- 105 **Dr. W.K.C.P. Werawatte**, MBBS, MSc (Med Admin - Col), MBA (PIM), MA (Appl. Econ. - Pera), MSc (Health Econ - Thailand)
Registrar (Medical Admin)
Post Graduate Institute of Medicine, University of Colombo
- 106 **Dr. Darshana Wickramasinghe**, MBBS, Diploma in Medical Microbiology, MD (Clinical Microbiology)
Consultant Microbiologist
District General Hospital Ampara
- 107 **Dr. Wasantha Wijenayake**, MB BS, MS, MRCS
Senior Lecturer- surgery, Consultant surgeon
General Sir John Kotelawala Defence University, Kandawalawatta, Rathmalana
- 108 **Dr. W M C M Wijesighe**, MBBS, MSc, Mphil, MD
Visiting researcher
Joint Center for Disaster Research, Massey University, Wellington, New Zealand

- 109 **Dr. Gaya W. Katulanda**, MBBS, Dip Path, MD(Chem. Path), DipRCPath.(UK)
Consultant in Chemical Pathology,
Head, Department of Biochemistry
Medical Research Institute, Colombo
- 110 **Dr. Ananda Wijewickrama**, MBBS, MD, MRCP, FCCP.
Consultant Physician
National Institute of Infectious Diseases, Angoda.
- 111 **Dr. Mohamed Hassim Ziard**, MBBS (COL), MD (OBG AND GYN.), MRCOG (UK)
Consultant Obstetrician and Gynaecologist
Army Hospital, Colombo 05
- 112 **Mr. Jayachandran Balachandran**, M. Physiotherapy (Cardiorespiratory)
Principal Physiotherapist
Tan Tock Seng Hospital, Singapore
- 113 **Mr. Deepal L. Bataduwa- Arachchi**, MA in Economics/Postgraduate
Diploma in Development Economics.
Senior Consultant
Open University of Sri Lanka, Nawala, Nugegoda
- 114 **Ms. H.M. Jayani Rupi Herath**, B.A. (Hons.), M.Phil
Senior Lecturer
Department of Geography, University of Sri Jayewardenepura
- 115 **Ms. L.G.T. Shanika**, B. Pharm, M.Phil
Lecturer
University of Sri Jayewardenepura
- 116 Mr. M. A. Siriwardhene, M Phil.
Senior lecturer
Faculty of Medical Sciences, University of Sri Jayawardenepura
- 117 **Mr. Nandana Welage**, MSc OT (HK), BSc OT (SL), Dip OT (SL)
1. Senior tutor in Occupational Therapy 2. PhD Candidate
1. School of Physiotherapy and Occupational Therapy, No 119, E.W. Perera
Mawatha, Colombo 10. Sri Lanka.
2. School of Science and Health (Occupational Therapy), Western Sydney
University, Campbelltown Campus, Penrith South, NSW, Australia

Panel of Reviewers – Group No. 02

With a deep sense of appreciation we thank the following reviewers who contributed to the anonymous review process amidst their very busy schedules with generous commitment and dedication

- 1 **Prof. Suneth Agampodi**, MBBS (Colombo), MSc, MD (Community Medicine)
Consultant Community Physician
Department of Community Medicine, Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka
- 2 **Prof. Kumudu Wijewardene**, MBBS, MD Community Medicine, Diploma in Statistics and Epidemiology
Professor of Community Medicine
University of Sri Jayewardenepura
- 3 **Dr. Ajith Alagiyawanna**, MBBS (Colombo), MSc, MD (Community Medicine)
Consultant Community Physician
Health Promotion Bureau, Ministry of Health
- 4 **Dr. S.M Arnold**, MBBS, Dip (OccuH), MSc, MD, AAL
Regional Director of Health Services, Colombo
Office of the Regional Director of Health Services, New Secretariat Building, Maligawatta, Colombo 10
- 5 **Dr. Deepika Eranjanie Attygalle**, MD, M.Sc, MD (Community Medicine Sri Lanka)
Senior Health Specialist World Bank
World Bank Office, Sri Lanka
- 6 **Dr. Aindralal Balasuriya**, MBBS (Colombo), MSc-Community Medicine (Colombo), MD-Community Medicine (Colombo), PGDBA (Homagama), MA (Kelaniya)
Senior Lecturer
Faculty of Medicine, General Sir John Kotelawala Defence University, Ratmalana
- 7 **Dr. A.S.L Bandusena**, MBBS, MSc and MD Community Medicine
Consultant Community Physician
Estate and Urban Health Unit, Ministry of Health
- 8 **Dr. (Ms) Nadeeka Chandraratne**, M.B.,B.S.(Col), MSc(Comm. Med), MDS(Col), MD (Comm. Med)
Senior Registrar in Community Medicine
Community and Health Research Unit(CaHRU) University of Lincoln, UK
- 9 **Dr. Amila Chandrasiri**, MBBS (Colombo), MSc, MD (Community Medicine)
Senior Registrar in Community Medicine
Ministry of Health

- 10 **Dr. Pubudu Upekshana Chulasiri**, MBBS, MSc. (Com. Med), MD (Com. Med.)
Senior Registrar in Community Medicine
National Dengue Control Unit, Ministry of Health
- 11 **Dr. T M E Dabrera**, MBBS (Kel), MSc (Com Med), MD (Com Med)
Consultant Community Physician
Regional Director of Health Services Office, Puttlam
- 12 **Dr. (Ms) Chithramalee de Silva**, MBBS, MSC, MD Community Medicine
Director Mental Health
Ministry of Health
- 13 **Dr. (Ms) Manjula Danansuriya**, MBBS (Colombo), MSc, MD (Community Medicine)
Consultant Community Physician
Anti-Malaria Campaign, Ministry of Health
- 14 **Dr. Devani Dissanayake**, MBBS, MSc, MD (community Medicine)
Senior Lecturer
Department of Community Medicine, Faculty of Medicine, University of Peradeniya
- 15 **Dr. Ruwan Ferdinando**, MBBS (Colombo), MSc, MD (Community Medicine)
Consultant Community Physician
Deputy Director (Training), National Institute of Health Sciences, Kalutara
- 16 **Dr. (Ms) Yoshani K J Fernando**, MD in Community Medicine
Senior Registrar
Ministry of Health
- 17 **Dr. Santhushya Fernando**, MSc. MD. Community Medicine
Deputy Director, Sri Jayewardenepura General Hospital
Post Graduate Institute of Medicine, University of Colombo
- 18 **Dr. (Ms) Deepa Gamage**, MBBS, MSc, MD (Community Medicine)
Consultant Epidemiologist
Epidemiology Unit, Ministry of Health
- 19 **Dr. (Ms) Anuji Upekshika Gamage**, MBBS, MSc (Community Medicine), MD (Community Medicine), Grad. Certificate in Economics (Australia), MSc. (Health Economics and Policy) (Australia)
Consultant Community Physician
Management Development and Planning Unit , Ministry of Health Sri Lanka
- 20 **Dr. Samitha Ginige**, MBBS, MSc, MD,
Consultant Epidemiologist
Epidemiology Unit, Ministry of Health

- 21 **Dr. Sanjeeva S.P. Godakandage**, MBBS (Ruhuna), MSc Com. Med. (Colombo), MD Com. Med. (Colombo), PGC Nutri. Med.(Surrey)
Consultant Community Physician
Family Health Bureau, Ministry of Health
- 22 **Dr. Sampatha Goonewardena**, MBBS, MSc (CM/ PGIM), MD (CM/PGIM)
Senior Lecturer
Department of Community Medicine, Faculty of Medical Sciences,
University of Sri Jayewardenepura
- 23 **Dr. (Ms) Indeewarie Gunaratna**, MBBS, MSc., MD (Community Medicine)
Consultant Community Physician
Anti Filariasis Campaign, Ministry of Health
- 24 **Dr. Damitha Asanga Gunawardane**, MBBS, MSc, MD in Community
Medicine
Post-doctoral Research Fellow
School of Public Health, University of Adelaide
- 25 **Dr. Nalika Gunawardena**, MB BS , MD (Community Medicine), MPH (Bio-
Security)
National Professional Officer (Health Systems Analysis and Evidence)
World Health Organization Country Office, Sri Lanka
- 26 **Dr. (Ms) Nilmini Hemachandra**, MBBS, MSc & MD in Community
Medicine
Consultant Community Physician
World Health Organization Country Office, Sri Lanka
- 27 **Dr. (Ms) Himali Herath**, MBBS, MSc in Community Medicine
Registrar in Community Medicine
Medical Research Institute, Colombo
- 28 **Dr. (Ms) Sathya Herath**, MBBS, MSc, MD
Specialist Medical officer (Public Health, Sexual Health & HIV)
National STD/AIDS Control Program, Ministry of Health
- 29 **Dr. Rasanjalee Hettiarachchi**, MBBS, MSc & MD (Community Medicine)
Director – Nutrition Coordination Division
Nutrition Coordination Division, Ministry of Health
- 30 **Dr. (Ms) H. G. Jayakody**, MBBS (Colombo), MSc (Com. Medicine), MD
(Com. Medicine)
Senior Registrar in Community Medicine
Department of Public Health, Faculty of Medicine, University of Kelaniya
- 31 **Dr. Dinesh Jayakumaran**, MBBS (Colombo), MSc, MD (Community
Medicine)
Senior Registrar in Community Medicine
Department of Community Medicine, Faculty of Medical Sciences,
University of Sri Jayewardenepura

- 32 **Dr. (Ms) Renuka Jayatissa**, MBBS (Colombo), MSc, MD (Community Medicine)
Consultant Community Physician
Medical Research Institute, Colombo
- 33 **Dr. Pushpa Lalani Jayawardana**, MBBS; MSc Community Medicine; MD Community Medicine
Formerly Professor in Dept. of Public Health, Faculty of Medicine,
University of Kelaniya
- 34 **Dr. Dushyanthi Jayawardene**, ATCL, MBBS, PgCertMed Ed, SEDA, CTHE, MSc (Comm. Med.), MD (Comm. Med.)
Lecturer, and Senior Registrar in Community Medicine
Department of Community Medicine, Faculty of Medicine, University of Colombo
- 35 **Dr. (Ms) Kaushalya Kasturiaratchi**, MBBS, MSc, MD
Consultant Community Physician
Family Health Bureau, Ministry of Health
- 36 **Dr. (Ms) Vindya Kumarapeli**, MBBS (Colombo), MSc, MD (Community Medicine)
Consultant Community Physician
Ministry of Health
- 37 **Dr. (Ms) Shiromi Maduwage**, MBBS, MSc (Community Medicine), MD (Community Medicine)
Consultant Community Physician
Directorate of Youth, Elderly & Disability, Ministry of Health
- 38 **Dr. P.K.B. Mahesh**, MBBS, MSc and MD in Community Medicine
Acting Consultant Community Physician
Office of RDHS, Colombo
- 39 **Dr. (Ms) Indrani Malwenna**, MBBS (Sri Lanka), MSc (Community Medicine), MD (Community Medicine)
Consultant Community Physician, Head, Department of Public Health Training, National Institute of Health Sciences, Kalutara
- 40 **Dr. (Ms) R.U. Mambulage**, MBBS, MSc (Com. Med), MD (Com. Med.)
Senior Register in Community Medicine
Office of Deputy Director General (Public Health Services) – I, Ministry of Health
- 41 **Dr. Sumal Nandasena**, PGDAS (Sociology), MD (Community Medicine)
Consultant Community Physician
National Institute of Health Sciences
- 42 **Dr. Suraj Perera**, MBBS (Colombo), MSc, MD (Community Medicine)
Consultant Community Physician
National Cancer Control Programme, Ministry of Health

- 43 **Dr. (Ms) Sugandhika Perera**, MBBS (Colombo), MSc, MD (Community Medicine)
Consultant Community Physician
World Health Organization Country Office, Sri Lanka
- 44 **Dr. (Ms) Manuja Perera**, MBBS (Colombo), MSc, MD (Community Medicine)
Lecturer in Community Medicine
Faculty of Medicine, University of Kelaniya
- 45 **Dr. (Ms) Shamini Prathapan**, MBBS, MSc, MD
Head/Senior Lecturer
Department of Community Medicine, Faculty of Medical Sciences,
University of Sri Jayewardenepura
- 46 **Dr. (Ms) Onali B.W. Rajapakshe**, MBBS, MSc (Com Med), MD (Com Med)
Senior Registrar in Community Medicine
Dept. of Community Medicine, Faculty of Medicine, Colombo
- 47 **Dr. (Ms) A Dewanee Ranaweera**, MBBS (Colombo), MSc, MD (Community Medicine)
Consultant Community Physician
Anti-Malaria Campaign, Ministry of Health
- 48 **Dr. Lakpriya Viraj Rohan Ratnayake**, MBBS, MSc, MD (Com. Med.)
Consultant Community Physician
Directorate of Mental Health, Ministry of Health
- 49 **Dr. (Ms) Dhammika Rowel**, MBBS (Colombo), MSc, MD (Community Medicine)
Consultant Community Physician
Family Health Bureau, Ministry of Health
- 50 **Dr. Thilanga Ruwanpathirana**, M.B.B.S., MSc, MD (Community Medicine)
Consultant Epidemiologist
Epidemiology Unit, Ministry of Health
- 51 **Dr. (Ms) Yasara Manori Samarakoon**, MBBS, MSc, MD (Community Medicine)
Senior Registrar in Community Medicine
National Cancer Control Programme, Ministry of Health
- 52 **Dr. (Ms) A.I.P. Samarasinghe**, MBBS, MSc (Community Medicine), MD (Community Medicine)
Consultant Community Physician
National Programme for Tuberculosis Control and Chest Diseases,
Ministry of Health
- 53 **Dr. (Ms) Preshila Chandimali Samaraweera**, MBBS (Colombo), MSc, MD (Community Medicine)
Consultant Community Physician
National Dengue Control Unit, Ministry of Health

- 54 **Dr. G. D. N. Samarutilake**, MBBS, MSc (Com Med), MSc (App Stat), MD
Acting Consultant Community Physician
Directorate of Healthcare Quality and Safety, Castle Street, Colombo 08
- 55 **Dr. H.M. Roshan Chaminda Sampath**, MBBS, MSc., MD (Com. Med.)
Provincial Consultant Community Physician- North Central Province
Provincial Director of Health Office- North Central Province-
Anuradhapura
- 56 **Dr. Saveen Semage**, MBBS, MSc, MD
Consultant Community Physician
Sri Lanka Army Health Services
- 57 **Dr. Sameera Senanayake**, MBBS, MSc (Com Med), MD (Com Med)
Senior Registrar in Community Medicine
Faculty of Medicine, University of Colombo
- 58 **Dr. M.G.B. Senanayake**, MBBS, MSc, MD (Community Medicine)
Senior Registrar in Community Medicine
Department of Community Medicine, Faculty of Medicine, Colombo
- 59 **Dr. (Ms) K.L.M.D. Seneviwickrama**, MBBS, MSc, MD (Community
Medicine)
Consultant Community physician / Senior Lecturer
Department of Community Medicine, Faculty of Medical Sciences,
University of Sri Jayewardenepura
- 60 **Dr. Inoka Suraweera**, MBBS (Sri Lanka), MSc (Community Medicine), MD
(Community Medicine)
Consultant Community Physician
Environmental and Occupational Health Directorate, Ministry of Health
- 61 **Dr. (Ms) Ishanka A. Talagala**, MBBS, MSc., MD Community Medicine
Senior Registrar
Department of Public Health, Faculty of Medicine, University of Kelaniya
- 62 **Dr. (Ms) N. V. J. Thenuwara**, MBBS (Colombo), MSc, MD (Community
Medicine)
Consultant Community Physician
Family Health Bureau, Ministry of Health
- 63 **Dr. Janaki Vidanapathirana**, MBBS, MSC, MD (Community Medicine)
Consultant Community Physician
National STD/AIDS Control Programme, Ministry of Health
- 64 **Dr. Yasaswi N. Walpita**, MBBS, MSc, MD (Com. Med.)
Consultant Community Physician (Actg)
Directorate of Environment & Occupational Health, Ministry of Health
- 65 **Dr. Manuj C. Weerasinghe**, MBBS, MD
Senior Lecturer
Faculty of Medicine, University of Colombo

- 66 **Dr. Nalinda Tharanga Wellappuli**, MBBS, MSc (Community Medicine)
Registrar/ Community Medicine
Management Development and Planning Unit, Ministry of Health
- 67 **Dr. Janaka Weragoda**, MBBS, MSc, MD (Community Medicine)
Consultant Community Physician
Office of the Regional Director of Health Services, Colombo
- 68 **Dr. S.C. Wickramasinghe**, MBBS, MD (Com. Med)
Deputy Director General (Non Communicable Diseases)
Ministry of Health
- 69 **Dr. (Ms) Enoka P. Wickramasinghe**, MBBS (Colombo), MSc, MD
(Community Medicine)
Senior Registrar in Community Medicine
Health Promotion Bureau, Colombo 08.
- 70 **Dr. S. A. Wickramasinghe**, MBBS, MSc (Community Medicine), MD
(Community Medicine)
Senior Registrar in Community Medicine
Family Health Bureau, Ministry of Health
- 71 **Dr. Nuwan Wickramasinghe**, MBBS [Peradeniya], MSc (Com.
Med)[Colombo], Dip(OH&S)[Colombo], MSc[Peradeniya], MD (Com.
Med)[Colombo], FRSPH
Senior Registrar
Department of Community Medicine, Faculty of Medicine and Allied
Sciences, Rajarata University of Sri Lanka
- 72 **Dr. Nimali D. Widanapathirana**, MSc in Community Medicine
Registrar in Community Medicine
Ministry of Health
- 73 **Dr. (Ms) M. N. Y. F. Wijegoonewardene**, MBBS, MSc (Comm. Med), MD
(Comm. Med)
Post Graduate Trainee in Community Medicine
National STD/AIDS Control Programme. Ministry of Health
- 74 **Dr. C.R. Wijesundara**, MBBS, PGCert (Medical Education), MSc
(Community Medicine), MSc (Health Administration)
Registrar in Community Medicine
Management, Development & Planning Unit, Ministry of Health

**SUMMARY OF ABSTRACTS FOR
FREE PAPER SESSIONS**

SUMMARY OF ABSTRACTS FOR ORAL PRESENTATION

FREE PAPER SESSION 01 - PATIENT PERSPECTIVES

OP 01

QUALITY OF PROVISION OF IMMUNIZATION SERVICES IN RATNAPURA DISTRICT, SRI LANKA: RECIPIENT AND PROVIDER PERSPECTIVES

Ranasinghe, R.D.S., Abhayasinghe, K., Gamage, D.G. , Ginige, P.S. , Kasturiarchchi, S.K., Abeyasinghe, M.R.N.

OP 02

PROFESSIONALISM; WHAT OUR PATIENTS THINK?

Ratnasekera, N. S. , Kanthi, R.D.F.C.

OP 03

COMPLIANCE FOR CLINIC ATTENDANCE: CLIENTS WITH POSITIVE SCREENING FOR CHRONIC KIDNEY DISEASE IN POLONNARUWA DISTRICT

Jayasinghe, D.S.A., Wicramasinghe, S.C. , Jayasinghe, D.U.C.J.

OP 04

MEDICAL TRAVELLERS' PERSPECTIVES IN SELECTING IN-PATIENT SERVICES AT SELECTED PRIVATE HOSPITALS IN COLOMBO, SRI LANKA

Koggalage P.D., Gunawardena N.S., De Silva A.H.

FREE PAPER SESSION 02 - OCCUPATIONAL HEALTH

OP 05

OCCUPATIONAL STRESS ASSOCIATED FACTORS AND COPING STRATEGIES AMONG BUS DRIVERS IN BUSES COMMENCING FROM MAHARAGAMA MUNICIPAL COUNCIL AREA

Dhananja, D.K., Arnold, S.M.

OP 06

VALIDITY AND RELIABILITY OF TEACHER STRESS INVENTORY-SINHALA TO DETERMINE OCCUPATIONAL STRESS AMONG TEACHERS IN SRI LANKA

Wickramasinghe, E.P., Senevirathne, R.A., Gunawardene, N.S.

OP 07

DEVELOPING RESILIENCE AT WORK AMONG NURSING OFFICERS: WHAT FACTORS NEED TO BE ADDRESSED?

Walpita, W.D.Y.N., Arambepola, C.

OP 08

PREVALENCE AND CORRELATES OF WORK STRESS AMONG NURSES WORKING IN PSYCHIATRIC INWARD FACILITIES, IN COLOMBO DISTRICT, SRI LANKA

Gunasekera, H.D.J.J., Suraweera S.A.I.K.

FREE PAPER SESSION 03 – CLINICAL MEDICINE

OP 09

A COMPARISON OF RESCUE AND PRIMARY PERCUTANEOUS CORONARY INTERVENTIONS FOR ACUTE ST ELEVATION MYOCARDIAL INFARCTION

Faslur Rahuman, M.B., Jayawardena, J.B., Francis, G.R., Mahboob, N., Kumara, A.H.T.W., Wijesinghe, A., Haniffa, R., Ariyapperuma, R., Paramanayakam, A., De Silva, P.A.

OP 10

ARE WE USING STATIN-THERAPY ACCORDING TO NEW CHOLESTEROL GUIDELINES FOR NON-DIABETICS? AN OBSERVATIONAL STUDY AT A MEDICAL CLINIC IN A TERTIARY CARE INSTITUTION, CENTRAL PROVINCE, SRI LANKA

Jayasinghe, I. K., Rajapaksha, B. S. J. , De Silva, K. P. M. R. , Gunawardena, W. P. M. , Kumarasinghe, C. G. , Mazeen, S. A. M. , Abeywickrama, U. K.

OP 11

ACCURACY OF SELECTED INDICATORS IN LEAKING FOR THE MANAGEMENT OF DENGUE HAEMORRHAGIC FEVER

Ranasinghe, K.N.P., Dissanayake, G., Vigneswaran K., Chinthaka, A.M.H., Dilhari, K.A.A., Mujahieth, M.I.

OP 12

CLINICAL SUBCATEGORIES OF INTERSTITIAL LUNG DISEASES AND THEIR CLINICAL RESPONSE TO TREATMENT

Asanga Upul, B.K.M., Malkanthi, A.J.M.P., Wickramasekara, K. , Dassanayake, D.L.B., Siribaddana, A.

FREE PAPER SESSION 04 – COMMUNICABLE DISEASES

OP 13

DAILY “DOTS” AMONG NEW SMEAR POSITIVE PULMONARY TUBERCULOSIS PATIENTS REGISTERED AT COLOMBO CHEST CLINIC (CCC).

Liyanage D.H, Samaraweera D.S.D

OP 14

THE EPIDEMIOLOGICAL AND DIAGNOSTIC PATTERNS OF MALARIA IN PREVENTION OF RE-INTRODUCTION OF MALARIA- EXPERIENCE FROM SRI LANKA - 2015-2016

Dharmawardena, H.P.R., Mendis, K.N., Fernando, S.D.,

OP 15

DISTRIBUTION OF BRUGIAN FILARIASIS IN GAMPAHA DISTRICT

Mallawarachchi, C.H, Chandrasena, T.G.A.N., Mallawarachchi, S.M.N.S.M, Gunarathna, D, de Silva, N.R.

OP 16

BARRIERS IN TUBERCULOSIS CONTACT SCREENING: A MIXED METHOD STUDY

Pathiraja I, Amarasinghe P. G , Wijekoon W, Wimalarathna G, Peiris M.D, Fareed N Vipula Shantha A R, Peries R D S M Rathnayake M D V K, Herath U, Aluthweera C, Agampodi S

FREE PAPER SESSION 05 – FREE PAPER SESSION 05 – HEALTH IMPLICATIONS DUE TOMICROBIAL / PARASITIC INFECTIONS AND INFESTATIONS

OP 17

DESCRIPTIVE STUDY OF LEPROSY REACTIONS AT THE CENTRAL LEPROSY CLINIC (CLC), NATIONAL HOSPITAL OF SRI LANKA

Liyanage, D. H., Senarathna, M.C.D. ,Gamage,H.G.S.C. , Senadera, C.K. , Wijesinghe, W.M.D.N.K.

OP 18

PREVALENCE OF INTESTINAL PARASITIC INFECTIONS AMONG LABOURERS EMPLOYED AT URBAN COUNCIL, MAHARAGAMA.

Ratnayake, D.R.A. Wasana,D.G.S., Ranasinghe, P.H.K.I.S.

OP 19

SAFETY OF LIQUID MILK AND OTHER DAIRY PRODUCTS RANDOMLY COLLECTED FROM RETAIL SHOPS IN COLOMBO DISTRICT

Karunanayake L.I., Karunanayake S.A.A.P., Jayasekara U.L.A.S.L., Kumari D.L.C.N., Karunanayake N.

OP 20

TRENDS IN NATIONAL STATE SECTOR UTILIZATION OF BETA-LACTAM ANTIBACTERIALS OVER A 25 YEAR PERIOD (1990 – 2015) IN SRI LANKA

Fernandopulle, B.M.R. , Wijesinghe, K.G.C.D., Yasarathna, K.W.G.K.P. , Beneragama, B.V.S.H. , Panapitiya, L. , Sri Ranganathan, S. , Weeraratne, E.D.

FREE PAPER SESSION 06 – MENTAL HEALTH

OP 21

PREVALENCE OF STIGMA AMONG TUBERCULOSIS PATIENTS

Rathnayake, R.M.U.K., Rathnayake, T.L., Narasinghe, U.S., Kumari, J.U., Ranmuthuge, R.T.S., Rathnayake, R.M.J.B.,

OP 22

MENTAL HEALTH AND PSYCHOSOCIAL WELLBEING OF THE INSTITUTIONALIZED CHILDREN IN KALUTARA DISTRICT

Hettiarachchi R., Nilaweera, I., Ratnayake, U.I., Perera, S.Y.C., Sanjeewa, J.A.D.C.

OP 23

ASSOCIATIONS BETWEEN SUBJECTIVE QUALITY OF SLEEP AND DEPRESSION SYMPTOMS IN A POPULATION BASED SAMPLE

Jayaweera K, Dissanayake L, Aschan L, Pannala G, Zavos H, Rijdsdijk F, Hotopf M, Sumathipala A, Glozier N

OP 24

SEXUAL DYSFUNCTION AMONG SEXUALLY ACTIVE HETEROSEXUAL MALES VISITING A GENERAL PRACTICE CLINIC IN THE COLOMBO DISTRICT

Anthony. C.M.A. , Malavige. L.S.

FREE PAPER SESSION 07 – SOCIAL HEALTH

OP 25

NON- COMPLIANCE WITH TREATMENT, DISEASE RELATED STIGMA AND FACTORS ASSOCIATED, AMONG PATIENTS TREATED FOR PULMONARY TUBERCULOSIS AT THE CENTRAL CHEST CLINIC, COLOMBO

Vijewardane, K.D.S.C., Kumarapeli, V.

OP 26

"HURT, INSULTED, THREATENED WITH HARM, AND SCREAMED AT THEM (HITS) SCALE " A DOMESTIC VIOLENCE SCREENING TOOL FOR ADULT WOMEN TO BE USED IN OUTPATIENT SETTINGS: TRANSLATING AND VALIDATING SINHALA VERSION

Wickrama, P.B., Ranasinghe, P.K., De Silva, S.

OP 27

HORANA AGA DIVISION IN KALUTARA DISTRICT ASSIGNED AS A "SAFE COMMUNITY"

Kalubowila, T.K., Dharmaratne S.D., Pushpakumara K.

OP 28

WHEELCHAIR ACCESSIBILITY TO PUBLIC BUILDINGS IN KANDY MUNICIPAL AREA, SRI LANKA

Muthukuda, K.D. , Karunanayake, A.L.

FREE PAPER SESSION 08 – SURGERY

OP 29

LAYERED SCALP WOUND CLOSURE VS MASS CLOSURE - IS THERE A DIFFERENCE IN OUTCOME?

Kumara, M.G.S.R., Fernando, I.C.J., Abeyrathne, M.P.G.N.M., Hettiarachchi, D. Bandara, D.P.G.L., Kularathne, H.K. De.S. , Iddamalgodu, L.P.S.D.

OP 30

OCCURRENCE OF SAPHENOUS NEUROPATHY AFTER GREAT SAPHENOUS VEIN HARVESTING IN CORONARY ARTERY BYPASS GRAFTED PATIENTS AND ITS EFFECT ON DAY-TO-DAY ACTIVITIES.

Seneviratne, D.A.W., Senanayaka, K., Abeysinghe, A.M.S.K., Jayathilaka, K.U.W.

OP 31

FUNCTIONAL GASTROINTESTINAL DISORDERS: CAN WE REDUCE THE BURDEN OF INVESTIGATIONS BY MAKING A CLINICAL DIAGNOSIS?

Suresh, N., Peiris, D.E., Tillakaratne, M.S.B., Priyantha, T.G.A

OP 32

APPROPRIATENESS OF COLONOSCOPY ACCORDING TO EPAGE II CRITERIA AT FOUR HEALTH CARE INSTITUTIONS IN WESTERN PROVINCE, SRI LANKA

Samarakoon Y.M., Gunawardena N.S., Pathirana A., Hewage S.A.

FREE PAPER SESSION 09 – EPIDEMIOLOGY

OP 33

PREVALENCE OF SELECTED PREVENTABLE CONTRIBUTORY FACTORS FOR LOW BIRTH WEIGHT (LBW) AMONG MOTHERS OF LBW BABIES BORN IN TEACHING HOSPITAL, ANURADHAPURA

Wijayasundara, W.M.S.K., Gunathilake, K.P.P.C., Senavirathna, H.M.S., De Silva, B.S.S.

OP 34

BIOSPECIMEN COLLECTION FOR AN EPIDEMIOLOGICAL STUDY AND BIOBANKING IN A LOW AND MIDDLE INCOME COUNTRY: EXPERIENCES FROM THE COLOMBO TWIN AND SINGLETON FOLLOW-UP STUDY

Jayaweera, K., Warnakula L, Dissanayake, L, Pariante, C.M, Rijdsdijk, F, Zavos, H.M.S., Zunszain, P.A., Sumathipala, A, Hotopf, M

OP 35

PREVALENCE AND ASSOCIATED RISK FACTORS OF HUMAN BRUCELLA INFECTION IN SELECTED PROVINCES IN SRI LANKA

Karunanayake L.I., Karunanayake S.A.A.P., Rathnayake S., Senarath U., Ranbanda J.M., Kothalawela M.

OP 36

AN EPIDEMIC OF THYROID CANCER IN SOUTHERN PROVINCE? GEOSPATIAL MAPPING OF THYROID CANCER INCIDENCE IN SOUTHERN PROVINCE OF SRI LANKA

De Silva, H.R.T., Nazeer, F.I., Perera, S.C.R.

FREE PAPER SESSION 10 – DIAGNOSTICS

OP 37

ACCEPTABILITY OF ORAL-FLUID RAPID HIV 1/2 ANTIBODY TEST AMONG MEN WHO HAVE SEX WITH MEN (MSM), BEACH BOYS (BB), FEMALE SEX WORKERS (FSW) AND DRUG USERS (DU) IN SRI LANKA

Karawita, D.A, Tennakoon, S.U.B, Suranga, M.S.S, Dissanayake, M.S.W

OP 38

ANALYSIS OF MYCOLOGICAL SPECIMENS AT MYCOLOGY REFERENCE LABORATORY, SRI LANKA: A SIX YEAR RETROSPECTIVE STUDY

Sigera L.S.M, Jayawardene M.N, Kudavidanage S, Jayasekera P.I¹, Perera P.D, Ediriweera D, Malkanthi M.A.

OP 39

HUMAN, CATTLE AND GOAT BLOOD AS SUBSTITUTES FOR SHEEP BLOOD IN BLOOD-SUPPLEMENTED CULTURE MEDIA

Dilrukshi, G.N, Jayewardane, J.M.U.N.B., Sajidha, M.M.F., Dissanayake, D.M.B.T.

OP 40

SERUM CALCIUM REFERENCE INTERVAL IN A GROUP OF HEALTHY SRILANKAN ADULTS FROM AMPARA AND KANDY DISTRICTS

Shiffana, S., Sivakanesan, R.

FREE PAPER SESSION 11 – MENTAL ILL-HEALTH AS A CO-MORBIDITY

OP 41

PREVALENCE AND ASSOCIATED PSYCHOSOCIAL FACTORS OF DEPRESSION AMONG POST-PARTUM MOTHERS IN MEDICAL OFFICER OF HEALTH AREA KOLONNAWA, COLOMBO, SRI LANKA

Jayasumana, H.M.K.S.D., Wasala, W.M.K.N.

OP 42

ASSESSMENT OF ADULT ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD) AND CORRELATES AMONG MALE SUBSTANCE ABUSE TREATMENT USERS IN BERMUDA.

Jayasekara, H.A.B.P.R.

OP 43

PREVALENCE OF DEPRESSION AND ASSOCIATED FACTORS AMONG PATIENTS WITH TYPE 2 DIABETES ATTENDING THE DIABETIC CLINIC AT A TERTIARY CARE HOSPITAL IN SRI LANKA - A DESCRIPTIVE STUDY

Arambewela, M.H., Somasundaram, N., Fernando, K.R.A.S., Jayasena, P.M., Chandrasekara, C.M.P.H., Kusumsiri, D.P., Jayasekara, H.A.B.P.R., Kumbukage, M.P.

OP 44

RELATIONSHIP OF PRIOR SLEEP DISTURBANCES AND INCREASED RISK OF MYOCARDIAL INFARCTION AMONG MALES – CASE CONTROL STUDY

Hirimuthugoda, L.K., Kulatunga, P.I, Kulatunga, P.N.N, Ayendrika, M.D.S., Senevirathna, D.S.T., Gamage, D.G.N.S.

FREE PAPER SESSION 12 – ENVIRONMENTAL HEALTH

OP 45

A SPATIAL HIERARCHICAL ANALYSIS OF TEMPORAL CORRELATIONS OF BRETEAU INDEX AND DENGUE INCIDENCE IN RDHS KALUTARA

Liyanage, C.P.G. , Rathnayake, U.I. , Kariyawasam C.S. , Saman G., Adihetti A. E

OP 46

LIMITATIONS AND BARRIERS OF GOVERNMENT HEALTH CARE INSTITUTION FOR OBTAINING ENVIRONMENT PROTECTION LICENSE IN GENERAL, BASE AND DIVISIONAL HOSPITALS IN THE REGIONAL DIRECTOR OF HEALTH SERVICE DIVISION GAMPAHA.

Jayakody, J.A.P

OP 47

SYSTEM DYNAMIC MODELLING METHOD; CADRE PROJECTION FOR PUBLIC HEALTH INSPECTORS WITH A VIEW OF IMPROVING ENVIRONMENTAL AND OCCUPATIONAL HEALTH SERVICE PROVISION IN NORTHERN AND EASTERN PROVINCES

Wickramasinghe S. C., Suraweera S.A.I.K., , De Silva D, Herath H. D. B., Wijesekara N, Senanayake S J

OP 48

OUTBREAK FORECASTING OF DENGUE FEVER IN RELATION TO VECTOR LARVAL INDICES THE COLOMBO DISTRICT, SRI LANKA

Aryaprema, V.S.

FREE PAPER SESSION 13 – ORAL HEALTH

OP 49

CLINICAL AND HISTOPATHOLOGICAL ANALYSIS OF CONCOMITANT ORAL SUBMUCOUS FIBROSIS IN ORAL SQUAMOUS CELL CARCINOMA PRESENTED TO THE DEPARTMENT OF ORAL PATHOLOGY, FACULTY OF DENTAL SCIENCES, UNIVERSITY OF PERADENIYA

Jayawardane, D. , Senarath, N. H. , Siriwardane, B. S. M. S. , Tilakaratne , W. M.

OP 50

PREVALENCE AND FACTORS RELATED TO LOSS OF FIRST PERMANENT MOLAR TOOTH DUE TO DENTAL CARIES AMONG 8 - 12 YEARS CHILDREN ATTENDING TO DENTAL CLINIC AT BASE HOSPITAL, BALAPITIYA

Godagampala M.C , Widyarathna K.M.G.Y.A , Hettiarachchi P.G.A , Jayaweera J.P.D.P. de S , Indrapala W.K.P.

OP 51

HABIT OF BETEL CHEWING AMONG ADVANCED LEVEL STUDENTS IN KEKIRAWA EDUCATIONAL ZONE

Abdul Wajith, M.B., Ekanayaka, L.

OP 52

EFFECTIVENESS OF SODIUM FLUORIDE VARNISH APPLICATION IN PREVENTION OF DENTAL CARIES IN SCHOOL CHILDREN BETWEEN AGE OF 6 AND 7 YEARS [2YR CLINICAL TRIAL]

Jayasinghe, R.M., Damayanthi Rohini, G.A.P., Herath, H.M.R.W., Wickramage, C.W., Paththanupitiya, I.M.C.P., Marasinghe, B.M.G.H., Hettiarachchi, R., Kularatna, S.

FREE PAPER SESSION 14 – NON COMMUNICABLE DISEASES

OP 53

ASSESSMENT OF ADHERENCE OF FOOT CARE PRACTICES IN DIABETES PATIENTS ATTENDING PRIMARY MEDICAL CARE UNIT IN YATIYANA, MATARA

Amarabandu.H.G.I., Hewage. D.C

OP 54

INJURIES AMONG SCHOOLCHILDREN AGED 12-19 PRESENTING TO THE ACCIDENT SERVICE OF THE NATIONAL HOSPITAL OF SRI LANKA

Daluwakgoda, V., Wickremasinghe, A.R. , Kasthurirathne, K.T.A.A.

OP 55

DISEASE BURDEN DUE TO ROAD TRAFFIC INJURIES IN SRI LANKA

Amarasinghe, P.G., Dharmaratne, S.D., Bandara, M.R.S.S., Amarasinghe, J.N.P

OP 56

ASSESSMENT OF NUTRITIONAL STATUS AND ASSOCIATED FACTORS IN PATIENTS WHO UNDERWENT CARDIOPULMONARY BYPASS SURGERY IN A TERTIARY CARE SETTING

Jayasekara, N.I., Wijesinghe, C.J, Aminda, M.A.U, Chandima, N.G.T, Matagadeera, M.P

FREE PAPER SESSION 15 – PHARMACEUTICALS

OP 57

ADHERENCE TO THE CORRECT TECHNIQUE OF INHALERS AMONG ADULT PATIENTS WITH ASTHMA

Prasadi, B.V.I¹ , Walawege, U.B²

OP 58

TREATMENT IN SCHIZOPHRENIA; IS SECOND GENERATION DEPOTS ARE EFFECTIVE THAN FIRST GENERATION DEPOTS IN MINIMIZING RELAPSES?

Mahesh, K.H.D., Weerasundera, R., Ball, P., Morrissey, H., Subasinghe, H.W.A.S.

OP 59

INVESTIGATION OF PRO BLOOD CLOTTING ACTIVITY OF AQUEOUS LEAVES EXTRACT OF COFFEA ARABICA AND AQUEOUS WHOLE PLANT EXTRACT OF CYATHULA PROSTRATA IN VITRO

Ratnasooriya W.A, Erandika W.A.M, Samarakoon A.H.M.S.B, Dananjaya H.A.D.I, Madhubashini E.A.K, Pathirana R.N

OP 60

UTILIZATION, SPENDING AND PRICE TRENDS FOR ANTI-ASTHMATIC DRUGS IN STATE SECTOR OF SRI LANKA: 2002 - 2016

Fernandopulle, B.M.R., De Silva, D.T.N., Beneragama, B.V.S.H., Panapitiya, L., Sri Ranganathan, S., Weerathne, E.D.

FREE PAPER SESSION 16 – HEALTH INFORMATICS

OP 61

DHIS2: A PLATFORM FOR HEALTH INFORMATION MANAGEMENT IN SRI LANKA

Senanayaka, S.D.P.S., Liyanage, P.C., Amarakoon, P.M., Hewapathirana, R., Jayatilleke, A.U.

OP 62

ELECTRONIC REPRODUCTIVE HEALTH MANAGEMENT INFORMATION SYSTEM (ERHMIS) FOR IMPROVING REPRODUCTIVE, MATERNAL, CHILD, ADOLESCENT, YOUTH HEALTH PROGRAM (RMNCAYH) INFORMATION FLOW IN SRI LANKA

Kasturiaratchi, S.K. , Senanayaka, S.D.P.S. , Liyanage, P.C. , Amarakoon, P.M. , Prabath, L.A.N, Piyasena, G.Y. , Liyanagama, M. , Dimal D.A. , Hariaram, J., Hewapathirana, R. , Jayatilleke, A.U.

OP 63

OPEN SOURCE SOLUTION TO TRACK TUBERCULOSIS PATIENTS IN SRI LANKA USING DHIS2

Liyanage, P.C., Epasinghe, D.U., Ariyaratne, K., Pallegatte, N.C., Hewapathirana, R.

OP 64

SRI LANKA MOVING FORWARDS: A DIGITAL SOLUTION TO AMELIORATE CAUSE OF DEATH INFORMATION

Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka, Health Informatics Society of Sri Lanka, Bloomberg Philanthropies - Data for Health Initiative

FREE PAPER SESSION 17 – CAPACITIES OF HEALTH PROFESSIONALS

OP 65

PREPAREDNESS, KNOWLEDGE AND PERCEPTIONS OF PUBLIC HEALTH MIDWIVES TO IDENTIFY AND MANAGE INTIMATE PARTNER VIOLENCE IN A RURAL DISTRICT OF SRI LANKA

Muthuarachchi, M.I., Pathmeswaran, A.

OP 67

AN ASSESSMENT OF KNOWLEDGE OF MEDICAL OFFICERS ON ESSENTIALS OF MANAGING BED HED TICKETS

Mallawaracih, S.M.N.S.M.1, Mallawarachchi, C.H.

OP 68

KNOWLEDGE AND ATTITUDE TOWARDS ACUTE PAIN MANAGEMENT AMONG NURSES WORKING IN SURGICAL UNITS AT A TERTIARY CANCER HOSPITAL, CHINA

Yongyi, C., Thilakarathna, H.H.P.D

FREE PAPER SESSION 18 – NUTRITION

OP 69

FACTORS AFFECTING STUNTING AND UNDERWEIGHT AMONG CHILDREN BELOW 5 YEARS IN A RURAL CHILD WELFARE CLINIC

Ranasinghe, R.M.M.P., Silva, W.A.N.Y.

OP 70

QUALITY OF IODIZED EDIBLE SALT FROM SELECTED AREAS OF LOCAL MARKET IN SRI LANKA.

Senanayake, V., Hemalatha, A.M.K., Udakara, S., Lakshman, P.L.N.

OP 71

MANAGEMENT OF SEVERE ACUTE MALNUTRITION AMONG 6 TO 59 MONTHS OLD CHILDREN IN SRI LANKA

Dhanapala S., Jayawickrama H., Jayakody H., Ranathunge R., Gunathilake I, Thilakarathne A.

OP 72

DIETARY VITAMIN D INTAKE AMONG LACTATING MOTHERS AND ITS CORRELATION TO VITAMIN D STATUS OF THEIR OFFSPRING

Anusha, K¹, Liyanage, G.S.H.², Hettiaratchi, U.P.K.¹

FREE PAPER SESSION 19 – MATERNAL AND CHILD HEALTH

OP 73

THE OPTIMUM AGE FOR OTOACOUSTIC EMISSION HEARING SCREENING FOR NORMAL VAGINAL FULL TERM DELIVERED NEONATES.

Jeewanthi, R.N., Kosgallana, P.

OP 74

PREGNANCY AND HEART DISEASE; AN EXPERIENCE FROM CENTRAL PROVINCE OF SRI LANKA

Bandara, H.G.W.A.P.L, Jayasekara, N.M.T.C, Kodithuwakku, N.W, Jegavanthan, A, Jayawikreme, S.R,

OP 75

UNMET NEED FOR FAMILY PLANNING AMONG 15-49 YEAR OLD WOMEN IN THE MEDICAL OFFICER OF HEALTH AREA MALLAVI IN MULLAITIVE DISTRICT

Herath, D.C.K. , Kasturiratne, K.T.A.A.

OP 76

PUBLIC AND PRIVATE SECTOR UTILIZATION FOR ANTENATAL CARE BY PREGNANT WOMEN DELIVERING IN GOVERNMENT HOSPITALS IN KALUTARA DISTRICT.

Pathirage, I.D., Hemachandra, D.K.N.N.

FREE PAPER SESSION 20 – RADIOLOGY

OP 77

EFFICACY OF ULTRASOUND EXAMINATION IN DETECTION OF RENAL TRACT ANOMALIES ASSOCIATED WITH URINARY TRACT INFECTIONS IN CHILDREN.

Kumara, A.W.S., Jayantha, U.K., Kolambage, L.P.,

OP 78

PATTERN OF LOWER LIMB VARICOSE VEINS IN PATIENTS PRESENTING TO DEPARTMENT OF RADIOLOGY, BASE HOSPITAL DIYATALAWA FOR ULTRASOUND DOPPLER EVALUATION

Gannoruwa K.M.C.S, Kumara D.M.S.P., Ranasinghe B.L.M.G., Gannoruwa M., Ranasinghe R.A.S.U.K.

OP 79

DESCRIPTIVE STUDY ON THE EVALUATION OF RENAL SCARS BY ^{99m}Tc DIMERCAPTOSUCCINIC ACID (DMSA) SCANS FOLLOWING THE FIRST EPISODE OF URINARY TRACT INFECTION (UTI) IN CHILDREN ADMITTED TO THE LADY RIDGEWAY HOSPITAL FOR CHILDREN, SRI LANKA.

Pathirana, K.G. , Fernando, M.U.J., Samarasinghe R.A.N.K.K., Duminda, W.D., Ranasinghe, D.P., Mahesh, P.K.B..

FREE PAPER SESSION 21 – HEALTH SYSTEMS

OP 80

A REMEDY FROM SYSTEM DYNAMICS MODELLING FOR DENTAL LABORATORY TECHNICIAN WORKFORCE PLANNING

De Silva, M.D.K, Talagala, N.I., Senanayake S.D.P.S, Gamage N.T

OP 81

LESSONS LEARNT FROM HEALTH SECTOR RESPONSE, RECOVERY AND PREPAREDNESS TO FLOODS AND LANDSLIDES IN MAY 2017 IN KALUTARA DISTRICT.

Liyanage, C.P.G., Rathnayake, U.I., Kularathne, D.L.A.E.K., Jayasinghe S.A.N.S.K., Ranaweera S.B.V.K., Edirisinghe E.A.R.D., Wijesekara N.W.A.N.Y.

OP 82

EVALUATION ON SATELLITE LABORATORY NETWORK IN THE DISTRICT OF BADULLA

Bandara, A. M. S., Kavisekara, H. K. M. M. B.

OP 83

IS NATIONAL THALASSAEMIA SCREENING PROGRAMME A VIABLE SOLUTION: A COSTING STUDY ON THALASSAEMIA SCREENING IN THE NORTH WESTERN PROVINCE

Perera, H.A.A.P.K., Attanayake N.

FREE PAPER SESSION 22 – HEALTH LITERACY

OP 84

KNOWLEDGE AND ATTITUDES REGARDING MENOPAUSE AND HORMONE REPLACEMENT THERAPY (HRT) AMONG SELECTED HEALTH CARE WORKERS IN TEACHING HOSPITAL KARAPITIYA & TEACHING HOSPITAL MAHAMODARA

Dayani, V.K.Y., Dr. Silva, S.A.C.K.

OP 85

KNOWLEDGE, ATTITUDE AND PRACTICES OF PRIMARY SCHOOL TEACHERS ON FIRST AID FOR COMMON ACCIDENTS IN PANADURA ZONAL EDUCATION DIVISION

Nadeeka, T.G.C., Pushpika, P.D.V., Dilrukshi, M. A. D. D., Madhavi, A.V.P.

OP 86

LEVEL OF HEALTH LITERACY AND ASSOCIATED FACTORS AMONG SCHOOL TEACHERS IN THE COLOMBO EDUCATION ZONE

Denuwara H.M.B.H., Gunawardena N.S.

OP 87

IMPROVING AGE APPROPRIATENESS OF IMMUNIZATION BY COMMUNITY EMPOWERMENT - “YOUR IMMUNIZATION CALENDAR”

Gunasekara, H.D.J.J., Wijajatilaka, P.V.H.D.K, Illangasingha, D.K., Liyanage, N.R, Kumari, A.M.U.P., Hettiarachchi, R.S., Abeygunathilaka, D.N, Athukorala, K.M., Perera, W.N.D, Fernando, T.S.M, Vijewardana, S.C., Ferdinando, R,

FREE PAPER SESSION 23 – TOXICOLOGY

OP 88

ADOLESCENTS' EXPERIENCES OF SELF-INGESTION OF POISONING: EXPLORING THE RELATED RISK FACTORS FROM SURVIVORS' PERSPECTIVE

Jayakody, J.A.S.N., Wimalasuriya, H.G.G.A.K., Wijesinghe, W.M.A.C.L., Kumari, U.N.A.K., Kuruppu, N.R.

OP 89

SYSTEMIC ENVENOMING BY SRI LANKAN KEELBACK (*BALANOPHIS CEYLONENSIS*): FIRST REPORTED CASE IN SRI LANKA

Fernando, W.K.B.K.M., Kularatne, S.A.M., Wathudura, S.P.K., De Silva, A., Mori, A., Mahaulpatha D.

OP 90

CLINICO-EPIDEMIOLOGY OF HUMP-NOSED PIT VIPER (GENUS: *HYPNALE*) ENVENOMING IN WET ZONE OF SRI LANKA

Namal Rathnayaka, R.M.M.K., Ranathunga, P.E.A.N., Kularatne, S.A.M., Rajapakse, R.P.V.J., Ranasinghe, J.G.S.

OP 91

IN VITRO CYTOTOXICITY OF THE VENOM COLLECTED FROM THE RUSSELL'S VIPER (*DABOIA RUSSELLII*), COBRA (*NAJA NAJA*) AND HUMP NOSED VIPER (*HYPNALE HYPNALE*) IN SRI LANKA

Dissanayake, D.A., Priyadharshanie, J.W.S., Edirisinghe, L.E.A.D.A., Karunathilake, D.G.K.J.K., Kularatne, S.A.M., Rajapakse, R.P.V.J.

FREE PAPER SESSION 24 – MISCELLANEOUS

OP 92

ASSESSMENT OF PERCEIVED STRESS AND ASSOCIATED FACTORS AMONG ADOLESCENTS OF G.C.E. ADVANCED LEVEL CLASSES IN THE DIVISIONAL SECRETARIAT AREA OF WENNAPUWA

Perera, K.T.A.K.D.I.M., Suresh, S.

OP 93

IONIZATION CHAMBER BASED DOSIMETRIC MODEL FOR SMALL FIELD PHOTON BEAM RADIOTHERAPY

Jayatissa, R.M.G.C.S.B., Kulatunga, S., Kumara, A., Sarasanandarajah, S.

OP 94

DENTAL AGE: VALIDATION OF WESTERN METHODS USING SRI LANKAN CHILDREN FOR MEDICO LEGAL APPLICABILITY AND ACCURACY.

Ranasinghe, R.A.S.K.¹, Perera, J.², Taylor, J.A.³, Tennakoon, A., Pallewatte, A., Jayasinghe, R.

OP 95

HEALTH SEEKING BEHAVIOUR OF PARENTS OF PATIENTS WITH DENGUE FEVER AND DENGUE HAEMORRHAGIC FEVER AND HEALTHCARE COSTS INCURRED FOR PATIENTS TREATED IN-WARD AT LADY RIDGEWAY HOSPITAL, COLOMBO

Fernando, K.E.S. , Tissera, H.A. , Krishanth, M.D.A.

FREE PAPER SESSION 25 – RHEUMATOLOGY AND REHABILITATION

OP 96

PLAY PARTICIPATION IN CHILDREN WITH CEREBRAL PALSY AGED 1-4 YEARS ATTENDING A SPECIALTY CLINIC IN THE MATARA DISTRICT, SRI LANKA.

Abeynayaka, P.S., Sumanasena S.P.

OP 97

ACCURACY OF USING CRUTCHES BY COMMUNITY DWELLING PEOPLE WITH AMBULATORY PROBLEMS

Tunpattu, S.¹, Chandratilake, M.²

OP 98

RELATIONSHIP BETWEEN THE ILIOTIBIAL BAND TIGHTNESS AND OSTEOARTHRITIS OF KNEE JOINT IN PATIENTS ATTENDING TO THE RHEUMATOLOGY DEPARTMENT OF THE NATIONAL HOSPITAL SRI LANKA

Fernando, H.C.B.P., Atapattu, T.C, Kanapathipillai, K, Tissera, M.H.M.M, Perera, A.D.P, Kumarasinghe, N

OP 99

EFFECTIVENESS OF A PULMONARY REHABILITATION PROGRAMME ON PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN A SRI LANKAN GOVERNMENT HOSPITAL WITH MINIMAL EXERCISE EQUIPMENT

Rodrigo, B.K.S.P.¹, Senaratne, W.V.¹, Wickramasinghe, S.W.A.D.A.², Wijesuriya, G.¹, Dalpathadu, K.C.S.¹, Muthukudaarachchi, S.L.¹, Karunawasala, U.K.¹, Marasinghe, M.M.K.¹, Gunatilaka, M.P.N.R.¹

OP 100

EFFECTIVENESS OF EARLY STRETCHING EXERCISES FOR RANGE OF MOTION OF THE SHOULDER JOINT AND STATE OF AXILLARY SCAR IN BURNT PATIENTS ADMITTED TO THE BURNS UNIT OF THE NATIONAL HOSPITAL OF SRI LANKA

Perera, G.A.D., Perera, C., Karunanayake A.L.

OP 101

EFFECTIVENESS OF ACTION OBSERVATION AND MOTOR IMAGERY IN RECOVERY OF UPPER EXTREMITY FUNCTION AFTER STROKE: A SYSTEMATIC REVIEW AND META-ANALYSIS

Welage, N., Liu, K., Bissett, M., Coxon, K., Schabrun, S., Fong, K.

FREE PAPER SESSION 26 – QUALITY AND SAFETY

OP 102

QUALITY OF DOMICILIARY POSTNATAL CARE PROVIDED BY THE PUBLIC HEALTH MIDWIVES IN THE RDHS DIVISION, KALUTARA

Navodani, K.A.T., Fonseka, P., Goonewardena, C.S.E.

OP 103

THE USEFULNESS OF STRUCTURED PAEDIATRIC RECORDS ON IMPROVING DOCUMENTATION QUALITY AND STAFF PERFORMANCE SATISFACTION IN A DISTRICT GENERAL HOSPITAL, SRI LANKA

Rifaya M. I , Athambawa S

OP 104

IMPROVEMENT OF THE PATIENT WAITING TIME AT OUT PATIENT DEPARTMENT (OPD), TEACHING HOSPITAL PERADENIYA

Prathapasinghe I.D., Sridharan, S.

OP 105

IN-WARD PATIENT EXPERIENCE ON TREATMENT AND CARE OF HEALTH CARE PERSONNEL AND PHYSICAL ENVIRONMENT AT BASE HOSPITAL HORANA

Krishanth, M.D.A. , Dalpatadu, K.C.S., Fernando, K.E.S. , Yapa, Y.M.S.S.

OP 106

EVALUATION OF FUNCTIONALITY OF THE WORK IMPROVEMENT TEAMS IN LINE MINISTRY HEALTH CARE INSTITUTION

Wijemanne, W.M.U.S., Perera, H.A.A.P.K., Somathunga, C., Sridharan, S., Eranga, V.P., Rathnayake, R.M.N.N.K.

FREE PAPER SESSION 27 – EDUCATION AND TRAINING

OP 107

IMPROVING BASIC LIFE SUPPORT KNOWLEDGE AMONG STUDENTS, THE FIRST STEP TO IMPROVE BYSTANDER CARDIOPULMONARY RESUSCITATION

Nizar, M.H.F., Lokubalasooriya, A.

OP 108

COMPARISON OF THE CLINICAL COMPETENCES BETWEEN THE NURSING STUDENTS FOLLOWING A BACHELOR'S DEGREE AND THE GOVERNMENT DIPLOMA, IN THE EASTERN PROVINCE OF SRI LANKA

Anvar Azam, M.M.,

OP 109

INNOVATIVE INTRODUCTION OF THREE-DIMENSIONAL DIGITAL ANATOMY ANIMATIONS IN TO CADAVER DISSECTIONS AT THE DEPARTMENT OF ANATOMY, UNIVERSITY OF SRI JAYEWARDENEPURA

Edirisinghe, E.A.S.T., Indunil, L.A., Niluka, D.H.M., Madushika, P.K.K., Deegodagamage, Y.S., Wijesundara, W.M.C.S, Dissanayake, P.H., Yasawardene, S.G.

OP 110

WORK-RELATED BARRIERS FOR UNIVERSITY EDUCATION: SPECIAL REFERENCE TO UNDERGRADUATE NURSES

Ariyaratne, S.S., De Silva, H.D.W., Hettiarachchi, D.R. , Gunawardana, K.W.S. , Hewabatage, P.N. , De Silva, B.S.S. .

OP 111

INTEGRATION OF KNOWLEDGE MANAGEMENT TO IMPROVE PATIENT SATISFACTION IN MATERNITY CARE

Rathnayake, R.M.C.K., Jiffry, M.N., Weerabandara, A.M.S., Manawadu, A., Jayasundara, J.M.S.

OP 112

IMPLEMENTATION AND EVALUATION OF A TRAINING MODULE ON IMPROVING HEALTH SYSTEM RESPONSIVENESS FOR NURSING OFFICERS

Somaratne, C.J.K., Sridharan, S.

FREE PAPER SESSION 28 – ONCOLOGY

OP 113

PREVALENCE OF PAP SMEAR CERVICAL EPITHELIAL CELL ABNORMALITIES AMONG HIV POSITIVE WOMEN ATTENDING (NATIONAL STD/AIDS CONTROL PROGRAMME), COLOMBO, SRI LANKA

Perera, H.P., Weerasinghe W. H.K , Mayadunne , P.B. , Colombage P.M.H.

OP 114

SOCIO-DEMOGRAPHICAL DATA, HISTOLOGICAL CHARACTERISTICS, TREATMENT VARIATION AND SURVIVAL ANALYSIS OF TRIPLE NEGATIVE BREAST CANCER IN NATIONAL CANCER INSTITUTE OF MAHARAGAMA, DURING YEAR 2009 AND 2010

Nawarathna, N. M. T. E. K., Perera, M.

OP 115

SURVIVAL OF BREAST CANCER PATIENTS TREATED AT TEACHING HOSPITAL KARAPITIYA, GALLE FROM 2004 TO 2008

De Silva, H.R.T., Wickremasinghe, A.R., Perera, S.C.R.

OP 116

FACTORS ASSOCIATED WITH DELAYED PRESENTATION OF CERVICAL CANCER AMONG WOMEN IN SRI LANKA

Senarathne, R.S.J., Senarathne, R.C.N., Dissanayake, D.M.P.P.

OP 117

RANDOMIZED DOUBLE-BLIND PROSPECTIVE CLINICAL TRIAL ON EFFECTIVENESS OF A HERBAL PREPARATION IN IMPROVING THE PROGNOSIS OF ORAL CANCER

Dias, D.K.

OP 118

GENETIC BIO-MARKER DISCOVERY IN *DE NOVO* MYELOYDYSPLASTIC SYNDROMES

Bandara, W.M.M.S., Rathnayake, A.J.I.S., Neththikumara, N.F., Goonasekera, H.W.W., Dissanayake, V.H.W.

**ABSTRACTS FOR
FREE PAPER SESSIONS**

FREE PAPER SESSION 01 - PATIENT PERSPECTIVES

OP 01

QUALITY OF PROVISION OF IMMUNIZATION SERVICES IN RATNAPURA DISTRICT, SRI LANKA: RECIPIENT AND PROVIDER PERSPECTIVES

Ranasinghe, R.D.S.¹, Abhayasinghe, K.^{2,3}, Gamage, D.G.⁴, Ginige, P.S.⁴, Kasturiarchchi, S.K.⁵, Abeyasinghe, M.R.N.²

1. Health Promotion Bureau, Ministry of Health, Sri Lanka
2. Institute for Research and Development Sri Lanka
3. Research Institute for primary Care and Health Sciences, Keele University, UK
4. Epidemiology Unit, Ministry of Health, Sri Lanka
5. Family Health Bureau, Ministry of Health, Sri Lanka

Background: Over the years Sri Lanka has reported near 100% coverage for all vaccines in the Expanded Programme on Immunization, and low incidence of vaccine preventable diseases. Maintaining high-quality immunization service delivery is essential to gain public trust for future success.

Aim/s: To identify the key factors associated with the quality of routine immunization services in Ratnapura District from the perspective of service providers and recipients.

Methods: A mixed method cross-sectional study was conducted in five purposely selected Medical Officer of Health (MOH) areas (Ratnapura- Pradeshiya Shaba, Pelmadulla, Kuruwita, Embilipitiya and Balangoda) based on highest number of clinic attendance. Data collection was carried out using pretested self-administered questionnaires, client exit interviews, focus group discussions (FGDs), and an observation check list. Ethical Approval was obtained from Sri Lanka Medical Association.

Results: Infrastructure and logistic facilities such as limited space, inadequate seating facilities, insufficient supervision, and limited number of Public Health Midwives (PHMM, on average 11 to 29 children / PHM) were identified as factors that affect the quality of immunization services. Sub-optimal preparation for clinic activities caused delays in service provision and limited staff increases workload for each service provider. Waiting time at sessions was noticed with a range of averages from 1.00 to 3.30 hours/clinic in the five clinics. FGDs revealed only one of the five MOH areas has organized regular in-service training for vaccine administration, Information Technology and language courses to improve technical and communication capacities. Main concerns of PHMM were the limited opportunities for training, heavy workload and documentation procedures which consume considerable time. Majority (90%) of service receivers attended the clinic during first 2 hours of commencement. Care-receivers expressed their concerns on overcrowding, lack of seating facilities and absence of an appropriate appointment system.

Conclusion: Establishing regular monitoring mechanism, conducting regular in-service training and reorganizing clinic settings in a systematic manner may ensure provision of high quality immunization services at field level with the available resources.

Email of the Corresponding Author: m.k.w.abhayasinghe@keele.ac.uk

PROFESSIONALISM: WHAT OUR PATIENTS THINK?

Ratnasekera, N. S.¹, Kanthi, R.D.F.C.²

1. Preventive Oral Health Unit, National Dental Hospital (Teaching) Sri Lanka.
2. Former Director of Health Education Bureau

Background: Being a developing country, the health indicators of Sri Lanka lie in par with the developed countries. Although Sri Lanka has been able to achieve the quantitative aspect of health, still improving the qualitative aspect hasn't been a reality. 'Professionalism' of doctors is one aspect of quality in health which is culturally sensitive.

Aims: The main objective of this study was to find out patients' perception, satisfaction and associated factors towards attributes of professionalism of Dental surgeons in Institute of Oral Health (IOH), Maharagama

Methodology: A descriptive cross sectional study was used. The study setting was IOH, Maharagama, which is a tertiary government oral health care institution. The study population was the patients who visited the Out Patient Department during the study period. A pre-tested, self-administered questionnaire was given for the participants whom were selected using systematic random sampling technique. The sample size was 422.

Results: The mean age of the study population was 40.97 years \pm SD = 14.66. "The doctor must show kindness to patients", got the highest frequency (n= 416, 98.6%) for considering it to be a very important attribute of professionalism. Only 29.9% (n=126) of patients considered "the doctors' neat appearance" as important, which got the lowest importance. Majority (n = 260, 61.6%) of patients were satisfied on the attributes of professionalism demonstrated by doctors. The patients were mostly (n=348, 82.5%) satisfied with regard to cognitive satisfaction and the lowest (n=196, 46.4%) was for behavioural satisfaction. The most unsatisfied aspects were the short time spent with the patients and the doctors' rushed nature. The association of satisfaction with sex, age and education level was statistically significant.

Conclusion: The results of this study would enable the undergraduate and postgraduate teaching programmes to be more targeted in the aspects of professionalism. Furthermore measures could be taken to minimize the dissatisfaction in a more specific manner since the study brings out the areas which are lacking. Finally this lays down the platform for further research which could be generalised to the whole country.

Email of the Corresponding Author: nadisha.rat@gmail.com

COMPLIANCE FOR CLINIC ATTENDANCE: CLIENTS WITH POSITIVE SCREENING FOR CHRONIC KIDNEY DISEASE IN POLONNARUWA DISTRICT.

Jayasinghe, D.S.A.¹, Wicramasinghe, S.C.², Jayasinghe, D.U.C.J.³

1. Office of Regional Director of Health Services, Polonnaruwa, Sri Lanka.
2. Ministry of Health, "Suwasiripaya", Colombo, Sri Lanka.
3. Office of Regional Director of Health Services, Gampaha, Sri Lanka

Background: Chronic Kidney Disease (CKD) has emerged as a global public health challenge and has affected 10 - 15% of the world population. Sri Lanka is recognized as a high risk country and screening for CKD/CKDu is conducted in endemic areas. The disease primarily affects people of low socioeconomic status, particularly farming communities in agricultural areas.

Aim: To identify level of compliance of clients attending follow up clinics after being screened positive and reasons for poor compliance in Polonnaruwa district.

Methods: A descriptive cross-sectional study was carried out from November 2015 to July 2016. As part of the study, Focus Group Discussion was conducted with key public health officers to identify the way of sending message for screened positive clients. Randomly selected 388 screened positive participants were included in the study. Data were collected at home setting by using an interviewer-administered questionnaire.

Results: Out of the total study group (n=388), only 174 (44.8%) screened positive had attended for follow up. Out of the total participants 121(31%) were farmers and 221(57%) were female. Most affected age group was 51-60 years. Education level of 50% was below grade six. Overall knowledge on CKD was poor in majority 224 (57%) whereas their knowledge on common causative factors of CKD was satisfactory. Two hundred and fifty-one (64%) knew diabetes as a causative factor and 223 (57%) knew hypertension as a causative factor. Hundred seventy five of study population (45%) knew when to repeat screening, when the first screening is negative.

The main reason for non-compliance was, not receiving the message 30% (n=64) from MOH office that they are positive for screening.

Conclusion: Non-compliance of clinic attendance after screening positive is 55.2%. Main reasons for non-compliance are absence of reliable message sending mechanism from the relevant MOH offices. Strengthening of message delivery system from MOH office to clients, feedback from hospitals to MOH and community awareness on CKD is essential to improve the system.

Email of the Corresponding Author: dsajaya@gmail.com

MEDICAL TRAVELLERS' PERSPECTIVES IN SELECTING IN-PATIENT SERVICES AT SELECTED PRIVATE HOSPITALS IN COLOMBO, SRI LANKA

Koggalage P.D.¹, Gunawardena N.S.², De Silva A.H.³

1. Postgraduate Institute of Medicine, University of Colombo
2. World Health Organization Country Office of Sri Lanka
3. Ministry of Health, Nutrition and Indigenous Medicine

Background: Medical tourism is simply defined as "travelling across international borders to receive some form of medical treatment". With the availability of high quality medical professionals and accredited private hospitals, Sri Lanka is geared to expand this industry. However, reasons for medical travellers to seek medical care outside their home countries, reasons to select Sri Lanka and details about their medical and non-medical expectations have not been documented in Sri Lanka. Making this information available can contribute to the development of medical tourism as an industry in Sri Lanka.

Aim: The study aimed to describe medical travellers' perspectives in selecting in-patient services at selected private hospitals in Colombo, Sri Lanka.

Method: A descriptive cross-sectional study at four purposively selected private hospitals; Lanka Hospitals, The Central Hospital, Western Infirmary and Nawaloka Hospitals included 235 foreign nationals who sought in-patient care for at least 48 hours. Data were collected using a pre-tested interviewer-administered questionnaire and analysed using SPSS software. Ethical clearance was obtained from the Ethics Review Committee, Faculty of Medicine, Colombo.

Results: The response rate was 93.25%. The majority (68.1%) were Maldivians while 20.4% were Indians. Surgical and medical cares were sought by (51% and 32%) respectively. Recommendation by the medical professionals of home countries for better outcome (46.4%), non-availability of care in their home countries (44.7%), securing privacy of the patient (44.7%), obtaining a second opinion (43%) and better quality care (41.7%) were leading reasons to seek care outside home countries. High quality medical professionals (94.2%), accredited hospitals (81.3%), easy visa (90.2%) were the top reasons to select Sri Lanka. Medical travellers faced some difficulties in accommodation (57%), communication (37.4%), transport (31.9%), and finding quality food (41.7%). The commonest health related expectation was hospitals with sophisticated technologies (44.7%) while the commonest general expectation was a country without racial discrimination (58.7%).

Conclusion: High quality medical professionals, accredited hospitals, convenience in obtaining visa appear to attract foreigners seeking medical care. However, most of them have faced some difficulties with the supportive services/ facilities. The study recommends improvement of infrastructure and support services for medical travellers, and that private hospitals obtain international accreditation.

Email of the Corresponding Author: dineshkoggalage@yahoo.com

OP 05

OCCUPATIONAL STRESS ASSOCIATED FACTORS AND COPING STRATEGIES AMONG BUS DRIVERS IN BUSES COMMENCING FROM MAHARAGAMA MUNICIPAL COUNCIL AREA

Dhananja, D.K.¹, Arnold, S.M.²

1. Health Promotion Bureau, Ministry of Health
2. Regional Director of Health Services Office, Colombo.

Background: Work related events can affect workers and occupational stress is one such key work related factors. Occupational stress may have an influence not only on drivers themselves, but would put passengers, pedestrians and other road users at risk. Therefore it is important to organize a mechanism to address occupational stress in the public transport industry.

Aim/s: To assess the prevalence of occupational stress associated factors and coping strategies among bus drivers of buses commencing from the Maharagama Municipal Council area.

Methods: A descriptive cross sectional study was carried out during the month of August and September 2014. The study included 422 bus drivers from the Sri Lanka Transport Board and private bus operators of buses commencing journey from Maharagama Municipal Council area. Subjects were chosen by convenient sampling technique. A pre-tested interviewer administered questionnaire was used to collect data. Prevalence of occupational stress was measured by two scales of Job Content Questionnaire (JCQ) namely 'high job strain' and 'iso-strain'. The associations were tested by Chi Square test with a significant value at the level of 0.05. Odds Ratios and 95% Confident Interval were too calculated.

Results: The prevalence of high job strain and iso-strain among bus drivers were 34.1% (95% CI: 29.6-38.8) and 33.1% (95% CI: 26.7-35.6) respectively. The factors significantly associated with high job strain were, working sector (OR=0.2, 95% CI: 0.10-0.36), number of children (P=0.04), level of education (P<0.001), monthly income (P=0.006), number of working hours per day (P<0.001), job satisfaction (OR= 0.4, 95% CI: 0.24-0.56), adequacy of income (OR=0.5, 95% CI:0.35-0.81), methods of managing salary inadequacy (P=0.003), engaging in leisure activities (P<0.001) and disease conditions(OR=2.9, 95% CI: 2.58-3.39). Factors significantly associated with iso-strain were, working sector (OR=0.2, 95% CI: 0.11-0.39), level of education (P<0.001), monthly income (P=0.006), number of working hours per day (P<0.001), job satisfaction (OR=0.3,95% CI : 0.22-0.52), adequacy of income (OR=0.6, 95% CI: 0.37-0.86), methods of managing salary inadequacy (P=0.01),engaging in leisure activities (P<0.001), and disease conditions (OR=3.2, 95% CI 2.81-3.77). Overall a majority (96%, n=394) of drivers practiced all methods of appraisal-focused coping strategy. Taking a positive action being practiced by 99% as a problem-focused strategy. Engaging in hobbies and recreational activities (69.9%, n=281) was most popular emotional harmless method and smoking (24.6%, n=99) was the commonly practiced emotional harmful strategy.

Conclusion: Several factors, contributed to occupational stress among bus drivers. Since over one third of bus drivers are undergoing occupational stress a well-planned programme to address this issue should be implemented by the relevant authorities.

Email of the Corresponding Author: dhananjachami@gmail.com

VALIDITY AND RELIABILITY OF TEACHER STRESS INVENTORY-SINHALA TO DETERMINE OCCUPATIONAL STRESS AMONG TEACHERS IN SRI LANKA

Wickramasinghe, E.P.¹, Senevirathne, R.A.², Gunawardene, N.S.³

1. Health Promotion Bureau, Kynsey Road, Colombo
2. General Sir John Kothalawala Defense University, Katubedda, Sri Lanka
3. World Health Organization, Sri Lanka Office, Colombo

Background: Occupational stress among teachers have shown to be rising in the world. Prevalence of occupational stress among secondary teachers in Sri Lanka has not been studied. Forty-nine items self-administered Teacher Stress Inventory (TSI) is a tool developed in USA to determine occupational stress among teachers. A valid and reliable tool to measure occupational stress among teachers in Sri Lankan cultural context is a need.

Aim/s: To culturally adapt and translate Teacher Stress Inventory to Sinhalese and to assess its validity and reliability to measure occupational stress among secondary teachers in Sri Lanka.

Methods: The TSI was culturally adapted and translated to Sinhalese language by two independent teams of experts from relevant disciplines. Culturally adapted Sinhalese version of TSI was pretested among 20 secondary teachers. Judgmental validity was confirmed by a third independent team of experts. Self-administered version of TSI-Sinhala was validated using triangulation of methods, among systematically selected 305 secondary school teachers from 15 public schools in Gampaha district. Convergent and discriminant validity were assessed by hypothesized scale structure of the TSI-Sinhala and its correlation with external scales GHQ-30 and DASS21. Using maximum likelihood method Confirmatory Factor Analysis was performed in LISREL8.0 on the covariance matrix of TSI-Sinhala to evaluate the construct validity. Internal consistency and test-retest reliability were assessed.

Results: Convergent and discriminant validity were shown by well correlated hypothesized scale structure. Adequately fitting two factor model was achieved with model fit indices of GFI=0.76, CFI=0.96, RMSEA=0.065, $\chi^2=2332.65$ (df=1082, p=0.01) in confirmatory factor analysis performed on the statistically compatible data of TSI-Sinhala confirming construct validity. Internal consistency with a Cronbach's Alpha of 0.875 and good test-retest reliability >0.7 confirmed reliability.

Conclusion: TSI-Sinhala is a valid and reliable tool which is recommended to be utilized to identify occupational stress among secondary teachers in Sri Lanka.

Email of the Corresponding Author: enoka7@gmail.com

DEVELOPING RESILIENCE AT WORK AMONG NURSING OFFICERS: WHAT FACTORS NEED TO BE ADDRESSED?

Walpita, W.D.Y.N.¹, Arambepola, C.²

1. Directorate of Environmental & Occupational Health, Ministry of Health
2. Department of Community Medicine, Faculty of Medicine, University of Colombo

Background: Occupational stress among Nursing Officers (NOs) is identified as a global phenomenon in health systems. Developing “Resilience at work” is receiving increasing attention as a cost-effective primary preventive measure in this regard. Identifying the context-specific correlates of high resilience is essential for designing resilience-building programmes in local settings.

Aims: To identify correlates of resilience at work among NOs in government hospitals in Colombo district

Methods: This is a cross-sectional analytical study conducted among 855 NOs representing all government hospitals (DH-Type B and above) in Colombo district recruited through multistage stratified sampling. Validated, culturally adapted “Resilience at work scale-Sinhala version (RAW-S)” was used to assess resilience levels and a validated self-administered questionnaire was used to assess socio-demographic, economic, health and lifestyle, job-related and mental health-related correlates. Bivariate analysis followed by logistic regression modelling determined the significant correlates with adjustments for confounders.

Results: The response rate was 92.9%. Mean age of the participants was 34.8 years (SD=8.0) and the male: female ratio was 4.4%: 95.6%. After adjusting for confounders, the significant correlates of resilience at work were: spending >3 hours per week on recreational activities (OR=1.63; 95% CI=1.18-2.27; p=0.003), attending 3 social events per three months (OR=2.04; 95% CI=1.47-2.84; p<0.001), frequent meditation practice (OR=1.53; 95% CI=1.11-2.13; p=0.01), being satisfied with the facilities available to perform job safely (OR=1.70; 95% CI=1.20 -2.42; p=0.003), having adequate support from supervisors (OR=1.53; 95% CI=1.09-2.13; p=0.013), having low physical demands (OR=1.53; 95% CI=1.09-2.15; p=0.014), having a low negative affect (OR=1.71; 95% CI=1.15-2.55; p=0.008) and high self-esteem (OR=1.55; 95% CI=1.09-2.22; p=0.016).

Conclusion: The significant correlates were mostly related to the mental health status, social interactions and psychological support and safety of work environment. Thus, identified correlates clearly show how a resilience-building programme for the NOs should be shaped. Accordingly, such programmes should primarily focus on developing the psycho-social competencies and improving the level of psychosocial support they get from work environment rather than addressing negative factors like high workload and patient turn over. Further, attention to work ergonomics and ensuring safe working environment also contribute to enhance resilience levels among NOs.

Email of the Corresponding Author: yasaswinw@yahoo.com

PREVALENCE AND CORRELATES OF WORK STRESS AMONG NURSES WORKING IN PSYCHIATRIC INWARD FACILITIES, IN COLOMBO DISTRICT, SRI LANKA

Gunasekera, H.D.J.J.¹, Suraweera S.A.I.K.²

1. Health Education Bureau, Ministry of Health
2. Environmental and Occupational Health Directorate, Ministry of Health

Background: Work stress among nurses in psychiatric care is considered an important occupational health problem due to the nature of the services provided. However, studies on work stress in this study group are scarce in Sri Lanka.

Aim: To assess the prevalence and correlates of work stress among nurses working in psychiatric inward facilities, in Colombo district, Sri Lanka

Methods: This descriptive cross-sectional study was conducted among nurses working in the three in-ward psychiatric facilities in capital Colombo District namely, National Institute of Mental Health, National Hospital of Sri Lanka and Colombo South Teaching Hospital. The entire population (N=345) was given a pre-tested self-administered questionnaire composed of two parts; validated Job Content Questionnaire and questionnaire on correlates. Prevalence of Work Stress was measured using two indices as described by Karasek in the dynamic job strain model, namely; 'High Job Strain' (HJS) and 'Iso-strain' (IS). Descriptive analysis and chi2 analysis was done using standard statistical software. Ethical clearance was obtained by the University of Colombo.

Results: The response rate was 89.5% (N=309). Prevalence of HJS and IS was 115 (37.2%) and 66 (21.4%) respectively. Factors significantly associated with HJS were; being single (OR=1.84, 95% CI=1.15-2.95), working more than 48 hours weekly (OR=1.71, 95% CI=1.05-2.78), violence by patients (OR=3.45, 95% CI=1.81-6.57), verbal abuse by patients (OR=3.11, 95% CI=1.80-5.39), mental health concerns (OR=2.68, 95% CI=1.595-4.40), stigma (OR=2.21, 95% CI=1.24-3.94), lack of assistance at work (OR=4.56, 95% CI=1.68-12.27), difficulty in obtaining leave (OR=2.98, 95% CI=1.48-6.00), inadequate welfare facilities (OR=1.62, 95% CI=1.01-2.59) and poor work recognition (OR=2.89, 95% CI=1.68-4.96). Factors associated with Iso-strain were physical violence by patients (OR=3.45, 95% CI=1.50-8.05), concerns about own mental health (OR=2.15, 95% CI=1.40-3.31), lack of assistance at work by co-workers (OR=7.27, 95% CI=2.81-18.78), difficulty in obtaining leave (OR=2.18, 95% CI=1.04-4.55) and poor recognition of work by supervisors (OR=5.05, 95% CI=2.68-9.52).

Conclusion: More than a one third of the study population had High Job Strain and nearly a half of them had Iso-strain. Several factors unique to in-ward psychiatric facilities were significantly associated with work stress. There is a need to attend to the risk factors by health system. More research is needed to test the causality of the correlates.

OP 09

A COMPARISON OF RESCUE AND PRIMARY PERCUTANEOUS CORONARY INTERVENTIONS FOR ACUTE ST ELEVATION MYOCARDIAL INFARCTION

Faslur Rahuman, M.B.¹, Jayawardena, J.B.², Francis, G.R.², Mahboob, N.², Kumara, A.H.T.W.², Wijesinghe, A.², Haniffa, R.³, Ariyapperuma, R.², Paramanayakam, A.², De Silva, P.A.⁴

1. Institute of Cardiology, National Hospital of Sri Lanka, Colombo, Sri Lanka.
2. Institute of Cardiology, National Hospital of Sri Lanka, Colombo, Sri Lanka.
3. National Intensive Care Surveillance, Colombo, Sri Lanka; Mahidol Oxford Tropical Medicine Research Unit (MORU), Bangkok, Thailand; Faculty of Medicine, University of Colombo, Sri Lanka.
4. National Intensive Care Surveillance, Colombo, Sri Lanka; Intensive Care National Audit and Research Center, Colombo, Sri Lanka.

Background: In Sri Lanka, difficulties to reach centers that offer primary PCI in a timely manner makes rescue PCI a crucial therapeutic option for patients who fail reperfusion.

Aim/s: To perform a comparative analysis of in-hospital results obtained from patients with acute ST elevation myocardial infarction (STEMI), who underwent rescue or primary percutaneous coronary intervention (PCI). The aim is to determine rescue PCI as a practical option for patients with no immediate access to primary PCI.

Methods: From the Cardiology PCI Clinic of the National Hospital of Sri Lanka (NHSL), we selected all consecutive patients presenting with acute STEMI ≤ 24 h door-to-balloon delay for primary PCI and ≤ 72 h door-to-balloon delay, (90 minutes after failed thrombolysis) for rescue PCI, from March 2013 to April 2015 and their in-hospital results were analysed, comparing rescue and primary PCI patients.

Results: We evaluated 159 patients; 78 underwent rescue PCI and 81 underwent primary PCI. The culprit left anterior descending (LAD) vessel (76.9% vs. 58.8%; $P=0.015$) was more prevalent in rescue than in primary patients. Thrombus aspiration was less frequent in rescue group (19.2% vs. 40.7%; $p=0.004$). The degree of moderate-to-severe left ventricular dysfunction reflected by the ejection fraction $<40\%$ (24.3% vs. 23.7%; $P=0.927$) and prevalence of multivessel disease (41.0% vs. 43.8%; $P=0.729$) revealed no significant difference. Coronary stents were implanted at similar rates in both strategies (96.2% vs. 92.6%; $P=0.331$). Procedural success (97.4% vs. 97.5%; $P=0.980$) and mortality rates (5.1% vs. 3.8%; $P=0.674$), were similar in the rescue and primary groups.

Conclusion: In-hospital major adverse cardiac events (MACE) are similar in both rescue and primary intervention groups, supporting the former as a practical option for patients with no immediate access to PCI facilities.

Email of Corresponding Author: abby.param@gmail.com

ARE WE USING STATIN-THERAPY ACCORDING TO NEW CHOLESTEROL GUIDELINES FOR NON-DIABETICS? AN OBSERVATIONAL STUDY AT A MEDICAL CLINIC IN A TERTIARY CARE INSTITUTION, CENTRAL PROVINCE, SRI LANKA

Jayasinghe, I. K.¹, Rajapaksha, B. S. J.¹, De Silva, K. P. M. R.¹, Gunawardena, W. P. M.¹, Kumarasinghe, C. G.², Mazeen, S. A. M.¹, Abeywickrama, U. K.³

1. Teaching Hospital, Kandy
2. Teaching Hospital, Peradeniya,
3. Faculty of Medicine, University of Kelaniya

Background: Chronic Non-Communicable Diseases (NCDs) accounted for 71% of all deaths in Sri Lanka. Ministry of Health Sri Lanka advises to screen all individuals between 35-65 years for NCDs with special emphasis on cardiovascular diseases. Dyslipidaemia is a major risk factor for Atherosclerotic Cardiovascular Disease (ASCVD). The American College of Cardiology/ American Heart Association (ACC/AHA) issued new guidelines in 2013 for the treatment of dyslipidaemia. This guideline emphasized total ASCVD risk based cholesterol treatment.

Aim: To assess treatment gaps with regards to statin therapy among a cohort of non-diabetic patients presenting to an outpatient clinic using standards set by the 2013 ACC/AHA guidelines.

Methods: A descriptive observational study was conducted at VP/OPD clinic, Teaching Hospital, Kandy for 6 months from December 2016. NCD patients without diabetes between 40-75 years were included. Patients who were not on statin therapy due to contraindications or side effects were excluded. Data such as patient demographics, ASCVD history, BP value, lipid levels and statin history were gathered from patients' clinic books and recorded in data collection sheets. ASCVD risk was calculated using ASCVD risk calculator.

Results: A total of 496 subjects were included with a mean age of 57.35 years; 66.5% were females. 270 (54.4%) subjects were identified as statin-benefited [55 (11.1%) had ASCVD, 76 (15.3%) had LDL >190mg/dl, and 139 (28%) with 10-year ASCVD risk >7.5%]. There were 226 (45.6%) patients with 10-year ASCVD risk <7.5%. Only 3.6% (2/55) of ASCVD subjects and no 'LDL>190 mg/dl' subjects were on recommended high intensity statin therapy. 50.4% (70/139) patients with ASCVD risk >7.5% were on the recommended dosage. 63.7% (144/226) patients who were identified as not statin-benefited were taking statin. The study identified 70 new patients who required statin therapy.

Conclusions: A majority of patients who need high intensity statin therapy were not on statin or the recommended dosage, whereas a large number of patients who were not statin-benefited were on statins. It is recommended to initiate statin therapy after assessing total ASCVD risk.

Email of the corresponding author: kumujay@gmail.com

OP 11

ACCURACY OF SELECTED INDICATORS IN LEAKING FOR THE MANAGEMENT OF DENGUE HAEMORRHAGIC FEVER

Ranasinghe, K.N.P.¹, Dissanayake, G.¹, Vigneswaran K.¹, Chinthaka, A.M.H.¹, Dilhari, K.A.A.², Mujahieth, M.I.¹

1. Base Hospital, Horana, Sri Lanka.
2. Department of Microbiology, Faculty of Medical Sciences, University of Sri Jayewardenepura, Gangodawila, Nugegoda, Sri Lanka.

Background: Detection of onset of leaking is a difficult task in dengue haemorrhagic fever (DHF) management in resource poor setting. Clinical diagnosis of DHF is supported by Haematocrit (HCT) rise and liver tenderness. Detection of ascites and pleural effusion by ultrasound scan (USS) is considered as the gold standard in identification of leaking.

Aim/s: The accuracy of rising haematocrit and liver tenderness in predicting onset of leaking was investigated using USS as the gold standard. Further, value of rising haematocrit to predict complications in DHF was investigated.

Methods: A prospective study was carried out in base hospital Horana during 2016/2017. Clinically suspected 184 dengue patients (according to 2012 guideline) with platelet count <100,00 were included. USS was done twice daily, liver tenderness and HCT were reordered four hours intervals.

Results: Of the 184 patients 130 were females and mean age was 39 years. USS evidence of leaking was observed in 48% of patients. Interestingly 1/3 of them were managed hourly fluid replacement not exceeding 100ml at any stage without a rise in HCT or any other complications. When >10% HCT rise was used as a predictor of leaking, showed 30% sensitivity and 82% specificity (PPV 60%, NPV 56%) whilst > 20% HCT rise showed 11% sensitivity and 94% specificity (PPV 63% and NPV 54%). Liver tenderness had a sensitivity and specificity of 28% and 83%. Clinical judgment of leaking had a sensitivity and specificity of 30% and 89%. Gall bladder wall oedema had a sensitivity and specificity of 91% and 94% (PPV 93% and NPV 92%). Haematocrit rise > 10% during any stage of critical phase associated with 94% sensitivity and 37% specificity (PPV 46%, NPV 92%) in the prediction of complications (shock, pre shock etc).

Conclusion: Nearly 50% of study population had USS evidence of leaking. Conventional methods such as rising HCT, liver tenderness and clinical detection were weak predictors of onset of leaking. However HCT rise was a strong predictor of complications during the leaking phase. One third of leaking patients identified based on USS did not show evidence of progression of leaking.

Email of the Corresponding Author: nilranasinghe@gmail.com

CLINICAL SUBCATEGORIES OF INTERSTITIAL LUNG DISEASES AND THEIR CLINICAL RESPONSE TO TREATMENT

Asanga Upul, B.K.M.¹, Malkanthi, A.J.M.P.¹, Wickramasekara, K.¹, Dassanayake, D.L.B.², Siribaddana, A.²

1. Respiratory Unit, Teaching Hospital Kandy,
2. Respiratory Unit, District General Hospital Nuwara Eliya.

Background: Interstitial lung diseases (ILDs) are a heterogeneous group of disorders of which the treatment choices and prognosis vary according to the causes, emphasizing the importance of an accurate diagnosis.

Objectives: To identify the sub categories of ILDs prevailing in patients referred to the Respiratory Unit of Teaching Hospital Kandy, and to compare the outcome of treatment between idiopathic and ILD's secondary to autoimmune disorders.

Methods: All the patients who were diagnosed to have ILD from October 2016 to September 2017 were recruited and were investigated for secondary causes. They were classified and treated using the ERS\ATS consensus guide lines. Clinical characteristics and response to treatment of these patients were recorded. The two groups (idiopathic and secondary) were compared using Fisher's exact test.

Results: There were 40 patients [34 females 85%,] with interstitial lung disease. Fifteen (37.5%) out of them were idiopathic [NSIP 8, 53.3%; UIP 5, 33.4%; LIP 2, 13.3%] and 25 (62.5%) [NSIP 15,60%; BO 5,12.5%;UIP 3,7.5%;LIP 2,5%] had secondary autoimmune causes. Secondary causes identified were , rheumatoid arthritis (n=14, 56%),systemic sclerosis (n=9, 36%),polymyositis (n=1, 4%) and mixed connective tissue disorder (n=1, 4%).During the study period 1 (6.7%) out of idiopathic group died while only one (4%) out of secondary interstitial lung disease group died [FET, p = 0.28].Thirteen [52%] of secondary group improved clinically (MRC score) while only 4 [27%] in idiopathic group improved [FET P 0.002].

Conclusion: Secondary ILDs are commoner and significant proportion of them is due to rheumatoid arthritis. Patients with idiopathic lung diseases had a poor clinical improvement compared to the patients with secondary interstitial lung diseases. This study signifies the importance of investigating for secondary autoimmune causes which had shown better clinical response to specific therapy.

Email of the Corresponding Author: dldbassanayake@gmail.com

FREE PAPER SESSION 04 – COMMUNICABLE DISEASES

OP 13

DAILY “DOTS” AMONG NEW SMEAR POSITIVE PULMONARY TUBERCULOSIS PATIENTS REGISTERED AT COLOMBO CHEST CLINIC (CCC).Liyanage D.H¹, Samaraweera D.S.D²

1. Post Graduate Institute of Medicine, University of Colombo
2. National Cancer Control Programme

Background: One-third of the world population is infected with *Mycobacterium tuberculosis*. Directly Observed Treatment Short-course (DOTS) has been identified as the key strategy in tuberculosis control and prevention.

Aim/s: To identify daily DOTS treatment among new smear positive pulmonary tuberculosis patients during intensive phase.

Methods: Descriptive cross-sectional study. Study population was all new smears positive pulmonary tuberculosis patients registered at CCC, who had already finished the intensive phase and were currently on the continuation phase.

Results: Of the study sample, only 43.3% were on daily DOTS and 65.9% swallowed drugs in front of DOT providers only on day of collection medication. Those who not on daily DOTS they were mainly on weekly (27.7%), Monday to Friday regime (26%). Among them 11.2% of females (n=46) and 32.1% (n=132) of males adhered to daily DOTS. In 82.4% (n=192) of the study population did not engage in daily DOTS as they were requested not to come daily to DOT center by their DOTs provider. There was a significant association between the age category and health seeking behaviour (p= 0.027). Those who were ≥ 35 years of age, 42.3% (n= 174) were not on daily DOTS. Of those who had education level up to O/Ls, 56.9% (n=233) did not adhere to daily DOTS. Treatment interruption rate was 8%. 75.8% of the defaulters were males, who were belonging to low-income groups (75%), had an O/L or below education (86.4%) and were ≥ 35 years of age (78.6%). A significant association existed between “DOTS seeking behaviour” and distance (p=0.000), time to visit (p=0.000) and selection (p=0.000) of DOT center.

Conclusion: Majority of patients was not adhering to daily DOTS treatment due to socio-economic and health system related factors.

Email of the corresponding author: dilipliyana@gmail.com

OP 14

THE EPIDEMIOLOGICAL AND DIAGNOSTIC PATTERNS OF MALARIA IN PREVENTION OF RE-INTRODUCTION OF MALARIA- EXPERIENCE FROM SRI LANKA - 2015-2016

Dharmawardena, H.P.R.¹, Mendis, K.N., Fernando, S.D.²,

1. Anti-Malaria Campaign, Ministry of Health, Sri Lanka
2. Department of Parasitology, Faculty of Medicine, University of Colombo

Background: Sri Lanka, having eliminated malaria by November 2012, was certified by the World Health Organization in September 2016 as malaria free.

Aim/s: The aim of the study was to determine the changes in epidemiological patterns of malaria cases reported during 2015-2016.

Methods: All patients diagnosed with malaria (microscopy and/or RDT) were included in the study. The epidemiological and clinical data of these patients were recorded using a pre-tested interviewer administered questionnaire. Information was also collected from the Bed Head Tickets (BHT).

Results: A total of 77 malaria cases were reported during the two year period. Based on the travel history they were labelled as imported cases. Over 86% were males between the ages of 21- 50 years. A majority of cases were reported from Sri Lankans, arriving from Africa (70.4%, 38/54). Among the foreigners, 82.6% (19/23) were originated in Asia. India is the origin of 28/77(36.3%) cases. Among the Sri Lankans Armed forces personnel and civilians who travelled abroad for UN peace keeping missions and military training (16/54 (29.6%) were identified as at highest risk in acquiring malaria. Among the foreigners, Migrant workers (18/23-78.3%) from India, Pakistan and China were at highest threat of importing malaria. *Plasmodium falciparum* (n=35) was the predominant species detected, followed by *P. vivax* (n=33), *P.ovale* (n=7), *P.malariae* (n=1), and *P.knowlesi* (n=1). The private sector played a significant role in diagnosing infections 40% (31/77). Passive case detection due to clinician's referral was the main mode of diagnosis (71.4%) while 7 (9%) cases were detected on request by the patients. Eight cases (10.4%) were diagnosed accidentally on examination of blood smears which had been sent to be examined for a blood picture as a part of a full blood count. 66.7% of Sri Lankans and 43.3% foreigners were detected in government sector institutions. Majority (56.6%) of the foreigners were detected in the private sector. 63 patients who developed the illness in Sri Lanka after arrival ranged from 0-265 days. The time taken to detect cases either from arrival to Sri Lanka (14 cases who developed the illness abroad) or from the onset of illness (63 cases who developed the illness after arrival) ranged from 0-54 days with a mean of 7.42 (SD +/- 8.668) days.

Conclusion:

Active preventive strategies and reinforcement of case detection and diagnostic methodologies and high vigilance especially in the Western Province is very important in keeping Sri Lanka malaria free.

Email of the Corresponding Author: drpriyanid@gmail.com

OP 15

DISTRIBUTION OF BRUGIAN FILARIASIS IN GAMPAHA DISTRICT

Mallawarachchi, C.H.¹, Chandrasena, T.G.A.N.², Mallawarachchi, S.M.N.S.M¹, Gunarathna, D³, de Silva, N.R.²

1. Post Graduate Institute of Medicine, University of Colombo
2. Department of Parasitology, Faculty of Medicine, University of Kelaniya,
3. Anti-Malaria Campaign, Ministry of Health Quarantine Unit, Ministry of Health

Background: Sporadic cases of Brugian filariasis were reported from endemic areas of Sri Lanka after four decades of silent period. The second highest number of cases was reported from Gampaha District. Details of Geographical distribution of current cases are inadequate.

Aim: Geographical information system (GIS) based mapping to find out geographical relationship of the infection of Gampaha District

Methodology: All the past positive cases of Brugian filariasis reported from the district of Gampaha were listed and using participatory GIS technology, GPS locations of their households were obtained by site visits. Garmin 610 (Hand Held GPS Reviser) was used to obtain GPS locations.

The locations of patient households were symbolized by dots on the Google map prepared using GPS data. Ethical clearance for the study was obtained from the Ethics Review Committees of the Faculty of Medicine University of Kelaniya and Medical Research Institute.

Results: Twenty six cases were reported to AFC since 2009 to up to date. Among them, ten cases were from Medical Officer of Health (MOH) area, Wattala and eleven cases were from MOH area Kelaniya. MOH areas of Attanagalla, Negombo, Gampaha, Biyagama and Mahara had reported one case by each. It was found that reported cases were found closer to marshy land/s and most of them were in clusters.

Conclusion: Brugian filariasis in Gampaha District showed a heterogeneous spread and was mainly confined areas where marshy lands were present. Probable mosquito vector of on-going Brugian filariasis was *Mansonia* spp because they needed aquatic plants for breeding. Vector surveillance and removal of aquatic plants from permanent water collections would be necessary to prevent a future occurrence of Brugian filariasis.

E mail of the corresponding author: harendra9791@gmail.com

OP 16

BARRIERS IN TUBERCULOSIS CONTACT SCREENING: A MIXED METHOD STUDY

Pathiraja I¹, Amarasinghe P. G¹, Wijekoon W¹, Wimalarathna G¹, Peiris M.D¹, Fareed N¹, Vipula Shantha A R¹, Peries R D S M², Rathnayake M D V K², Herath U², Aluthweera C², Agampodi S³

1. Provincial Department of Health Services, North Western Province, Sri Lanka
2. Regional Department of Health Services, Kurunegala, Sri Lanka
3. Department of Community Medicine, Faculty of Medicine and Allied Sciences Rajarata, University of Sri Lanka

Background: Tuberculosis (TB) is a global public health issue affecting most Asian countries. Close contacts of patients with TB have a substantial risk of developing the disease. Implementation gaps in contact screening process in local setting are yet poorly understood.

Aim: To identify barriers in contact screening process of TB control programme in Kurunegala District.

Methods: A mixed method study was conducted. A convenient sample of 12 service providers including medical officers, Nursing officers, Public health Inspectors and 24 care recipients participated in in-depth interviews, accompanied by a document review.

All interviews were participants consented, and Interviews were fully transcribed and thematic analysis done. In document review all TB documents, circulars, forms, formats and registers which are in use were gathered and support given by existing documents was evaluated.

Results: Care providers at patient registration stage do not emphasize adequately on importance of TB contacts testing. Some messages given by health staff to patients, particularly regarding contact testing were not straightforward.

Home visit a key opportunity of awareness and stigma management which is poorly utilized. Long distance to contact screening center and long waiting time at clinic contributes to poor attendance. Stigma relating to TB among health staff and community is a contact screening inhibiting factor.

Missed opportunities were identified in available documents to motivate contacts testing. Most documents don't allow space to record details of contacts. Messages to encourage contact testing were missing in awareness leaflets.

Conclusions: TB contact screening services are insufficient and available services need to be delivering in standard manner. Training of health care providers on contact screening service provision with stigma minimization skills is essential. Existing TB documents need modifications to support TB contact screening.

Email of the Corresponding Author: pathiraja75@gmail.com

FREE PAPER SESSION 05 – HEALTH IMPLICATIONS DUE TO MICROBIAL /PARASITIC INFECTIONS AND INFESTATIONS

OP 17

DESCRIPTIVE STUDY OF LEPROSY REACTIONS AT THE CENTRAL LEPROSY CLINIC (CLC), NATIONAL HOSPITAL OF SRI LANKA (NHSL)

Liyanage, D. H.¹, Senarathna, M.C.D.², Gamage, H.G.S.C.², Senadera, C.K.², Wijesinghe, W.M.D.N.K.².

1. Base Hospital, Deniyaya
2. National Hospital of Sri Lanka

Background: Leprosy is a chronic infectious disease. It is caused by *Mycobacterium leprae*, a gram positive, acid fast bacillus. Reactions in leprosy constitute the main complication of the disease which can lead to serious consequences like nerve damage and deformities. The mainstay of treatment for leprosy reaction is steroids.

Aim/s: The main objective was to determine the profile of leprosy reaction at the CLC, NHSL. Other specific objectives were to identify the prevalence of leprosy reactions, to determine the demographic data of leprosy reactions, to identify the correlation between Bacteriological indices (BI), Morphological indices (MI) and leprosy reactions.

Methods: A descriptive study with retrospective analysis of information from records kept at the Clinic was carried out. All patients registered in the leprosy register at CLC during 1st January 2010 – 31st December 2014 for multi-drug therapy (MDT) were recruited.

The demographic and clinical data recorded in the Individual Patient Form (IPF) and the clinic records were used to complete the questionnaire.

Results: Study sample consisted of 669 patients. Age was ranged from 6.5 – 75 years. Type 1 reaction (T1R) on diagnosis is significantly high among 25-34 years. Prevalence of reaction was 30%. T1R was significantly higher among males (78.4%) whilst there was no gender difference for erythema nodosum leprosum (ENL) reaction. There was no significant difference between the ethnicity and the type of reaction. BI >3 was associated with increased incidence of reaction. 21% patients (majority) with multi bacillary leprosy (MB) had 1 reaction episode, while 1% (minority) had 5-6 episodes. Significantly more males had higher number of episodes (34.4%).

Conclusion: Significantly higher number of males has leprosy reaction and increased number of episodes. BI >3 is associated with increased incidence of reaction. Moreover, T1R is associated with deformities. Therefore, patients with risk factors need follow up even after completion of therapy to detect reaction.

PREVALENCE OF INTESTINAL PARASITIC INFECTIONS AMONG LABOURERS EMPLOYED AT URBAN COUNCIL, MAHARAGAMA.

Ratnayake, D.R.A.¹ Wasana, D.G.S.² Ranasinghe, P.H.K.I.S.³

1. Department of Mycology, Medical Research Institute, Colombo.
2. Department of Allied health sciences, Faculty of Medical Sciences, University of Sri Jayewardenepura.
3. Department of Parasitology, Faculty of Medical Sciences, University of Sri Jayewardenepura.

Background: Labourers employed in local government authorities are engaged in collection, transportation, and disposal of garbage which is a hazardous occupation. Amongst those hazards, they have a higher risk of being infected with intestinal parasites.

Aim/s: To determine the prevalence of intestinal parasitic infections among labourers employed at the Urban Council, Maharagama and to analyse the risk factors related to the behavioral practices of the selected group of persons.

Methods: This was a descriptive cross sectional study. Out of 101, 85 labourers gave informed written consent to be included in the study. Relevant information on socio-economic status, clinical features, occupation related factors and, personal hygiene practices were obtained via an interviewer administered pre-tested questionnaire. A sample of faeces was collected. Direct fecal smears, formal- ether sedimentation techniques, Harada-Mori culture and Modified Zeihl-Neelson techniques were performed. Ethical clearance was obtained from the ethics review committee, Faculty of Medical Sciences, University of Sri Jayewardenepura.

Results: Out of 59 who gave samples, most were males (92%). Mean age 43±10.09 years. Majority (81.4%) had left school before O/Ls and 2 had no schooling. At least one type of personal protective equipment (PPE) including gloves, boots, and separate uniforms were used by 86% and 61% collected waste with bare hands on one or more occasions. 91.4% practiced washing hands with soap and water before meals and 81.4% after using the toilet. Only 3.4% handled sewage and others handled domestic, hospital, pavement waste and street sweepings. One faecal sample (1.7%) was positive for hook worm ova by saline smear. Two (3.4%) faecal samples were positive for Oocytes of *Cryptosporidium* spp (direct smear modified acid fast stain). Socio-economic status, personal hygiene practices, occupation related factors and clinical features had no significant association with intestinal parasitism in this pilot study.

Conclusion: Intestinal parasitic infections had a low prevalence among the study group than expected, most likely due to satisfactory socio-economic status (income, housing, toilets, and level of education) and possible low exposure to faecal contamination. Personal hygiene practices and usage of PPE were less satisfactory.

Email of the Corresponding Author: anudiniratnayake@gmail.com

OP 19

SAFETY OF LIQUID MILK AND OTHER DAIRY PRODUCTS RANDOMLY COLLECTED FROM RETAIL SHOPS IN COLOMBO DISTRICT

Karunanayake L.I.¹, Karunanayake S.A.A.P.², Jayasekara U.L.A.S.L.¹, Kumari D.L.C.N.¹, Karunanayake N.¹

1. Department of Bacteriology, Medical Research Institute, Colombo
2. Department of Clinical Medicine, Faculty of Medicine, University of Colombo

Background: Microbiological standards for food are established to specify the permissible number of microorganisms in the particular product. These microorganisms can be pathogenic or non-pathogenic. Association of pathogenic organisms in the food supply chain is critical in public health while an increase in non-pathogenic bacteria may produce changes in the food contributing to 'spoilage'.

Aim: We assessed the microbiological safety of liquid milk and other dairy products such as milk-added drinks, yoghurt, cheese, ice cream, butter, curd, whipping cream in retail shops in Colombo district.

Method: Total of 200 samples of liquid-milk and other dairy products were randomly collected from retail shops in Colombo district between years 2012/2013. Samples were transported at +4^{oC} and stored at -20^{oC}. All samples were tested at Food and Water laboratory, Department of Bacteriology, Medical Research Institute according to national-standard methods described by Sri Lanka Standard Institution (SLS). Samples were tested for aerobic plate count, total coliform counts, and yeast/mould count and for the presence of *Escherichia coli* and *Salmonella*. In addition, Listeria enrichment broth (Oxoid UK) was used to enumerate *Listeria monocytogenes*. They were interpreted as satisfactory and unsatisfactory according to SLS microbiological criteria.

Results: Out of 200 samples 85.5% (n=171) was microbiologically satisfactory and 14.5% (n=29) were unsatisfactory. *L. monocytogenes*, *E.coli* and *Salmonella* was not detected in any sample. Out of 67 liquid-milk samples 58 were ultra-heat-treated (UHT), 6 were pasteurized and 3 were sterilized milk. Out of 58 UHT milk, 14 (24.1%) were unsatisfactory. Majority of yoghurt (90.19%) and cheese samples (84.61%) and all curd (n=18), butter (n=3), ice cream (n=27) and whipping cream (n=2) were microbiologically satisfactory. Out of 79 UHT samples tested, 21 (26.5%) samples (liquid-milk (n=14) and milk-added drink (n=7)) were microbiologically unsatisfactory.

Conclusions: Majority of liquid-milk and dairy products in retail shops in the Colombo district are microbiologically satisfactory. The non-existence of enteric pathogens indicates no risk of faecal contamination in the food supply line. However, the high percentage of unsatisfactory UHT processed milk products in the market is a concern.

Email of the Corresponding Author: lilani_k@hotmail.com

TRENDS IN NATIONAL STATE SECTOR UTILIZATION OF BETA-LACTAM ANTIBACTERIALS OVER A 25 YEAR PERIOD (1990 – 2015) IN SRI LANKA

Fernandopulle, B.M.R.¹, Wijesinghe, K.G.C.D.¹, Yasarathna, K.W.G.K.P.¹, Beneragama, B.V.S.H.², Panapitiya, L.², Sri Ranganathan, S.³, Weerathne, E.D.⁴

1. Faculty of Medicine, General Sir John Kotelawala Defence University, Ratmalana, Sri Lanka
2. Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka
3. Department of Pharmacology and Pharmacy, Faculty of Medicine, University of Colombo, Sri Lanka
4. Medical Supplies Division, Sri Lanka

Background: The rising threat of antimicrobial resistance (AMR) within a wide range of infectious agents due to irrational use is a growing public health problem in Sri Lanka. To combat which an antimicrobial stewardship programme has been initiated in 2017 in Sri Lanka. Hence a better understanding of retrospective antimicrobial usage is critical to monitoring effects of containment strategies.

Aims: To utilize aggregated data of Medical Supplies Division (MSD), Sri Lanka over the past 25 years to estimate patterns of use of beta-lactam antimicrobials.

Methods: Data on utilization of beta-lactams, JO1C (Penicillin) and JO1D (Cephalosporin) was extracted from the data base of the MSD and classified according to the ATC classification and transformed into Defined Daily Doses (DDD) per day per 1000 population. Data was plotted using Microsoft office Excel 2010.

Results: Utilization of penicillins was 1.28, 3.02, 8.11, 10.3, 13.36 and 12.07 and cephalosporins was 0.01, 0.03, 0.11, 0.48, 1.33 and 2.85 DDDs/day/1000 population at 5 year intervals in 1991, 1995, 2000, 2005, 2010 and 2015 respectively. Utilization as measured by DDDs of penicillin showed a 10 fold increase between 1990 and 2010 with a 10% decrease between 2010 -2015, whilst cephalosporins showed a 285 fold increase between 1991 and 2015. The DDDs shows a marked increase in the utilization of oral broad spectrum beta-lactams; amoxicillin (50 fold) and cephalexin (1,150 fold) over the years. Co-amoxiclav was introduced in 2002 and the DDDs show a 50 fold increment by 2015. The parenteral second and third generation cephalosporins also show 5 fold and 10 fold increase from 2002 to 2015 respectively.

Conclusion: The described trends in the use of broad spectrum beta- lactams are worrying in light of the rising challenge of antibiotic resistance in Sri Lanka and in the context that the population has only increased by 1.08 fold between 2001 and 2012, together with a decline in morbidity and mortality from infections. Our findings suggest key targets for interventions in the recently launched stewardship efforts.

Email of the Corresponding Author: rohinifernandopulle@gmail.com

OP 21

PREVALENCE OF STIGMA AMONG TUBERCULOSIS PATIENTS

Rathnayake, R.M.U.K.¹, Rathnayake, T.L.², Narasinghe, U.S.¹, Kumari, J.U.³, Ranmuthuge, R.T.S.⁴, Rathnayake, R.M.J.B.⁵,

1. Chest clinic, Matara.
2. District general hospital, Matara.
3. Teaching hospital, Karapitiya.
4. District hospital, Baddegama.
5. University of Ruhuna, Karapitiya.

Background; Tuberculosis (TB) has long been associated with negative attitude among people as contagious, incurable and emaciating disorder. Stigma refers to the process of devaluing or discrediting individuals in the eye of the others.

Aim: To assess the prevalence of stigma among TB patients.

Method: This was a cross sectional study conducted in the chest clinic, Matara with convenient sampling method for one year from 20th August 2016. Interviewer administered questionnaire used with written consent. Validity and reliability were assessed (Cronbach's Alpha = 0.632). External stigma, internalized stigma, anticipated stigma (Anticipation or expectation of stigma is treated differently or poorly due to stigmatized identity) and courtesy stigma (experience of stigmatization due to association of stigmatized people) were the four independent variables assessed. Scoring system was adopted to assess the stigmatization in percentages.

Result: Out of the 116 patients analysed in this study, 62(53%) were male and 54(47%) were female. The age range was from 12-89 (SD± 17 mean 47) and maximum number was found between 41 years to 60 years of age group. The 4 categories of stigma are external stigma, internal stigma, anticipated stigma and courtesy stigma. Subdivisions like Insult, rejection and avoidance of external stigmatization scored 46%, 19% and 16% respectively. In this category, 49(42%) were hurt due to others' attitudes, 40(34%) thought disease will be an obstacle to their future, 10(16%) have lost their jobs, among 2 (16%), partners refused to marry, 31(27%) kept away from sexual life and among 16(14%), friends were reluctant to have meals with patients. Negative thoughts and negative behaviours of internal stigma scored 49% and 43% respectively. In this category 74(64%) had mental setback, 35(30%) felt isolation, 38(33%) felt burden to their families and only 27(23%) preferred to disclose about the disease to family members. Anticipated stigma scored 48% and because of this 94(81%) kept a distance when talking to others. Courtesy stigma scored 13% and observed only among 8(7%) who refused to work or play with family members.

Conclusions: Highest prevalence of Internalized stigma shows the psychological distress about the isolation, sadness, problems within family and fear about revealing this contagious disease. Low prevalence of loss of jobs and refusal of marriage by partners should not be ignored in the strategies for minimizing stigma among the public.

Email of the correspondent author; urathke@gmail.com

MENTAL HEALTH AND PSYCHOSOCIAL WELLBEING OF THE INSTITUTIONALIZED CHILDREN IN KALUTARA DISTRICT

Hettiarachchi R.¹, Nilaweera, I.², Ratnayake, U.I.³, Perera, S.Y.C.⁴, Sanjeewa, J.A.D.C.⁵

1. Nutrition Coordination Unit, Ministry of Health
2. Family Health Bureau
3. Regional Director of Health, Kalutara, RDHS Office Kalutara
4. RDHS Office, Kalutara
5. BH Panadura

Background: Institutional care is associated with negative consequences for children's development. There are 329 institutions and around 15,068 numbers of institutionalized children in the country. There is little evidence available on mental and psychosocial wellbeing of institutionalized children in Sri Lanka.

Aim: To assess the mental and psychological wellbeing of the institutionalized children and the knowledge and attitudes of the institutional care takers related to above area.

Methods: A cross sectional descriptive survey was conducted in 10 selected intuitions in District of Kaluthara in 2015. Children who stayed less than 6 months were excluded. Strengths and Weaknesses questionnaire was used to assess mental and psychosocial wellbeing of the children. A self-administered questionnaire was used to assess 10 selected areas of knowledge and attitudes of care takers. Each answer was rated as very satisfactory, satisfactory, and poor or no response while attitudes were categorized a correct, incorrect or no response. Data collection was done by Medical Officers of Mental health in Kalutara district .A descriptive analysis of data was done by using SPSS. Ethical clearance was taken from Ethical Review committee in MRI, Colombo.

Results: One hundred sixty nine children staying at 10 institutions in Kaluthara district were included. Fifty six percent was female and 44% was male. Age of the children ranged from 5-18 years.

Strengths and Difficulties Questionnaire showed 14 (8.2%) children were normal while 17 (10.1%) and 138 (81.7%) had boarder line and abnormal mental health status respectively. Mental illnesses were identified in 13 (7.7%) Other common health problems were learning difficulties 20 (11.8%), behavioral problems 21(12.4%), dermatological problems 17 (10.1%), dental problems 25 (14.8%). Forty one care takers participated in the survey. Median age was 55 years (range 21-80). Thirty one were female. Nineteen educated up to GCE O/L. All areas of knowledge rated as satisfactory or above responses were less than 50% and among 10 areas of attitudes assessed >50% had correct attitude while correct attitude on “physical punishment for children is acceptable” had only 31.7%

Conclusion: Mental health and psychosocial problems are common among these children and Care received from caretakers is not satisfactory. Need of ensuring services to support and promote the wellbeing of institutionalized children is a priority to be addressed.

Email of the Corresponding Author: hrasanjalee@yahoo.com

ASSOCIATIONS BETWEEN SUBJECTIVE QUALITY OF SLEEP AND DEPRESSION SYMPTOMS IN A POPULATION BASED SAMPLE

Jayaweera K¹, Dissanayake L¹, Aschan L², Pannala G¹, Zavos H³, Rijdsdijk F⁴, Hotopf M², Sumathipala A^{5,1}, Glozier N⁶

1. Institute for Research and Development, Colombo, Sri Lanka
2. Psychological Medicine Department, Institute of Psychiatry, Psychology, and Neuroscience, King's College London, UK; NIHR Biomedical Research Centre for Mental Health at the South London and Maudsley NHS Foundation Trust, King's College London, UK.
3. Department of Psychology, Institute of Psychiatry, Psychology & Neuroscience, King's College London, UK
4. Social Genetic and Developmental Research Centre, Institute of Psychiatry, Psychology & Neuroscience, King's College London, UK.
5. Research Institute for Primary Care & Health Sciences, Faculty of Medicine & Health Sciences, Keele University, UK.
6. Brain and Mind Centre, University of Sydney, Australia.

Background: Sleep disturbances are common symptoms experienced by people, and have strong links with depression. Poor sleep quality (PSQ) is a proven risk factor for onset of depressive episodes in western populations. A study in Colombo demonstrated that 7.0% suffer from depressive symptoms, and 3.8% from major depressive disorder. No study in Asia has evaluated the association of sleep with depression in a population based sample.

Aim: To assess the association between reported sleep quality and depression symptoms in a population based sample in Colombo.

Methods: Sleep and depression data from 3750 participants who participated in the cross-sectional Colombo Twin and Singleton Follow-up Study (2016) were analysed using a nested-case-control design. Subjective sleep quality for the past month was measured using the Pittsburgh Sleep Quality Index (total score >5 indicated PSQ), and Beck Depression Inventory measured depression symptoms (total score ≥ 14 indicated depressive symptoms). Ethical approval was obtained from the University of Sri-Jayewardenepura and Universities of New South-Wales and Sydney.

Results: Participants' ages ranged from 19-91 years (mean=42.7 years), and 57.65% (n=2,162) were female. Nine percent (n=335) had mild to severe depressive symptoms (MSDs), while 65.41% (n=2,453) reported PSQ. Depression symptoms were strongly associated with PSQ (p<.0001). People with PSQ had higher odds of having MSDs (adjusted-OR 3.22, 95% CI 2.31-4.48, p<.0001) after adjusting for age, sex and education. Participants aged 35-54 years (OR 5.01, 95% CI 2.84- 8.84, p<.0001), and 55 years and older (OR 6.0, 95% CI 2.35-15.09, p<.0001) had higher odds of developing MSDs with PSQ. Females with PSQ had higher odds of developing MSDs than males (OR 3.92, 95% CI 2.55-6.03, p<.0001).

Conclusions: Poor sleep quality is common in Colombo, and strongly associated with depressive symptoms, particularly in women and older adults. These results warrant the

need to address sleep quality in people presenting with depressive symptoms. Further research into causality needs to be conducted.

Email of the Corresponding Author: Kaushj@gmail.com

SEXUAL DYSFUNCTION AMONG SEXUALLY ACTIVE HETEROSEXUAL MALES VISITING A GENERAL PRACTICE CLINIC IN THE COLOMBO DISTRICT

Anthony, C.M.A.¹, Malavige, L.S.²

1. Postgraduate institute of Medicine, University of Colombo, Sri Lanka
2. Chair, Medical Committee, Family Planning Association

Background: Erectile dysfunction and premature ejaculation are the two most common dysfunctions seen in men.

Aims: To determine the proportion of men with erectile dysfunction and premature ejaculation visiting a general practice clinic, and to see the association between above sexual dysfunctions and factors such as age, lifestyle and selected medical conditions.

Method: A descriptive analytical study was conducted among 422 sexually active heterosexual males in the age group 30 to 70 years visiting a general practice clinic in Colombo. The study population included any person who visited the clinic for any reason and were selected by simple randomisation. Sample size was calculated using a sample calculator. Ethical clearance was obtained from the Faculty of Medicine, University of Kelaniya. A self-administered questionnaire with International Index of Erectile Function (IIEF 5) and Premature Ejaculatory Diagnostic Tool (PEDT) was used to collect data. After obtaining informed written consent, the participants were offered an area with privacy to fill the questionnaire which was anonymous. Chi square was used in the analyse significance.

Results: Of the 422 participants 45.7% (193) had erectile dysfunction [32.2% (136) mild, 11.6% (49) mild to moderate, 1.4% (6) moderate and 0.5% (2) severe erectile dysfunction]. With regard to premature ejaculation, 27.3 (115) has premature ejaculation [13.7% (58) persons had definite premature ejaculation and 13.5% (57) had probable premature ejaculation]. Out of the total study population, 19.0% (80) had both erectile dysfunction and premature ejaculation, 35.1% (148) had either erectile dysfunction (26.8%) or premature ejaculation (8.3%) and 46.0% (194) did not have either.

Erectile dysfunction showed a statistically significant association with increasing age, hypertension, diabetes mellitus, and high serum cholesterol level and long term western medication. Premature ejaculation did not show any association with any of the factors studied.

Conclusions: As many studies have shown all over the world, male sexual dysfunction was a common problem in our study population as well. Close to half the males had some degree of erectile dysfunction and one forth had probable or definite premature ejaculation. Erectile dysfunction was associated with many lifestyle factors and medical conditions in addition to increasing age. From this study it is recommended to inquire from all patients presenting with hypertension, diabetes mellitus, and high serum cholesterol level and on long term western medication regarding impotence.

Email of the Corresponding Author: dr.asela.anthony@gmail.com

OP 25

NON- COMPLIANCE WITH TREATMENT, DISEASE RELATED STIGMA AND FACTORS ASSOCIATED, AMONG PATIENTS TREATED FOR PULMONARY TUBERCULOSIS AT THE CENTRAL CHEST CLINIC, COLOMBO

Vijewardane, K.D.S.C.¹, Kumarapeli, V.²

1. Ministry of Health, Sri Lanka.
2. ET and R Unit, Ministry of Health, Sri Lanka.

Background: Treatment compliance is vital in preventing drug resistant TB. Stigma related to TB is a hidden burden causing non-compliance.

Aim/s: To describe the proportion with non-compliance to treatment, extent of perceived disease-related stigma and associated factors, among patients receiving treatment for pulmonary tuberculosis (TB) at the Central Chest Clinic, Colombo.

Methods: A descriptive cross-sectional study was carried out in Central Chest Clinic, Colombo, among 426 patients with pulmonary TB, >15 years age, on treatment for ≥two months or more, selected by systematic sampling. Pre-tested interviewer administered questionnaire collected data on: socio-demographics, knowledge about TB and its treatment, substance abuse, treatment compliance and perception of stigmatization.

Results: Mean age 47.52 (SD=15.55) years, 310 (72.8%) males. 7.3% (n=30; 95%CI=4.8%-9.8%) were non-compliant with treatment and 61.4% (n=261; 95%CI 57.1%-65.7%) reported as having the perception of stigmatized. Residing in urban sector-slums ($\chi^2=7.5869$, df=2, $p=0.023$), having poor knowledge about TB and its treatment ($\chi^2=4.366$, df=1, $p=0.037$), not visiting DOTS provider ($\chi^2=4.012$, df=1, $p=0.045$), spending 500 rupees or more per clinic visit ($\chi^2=4.046$, df=1, $p=0.044$) were significantly associated with non-compliance. Male sex ($\chi^2=63.84$, df=1, $p=0.0001$), education level less than O/L ($\chi^2=63.84$, df=1, $p=0.0001$), being employed ($\chi^2=63.84$, df=1, $p=0.0001$), being a current smoker ($\chi^2=63.84$, df=1, $p=0.045$) and current alcohol consumption ($\chi^2=63.84$, df=1, $p=0.045$) were significantly associated with perception of stigmatized.

Conclusion: Treatment compliance can be improved by giving adequate knowledge about TB and its treatment, encouraging to visit DOTS providers and paying more attention to patients residing in urban sector-slum areas.

Email of the Corresponding Author: samanthachampika@gmail.com

OP 26

"HURT, INSULTED, THREATENED WITH HARM, AND SCREAMED AT THEM (HITS) SCALE" A DOMESTIC VIOLENCE SCREENING TOOL FOR ADULT WOMEN TO BE USED IN OUTPATIENT SETTINGS: TRANSLATING AND VALIDATING SINHALA VERSION

Wickrama, P.B.¹, Ranasinghe, P.K.², De Silva, S.³

1. District General hospital Chilaw
2. National Institute of Mental Health Angoda
3. Damrivi Foundation Colombo

Background: Domestic violence is one of the most common forms of violence against women with serious health consequences. Screening for domestic violence in clinical settings is hampered by lack of quick assessment methods. This study aimed to translate and validate Sinhala version of "Hurt, Insulted, Threatened with harm, and Screamed at them (HITS) scale" which is an internationally accepted four-item Likert type scale designed to screen for domestic violence. Four items of the scale questions about Physical harm, insults, threats and screams.

Methods: HITS was translated to Sinhalese according to standard procedures and validated among 152 adult women who were in a relationship for two years and with ability to read Sinhalese, attending outpatient clinics at General hospital Chilaw and Divisional Hospital Koswaththa. Two experienced psychiatrists screened them for domestic violence and their assessment was taken as the gold standard against which the HITS scores were evaluated.

Results: According to psychiatrists' assessment 25 participants out of 151 (16.5%) were positive for domestic violence. HITS Sinhala version scores ranged from 5 to 18 with an L shaped distribution. The mean values of the four items of the scale were hurt 1.32 (SD= 0.77), insult 1.50 (SD = 0.99), threats 1.28 (SD = 0.80), and scream 1.81 (SD = 1.12). The four items were strongly interrelated with Pearson correlation coefficients ranging from 0.62 between hurt and scream to 0.73 between insults and scream. All correlations were positive and statistically significant ($p < .001$). Scores showed a high level of reliability as measured by a Cronbach's alpha of 0.89. The area under the curve (AUC) of the Receiver operated curve (ROC) was 0.977 (SD=.01) and is statistically significant ($\alpha < .001$). Receiver operated curve (ROC) analysis of data indicated a cutoff score of 7.0.

Conclusion: The findings suggest that the HITS Sinhala version is a promising instrument for screening for female victims of domestic violence in busy outpatient clinical settings Sri Lanka.

Email of the Corresponding Author: prabathwickrama@gmail.com

HORANA AGA DIVISION IN KALUTARA DISTRICT ASSIGNED AS A “SAFE COMMUNITY”

Kalubowila, T.K.¹, Dharmaratne, S.D.², Pushpakumara K.³

1. Base Hospital, Horana
2. Department of Community Medicine , Faculty Of Medicine, University of Peradeniya, Institute of Health Metric and Evaluation, Dept. Global Health School of Public Health, University of Washington, USA.
3. Divisional Secretariat Office, Horana

Background: Horana AGA Division is an urban & semi urban area in Kalutara District. There are schools, factories & other institutions with access provided by massive network of roads in this area. Base Hospital (BH) Horana noticed that it has to spend over 130 millions a year for accidents occur in these settings.

Aims: To share experiences of BH Horana to implement an intervention to reduce injuries and deaths.

Methods: The approach was based on giving ownership to the community itself. Health promotion programmes include identification of risk factors were conducted among all organizations through a committee appointed from political leaders, institutional heads, entrepreneurs and NGOs. Field officers and community notified any risk factors to hotline at BH Horana or AGA office. Information received, were sent to the relevant authorities – i.e. police RDA, Electricity Board, Education Office etc. for rectifying. Continuous awareness programmes on life skills, safe sports, prevention of violence including suicides has been introduced to school children and teachers. Safety weeks/days arranged in working places .Safe home competitions held with the support of MOH of the area. CPR training for senior school children, private & School bus drivers and conductors were held. The progress was reviewed monthly in the safe community meeting.

Results: Among School children, sports injuries declined from 27 to 01, injuries due to violence 09 to zero, suicides from 01 to zero during the period from 2012 to 2016. Workplace injuries reduced from 698 to 249 in above period. Falls within the hospital premises declined from 13 in 2012 to 02 in 2016. Poisoning (intentional and unintentional declined from 67 (2016) to 17 (2016) Injuries due to falls among the elders were reduced from 31(2016) to 24 (2016) Deaths due to drowning was declined from 04 (2016) to 01(2016).

Conclusion: Well managed health promotion activities giving priority to community leadership & ownership can reduce injuries in different settings. This is amenable for replication in any setting to improve health and safety.

Email of the Corresponding Author: kalubowilatamara@yahoo.com

OP 28

WHEELCHAIR ACCESSIBILITY TO PUBLIC BUILDINGS IN KANDY MUNICIPAL AREA, SRI LANKA

Muthukuda, K.D.¹, Karunanayake, A.L.²

1. Department of Physiotherapy, General Hospital, Kandy, Sri Lanka
2. Department of Anatomy, Faculty of Medicine, University of Kelaniya, Sri Lanka

Background: Every person has the right to access and use public places. However, some public buildings are constructed or fitted out in a way that can make these buildings inaccessible to people with disability. Thus excluding people with disabilities from opportunities that other members of the community take for granted.

Aim: To determine the wheelchair accessibility to public buildings in Kandy Municipal area, Sri Lanka in 2017.

Method: This was a descriptive cross-sectional survey conducted in 2017. Ninety-seven public buildings in the Kandy Municipal area were selected for this study. Informed written consent was obtained from the authority of the respective building ownership prior to the data collection. Data were collected with a self-administered checklist and analyzed with SPSS version 22. The self-administered checklist developed based on the guidelines given in the Disabled Persons (Accessibility) Regulations, Act No. 1 of 2006 of the Government of Sri Lanka. Ethical clearance was obtained from the Ethical review committee of Faculty of Medicine, University of Kelaniya.

Results: The results illustrate highest overall mean compliance of 95.83% for the Elevators, and lowest mean compliance of 18.85% for the ramps. Parking and Drop off areas have a mean compliance of 33.33%, Pathways have a mean compliance of 55.67%, Ground and floor surfaces have a mean compliance of 22.4%, Handrails and grab bars have a mean compliance of 24.74% and 67.83% mean compliance for the Doorways and entrances.

Conclusions: Most of the elevators 95.83% were made to universal design in accordance with the accessibility requirements. Most of the buildings did not fully comply with the guidelines of the Disabled Persons (Accessibility) Regulations, Act No. 1 of 2006 of the Government of Sri Lanka. It is recommended to follow the Disabled Persons (Accessibility) Regulations, Act No. 1 of 2006 when designing public buildings and to conduct periodic supervision to ensure the accessibility requirements are met.

Email of the Corresponding Author: kishan.dush@gmail.com

OP 29

LAYERED SCALP WOUND CLOSURE VS MASS CLOSURE - IS THERE A DIFFERENCE IN OUTCOME?

Kumara, M.G.S.R.¹, Fernando, I.C.J.¹, Abeyrathne, M.P.G.N.M.¹, Hettiarachchi, D.² Bandara, D.P.G.L.¹, Kularathne, H.K. De.S.¹, Iddamalgoda, L.P.S.D.¹

1. Neurosurgery Unit, National Hospital of Sri Lanka
2. Out patients' clinic, Neurosurgery unit, National hospital of Sri Lanka

Background: The closure of scalp wound can either be done in layers wherein the galea aponeurotica is first closed with an absorbable suture before the skin or can be closed in single mass technique catching all the layers together. The wound related complications are major concerns with regard to wound closure. But evidence is lacking in the literature and this study was designed to assess and analyse these two methods of scalp wound closure.

Aim/s: To compare the two methods of scalp closure with regard to duration, cosmesis, early and late wound related complications. To identify the better mean of scalp closure for Sri Lankan set up.

Methods: This was a prospective observational study. Data collection was done with an interviewer administered questionnaire. Patients undergoing routine craniotomy and craniectomy at a single neurosurgical unit were randomly allocated to two groups. Rate of scalp closure (mm / sec) was assessed during procedure and wound related complications and cosmetic appearance were assessed postoperatively.

Results: Total of 94 patients was included in the study. Out of them there were 27 female patients (28.76%). Fifty-four patients (57.44%) had layered closure and 40(42.55%) had mass closure. Five patients (5.31%) got wound infection where three patients from layered closure group and two from mass closure. The mean rate of closure was 0.27mm/second and 0.43mm/second in layered closure and mass closure group respectively. No significant difference noted in postoperative bleeding, pain or other complications.

Conclusion: Although layered closure is more time consuming than mass closure, there is no other difference in outcome or post-operative wound complications.

Email of the Corresponding Author: mgsrkumara@yahoo.com

OP 30

OCCURRENCE OF SAPHENOUS NEUROPATHY AFTER GREAT SAPHENOUS VEIN HARVESTING IN CORONARY ARTERY BYPASS GRAFTED PATIENTS AND ITS EFFECT ON DAY-TO-DAY ACTIVITIES.

Seneviratne, D.A.W.¹, Senanayaka, K.², Abeyasinghe, A.M.S.K.³, Jayathilaka, K.U.W.⁴

1. Cardio Thoracic Unit II, National Hospital of Sri Lanka.
2. Cardio Thoracic Unit III, National Hospital of Sri Lanka.
3. Cardio Thoracic Unit I, National Hospital of Sri Lanka.
4. Cardio Thoracic Unit IV, National Hospital of Sri Lanka.

Background: Saphenous nerve (SN) injuries occur as a complication of great saphenous vein (GSV) harvesting for coronary artery bypass graft (CABG). So far, the scale of this problem has not been studied in Sri Lanka.

Aims: To determine incidence of saphenous neuropathy (SNP) and to assess the effect of it on day-to-day activities of patients after GSV harvesting for CABG.

Method: This is a descriptive study on patients without any other local or systemic cause for neuropathy who have undergone GSV harvesting for CABG at National Hospital of Sri Lanka from 1st October 2012 to 30th September 2013. Eligible consecutive patients were interviewed and examined pre-operatively. They (n=125) (129 veins harvested) were reassessed after 7 \pm 2 days and 6 \pm 1 months post-operatively for symptoms and signs of SNP. Data collection ended in April 2014. Study instruments were, a questionnaire and an examination checklist. The sensory assessment was done for touch, fine touch and pain sensation using a brush, cotton wool and a toothpick respectively. The effects of the SNP on changes in walking, exercise and mental status or any other activity were also assessed.

Results: Out of 129 examined after 7th day, anaesthesia or hypoesthesia was detected in 66(51%). After 6 months, 43(35%) out of 123 legs had the sensory deficit. At 6 months, 16(27%) subjects (n=60) with sensory deficit at 7 days had improved completely, 13(22%) had improved partially and 3(5%) had deteriorated. In 28(47%) severity of sensory deficit remained the same. Paraesthesia and pain were experienced by 25(58%) and 9(21%) respectively out of 43 with sensory deficit at 6 months. There was a significant difference (p<0.05) of the incidence of SNP in the “ankle-below knee” incision length group (n=55) and “ankle-above knee” group (n=64). It was 16(29%) and 27(42%) respectively at 6 months. Six (14%) (n=42) patients with SNP expressed some effect on day-to-day activities due to SNP at 6 months.

Conclusions: SNP is a common complication after GSV harvesting. It occurs more frequently with “ankle-above knee” incision than with “ankle-below knee” incision. The effect of SNP on day-to-day activities of the patient is not uncommon.

Email of the Corresponding Author: srilankadranura@yahoo.com

OP 31

FUNCTIONAL GASTROINTESTINAL DISORDERS: CAN WE REDUCE THE BURDEN OF INVESTIGATIONS BY MAKING A CLINICAL DIAGNOSIS?

Suresh, N.¹, Peiris, D.E¹. Tillakaratne, M.S.B¹., **Priyantha, T.G.A**¹

1. Gastro-enterology Surgery Unit, Colombo South Teaching Hospital, Kalubowila

Background: Functional gastrointestinal disorders (FGID) are a group of chronic disorders of the gastrointestinal (GI) tract without any demonstrable pathophysiological or biochemical abnormality despite having various symptoms. In the absence of any physical signs and biomarkers, diagnosis and classification of FGID is based on the patterns of symptoms. The diagnosis of FGID should not be considered merely one of exclusion as it usually happens in our setting (test and treat strategy). Instead, detailed symptom analysis and physical examination should enable the clinician to make a positive diagnosis of FGID while recognizing patients who may otherwise require further investigations to exclude an organic disorder (treat and test strategy).

Aims: The aims of the present study were to determine the proportion of patients with FGID attending a surgical clinic, to sub classify patients with FGID according to Rome III classification and to assess the effectiveness of the 'treat and test' strategy.

Methods: Ethical clearance was obtained from the relevant institutional ethics review committee. In a prospective study, following exclusion of organic illness and alarm symptom, data were collected from consecutive patients diagnosed with FGID. Sub classification was performed using the Rome III questionnaire. Patients were treated accordingly and re-assessed after two weeks. They were then considered for further investigations or follow up depending on the response.

Results: Out of 665 clinic patients, 103 were diagnosed as having FGID (29%). Patients were between the ages of 14 and 73 (mean 54 +/- 13.7) years. There were 56 (54%) females and 47 (46%) males. Functional bloating (12.6 %), functional globus (6.8%) and functional abdominal pain syndrome (2.9 %) were the commonest diagnoses. Eighty one patients have been followed up for an average of 12.3 months. Rome criteria were not met in 69.8 % of the patients. Only 30% of the un-investigated patients underwent endoscopy. Other patients had follow up only. Three patients were diagnosed with organic illnesses (Crohn's, colon cancer and reflux oesophagitis) during the follow up.

Conclusions: It is possible to make a positive diagnosis of functional gastrointestinal diseases (FGID) in the clinical setting. 'Treat and test' strategy can considerably reduce the health care costs at institutions with limited resources.

Email of the Corresponding Author: drnasuresh@yahoo.com

OP 32

APPROPRIATENESS OF COLONOSCOPY ACCORDING TO EPAGE II CRITERIA AT FOUR HEALTH CARE INSTITUTIONS IN WESTERN PROVINCE, SRI LANKA

Samarakoon Y.M.¹, Gunawardena N.S.², Pathirana A.³, Hewage S.A.¹

1. National Cancer Control Programme, Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka.
2. World Health Organization Country Office for Sri Lanka.
3. Department of Surgery, Faculty of Medical Sciences, University of Sri Jayewardenepura.

Background: Adherence to appropriate indications when deciding to subject a patient to an investigation would reduce the work load; improve quality of care and efficient use of resources, all of which will lead to better universal health coverage of a country. Over the years, number of colonoscopies has increased globally and locally due to various reasons. Evaluation of colonoscopy indications is vital in assessing its appropriateness.

Aims: To evaluate the appropriateness of colonoscopies, according to European Panel on Appropriateness of Gastrointestinal Endoscopy II (EPAGE II) in the absence of local guidelines, to assess factors associated with appropriateness and to evaluate aptness of 'appropriateness' as a predictor for positive colonoscopy findings.

Methods: This cross sectional study assessed every consecutive patient (N=325) who underwent colonoscopy between June to August 2015 at three tertiary care state hospitals and one private hospital in Western province, Sri Lanka. Incomplete colonoscopies and those with poor bowel preparation were excluded. Interviewer administered questionnaire and secondary data from records were collected by trained pre-interns. Colonoscopies were classified as appropriate ($\geq 7/10$ marks), uncertain (3-6/10) and inappropriate ($< 3/10$), according to the EPAGE II criteria. Appropriate and uncertain categories were combined together to compare with inappropriate category in assessing associated factors and aptness of appropriateness as a predictor for positive finding.

Results: Males and females proportions were 57.2% and 42.8%. Mean (SD) age was 54.9 (12.1) years. Colonoscopies were appropriate in 61.2% (95% CI 55.8–66.3), uncertain in 28.6% (95% CI 23.9–33.7) and inappropriate in 10.2% (95% CI 7.3–13.9). Three commonest indications were per rectal bleeding (33.8%), change in bowel habits (24.3%) and unexplained chronic abdominal pain (18.8%). Findings included normal studies (51.7%), colorectal cancer (39.4%) and haemorrhoides (8.3%). Rectal bleeding (65.0%) and changes in bowel habits (30.0%) show highest percentage of appropriateness. Abdominal pain has highest percentage of inappropriateness of 9.5%. Appropriateness is associated with age being ≥ 50 years (OR=8.5; 95% CI 4.9-14.8). Patients with appropriate or uncertain indications are three times more likely to have a relevant colonoscopic findings than those with inappropriate indications (42.5% vs. 18.2%; OR 3.32, 95% CI 1.33–8.3; $P=0.008$).

Conclusion: Majority of colonoscopies could be justifiable as appropriate. However, one in every ten patients undergoing inappropriate colonoscopy cannot be ignored. Clinicians should carefully consider the age of the patient in making the decision of performing

colonoscopy. Adhering to specified indications would improve the yield.

Email of the Corresponding Author: sumuduavanthi@gmail.com

OP 33

PREVALENCE OF SELECTED PREVENTABLE CONTRIBUTORY FACTORS FOR LOW BIRTH WEIGHT (LBW) AMONG MOTHERS OF LBW BABIES BORN IN TEACHING HOSPITAL, ANURADHAPURA

Wijayasundara, W.M.S.K.¹, Gunathilake, K.P.P.C.², Senavirathna, H.M.S.³, De Silva, B.S.S.⁴,

1. Scholl of nursing, Vavuniya
2. School of Nursing, Anuradhapura
3. School of Nursing, Kandy
4. Department of Health Sciences, The Open University of Sri Lanka

Background: Low Birth Weight (LBW) is a major determinant of mortality, morbidity and disability during infancy and childhood. More than 95 % of the LBW babies are born in developing countries. In Sri Lanka, LBW rate was 17.6 per 100 live births in 2008 and LBW rate of North Central Province (NCP) was 14.3 % in 2008. According to the statistics of the TH, Anuradhapura, out of 11,560 live births, 1966 births were found to be LBW in the year 2011 in Anuradhapura District.

Aim/s: To determine the prevalence of six selected preventable contributory factors for LBW among mothers of LBW babies born in Teaching Hospital (TH) Anuradhapura.

Methods: A descriptive cross sectional study with a purposive sample of 133 mothers who delivered LBW babies at post natal wards in TH Anuradhapura was conducted using both pre-tested self-administered and an interviewer administered questionnaires to assess maternal age, income, educational level, active and passive smoking, BMI and antenatal clinic follow up. Ethical clearance was obtained from Research and Ethics Committee of Rajarata University of Sri Lanka. Data was analyzed with MS Excel.

Results: Response rate was 97.8% (127). Of the sample 28.3% was in the age group of 26-30 years while 18.1% belonged to 15-19 year age group. Majority (53.5%) had school education only up to grade 5 and 52.8% (67) was from low income group. Prevalence of exposure to smoking at home was 35% (43). Of the sample majority (57.4%; 73) had their booking visit after 12 weeks of gestation. Thirty seven point eight percentages (48) had Body Mass Index (BMI) below 18 kg/m² at the beginning of gestation.

Conclusion: Among the contributing factors low education level, low income level and late booking visits were prevalent in half of the sample. Maternal age in one fifth was below 18 years. Inadequate BMI and exposure to passive smoking is prevalent in one third of the sample.

Email to the corresponding author: srinathiwijayasundara@gmail.com

BIOSPECIMEN COLLECTION FOR AN EPIDEMIOLOGICAL STUDY AND BIOBANKING IN A LOW AND MIDDLE INCOME COUNTRY: EXPERIENCES FROM THE COLOMBO TWIN AND SINGLETON FOLLOW-UP STUDY

Jayaweera, K¹, Warnakula L¹, Dissanayake, L¹, Pariante, C.M², Rijdsdijk, F³, Zavos, H.M.S.⁴, Zunszain, P.A.², Sumathipala, A.^{1,5}, Hotopf, M⁶

1. Institute for research and Development, Colombo , Sri Lanka
2. Stress, Psychiatry and Immunology Laboratory, Institute of Psychiatry, Psychology & Neuroscience, King's College London, UK.
3. Social Genetic and Developmental Research Centre, Institute of Psychiatry, Psychology & Neuroscience, King's College London, UK.
4. Department of Psychology, Institute of Psychiatry, Psychology & Neuroscience, King's College London, UK
5. Research Institute for Primary Care & Health Sciences, Faculty of Medicine & Health Sciences Keele University, UK
6. Psychological Medicine Department, Institute of Psychiatry, Psychology, and Neuroscience, King's College London, UK

Background: Biospecimens are a valuable resource in research for objective diagnoses of disease conditions, and new advancements in science. Collection of biospecimens especially in developing countries may be challenging due to sociological barriers, ethical issues, and limitations in infrastructure.

Aims: To describe and discuss the process of biospecimen collection (BC) and establishment of the biobank for the Colombo Twin and Singleton Follow-up Study (COTASS-2).

Methods: COTASS-2 was a multi-component study examining metabolic syndrome and comorbid mental health (2012-2015). With three main components: questionnaires, anthropometric measures, and BC to investigate cardio-metabolic risk markers, and establishment of a biobank. Ethical clearance was obtained from the University of Sri Jayewardenepura and Kings College London, UK. Participants were adults, and informed-written-consent was obtained. First morning urine and 18.5ml of overnight fasting blood was collected from participants for investigations and biobanking. A strict time frame of 4 hours was maintained for BC to minimise serum protein concentration changes over time. Strict inclusion and exclusion criteria were used. Pre-printed stickers with identification numbers were used to label samples. Majority of participants preferred home visits for BC, while some participants visited an accredited laboratory or the Institute for Research and Development. Extracted DNA samples were quantified, and purity and integrity of samples were determined using gel electrophoresis. Extracted DNA and serum were stored in -80 centigrade freezer for biobanking.

Results: Survey data was collected from 3934 participants, while 3675 completed anthropometric measurements. 3477 respondents participated in clinical investigations component. From which 2488 and 872 DNA samples and 2583 and 900 serum samples are available from twins and singletons respectively.

Conclusion: BC in large-scale studies is challenging, and many things may easily go awry resulting in poor quality specimens. However a clear plan, an effective team, management and coordination, suitable infrastructure, and expert advice can result in high quality biospecimens to work with.

Email of the Corresponding Author: kaushij@gmail.com

PREVALENCE AND ASSOCIATED RISK FACTORS OF HUMAN BRUCELLA INFECTION IN SELECTED PROVINCES IN SRI LANKA

Karunanayake L.I.¹, Karunanayake S.A.A.P.², Rathnayake S.¹, Senarath U.³, Ranbanda J.M.⁴, Kothalawela M.⁵

1. Department of Bacteriology, Medical Research Institute, Colombo
2. Department of Clinical Medicine, Faculty of Medicine, University of Colombo
3. Department of Community Medicine, Faculty of Medicine, University of Colombo
4. Medical Research Institute, Colombo
5. Teaching Hospital, Kandy

Background: Human brucellosis is a potentially fatal zoonosis with a wide-spectrum of clinical manifestations. Appropriate antibiotic therapy is curative, but requires laboratory diagnosis. It transmits by direct contact or inoculation/ingestion of contaminated animal products. Brucellosis is the main 'reproductive disease' in cattle in Sri Lanka's dry zone.

Aim: We studied seropositivity and associated risk factors among asymptomatic high-risk groups and non-contact persons in North-Western (NWP), North-Central (NCP), Western (WP) and Central Provinces (CP).

Method: Within provinces, veterinary divisions and its farms were randomly selected for the required sample size by probability-proportional-to-size sampling method. All veterinary staff and abattoir workers in these divisions were enrolled. Non-contact urban-dwellers were selected by convenience sampling from MOH offices. 1,294 healthy adults were analyzed as: farmers in contact with farm animals (818), veterinary staff (190), abattoir workers (137), and non-contact urban-dwellers (149). Serum was tested by Standard Agglutination Test for *B.abortus* and *B.melitensis* at Medical Research Institute. Titre of 1:80 was taken as seropositivity (past infection). Socio-demographic data were collected by an interviewer-administered questionnaire. The potential risk factors were assessed by bivariate analysis for seropositivity and were determined using Odds Ratio (OR).

Results: Males constituted 81.9%. Mean age was 45.6years. Seropositivity was high in ages <30 and >60years. Overall seroprevalence of *Brucella* infection were 8.4% (*B.abortus* 7.5%, *B.melitensis* 3.2%). Seropositivity was significantly higher in CP (13.9%, $p<0.005$) than in WP 9.7%, NWP 6.7%, NCP 6.2%.

Farm-animal owners (11.3%), abattoir workers (8%) and veterinary staff (7.9%) showed high seropositivity. These occupations together had a significant seropositivity compared to non-contact residents ($p=0.04$). Farm-animal owners showed a significant seropositivity, in comparison to non-contact residents (OR=3.04, $p<0.05$). Slaughterhouse work, veterinary staff, assisting animal delivery, duration/degree of animal contact or raw milk consumption did not show significant association with seropositivity.

Conclusion: *B.abortus* is the commonest species in human *Brucella* infection. Seroprevalence varies across provinces. Farm-animal owners have a significant risk in acquiring infection. This is the first report describing human *Brucella* infection in Sri Lanka. The associations noted could direct clinicians to suspect the disease and seek laboratory confirmation.

Email of the Corresponding Author: lilani_k@hotmail.com

OP: 36

AN EPIDEMIC OF THYROID CANCER IN SOUTHERN PROVINCE? GEOSPATIAL MAPPING OF THYROID CANCER INCIDENCE IN SOUTHERN PROVINCE OF SRI LANKA

De Silva, H.R.T.¹, Nazeer, F.I.², Perera, S, C.R.¹

1. Onco-Surgical Unit, Teaching Hospital Karapitiya, Galle
2. Post Graduate Institute of Medicine, University of Colombo

Background: Geospatial mapping to understand the epidemiology of diseases is a vast and rapidly growing field throughout the world. Thyroid cancers in Sri Lanka are on the rise and making it the second commonest cancer among females (9%) and the commonest cancer in the age group of 15-34 females (36.5%) in 2010. Three districts of Southern province, Galle, Matara and Hambanthota belong to five districts that report the highest incidence of thyroid cancers in the country.

Aims: To determine the distribution of thyroid cancers in Southern Province using geospatial mapping and to identify the socio-demographic characteristics of thyroid cancer patients.

Methods: A descriptive cross sectional study was done among thyroid cancer patients who were registered for Iodine therapy at Teaching Hospital Karapitiya, Galle from 2013 to 2015. Patients' demographic data were obtained from oncology clinic records. Data of 626 patients residing in the Southern province having primary thyroid cancer were used. Mapping of cases and incidence densities was done using Google maps and open source GIS software (QGIS Version 2.12). Population statistics were obtained from the Census and Statistics Department.

Results: Female: male ratio of thyroid cancer was 8:1 with peak age of incidence being 30-55 years in both sexes. Papillary and follicular carcinomas accounted for 74.4% and 20% respectively. District secretariat divisions with high and low thyroid cancer incidence and age standardized rates showed similar patterns across the years. Coastal areas of Southern province reported a higher burden of cases than the interior areas.

Implications: Preliminary results of this study provide the base maps for further investigations and emphasize the need for in depth analysis of the aetiology and causative factors for high incidence of thyroid cancers in coastal belt of Southern province. This study also highlights the need for enhanced cancer investigation epidemiology using modern technology and the feasibility of scaling up such projects nationally.

Email of the Corresponding Author: ruwandi09@gmail.com

OP 37

ACCEPTABILITY OF ORAL-FLUID RAPID HIV 1/2 ANTIBODY TEST AMONG MEN WHO HAVE SEX WITH MEN (MSM), BEACH BOYS (BB), FEMALE SEX WORKERS (FSW) AND DRUG USERS (DU) IN SRI LANKA

Karawita, D.A¹, Tennakoon, S.U.B², Suranga, M.S.S³, Dissanayake, M.S.W³

1. National STD/AIDS Control Programme, Sri Lanka
2. Department of Community Medicine, University of Peradeniya, Sri Lanka
3. Family Planning Association of Sri Lanka

Background: Oral fluid-rapid HIV 1 and 2 antibody test is recommended by WHO to be used as a “test for triage” to support expanding community-based HIV testing services.

Aim/s: the aim of this study was to ascertain the acceptability of oral fluid rapid HIV 1/2 antibody test (OraQuick®) among high-risk groups receiving services under the Global Fund HIV prevention project during 2013-2015 in Sri Lanka.

Methods: Out of the total registered members of HRGs (21,014), Purposive sample of 614 (MSM-185, BB-128, FSW-155, DU-146) was studied. Data collected by WHO certified community testers using three tools, first interviewer administered questionnaire, second, the recording of confidential oral fluid rapid HIV test, third a self-administered feedback form.

Results: Mean age of the sample was 34 years (range 18-69 years) and males, females and transgender people were 68.9%, 30.6%, 0.5% respectively. Further, 40.7% were single, 36.5% married, 11.7% living together and 11% were separated. It seems that these groups prefer both community testing (49%) as well as outreach testing by STD staff (49%). However, going to an STD clinic was preferred only by 10%. Majority prefers oral-fluid testing (88%) and next preferred method was finger prick test (10.2%). Majority expected test report just after the test (88.3%). The overall satisfaction of the oral-fluid rapid HIV test by HRG was MSM 97%, BB-99%, FSW-99%, DU-99%.

Conclusions: Members of high-risk groups show high level of acceptability for the oral fluid rapid HIV 1 and 2 antibody test. This type of test for triage approach can be used to improve the community based HIV testing in Sri Lanka.

Email of the Corresponding Author: ajith.karawita@gmail.com

ANALYSIS OF MYCOLOGICAL SPECIMENS AT MYCOLOGY REFERENCE LABORATORY, SRI LANKA: A SIX YEAR RETROSPECTIVE STUDY

Sigera L.S.M.¹, Jayawardena M.N¹, Kudavidanage S¹, Jayasekera P.I¹, Perera P.D², Ediriweera D³, Malkanthi M.A.¹

1. Department of Mycology, Medical Research Institute, Colombo 08
2. Postgraduate Institute of Medicine, University of Colombo
3. Centre for Health Informatics, Biostatistics and Epidemiology, Faculty of Medicine, University of Kelaniya

Background: The burden of fungal infection has increased worldwide. This is predominantly driven by the widespread use of aggressive immunosuppressive therapy among certain patient populations (transplanted patients, patients with malignancies etc.), the increase use of invasive devices and wide use of broad spectrum antibiotics. The mortality, morbidity and health care expenditure caused by fungal infections are comparatively very high.

Aims: To assess the progress of number of specimens received at Mycology Reference Laboratory, Sri Lanka during last six years and to describe the predominant spectrum of fungal diseases in Sri Lanka

Methods: Laboratory records of all specimens received for fungal studies to Department of Mycology, Medical Research Institute, from 2010 to 2016 were analysed retrospectively. The logistic regression was used to investigate the differences in number of positive samples from total samples.

Results: A total number of 2830 samples had been received in year 2010 and it had increased over the next 6 years and reached a maximum of 6763 in 2016. The positivity rate was 39.08% in year 2010 and had increased up to 59.27% in year 2014 and reached 49.31% in year 2016. According to the logistic regression, there was an increase in number of positive samples among blood, skin, sinus, eye, broncho-alveolar lavage fluid, serum (for aspergillosis) and CSF samples ($p < 0.01$). More than eighty eight percent of fungal isolates were received from patients who were suspected to have invasive fungal infections.

Conclusion: There was an increase in number and positivity rate of specimens received for mycological studies over last six years. As invasive fungal infections are becoming more common in Sri Lanka, case detection, diagnosis and treatment should be addressed promptly in-order to save the lives of patients.

Email of the Corresponding Author: sshamithra@yahoo.com

HUMAN, CATTLE AND GOAT BLOOD AS SUBSTITUTES FOR SHEEP BLOOD IN BLOOD-SUPPLEMENTED CULTURE MEDIA

Dilrukshi, G.N¹, Jayewardane, J.M.U.N.B.¹, Sajidha, M.M.F.¹, Dissanayake, D.M.B.T.¹

1. Department of Microbiology, Faculty of Medical Sciences, University of Sri Jayewardenepura, Nugegoda, Sri Lanka

Background: Sheep blood is the recommended type of blood supplementation for the preparation of blood agar. In Sri Lanka due to lack of availability of sheep blood, expired citrated human blood is used. Human blood agar (HBA) gives poor haemolysis, cause difficulties in identification and also contains blood borne pathogens. Therefore, a suitable alternative is highly needed.

Aim/s: To compare the performance of human, cattle, goat and sheep blood as enrichment substance in blood supplemented culture media.

Methods: Descriptive cross-sectional study. Two clinical isolates and one standard strain of *Streptococcus pyogenes*, *Streptococcus agalactiae*, *Streptococcus pneumoniae* and *Haemophilus influenzae* were tested in duplicate for their growth, identification characteristics and antibiotic susceptibilities (ABST) on different types of blood agars and the results were compared.

Results: All tested organisms (12 organisms) gave similar isolation rates in all four blood agars. *H. influenzae* colony sizes in human and sheep blood were similar but smaller on goat and cattle blood. Colony sizes of other three organisms in cattle and goat blood were similar to sheep blood but human blood gave noticeably smaller colonies. *S. pyogenes* and *S. agalactiae* gave equally large zones of beta-haemolysis and *S. pneumoniae* gave obvious alpha-haemolysis in goat, cattle and sheep blood. Both types of haemolysis were faint in human blood. Animal blood agars showed typical results for *S. agalactiae* and *Listeria monocytogenes* in CAMP (Christie Atkins Munch-Peterson) test. However, HBA gave negative results. All four blood agars gave comparable results in satellitism, bacitracin and optochin sensitivity tests. Sheep and human chocolate agars were inferior to *Haemophilus* test medium for ABST. *H. influenzae* inhibitory zones were unreadable on goat and cattle blood. ABST results were equivalent but goat blood gave hazy, irregular zone margins for other organisms.

Conclusions: Cattle and goat blood show comparable performance to sheep blood in growth and identification of common fastidious pathogens other than *H. influenzae*. Human blood is inferior to other three. There is a need to be tested further with more fastidious organisms.

Email of the Corresponding Author: nilukawimalaratne@gmail.com

OP 40

SERUM CALCIUM REFERENCE INTERVAL IN A GROUP OF HEALTHY SRILANKAN ADULTS FROM AMPARA AND KANDY DISTRICTS

Shiffana, S.^{1,2,3}, Sivakanesan, R.³

1. Postgraduate Institute of Science, University of Peradeniya, Sri Lanka.
2. School of Medical Laboratory Technology, Peradeniya, Sri Lanka.
3. Department of Biochemistry, Faculty of Medicine, University of Peradeniya, Sri Lanka.

Background: Reference intervals aid physicians to interpret laboratory results of analytes. Reference ranges may vary depending on age, sex, race, and diet. Since no reference intervals are available for Sri Lankans.

Aim: Establish reference interval for serum calcium (Ca).

Method: One hundred and ninety five apparently healthy Sri Lankan adults between 20 to 60 years of age from Ampara [Muslims (64), Tamils (21) and Sinhalese (11)] and Kandy [Sinhalese (80), Muslims (12) and Tamils (7)] districts were recruited for the study. Ethical clearance for the study was obtained from Postgraduate Institute of Science, University of Peradeniya. Ca was measured using O-cresolphthalein complexone method.

Results: Reference interval established considering 2.5th to 97.5th percentile for Ca was 7.24 - 10.00 mg/dl. No significant differences ($p > 0.05$) were observed between gender and among age and BMI groups. The mean Ca concentration was significantly ($p < 0.05$) higher in subjects from Kandy (8.59 mg/dl) than subjects from Ampara (8.34 mg/dl). Therefore separate reference intervals are proposed for Ampara (7.27 - 9.95 mg/dl) and Kandy (7.19 - 9.95 mg/dl) districts. Mean Ca concentration in Sinhalese (8.62 mg/dl) was significantly ($p < 0.05$) higher than Muslims (8.36 mg/dl) and Tamils (8.23 mg/dl), but Ca in Tamils showed no significant ($p > 0.05$) difference with Muslims. The mean value of Ca reported from Hong Kong, North India, Basra and Singapore are higher than the results of the present study.

Conclusion: Districts wise and ethnicity wise reference intervals were established. Each country should try to establish reference intervals that are representative of local populations.

Email of Corresponding Author: sshiffana@gmail.com

FREE PAPER SESSION 11 – MENTAL ILL-HEALTH AS CO-MORBIDITY

OP 41

PREVALENCE AND ASSOCIATED PSYCHOSOCIAL FACTORS OF DEPRESSION AMONG POST-PARTUM MOTHERS IN MEDICAL OFFICER OF HEALTH AREA KOLONNAWA, COLOMBO, SRI LANKA

Jayasumana, H.M.K.S.D.¹, Wasala, W.M.K.N.¹

1. Post Graduate Institute of Medicine, University of Colombo, Sri Lanka

Background: Post-partum depression is gaining importance as a significant public health concern globally with increasingly incidence in diverse cultures in different parts of the world. The prevalence of postpartum depression in Sri Lanka ranges from 27.1% to 32.1%.

Aim: This study aims to determine the prevalence of depression among post-partum mothers in MOH area, Kolonnawa, Colombo, Sri Lanka and to describe the psychosocial factors associated.

Methods: The study is a clinic based descriptive cross sectional study. All post-partum mothers in 4-8 weeks post-partum period attending to child welfare clinics at MOH Area Kolonnawa, during the 1st quarter of year 2017 were recruited to the study, excluding mothers with mental retardation and diagnosed psychiatric illnesses. A self-administered questionnaire including Sinhala version of Edinburgh Post-Partum Depression Scale (EPDS) was used for data collection. A cut off value of 9 was used for the EPDS.

Results: A total of 341 post-partum mothers were studied. Median EPDS score among post-partum mothers was 4 (IQR 2–8). Prevalence of post-partum depression in this study sample was 15.24% (n = 52). Thought of self-harming (item number 10 of EPDS) was reported by 21 post-partum mothers (6.15%).

None of the psychosocial factors (age, parity, intended/unintended pregnancy, no of living children, educational level and income) were significantly associated with post-partum depression or thought of self-harming in this study sample.

Conclusion: Prevalence of post-partum depression in MOH area Kolonnawa, Colombo, Sri Lanka was relatively low when compared to available literature in Sri Lankan studies. And depression can occur in post-partum mothers irrespective of their psychosocial status. Therefore active screening is necessary during post-partum period.

Email of the Corresponding Author: shermi.dilshara@gmail.com

ASSESSMENT OF ADULT ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD) AND CORRELATES AMONG MALE SUBSTANCE ABUSE TREATMENT USERS IN BERMUDA.

Jayasekara, H.A.B.P.R.¹

1. Ministry of Health, Sri Lanka

Background: Adult Attention deficit hyperactivity Disorder (ADHD) is postulated to have association with substance use disorders. Studies are available for prevalence individually and together.

Aims: To assess the strength of association between Adult Attention deficit hyperactivity Disorder vs. severity of substance dependence and treatment adherence.

Methods: A Prospective ,cross sectional study was conducted at the Mid Atlantic Wellness Institute treatment Program, Bermuda using the structured interview, self-assessment scales and medical records of patients who are registered on 1/3/2013 and 171 patients were followed up for 6 months. Demographic information, Alcohol dependency Scale score and Drug Abuse Screening Test score (DAST) were obtained from structured interview and clinic records. Adult Wender Utah rating scale score obtained by self-administered questionnaire. Details of treatment adherence were captured from the hospital electronic data base for substance use program.

Results: Adult ADHD is significantly more prevalent among the substance use treatment programme participants (46.2%). There is a statistically significant association for Adult ADHD with alcohol and other substance use severity, at the 0.001 level. In regression analysis models adjusting for potential confounds showed a statistically significant predictability with number of drugs and Score of DAST. There is a significant association for all three modalities of treatment counseling, doctor and, group appointments absence and Adult ADHD.

Conclusion; Findings indicate that ADHD is prevalent among substance users, who are at increased risk for higher severity of substance use and multiple substance use. ADHD appears to play an important role in poor treatment adherence, which needs further research since multiple substance use is an emerging problem in Sri Lanka. Validation of questionnaires in this regard is important.

Email of the Corresponding Author: buddhi.hab@gmail.com

OP 43

PREVALENCE OF DEPRESSION AND ASSOCIATED FACTORS AMONG PATIENTS WITH TYPE 2 DIABETES ATTENDING THE DIABETIC CLINIC AT A TERTIARY CARE HOSPITAL IN SRI LANKA - A DESCRIPTIVE STUDY

Arambewela, M.H.^{1,2}, Somasundaram, N.¹, Fernando, K.R.A.S.¹, Jayasena, P.M.¹, Chandrasekara, C.M.P.H.¹, Kusumsiri, D.P.¹, Jayasekara, H.A.B.P.R.², Kumbukage, M.P.²

1. Endocrine and diabetes unit, National Hospital Sri Lanka
2. Ministry of health, Sri Lanka

Background: Diabetes imposes many physical, psychosocial and behavioral effects on its sufferer. Occurrence of depression among diabetics in South East Asia is high. Research focusing on the psychological aspect of diabetes is limited in Sri Lanka.

Aim/s: To determine the prevalence of depression and the associated factors among patients with type 2 diabetes mellitus (T2DM) in an outpatient clinic setting.

Methods: A descriptive cross sectional study was carried out among patients diagnosed with T2DM for at least 3 months, attending the diabetic clinic at National Hospital Sri Lanka from January to July 2016. Systematic sampling method was used to select the participants where every 3rd registered patient for the clinic was recruited for the study. Pregnant, post-partum mothers and patients with psychiatric disorders were excluded. Depression was assessed using the interviewer administered, validated, Sinhala version of the Beck's Depression Index. Sociodemographic data and health related data were obtained from interviewer based questionnaires and health records. All patients were screened for macro and microvascular complications and glycaemic control. Data was analysed initially with bivariate analysis and finally with binary logistic regression analysis.

Results: Out of the 3000 patients (n = 2,181, 72.7%), were females. Mean age was 58.3 ± 10.3 years and mean duration of diabetes was 10.8 ± 7.3 years. Prevalence of depression was 177(5.9%) in the entire patient population with mild, moderate and severe depression seen in 120(4.0%), 48(1.6%) and 9(0.3%) respectively. In binary logistic regression, depression was significantly associated with female gender (OR = 2.63, 95% CI 1.26-5.46; p=0.009), living without a spouse (single/divorced/widowed) (OR = 1.83, 95% CI 1.12-2.98; p=0.01), lower education level (OR = 1.92, 95% CI 1.14-3.22; p=0.01) and peripheral neuropathy (OR = 1.79, 95% CI 1.00-3.18; p=0.04). Only 13.3% of the respondents said that doctors have ever inquired to their mental wellbeing.

Conclusion: Depression was low in prevalence and patients seem to be more affected by social factors than disease related factors. Interviewer administered data collection giving rise to information bias and confounders such as other chronic medical illnesses were limitations in this study.

Email of the Corresponding Author: maulee_80@yahoo.com

RELATIONSHIP OF PRIOR SLEEP DISTURBANCES AND INCREASED RISK OF MYOCARDIAL INFARCTION AMONG MALES – CASE CONTROL STUDY

Hirimuthugoda, L K.¹, Kulatunga, P.I.², Kulatunga, P.N.N.³, Ayendrika, M.D.S.⁴, Senevirathna, D.S.T.⁵, Gamage, D.G.N.S.⁶

1. Post Graduate Institute of Medicine, University of Colombo.
2. General Hospital, Kalutara.
3. District Hospital, Bandaragama.
4. Base Hospital, Panadura.
5. S.T.D Clinic, Panadura.
6. Primary Medical care Unit, Kandapola.

Background: Disruptions in sleep can be caused by a variety of issues, from teeth grinding to night terrors. When a person suffers from difficulty falling asleep and staying asleep with no obvious cause, it is referred to as insomnia. Several studies have shown that compared to 7-8 hours of sleep, both shorter and longer sleep durations are associated with cardio vascular disease risk factors such as diabetes, hypertension, and obesity.

Aim: To assess the association between sleep disturbances with myocardial infarction among patients.

Methods: Study was conducted with 60 participants per arm as 1:2 ratio of case: control and controls were selected in both hospital based and community based. Data collectors were blinded to disease status and training was given to minimize bias over ascertainment on exposure status. Disease status was classified with incidence cases, as criteria developed beforehand and exposure status was determined with Pittsburgh Sleep Quality Index (PSQI) after validation to local context. Age and social classes were matched.

Results: The respective prevalence sleep disturbances in diseased arm, hospital based control and community based control were 23.3%, 15% and 8.1% respectively. Discordance pairs of case and hospital based control were taken for the analysis for risk ratios. Risk ratios showed 1.4 (95% CI- 0.8 – 3.4) on p value > 0.05.

Conclusions: Prevalence of sleep disturbances was much higher among patients of myocardial infarction (cases) and controls. But there may not be any significant association between Myocardial infarction over sleep disturbances.

Email of the Corresponding Author: krishan824@yahoo.com

FREE PAPER SESSION 12 – ENVIRONMENTAL HEALTH

OP 45

A SPATIAL HIERARCHICAL ANALYSIS OF TEMPORAL CORRELATIONS OF BRETEAU INDEX AND DENGUE INCIDENCE IN RDHS KALUTARA

Liyanage, C.P.G.¹, Rathnayake, U.I.¹, Kariyawasam C.S.¹, Saman G.¹, Adihetti A. E¹

1. Regional Director of Health Service Kalutara

Background: Dengue is currently the major public health burden in Sri Lanka. Kalutara is one of the highly affected districts. Dengue vector surveillance is a useful tool in identifying high-risk geographical locations and predicting disease risk. Breteau index (BI) is considered as the most informative vector index. Identifying lagged correlation between BI and dengue incidence is vital in planning, implementation and monitoring of dengue control and preventive interventions.

Aims: To quantify the temporal relationship between combined BI and dengue incidence in MOH divisions in Kalutara.

Methods: Monthly means of combined BI and monthly notified dengue cases measured in 11 Medical Officer of Health (MOH) areas from 2010 to 2016 in Kalutara RDHS division were analysed. Distributed lag non-linear model was used to estimate area specific and overall lagged exposure response association between BI and dengue. We incorporated lag period up to 3 months considering the available evidence on dengue transmission dynamics and examining the cross correlation coefficients between dengue and combined BI. Models were evaluated based on the Akaike Information Criterion.

Results: A consistent exposure-response patterns were observed between BI and dengue in Kalutara district. The overall statistically significant increase in relative risk (RR) of dengue was observed with increasing mean combined BI starting from a threshold value of 15. The highest overall RR for dengue was centred around 1.5 to 2 months following BI more than 25 (RR = 1.5, 95% CI 1.3 - 1.7). The division specific BI threshold for statistically significant increase in dengue varies from 10 to 20 among MOH divisions studied.

Conclusions: We observed the presence of statistically significant exposure-lag –response association between combined BI and dengue in Kalutara district. The varying thresholds values in each MOH divisions could be potentially transformed in to division specific early warnings with a lead time of 2 to 6 weeks. This information would be immensely beneficial for planning, implementation and monitoring of dengue vector control activities.

Email of the Corresponding Author: prasadgliyanage@gmail.com

OP 46

LIMITATIONS AND BARRIERS OF GOVERNMENT HEALTH CARE INSTITUTION FOR OBTAINING ENVIRONMENT PROTECTION LICENSE IN GENERAL, BASE AND DIVISIONAL HOSPITALS IN THE REGIONAL DIRECTOR OF HEALTH SERVICE DIVISION GAMPAHA.

Jayakody, J.A.P¹

1. Post Graduate Institute of medicine, University of Colombo.

Background: Improper handling of medical wastes, could adversely affect the hospital environment and community at large, and poses a serious threat to public health. Since 1980 the Environmental Protection License (EPL) has been introduced by central environment authority (CEA) to control environmental pollution and it has been made compulsory for prescribed waste management activities.

Aim: To identify the limitations and barriers in obtaining EPL in General, Base and Divisional hospitals in the Regional Director of Health Service Division (RDHS) Gampaha.

Methods: All healthcare institutions with in ward patient care and OPD patient care were seen in the RDHS Division Gampaha. Study comprised of two components and data was collected using six instruments. First component studied the limitations and barriers of facilities, performances and geographical situation to obtain EPL using check list. Second component consisted of qualitative study among operational level people, policy implementers and policy makers. Data was collected using focus group discussions, key informant interviews and self-administered questioner to identify the prevailing limitations and barriers to obtain EPL.

Conclusion: There is a significant gap on knowledge on EPL and criteria to obtain EPL. In additions to that a mechanism to obtain EPL was not seen in the district. Poor safety, insufficient budget, lack of trainings, weak monitoring and supervision system and poor coordination were recognized as the limitations and barriers to obtain EPL in the RDHS Gampaha.

Email of the Corresponding Author: prabhadjayakody@gmail.com

OP 47

SYSTEM DYNAMICS MODELLING METHOD: CADRE PROJECTION FOR PUBLIC HEALTH INSPECTORS WITH A VIEW OF IMPROVING ENVIRONMENTAL AND OCCUPATIONAL HEALTH SERVICE PROVISION IN NORTHERN AND EASTERN PROVINCES

Wickramasinghe S. C.², **Suraweera S.A.I.K.**¹, **De Silva D.**³, **Herath H. D. B.**⁴, **Wijesekara N.**², **Senanayake S.J.**⁵

1. Environmental and Occupational Health Directorate, Ministry of Health
2. Ministry of Health
3. Family Health Bureau
4. Anti-Malaria Campaign, Ministry of Health
5. Faculty of Medicine, University of Colombo

Background: Northern (NP) and Eastern (EP) provinces are expected to undergo rapid development. The Environmental and Occupational Health (EOH) service delivery in the above provinces needs to cater to the above changes. A rational approach needs to be adopted in determining the number of Public Health Inspectors (PHI) to be recruited annually, to cater the demand.

Aim: To provide cadre projections for PHI in NP and EP with a view of increasing environmental and occupational health service delivery carried out by them by 15%.

Methods: Projection was done using System Dynamics Modelling for a simulation period of 10 years and the necessary secondary data were entered into the model. Model simulation assumptions were; 99% of the PHI will work until the statutory retirement age of 60, attrition due to promotions and loss to the system before retirement is 1.5%, yearly intake and population growth of NP is taken as 1.02% while in EP as 1.5%.

Results: The PHI trainings carried out at the two Regional Training Center in NP & EP has not been regular. The average completeness of the cadre in the EP was 93.4% (n=172) while in NP it was 60.8% (n=90).

The existing PHI to population ratio of 1: 10,000 assumes that a PHI would spend 25% of the working time on EOH. If the time allocated for EOH is to be increased up to 40% of a PHI's workload; according to model simulation the PHI to Population ratio should be 1: 8500 in both provinces.

Model predicts that if 18 PHI are recruited in the 1st year, followed by 9 PHI per annum; a steady average PHI to Population ratio of around 1:8500 could be sustained in Eastern province. Further, the model simulation predicts that if 20 PHI are recruited in the 1st year, followed by 6 PHI per annum for the following 3 years and 5 PHI per annum for the next 4 years; a steady average PHI to Population ratio of around 1:8500 could be sustained in Northern province.

Conclusion: The cadre projection-based rational approach needs to be adopted during recruitment. PHI trainings carried out at the two Regional Training Center in NP & EP needs to be regularized.

Email of the Corresponding Author: sam197902@gmail.com

OP 48

OUTBREAK FORECASTING OF DENGUE FEVER IN RELATION TO VECTOR LARVAL INDICES THE COLOMBO DISTRICT, SRI LANKA

Aryaprema, V.S.¹

1. Office of the Regional Department of Health Services, Colombo

Background: Dengue is a major public health issues in Sri Lanka. Colombo is one of the most affected districts. It is a well-known fact that once established it would be very difficult to control an outbreak of the disease, as adult vector population densities have already reached at very high levels.

Aims: To determine the lag time between the threshold vector indices and the occurrence of outbreak

To determine threshold vector indices that could be predictive of dengue fever outbreaks in the Colombo District

Methods: A preliminary study was carried out during 2009 to 2011 in the Health Division Kaduwela, of the Colombo District and it was repeated for the Colombo District from 2014 to 2016. The time lags between vector indices (Breteau Index for *Aedes aegypti* –BIA, for *Ae. albopictus* - BIB and Combined Index-CBI) and dengue outbreaks were determined by using the cross-correlation function. Receiver Operating Characteristics Curves were used to determine the threshold vector indices and to assess the sensitivity.

Results: The best average time lags for dengue outbreak forecast were 2 months for all indices in Kaduwela- CBI ($r=0.531$), BIA ($r=0.432$ and BIB ($r=0.579$) and for the Colombo District- CBI ($r=0.654$), BIA ($r=0.585$) and BIB ($r=0.683$). It was sensitive enough to distinguish an outbreak in Kaduwela by threshold values of CBI=15.6, BIA=3.5 and BIB=13.9 and in the Colombo District by threshold values of CBI=10.7, BIA=1.25 and BIB=9.85 with more than 75% sensitivity and specificity.

Conclusions: The study demonstrates that the vector larval indices could well be used to forecast a dengue outbreak before average two months of occurrence with high sensitivity and specificity. The lag time and the threshold values of indices would best be determined separately for each health division to enhance decision making on the timing, scale of vector control operations and utilization of limited resources.

Email of the Corresponding Author: vind65812@yahoo.co.uk

OP 49

CLINICAL AND HISTOPATHOLOGICAL ANALYSIS OF CONCOMITANT ORAL SUBMUCOUS FIBROSIS IN ORAL SQUAMOUS CELL CARCINOMA PRESENTED TO THE DEPARTMENT OF ORAL PATHOLOGY, FACULTY OF DENTAL SCIENCES, UNIVERSITY OF PERADENIYA

Jayawardane , D. ¹ , Senarath , N. H. ² , Siriwardane , B. S. M. S. ² , Tilakaratne , W. M. ²

1. Faculty of Veterinary Sciences, University of Peradeniya
2. Faculty of Dental Sciences, University of Peradeniya

Background: Oral submucous fibrosis (OSF) is a chronic pathological process with varying degrees of fibrosis. The malignant transformation potential of OSF is considered as 7 -13% in the available literature. Such data is not yet available for the Sri Lankan population.

Aim: To assess the prevalence of OSF, and its clinical and histo-pathological characteristics among the patients with oral squamous cell carcinoma (OSCC) presented to the Department of Oral pathology.

Method: Details of patients with OSCC from 2010 to 2014 were extracted from the archives. A total of 273 patients with adequate demographic data and habit history were analysed. Degree of fibrosis was assessed and graded in OSF positive samples. Spread of tumour to the lymph nodes and degree of histological differentiation of OSCC were also assessed.

Results: Sub mucous fibrosis was detected in 131(48%) patients. The mean age of presentation among OSF positive patients was 57.7 years, while OSCC only patients had a comparatively higher age, 59.5 years. In the below 55 years age group , presence of OSF with OSCC was less (40%).The male to female ratio in the total sample was 2.7:1 .It was 3.1:1 in the OSF positive group .The commonly involved sites of OSCC among OSF patients were buccal mucosa (35%) and Tongue (30.5%), which were comparable to the patients without OSF. Betel quid chewing was observed over 95% of the sample and 26.15% of OSF patients had all 3 habits; betel quid chewing, alcohol and smoking. The level of histological differentiation of the tumour did not show a significant association to the degree of fibrosis in OSF patients ($p = 0.195$). Metastasis of OSCC was not seen in 76.63% of OSF patients, while it was 68.42% in SCC only patients.

Conclusion: High degree of prevalence of OSF was observed among the SCC patients, with a male predilection and younger age at presentation. However, a significant association was not observed in the reduced metastatic potential or the level of histological differentiation of the tumour.

Corresponding author: z.nimna.s@gmail.com

PREVALENCE AND FACTORS RELATED TO LOSS OF FIRST PERMANENT MOLAR TOOTH DUE TO DENTAL CARIES AMONG 8 - 12 YEARS CHILDREN ATTENDING TO DENTAL CLINIC AT BASE HOSPITAL, BALAPITIYA

Godagampala M.C¹, Widyarathna K.M.G.Y.A², Hettiarachchi P.G.A³, Jayaweera J.P.D.P.de S⁴, Indrapala W.K.P.⁵

1. Dental Unit, Base Hospital , Balapitiya
2. Dental Unit, Teaching Hospital , Karapitiya
3. Health Management & Development Unit , Base Hospital, Balapitiya
4. Dental Unit Base Hospital, Balapitiya
5. Chest Medicine Unit , General Hospital , Kalutara

Background: Dental caries among children are considered to be a major public health problem in Sri Lanka. Exploring the contributory factors is essential to plan preventive strategies.

Aim: To determine the prevalence of loss of first permanent molar tooth among children between the age of 8–12years and to explore the contributory factors.

Methods: A descriptive cross sectional study was conducted among children of 8 -12 years attended to the dental clinic at Base Hospital Balapitiya during the period of six months from 1st September 2015 to 29th February 2016 till the sample size of 384 being recruited. A pretested interviewer administered questionnaire was used to collect data related to selected socio demographic characteristics and dental caries related factors. A thorough oral examination was followed.

Chi square test of significance was applied to elicit the association between the loss of 1st molar tooth and the selected associated factors.

Results: Mean age of the population is 9.87 years (SD= 1.54 years). Majority of the population males (213) and Sinhalese (369) one of the parents of the care seekers were professionals and majority of mothers of children were unemployed (87.5). Prevalence of loss of 1st molar tooth due to dental caries among the study group was 17.7%.

Not brushing teeth twice a day ($\chi^2=13.82$, $p=0.002$), having wrong believes ($\chi^2=4.76$, $p=0.029$), lack of awareness on nerve filling ($\chi^2=8.336$, $p=0.004$) were found to be associated with loss of 1st molar tooth.

Conclusions: Lack of awareness on oral health, wrong believes and not having correct brushing practices has led to dental caries. Correction of dental practices to improve awareness on oral health, targeting preschool children for behavioural change is recommended. Therefore there must be adequate attention to dental caries preventive approaches in children.

Email of the Corresponding Author: - pgahettiarachchi@gmail.com

HABIT OF BETEL CHEWING AMONG ADVANCED LEVEL STUDENTS IN KEKIRAWA EDUCATIONAL ZONE

Abdul Wajith, M.B.¹, Ekanayaka, L.²

1. Oral Health Unit, Office of the RDHS, Batticaloa.
2. Department of Community Dentistry, Faculty of Dental Sciences, University of Peradeniya.

Background: Habit of betel chewing is a common practice particularly among populations in South and Southeast Asia, Asia Pacific region and among migrated communities in Africa, Europe and North America and almost six hundred million people of all age groups indulge in this habit globally. Cultural, social, economic and environmental factors may influence this habit. Betel chewing habit has been practiced from ancient times in Sri Lanka even by youngsters. Data pertaining to this habit in adolescents is very limited. Our study was to assess the prevalence and factors associated with this habit among advanced level students.

Aim: To describe the habit of betel chewing among advanced level students in Kekirawa Educational Zone.

Methods: A descriptive cross sectional study was carried out and a total of 910 A/L students were selected from Kekirawa Educational Zone using two stage cluster sampling method combined with Probability Proportionate to Size technique. All subjects were given a questionnaire contained of information about socio-demographic data and about the habit of betel chewing in terms of period, frequency, acquiring of habit, ingredients, reasons for using and awareness about health effects of betel chewing.

Results: Prevalence of betel chewing habit among Advanced Level students in Kekirawa Educational Zone was 21.5%. Daily chewers were 10.5%. Most (86.6%) of regular chewers used two quid per day. The habit started in 14-- 15 years of age. Most of the chewers (62.6%) acquired the habit from their parents and 60.5% of the chewers obtained the quid from their homes. The commonest reasons for using quid were to postpone hunger (27%) and to get mind concentration (21%). The betel quid containing of all three main components (Betel leaves, areca nut and lime) was consumed by 71% of chewers and 10.7% of betel chewers added tobacco to the quid. Only 52.8% knew about the harmful effects while 37% of chewers thought that betel chewing is good for the health. Mouth washing was practiced by 63.6% while only 19.5% brushed the teeth after chewing betel quid.

Conclusions: Prevalence of the habit of betel chewing among A/L students in Kekirawa Educational Zone was high and started at early age of life. Habit was transmitted mostly from their parents and for most of the chewers, the quid was easily accessible from their own homes. Harmful health effects were not known by most of the betel chewers.

Recommendations: Health education and oral health screening programmes should be carried out to educate the students and parents, with special attention on harmful effects of betel chewing. Further researches should be carried out at local and national level regarding the habit of betel chewing among the adolescents.

Email of the corresponding Author: mbawajith@gmail.com

EFFECTIVENESS OF SODIUM FLUORIDE VARNISH APPLICATION IN PREVENTION OF DENTAL CARIES IN SCHOOL CHILDREN BETWEEN AGE OF 6 AND 7 YEARS [2YR CLINICAL TRIAL]

Jayasinghe, R.M.¹, Damayanthi Rohini,G.A.P.², Herath, H.M.R.W.², Wickramage, C.W.², Paththanupitiya, I.M.C.P.², Marasinghe, B.M.G.H.³, Hettiarachchi, R.⁴, Kularatna, S.⁵

1. Faculty of Dental Sciences, University of Peradeniya
2. Teaching Hospital, Kurunegala
3. Suwamedura Health Complex, Kurunegala
4. Griffith University, Australia
5. Queensland University of Technology (QUT), QLD, Australia

Background: Dental caries still remains a significant public health problem with a very high prevalence among 6year old school children, according to the results of national oral health survey in Sri Lanka.

Professional fluoride varnish application has become popular as variety of studies has found it as an efficient method in preventing dental caries. The simplicity of its application makes it very suitable and practical for use in dental clinics and outreach dental services, especially in young children and other special needs groups.

Aims: Aim of this study was to evaluate the effectiveness of 6 monthly application of sodium fluoride varnish in prevention of new dental caries in children between 6 and 7 years in a suburban setting in Sri Lanka.

Methods: This was a double-blind, randomized controlled trial. Ethical clearance was obtained from the Ethical Review Committee at the Faculty of Dental Sciences and the clinical trial was registered. The sample size of school children was calculated as 160 each arm to detect 5% caries change with 80% power. All the children initially received routine caries preventive measures. Recruited children were randomly assigned to treatment (5% Sodium Fluoride varnish) or control group. Caries examinations were conducted at each visit. The effect of intervention was measured by number of new caries prevented which was calculated after the completion of the study. Statistical analysis was carried out using SPSS 20.0

Results: Out of total sample of 323, 94.4% returned for follow up at two years. Difference between mean number of new caries in the intervention [IG] and control groups [CG] at 12months review compared to the baseline was statistically significant. [0.98 and 1.51 respectively]. Mean number of new caries in the IG and CG at two year review was 0.64 and 1.83 and the difference was statistically significant. The difference in prevention of new caries between both groups was not statistically significant when socio-economic background of the family was considered. [e.g. parents' education level, occupation and monthly income]

Conclusions: Professional fluoride varnish application 6monthly for 2years is effective in reducing dental caries in children of age 6 and 7 years.

Email of the Corresponding Author: manoripathiraja@yahoo.com/ manorija@pdn.ac.lk

OP 53

ASSESSMENT OF ADHERENCE OF FOOT CARE PRACTICES IN DIABETES PATIENTS ATTENDING PRIMARY MEDICAL CARE UNIT IN YATIYANA, MATARA

Amarabandu.H.G.I¹, Hewage. D.C²

1. Allied Health Sciences, Faculty of Medical Sciences, University of Sri Jayewardenepura.
2. Department of Physiology, Faculty of Medical Sciences, University of Sri Jayewardenepura.

Background: Diabetic foot ulcer is one of the most serious complications of Diabetes mellitus. It will lead to recurrent hospital admission, amputation and even death. So adhering to practices on preventive measures by patients is vital for prevention of foot ulcers among diabetic patients. Standard foot care practices consist of four components. They are foot inspection, foot care, proper foot ware and nail care.

Aims: To determine the preventive measures followed by diabetic patients attending the Primary Medical Care Unit in Yatiyana to minimize foot ulcers

Method: A descriptive cross-sectional study was carried out among 330 diabetes patient attending Primary Medical Care Unit, Yatiyana, Matara. The basic socio-demographic and foot care practices were assessed via a pretested interviewer administered questionnaire. Data was analyzed by using SPSS windows version 16.0.

Results: The mean age was 66.45 ± 11.92 with majority being more than 60 years old. Majority of study population (57.3%) were females, married (75.8%) and were unemployed (51.8%), and 62.1% had good glycemic control (FBS of 80-120 mg/dL). However majority of study sample (60.3%) had poor foot care practices, 83.6% washed their feet regularly but only one third of participants (32.1%) washed feet with warm water. About 54.8% did not properly dry and 75.8% did not use moisturizing cream over the foot. About 57.3% did not inspect their feet regularly and 63% were not trim their nails straight across. About 58.5% were not measure their feet size when last they bought footwear and 77.3% did not wear elasticized hosier. However majority of study sample (58.2%) were not walked bare foot regularly.

Conclusions: Adhering to the proper diabetes foot care practices is poor in the study sample. This shows a need for focused educational intervention improving their proper foot care practices among diabetic patients in order to prevent foot complications in them.

Email of the Corresponding Author: iroshaamarabandu90@gmail.com

INJURIES AMONG SCHOOLCHILDREN AGED 12-19 PRESENTING TO THE ACCIDENT SERVICE OF THE NATIONAL HOSPITAL OF SRI LANKA (NHSL)

Daluwakgoda, V.¹, Wickremasinghe, A.R.², Kasthurirathne, K.T.A.A.³

1. Accident Service, National Hospital of Sri Lanka, Colombo.
2. Department of Public Health, Faculty of Medicine – University of Kelaniya
3. Department of Public Health, Faculty of Medicine – University of Kelaniya

Background: Injuries in childhood and adolescence have a major impact on individual and population health. Prevention of those injuries is of critical importance to improve health and well-being of children.

Aim: To describe the types of injuries among school children aged 12-19 who presented to the Accident Service of the National Hospital of Sri Lanka.

Methods: A cross sectional descriptive study was conducted enrolling 405 children admitted to the Accident Service between 1st March 2013 and 30th June 2013. Data were obtained from child by using an interviewer administered questionnaire.

Results: 81.5% of the injured were boys. The highest percentage (19%) was in the 12 year age group; with increase in age, the number of children admitted with injuries decreased. Majority of the injuries occurred at school (n=148; 36.5%) followed by injuries at home (n=124; 30.6%) and road injuries (n=105; 25.9%). More than one third of injuries in children (n=155; 38.3%) occurred while engaged in leisure activities; most injuries were unintentional (n=280; 69.2%) followed by road traffic accident (n=88; 21.7%) and violence (n=37; 9.1%). Most school based injuries (n=135; 91.2%) were unintentional injuries. 49.6% of them occurred due to fall from same level, while they were playing (n=29; 44%) followed by sports injuries (n=26; 39%) and walking (n=11; 17%). Most victims were (n=355; 87.6%) directly admitted to NHSL followed by (N=50; 12.3%) were transfers from other hospitals. Three-wheelers were the commonly used transport method of bringing the injured to hospital (n=216; 53.3%). Immobilizing the injured body part was the frequently needed first-aid procedure (n=190; 46.9%) but the majority did not received it correctly (n=106; 55.8%). Common type of injury was fractures (n=188; 46.4%) followed by superficial injuries (n=149; 36.8%), open wounds (n=52; 12.8%), and internal organ, nerve damage and multiple injuries (n=16; 4.0%). The mean Length of hospital Stay (LOS) was 2.8 days (SD 7.68). There was a significant difference in LOS between different injury categories ($p < 0.01$).

Conclusion: More boys were admitted with injuries. Most injuries occurred at school while playing. Unintentional injuries were common than road traffic accidents and violence. Most victims were direct admission to NHSL and three wheelers were the commonly used vehicle for transportation. Fractures were common and immobilizing injured body part was the neglected first aid procedure. The mean length of hospital stay was 2.8 day and standard deviation was 7.68 days.

Email of the Corresponding Author: viloshini.d@gmail.com

DISEASE BURDEN DUE TO ROAD TRAFFIC INJURIES IN SRI LANKA

Amarasinghe, P.G.¹, Dharmaratne, S.D.², Bandara, M.R.S.S.³, Amarasinghe, J.N.P.⁴

1. Office of the Provincial Director of Health Services, North Western Province Kurunegala, Sri Lanka.
2. Department of Community Medicine, Faculty of Medicine, University of Peradeniya.
3. Regional Office, Anti-Malaria Campaign, Kurunegala, Sri Lanka.
4. Nutrition Coordination Division, Ministry of Health, Sri Lanka.

Background: Road Traffic Crashes (RTCs) kill an estimated 1.24 million and injure 20-50 million people globally in a year. In 2002, Road Traffic Injuries (RTIs) were the ninth leading cause of Disability Adjusted Life Years (DALY) lost, accounting for over 38 million DALY lost, or 2.6% of the global burden of disease (WHO, 2004). RTIs have become a major but neglected public health problem in Sri Lanka that needs urgent attention.

Aim/s: To describe the DALYs lost due to road traffic injuries recorded at hospitals in the Kurunegala Police Division (KPD).

Methods: A descriptive, cross-sectional study was conducted. Sample size was 385 injured road users and consecutive sampling was used. An interviewer administered structured questionnaire and a data record sheet was used by trained pre-intern medical officers at hospitals to collect data from injured road users. The burden of disease or disability is quantified using the DALY. The DALY is equal to the Years of life lost due to premature death (YLL) and Years of life lived with a disability (YLD) [DALY = YLL+YLD]. YLL is equal to number of deaths (N) x life expectancy at death for each sex and age group in a country in a given year (L) [YLL=N x L]. YLD is equal to number of incident cases (I) x disability weight (DW) x average duration of the disability in years (L) [YLD=I x DW x L].

Results: The DALY was calculated for 503 injured road users including 458 males 45 females. Injured person's male to female ratio was 10:1. 28 males died and 430 injured while 13 females died and 32 injured. YLL of 41 deaths was 1413.50 years (mean=34.46 years, SD=1.32). YLL of males was 2.5 times higher than females. YLD of 462 non-fatally injured was 7.0628 years (mean=0.0153 years or 5.58 days, SD=0.0018). YLD of males was 8.4 times higher than of females. The total DALY lost for 503 injured road users were 1420.55 years (mean=2.8242 years, SD=0.0074). The highest DALYs due to RTIs for males (321.34 years) was seen in 31 – 40 years age group while for females (142.99 years) in 41–50 years age group. The DALYs loss due to RTIs for 0-20 year age group was 21%, 21 - 60 years age group was 79% and more than 60 years age group was 10%.

Conclusion: Burden of disease due to RTIs is 2.5 times higher for males than females and highest burden is in 20 to 60 years age group.

Email of the Corresponding Author: mrssbandara@yahoo.com

ASSESSMENT OF NUTRITIONAL STATUS AND ASSOCIATED FACTORS IN PATIENTS WHO UNDERWENT CARDIOPULMONARY BYPASS SURGERY IN A TERTIARY CARE SETTING

Jayasekara, N.I.¹, Wijesinghe, C.J.², Aminda, M.A.U.³, Chandima, N.G.T.⁴, Matagadeera, M.P.⁵

1. Cardiothoracic Unit, Teaching Hospital Karapitiya, Galle
2. Department of Community Medicine, Faculty of Medicine, University of Ruhuna, Galle
3. Teaching Hospital Mahamodara, Galle
4. Lady Ridgway Hospital for Children, Colombo
5. Cardiothoracic Unit, Teaching Hospital Karapitiya, Galle

Background: Malnutrition is highly prevalent among hospitalized patients, which affects their clinical outcomes and length of hospital stay. Cardiac patients are known to be at risk of malnutrition. Healthcare workers often under recognize and underestimate malnutrition in patients.

Aims: To assess nutritional status and associated factors in patients who underwent cardiopulmonary bypass surgery in Cardiothoracic Unit (CTU) of Teaching Hospital, Karapitiya (THK).

Methods: A retrospective analysis of clinical records of 423 patients who underwent cardiopulmonary bypass surgery for past two years in CTU, THK was carried out. Data on relevant demographic, anthropometric, biochemical and clinical parameters were collected using a data extraction sheet. Body Mass Index (BMI) was calculated using cut-off values recommended for Asian population. Data were analysed using SPSS software.

Results: Mean (\pm SD) age of the sample was 59.4(\pm 7.7) years, the majority being Sinhalese (92.2%) and males (76.1%) from rural areas (71.3%). Diabetes and Hypertension were found in 48.0% and 65.1% of the patients respectively. Mean (\pm SD) BMI and haemoglobin concentration were 24.3(\pm 4.2) and 12.5(\pm 1.6) g/dl respectively. Proportions with underweight (BMI<18.5), normal BMI (BMI=18.5-22.9) and overweight/obese (BMI \geq 23) were 6.9%, 31.7% and 61.4% respectively. Approximately 48% were anaemic. Mean (\pm SD) duration of post-operative hospital stay was 12.5(\pm 4.9) days. Post-operative complications were observed in 22.5% while in ICU and 37.4% while in the ward. Nutritional status was associated with age of the patients (p <0.01), but not with other basic socio-demographic characteristics and co-morbid conditions. Outcome of the surgery and duration of hospital stay did not show any association with nutritional status (p >0.05).

Conclusion: Majority of the patients undergoing cardiopulmonary bypass surgery were over nourished, though a considerable proportion was anaemic. Basic socio-demographic characteristics except age, co-morbid conditions and outcomes did not show any association with nutritional status in this sample.

Email of the Corresponding Author: nilanjij@gmail.com

OP 57

ADHERENCE TO THE CORRECT TECHNIQUE OF INHALERS AMONG ADULT PATIENTS WITH ASTHMA

Prasadi, B.V.I¹ , Walawege, U.B²

1. Primary Medical Care Unit, Midigama.
2. Intensive Care Unit, Teaching Hospital Karapitiya.

Background: Asthma has a high prevalence which produces an ongoing concern in the Sri Lankan health system. Although asthma can be effectively treated with inhaled drugs, poor inhaler technique prevents optimal delivery of medicine and inadequate symptom control.

Aim/s: This study intended to determine the proportion of adults adhering to the correct technique of inhalers, their knowledge on long term inhaler usage including multiple dosage, cleaning and to assess the factors associated.

Methods: This is a descriptive cross sectional study among 128 patients attending to medical/ asthma clinics in Primary Medical Care Unit Midigama and Divisional Hospital Weligama. An interviewer administered questionnaire was used with an observational method against a standard checklist to evaluate the inhaler technique.

Results: The response rate was 100%. 73.4% used Dry Powder inhalers (DPI) and 26.6% used Metered Dose Inhalers (MDI). Of the DPI 47.9 % used rotahalers and 40.4% used ventohalers.

Only 30.5% had good inhalation technique. It was significantly associated with the younger age group (P=0.002), the duration of inhaler usage which was less than one year (P=0.016), middle and skilled working social class (P=0.036) and whether it is DPI or MDI (P=0.003). Steps of prior breathing and holding breath after, were the most incorrect steps.

Only 31.25% had a good knowledge. It was significantly associated with the educational level (P=0.028) and the attitude of the patient toward the inhaler treatment (P=0.011).

Conclusion: Patients have difficulties in mastering inhaler technique. It would be invaluable to recheck patient's inhaler technique at least annually. Inhaler devices should be renewed accordingly and changing between MDI and DPI should be considered at least in poor respondents.

Email of the Corresponding Author: iprasadi@yahoo.com

TREATMENT IN SCHIZOPHRENIA; IS SECOND GENERATION DEPOTS ARE EFFECTIVE THAN FIRST GENERATION DEPOTS IN MINIMIZING RELAPSES?

Mahesh, K.H.D.¹, Weerasundera, R.², Ball, P.³, Morrissey, H.³, Subasinghe, H.W.A.S.⁴

1. Base Hospital, Tangalle, Sri Lanka
2. Top End Mental Health Service, Darwin, Northern Territory, Australia
3. School of Pharmacy, University of Wolverhampton, UK
4. B.Pharm Degree Programme, Faculty of Medicine, University of Ruhuna, Sri Lanka

Background: Patients with schizophrenia frequently default oral medication due to lack of insight. Therefore, the use of depot antipsychotic preparations is important to reduce relapses. Depot antipsychotics are available in two groups, First generation antipsychotics (FGA) and Second generation antipsychotics (SGA). Depot SGAs are popular nowadays as it has less extra pyramidal side effects compare to FGAs. Also many clinicians believe that SGA are more effective than FGA. However, the use of depot SGA is limited in Sri Lanka as they are unaffordable.

Aim: To compare the effectiveness of depot FGA and SGA in patients with schizophrenia.

Method: All patients diagnosed with schizophrenia in Top End Mental Health Service in Darwin, Australia during a period of five years were included. Their medications and history of relapses were retrieved from past medical records. Mean Relapses per Month (MRM=number of relapses/follow up time in months) index was calculated. Mean MRMs were compared using the independent t-test and ANOVA. $P < 0.05$ was considered as statistically significant. Data are given as Mean \pm SD.

Results: The study sample contained 193 patients and among them 137 were males. Depot medications of Zuclopenthixol, Flupenazine, Flupenthixol (3 FGAs) Risperidone and Paliperidone (2 SGAs) had been used to treat these patients. Mean MRM of overall depot FGAs (0.0570 \pm 0.0506) was not significantly different from depot SGAs (0.0549 \pm 0.0464, $p=0.816$). In depot SGAs, mean MRM of Paliperidone (0.0423 \pm 0.0454) is significantly lower than Risperidone (0.0697 \pm 0.0432, $p=0.000$). Comparing all FGA depots, Zuclopenthixol (0.0417 \pm 0.0443) is the best over Flupenazine (0.0903 \pm 0.0425, $p=0.007$) and Flupenthixol (0.0806 \pm 0.0568, $p=0.012$). Further, among all depot antipsychotics, Zuclopenthixol shows the lowest MRM value.

Conclusion: Depot second generation antipsychotics have been shown to be no superior to depot first generation antipsychotics in reducing relapses of schizophrenia. Among all depot preparations, Zuclopenthixol shows better outcome though it is a FGA. This observation encourages the continued use of FGA depots to reduce relapses.

Email of the Corresponding Author: dhanuja76@gmail.com

INVESTIGATION OF PRO BLOOD CLOTTING ACTIVITY OF AQUEOUS LEAVES EXTRACT OF COFFEA ARABICA AND AQUEOUS WHOLE PLANT EXTRACT OF CYATHULA PROSTRATA IN VITRO

Ratnasooriya W.A¹, Erandika W.A.M¹, Samarakoon A.H.M.S.B², Dananjaya H.A.D.I³, Madhubashini E.A.K³, Pathirana R.N²

1. Faculty of allied Health sciences, General Sir John Kotelawala Defence University, Sri Lanka
2. Faculty of Medicine, General Sir John Kotelawala Defence University, Sri Lanka
3. University hospital, Kotelawala Defence University, Sri Lanka

Background: *Coffea arabica* (Family: Rubiaceae, Sinhala: Coffee) and *Cyathula prostrata* (Family: Amaranthaceae, Sinhala: Rath karal haba) are herbal plants growing in many tropical countries including Sri Lanka. In Sri Lankan folk medicine, crushed *Coffea arabica* leaves are recommended to apply on cuts and bruises to arrest bleeding. Also the whole plant of *Cyathula prostrata* is used in Ayurvedic medicine to arrest bleeding.

Aim/s: The main objectives of this study were to investigate proclotting activity as well as the major classes of phytochemical constituents present in the aqueous extracts.

Methods: This experiment was carried out to evaluate the pro blood clotting activity of aqueous leaf extracts of *Coffea arabica* and aqueous whole plant extracts of *Cyathula prostrata* in vitro against Goat blood. Citrated goat blood was used in this experimental study. The Extracts concentrations of 100% (original extract), 50%, 25%, 12.5% and 6.25% were tested, while saline solution (0.9%) was used as the control. The sample were observed for 15 minutes, following addition of excess calcium ions (0.2 mL of 2% calcium chloride solution) using Lee and White method. The time taken to form a “firm blood clot” was taken as the “clotting time”. Finally both extracts were subjected to qualitative testing for alkaloids, flavonoids, glycosides, saponins, tannins, phytosterols, phenols, carbohydrate, protein, and diterpenes as described by Farnsworth.

Results: The aqueous extracts of *Coffea arabica* mixtures containing 100%, 50%, 25% and 12.5% did not show clotting during testing period. The mixture containing 6.25% extract and the control test showed almost the same results ranging from 3.0 to 4.0 minutes. Aqueous extract of *Cyathula prostrata* was tested. Mixtures' containing 100%, 50% and 25% no firm was observed. Testing was carried up to 15 minutes and no clot was observed. The mixtures containing 12.5% and 6.25% and the control test showed almost the same results ranging from 3.0 to 4.0 minutes. Phytochemical analysis of the extracts of *Cyathula prostrata* showed the presence of alkaloids, flavonoids, saponins, tanins, phytosterols, carbohydrates, proteins, diterpenes and *Coffea arabica* leaves extract showed the presence of alkaloids, flavonoids, glycosides, saponins, tanins, phytosterols, phenols, carbohydrates, proteins, and diterpenes.

Conclusion: Aqueous extracts of *Coffea arabica* and *Cyathula prostrata* showed no proclotting activity but exhibited anticlotting activity when evaluated in vitro against goat blood. This is a novel finding. The results do not justify the claim made in Ayurvedic and folk medicine they may have proclotting activity. Phytochemical analysis also revealed that these extracts contain some phytochemicals which increases the clotting time.

Email of the corresponding Author: sajindu89@gmail.com

UTILIZATION, SPENDING AND PRICE TRENDS FOR ANTI-ASTHMATIC DRUGS IN STATE SECTOR OF SRI LANKA: 2002 - 2016

Fernandopulle, B.M.R.¹, De Silva, D.T.N.¹, Beneragama, B.V.S.H.², Panapitiya, L.², Sri Ranganathan, S.³, Weerarathne, E.D.⁴

1. Faculty of Medicine, General Sir John Kotelawala Defence University, Rathmalana, Sri Lanka
2. Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka
3. Department of Pharmacology and Pharmacy, Faculty of Medicine, University of Colombo, Sri Lanka
4. Medical Supplies Division, Sri Lanka

Background: Asthma has caused 191,004 hospitalizations in 2015, with a case fatality rate of 0.35% in Sri Lanka and is cited by the global asthma network as a high prevalent country. Hence, ensuring availability, affordability and access to essential asthma medicines is a priority.

Aim/s: To describe the trends, pricing and spending for anti-asthmatic drugs over a 15-year period.

Methods: Data was extracted from the Medical Supplies Division database and classified according to the ATC classification. Excel software was used to tabulate the data and to calculate the consumption of medicines using DDD's (Defined Daily Dose) per thousand inhabitants per day.

Results: An approximate 4-fold increase was observed in total DDD's of anti-asthmatic medicines issued from 2002 to 2016. Although an increasing trend was observed in utilization of salbutamol inhalants with the highest number of DDD's/1000 inhabitants per day recorded in 2016 (9.7), utilization of oral salbutamol is still high (29% of total salbutamol DDDs). Beclometasone, was introduced into the essential medicines list (EML) in 2002 and still tops the issued inhaled corticosteroids with the highest utilization in 2016. Anti-asthmatic medications such as montelukast, terbutaline, orciprenaline have been issued to state sector hospitals from time to time although they are not in the EML. Although ipratropium and salmeterol-fluticasone combination were not included in the WHO – Model List up to 2011 and 2017 respectively, despite their clinical advantage as back up for acute exacerbation, and STEP 3 of the asthma treatment ladder it is noteworthy that salmeterol-fluticasone combination was issued since 2006 and ipratropium since 2002. A substantial increase in the expenditure for anti-asthmatic medicines has been observed throughout the period with the highest recorded in year 2015 and 2016 (LKR 1.03 and 1.5 billion respectively).

Conclusions: Our data indicates that there is a major positive shift in providing essential asthma medications particularly inhalants, free of charge to patients in the state sector. However, expenditure could be cut down in procurement by establishing updated national treatment guidelines.

Email of the Corresponding Author: rohinferrandopulle@gmail.com

OP 61

DHIS2: A PLATFORM FOR HEALTH INFORMATION MANAGEMENT IN SRI LANKA

Senanayaka, S.D.P.S.¹, Liyanage, P.C.¹, Amarakoon, P.M.², Hewapathirana, R.³, Jayatilleke, A.U.⁴

1. Ministry of Healthcare, Nutrition and Indigenous Medicine – Sri Lanka
2. Nutrition Coordination Division, Ministry of Healthcare, Nutrition and Indigenous Medicine – Sri Lanka
3. Health Information Society of Sri Lanka
4. Postgraduate Institute of Medicine, University of Colombo – Sri Lanka

Background: Sri Lanka is known to have a well-established health information flow compared to other countries in the region. Health information is used for planning, monitoring and evaluation of health care activities at policy making and implementation levels in the country. To get the maximum benefit, data quality should be high. Data Quality includes several parameters including accuracy, completeness, timeliness, relevance, consistency, reliability, availability and accessibility. Most of the above parameters are lacking in health data generated by most of the information systems as they are still managed as paper-based systems. Therefore, it is an essential need to implement well designed electronic Health Information Management Systems (HIMS) in place of paper-based systems. DHIS2 is a free and open source, customized health information management platform which is being used in more than 60 countries over 17 years.

Aim/s: Main aim was to customize HIMSs in Sri Lanka using DHIS2 platform. It was expected to provide data analysis ability to each level of system users in addition to a data capturing and storage platform. Information presentation and dissemination functions were also expected to establish with the system.

Methods: Several HIMSs were developed customizing DHIS2 expecting to replace the current paper-based systems and some new data flows were also implemented. Some systems are implemented successfully from regional to national level capturing aggregate to individual and event data.

Most systems were designed to implement in a phase wise manner to facilitate the implementation process and change management.

Results: Electronic Reproductive Health Management Information System (eRHMS), Electronic Patient Information Management System for Tuberculosis (ePIMS-TB), District Nutrition Monitoring System, National Nutrition Information System, National Nutrition Surveillance System, Electronic Non-Communicable Diseases Information Management System (eNCD) and Electronic Injury Surveillance System are examples for successfully implemented systems developed with DHIS2 platform.

A system to capture outpatient mental health data (MHMS) and a system to capture health data from the private sector (PSHIMS) are also developed and awaiting implementation.

Conclusion: DHIS2 is successfully adoptable to manage health information in Sri Lanka.

Email of the Corresponding Author: priyanga.senanayaka@gmail.com

National Health Research Symposium – 2017 | Page 117

OP 62

ELECTRONIC REPRODUCTIVE HEALTH MANAGEMENT INFORMATION SYSTEM (ERHMIS) FOR IMPROVING REPRODUCTIVE, MATERNAL, CHILD, ADOLESCENT, YOUTH HEALTH PROGRAM (RMNCAYH) INFORMATION FLOW IN SRI LANKA

Kasturiaratchi, S.K.¹, **Senanayaka, S.D.P.S.**², Liyanage, P.C.², Amarakoon, P.M.³, Prabath, L.A.N.², Piyasena, G.Y.², Liyanagama, M.¹, Dimal D.A.², Hariaram, J.¹, Hewapathirana, R.⁴, Jayatilleke, A.U.⁵

1. Family Health Bureau, Ministry of Health, Nutrition and Indigenous Medicine – Sri Lanka
2. Ministry of Health, Nutrition and Indigenous Medicine – Sri Lanka
3. Nutrition Coordination Division, Ministry of Health, Nutrition and Indigenous Medicine – Sri Lanka
4. Health Information Society of Sri Lanka
5. Postgraduate Institute of Medicine, University of Colombo – Sri Lanka

Background: Family Health Bureau (FHB) is the centre of excellence in Maternal and Child Health for more than half a century in Sri Lanka. Further, FHB function as the focal point for information on planning, monitoring and evaluation of national Reproductive, Maternal, Child, Adolescent, Youth Health programs (RMNCAYH) in Sri Lanka. Reproductive Health Management Information System (RHMIS), which is part of above programme was a totally a paper-based system and hence, there were limitations in timeliness, completeness and accuracy of data. It has a significant negative impact on timely monitoring of MCH services in the country as it was produced quarterly by H509 aggregated data sheets.

Aim: To generate timely, complete, and accurate data by upgrading data storage, analysis, presentation and dissemination through implementation of an electronic information system.

Methods: Electronic information system which is called eRHMIS was developed based on DHIS2, which is a free and open source health information management platform with a wide area of capabilities, reliability and accuracy. RMNCAYH data capture will be implemented in several phases. First phase will include implementation of capturing aggregated reproductive health data in H509 form at Medical of Health (MOH) level. Data storage, analysis presentation and dissemination processes are automated through the system. The system provides data access to regional, provincial and national level health authorities and allows flexible data analysis at each level. Usability of the system was assessed by a self-administered questionnaire on a sample group of staff members who are using the system during a training programme (sample included data entry operators and statistical officers).

Results: eRHMIS was successfully implemented island wide since January 2017 and currently reproductive data of RMNCAYH programme is available to all levels by PHM areas. With the implementation of the system, timeliness, completeness and accuracy of data have improved significantly. Monthly approved data will be available to FHB at the end of each

month in comparison to 3 months in paper based system. Usability survey showed that 74 % like to use the system continuously and 70% found that the system is easy to use.

Conclusion: eRHMIS is a user-friendly, cost effective and acceptable system which gathers information much quicker compared to the paper-based system in managing RMNCAYH data in Sri Lanka.

Email of the Corresponding Author: priyanga.senanayaka@gmail.com

OP 63

OPEN SOURCE SOLUTION TO TRACK TUBERCULOSIS PATIENTS IN SRI LANKA USING DHIS2

Liyanage, P.C.¹, Epasinghe, D.U.², Ariyaratne, K.², Pallewatte, N.C.², Hewapathirana, R.³

1. Ministry of Healthcare, Nutrition and Indigenous Medicine, Sri Lanka
2. National Programme for Tuberculosis Control and Chest Diseases, Sri Lanka
3. Health Informatics Society, Sri Lanka

Background: Information need of National Programme for Tuberculosis Control and Chest Diseases (NPTCCD) relates to the management of National TB program and also tracking and management of individual patients with TB and other respiratory diseases. Aggregated reporting, disease surveillance, patient tracking, clinical decision supporting, laboratory and drug management modules are identified essential components of an ideal information system.

Ensuring implementation of countrywide electronic recording reporting system is essential to fulfill this information need and recent attempts to fulfill this failed to deliver the expected outcome mainly due to lapses in financing and technical expertise on requirement analysis.

Aim/s: To develop a sustainable electronic patient information management system, preferably using an open source platform.

Methods: District Health Information System Version 2 (DHIS2) was identified as a suitable platform to develop the system. It is a free an open source platform, successfully implemented in over 60 countries, especially in the public health domain.

Collaboration was initiated by NPTCCD with PGIM, aimed at obtaining technical assistance and infrastructure development. Proposed system was backed by Global Fund (GFATM), which is one of the main funding sources of NPTCCD which will ensure overcoming financial constraints. Informatics Department of University of Oslo, together with Health Informatics Society of Sri Lanka (HISSL) agreed to provide the extensive technical support and resources.

Results: The system was developed using the Tracker Module of DHIS2 and capturing patient information was started. Currently, the system is implemented in all 26 district chest clinics. Patient registration, DOTs provision arrangement, contact screening, sputum conversion details, treatment regime and outcome data of patients are recorded electronically. Further, recording of the patient location has enabled to minimize treatment interrupters and loss to follow-up cases. Training was given to system users and district level TB managers.

Conclusion: System was successfully implemented island wide support network with the inclusion of PGIM, HISSL, GFATM and Informatics Department of University of Oslo was formed. Further development with incorporation of a comprehensive LIMS module, drug stock management module and MDR-TB module is in the pipeline.

Email of the Corresponding Author: pramilcl@gmail.com

OP 64

SRI LANKA MOVING FORWARDS: A DIGITAL SOLUTION TO AMELIORATE CAUSE OF DEATH INFORMATION

1. Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka,
2. Health Informatics Society of Sri Lanka,
3. Bloomberg Philanthropies - Data for Health Initiative

Background: Sri Lanka has a well-established death registration system since 1867 aiming at registering all deaths with a cause of death (CoD). Of the 130,000 deaths occurring annually the large majority takes place out of hospitals and the CoD declared by non-medical persons. These deaths can now be diagnosed more accurately with 'Smart VA': an automated Verbal Autopsy tool that based on a short interview conducted with the family about sign and symptoms can produce a reliable COD for main diseases.

Aim/s: To test the suitability of SmartVA for Sri Lanka

Methods: The project was led by the Ministry of Health (MoH) and Registrar General's department (RGD) with technical support from University of Melbourne (UoM) and the Health Informatics Society of Sri Lanka with funding from Bloomberg Philanthropies - Data for Health Initiative. Pre-test phase included: formulation of a technical working group with experts from MOH and Vital Statistics Unit, RGD, translation of the Smart VA questionnaire into two local languages; selection of 7 Medical Officer of Health (MOH) areas representing three districts (Colombo, Kurunegala and Jaffna); training 146 Public Health Midwives (PHMs) as interviewers. During January-March 2017, smart VA was carried out on deaths that occurred out of hospitals, from August to December 2016.

Results: Among the 286 adult VA completed, SmartVA diagnosed a valid COD for, 235 (82%). When these were compared with the existing RG data, the usable CoDs improved from 30% to 82%. A comparison of results with the Global Burden of Disease (GBD) estimates for Sri Lanka showed roughly similar distributions among the leading CoD: Stroke, cancer, IHD, Chronic Respiratory Diseases, and Diabetes. PHMs as interviewers were found to be effective for collecting information on CoD a using tablet.

Conclusion: Application of Smart VA in Sri Lanka improved significantly the quality of CoD information for out-of hospital deaths. Given the small scale of the study it is recommended that the pilot is expanded to include a larger number of MOH areas and the results evaluated against the CoD given by the RG department. Until all deaths are medically certified in Sri Lanka, Smart VA could be used to obtain valid CoDs for all deaths that are not medically certified.

Email of the Corresponding Author: rajitha.jayasuriya@unimelb.edu.au

FREE PAPER SESSION 17 – CAPACITIES OF HEALTH PROFESSIONALS

OP 65

PREPAREDNESS, KNOWLEDGE AND PERCEPTIONS OF PUBLIC HEALTH MIDWIVES TO IDENTIFY AND MANAGE INTIMATE PARTNER VIOLENCE IN A RURAL DISTRICT OF SRI LANKA

Muthuarachchi, M.I.¹, Pathmeswaran, A.²

1. Postgraduate Institute of Medicine, University of Colombo.
2. Faculty of Medicine, University of Kelaniya.

Background: Intimate Partner violence (IPV) is an overlooked public health problem with negative health implications to victims and families. PHMs are one of the first line responders for IPV victims in Sri Lanka. Identification of knowledge, perception and preparedness among them to provide services in IPV is imperative to improve the wellbeing of the victims and their families.

Aims: To determine perceived preparedness, knowledge and perception among PHMs on identification and managing events of IPV and to determine the associated factors in preparedness and knowledge on IPV in Puttalam district

Methods: A descriptive cross-sectional study was conducted in Puttalam district. The entire eligible field PHMs (178) were included to the study. Preparedness, knowledge and perception among PHMs to identify and support IPV victims were assessed using a pretested questionnaire developed using several validated questionnaires. Associated factors were assessed using independent sample t test and ANOVA.

Results: Mean scores for perceived preparedness was 68.0 (SD 12.0) out of 100 and perceived knowledge was 49.4 (SD=9.21) out of 70. Training on IPV ($P < 0.001$) and field experience ($P = 0.01$) showed a significant association with the preparedness and perceived knowledge. More than 50% of PHMs think disobedience is a major cause for violence and 66.5% of PHMs believed that women is to blame for IPV for some extent. One fifth of the PHMs believed 'some women are benefits the act of IPV'. A quarter of PHMs believed that some acts of IPV are acceptable. 17.4% advocated bearing up the acts of IPV since with time it will get 'better'.

Conclusion: Some gaps were identified in knowledge and perception towards IPV. Necessary steps should be taken to address the gaps in knowledge and negative perceptions on IPV.

Email of the Corresponding Author: indeewaraya@gmail.com

KNOWLEDGE, ATTITUDES AND SELF REPORTED PRACTICES OF NURSES AT THE NATIONAL HOSPITAL OF SRI LANKA ON THE LAST OFFICES OF A DECEASED.

Dharmarathna, K.M.R.P.¹, Seneviratne, S.M.K.S.²

1. National Hospital of Sri Lanka, Colombo 10.
2. Dept. of Allied Health Sciences, Faculty of Medical Sciences, University of Sri Jayewardenepura, Gangodawila, Nugegoda, Sri Lanka.

Background: Nurses care for patients before they are born, during their lifetime and also after death. The care rendered by nurses to a deceased in a hospital has traditionally been referred to as 'last offices' or care after death.

Aim/s: The aim of this study was to describe knowledge, attitudes and practices among nurses in relation to the last offices.

Methods: This descriptive cross-sectional study was conducted on a convenience sample of 368 nurses from randomly selected 15 units in the National Hospital of Sri Lanka. A pre-tested self-administered questionnaire was developed using literature and expert opinion. Ethical approval was obtained from the Ethics Review Committee of University of Sri Jayewardenepura. Data were analysed using SPSS (version 16).

Results: The response rate was 87.2%. Mean age and experience of the participants were 33.57±6.9 years and 8.33±6.8 years respectively. The majority were females (92.4%). According to the results, more than half of the participants had poor knowledge in certification and registration of death(57.9%), health and safety(50.3%), legal requirements(50.3%) and supporting family members (52.2%) of the respectively. Most of the participants had a good knowledge in recording last offices (72.3%) eye donation (58.7%) information to relatives (52.7%) and dead body preparation (71%) respectively. Almost all (98.4%) had good knowledge in responsibility of property of the deceased and respecting the religious and cultural wishes.

Most of the participants (95.4%) have accepted addressing religious and cultural requirements as their duty, importance of respecting privacy and dignity of the patient (95.7%) and importance of considering the impact of their own behaviour on the family during last offices (97.5%). Only 27.7% of participants had good self-reported practices while 44.3% had fair self-reported practices and 28% had poor self-reported practices regarding last offices.

Conclusion: Although a majority showed good knowledge, favourable attitudes and fair self-reported practices towards the last offices, deficiencies in all those areas were identified. Nurses' knowledge, attitudes and practices regarding last offices could be improved through continuing education to enhance the quality of care. The findings could be utilized by hospital authorities in the development of policies and establishing practice guidelines for nurses.

Email of the Corresponding Author: rasi.priyadarshi@gmail.com

AN ASSESSMENT OF KNOWLEDGE OF MEDICAL OFFICERS ON ESSENTIALS OF MANAGING BED HED TICKETS

Mallawarachchi, S.M.N.S.M.¹, Mallwarachchi, C.H.¹

1. Post Graduate Institute of Medicine, University of Colombo

Introduction: A medical record is the document which carries patient's details, clinical history, actions taken in management including investigations and treatment, patient's progress and the diagnosis. In the scope of in-ward care in Sri Lanka it's the Bed head ticket (BHT) which is a paper based medical record.

Aims: Objective was to study the knowledge of grade medical officers (MO) on management of BHTs.

Methods: A cross sectional descriptive study was carried out in all Divisional, Base and District General hospitals in Regional directorate area of Gampaha. MOs were randomly selected from each category of hospital proportionate to the total number of MOs in each and a total of 246 participated. A pre-tested self-administered questionnaire was used to collect data.

Results: Among the MOs 71/241(70.54%) did not know that a general circular on procedures pertaining to medical records existed and only 23/71(32.5%) had read it. Majority of 66% (148/223) were aware that the final diagnosis should be written in block capitals. Awareness that a non-judicial BHT should be preserved in the institution for a period of five years was with 188/246 (76.4%). The procedure of issuing a separate BHT under the same number of the patient to the bystander for the purpose of provision of diet was not known by 42/246 (82.93%). The fact that a discharged patient's BHT should be sent to the record room by following morning was known by 42/203 (20.6%). Fifty one percent of MOs (125/244) were not aware that the BHT is the sole source of information for Indoor Morbidity Mortality Return.

Conclusions: The knowledge of grade medical officers regarding the management of BHT had gaps regarding the guidelines of managing BHTs, and basic information flow.

Email of the Corresponding Author: navodasandamali79@gmail.com

KNOWLEDGE AND ATTITUDE TOWARDS ACUTE PAIN MANAGEMENT AMONG NURSES WORKING IN SURGICAL UNITS AT A TERTIARY CANCER HOSPITAL, CHINA

Yongyi, C. ¹, Thilakarathna, H.H.P.D ²

1. Hunan Cancer Hospital/The Affiliated Cancer Hospital of Xiangya School of Medicine, Central South University, China. No.283,Xianjianhu Road, Yuelu District, Changsha,Hunan,410013, P.R. China
2. National Dental Hospital, Ward Place, Colombo 07, Sri Lanka

Background: Acute pain is the most common patient complaint in surgical departments. Acute pain after surgery is highly prevalent and it impacts negatively on patient's morbidity. Quality care of these patients depends on the knowledge and pain management skills of surgical department nurses.

Aim/s: To determine the current knowledge and attitudes of surgical section nurses regarding the acute pain management of surgically treated cancer patients in a Tertiary Cancer Hospital.

Methods: A cross sectional descriptive survey design was applied. The self-designed general information form and "Knowledge and Attitudes Survey Regarding Pain (KASRP)" questionnaire was used to collect the data and measure nurses' knowledge and attitudes towards patients' in acute pain. The reliability and validity were analysed by Geyong Tong in 2009. Coefficient of Cronbach's awas 0.743. Test-retest reliability was 0.660. And the content validity has been established by way of expert counselling and showed good results and the Chinese version of KASRP has sound psychometric properties for Chinese nurses population.

Results: A total number of 309 nurses participated in this study. The mean score of knowledge and attitudes was 23.77 (SD=8.170). Among all questions, Question 16-(After an initial dose of opioid analgesic is given, subsequent doses should be adjusted in accordance with the individual patient's response) received the most number of correct responses and Question 19-(If the source of the patient's pain is unknown, opioid should not be used during the pain evaluation period, as this could mask the ability to correctly diagnose the cause of pain) received the least amount of correct responses. In total , 5 Questions had correct rates greater than 85%, 20 Questions had correct rates between 50% and 85%, 15 Questions had correct rates less than 50%. According to ANOVA and t-test results, nurses' knowledge and attitudes towards acute pain management were significantly different at the $P<.05$ level in KASRP total scores between groups with different genders-male, female ($t=10.671,P=0.001$), education levels (Diploma, Bachelorette, Masters) ($F=4.322,P=0.014$), departments (Surgical ward, ICU, Operation room) ($F=6.811,P=0.001$), education related to pain management in schools ($t=9.112,P=0.003$), education related to pain management from academic journals ($t=26.211,P=0.000$). The results of regression analysis indicated three factors influencing nurses' knowledge and attitudes towards pain management which are education related to pain management in schools, education related to pain management from academic journals and working department.

Conclusion: The level of knowledge and attitudes towards acute pain management among nurses working in surgical units was not adequate in a tertiary cancer hospital, China.

Email of the Corresponding Author: darshithilakarathne@yahoo.com

OP 69

FACTORS AFFECTING STUNTING AND UNDERWEIGHT AMONG CHILDREN BELOW 5 YEARS IN A RURAL CHILD WELFARE CLINIC

Ranasinghe, R.M.M.P.¹, Silva, W.A.N.Y.²

1. Faculty of Medical Sciences, University of Sri Jayewardenepura, Gangodawila, Nugegoda, Sri Lanka.
2. Department of Physiology, Faculty of Medical Sciences, University of Sri Jayewardenepura, Gangodawila, Nugegoda, Sri Lanka.

Background: Although Sri Lanka had shown significant improvements in maternal and child health indicators during the past few decades, indicators related to nutritional status had not shown optimal improvements with maternal and child under nutrition.

Aims: To identify the factors affecting stunting and underweight among children below five years of age in a rural child welfare clinic.

Methods: A descriptive cross sectional study was conducted in a child welfare clinic of Giribawa MOH area in Kurunegala district using a structured interviewer administered questionnaire. Data on birth weight, birth length, present weight and length/ height was extracted from child health development record (CHDR). Underweight and stunting were defined as less than -2SD of CHDR which used in Sri Lanka with WHO standards.

Results: In this study 293 children were included (male=148, female=145). Majority of children had normal birth weight (male: 76.4%, female: 84.1%) and birth length (male: 95.3%, female: 96.6%). Overall percentage of underweight was 16.0% while stunting was 34.1%. Underweight was higher in females than males. ($p=0.005$). Low birth weight, low birth length of females, admission to premature baby unit, having an illness at present, getting recurrent infections and father's age below 31 years were significantly associated with underweight ($p<0.05$). Having illness at present and alcohol consumption of father had significant association with stunting ($p<0.05$). In multivariate analysis female gender was an independent risk factor for underweight while paternal alcohol consumption was independent risk factor for stunting.

Conclusions: Prevalence of stunting was higher than the prevalence of underweight. Effect of some habits such as alcohol consumption for childhood under nutrition should be further explored.

Email of the Corresponding Author: prasannaranasinghe91@gmail.com

QUALITY OF IODIZED EDIBLE SALT FROM SELECTED AREAS OF LOCAL MARKET IN SRI LANKA.

Senanayake, V.¹, Hemalatha, A.M.K.¹, Udakara, S.¹, Lakshman, P.L.N.²

1. National Institute of Health Science, Kalutara
2. Department of Food Science and Technology, Faculty of Agriculture, University of Ruhuna, Mapalana

Background: Iodine deficiency was recognized as a public health problem in Sri Lanka in 1986. The Government of Sri Lanka launched Universal salt iodization (USI) and made salt iodization mandatory by passing a law in 1995. Many salt products coming up to the market with different brand names. Therefore, it is vital to determine their quality parameters to check whether they follow the recommended fortification level.

Aim: To assess the quality of iodized edible salt routinely collected from selected areas of local market in Sri Lanka

Method: All the samples received to the Food Chemistry Laboratory at National Institute of Health Sciences, Kalutara during a year 2015. Routinely collected samples by the Public Health Inspectors from Kalutara, Galle, Matara and Hambantota districts were considered. Salt samples were processed for testing and reported according to the Food (Iodization of Salt) Regulations 2005 in Sri Lanka. Quality requirements are moisture is not more than 6 per cent, iodine content ranges from 15-30 mg/kg, percentage matter insoluble in water is not more than 2 and Sodium Chloride content is not less than 97 per cent. The samples were mainly divided into two groups based on size of particles, table salt (fine powder) and common salt (crystals). Comparisons were analysed with chi square and two factor factorial experimental.

Results: A total number of 837 samples from 85 brands including 594 of iodized table salt and 243 of iodized common salt were analysed. Overall quality compliance of table salt was 67% and common salt was 63.4%. The mean iodine content in table and common salt were 21.8 ± 11.47 mg/kg and 20 ± 10.58 mg/kg respectively. Sixty per cent table salt and 45% common salt were complying with the requirement of 15-30 mg/kg of Iodine. Of the sample, 28% (160) of table salt and 28% (109) of common salt have iodine content < 15 mg/kg. As well as 12% (73) of table salt and 13% (33) of common salt were exceeding the limits (> 30 mg/kg). There was no significant difference in iodine levels ($p = 0.1649$) between districts and type of salt. The mean matter insoluble in water was 0.41 ± 0.12 for both type of salt. In moisture content, the mean values were 1.7 ± 2.8 and 6.6 ± 6.3 in table salt and crystal salt, respectively. Both table and crystal salt attained 98.8 ± 0.54 of mean value for Sodium chloride content.

Conclusion: The overall quality of salt showed no significant difference with the local salt standard, but still there is a necessity of monitoring the salt production and iodisation process.

Email of the Corresponding Author: kfoodlab@yahoo.com

OP71

MANAGEMENT OF SEVERE ACUTE MALNUTRITION AMONG 6 TO 59 MONTHS OLD CHILDREN IN SRI LANKA

Dhanapala S.¹, Jayawickrama H.¹, Jayakody H.¹, Ranathunge R.¹, Gunathilake I¹, Thilakarathne A.¹

1. Family Health Bureau

Background: Children with severe acute malnutrition (SAM) in Sri Lanka are managed at specialist pediatric clinics in government hospitals. Field health staff should refer identified children at the community to the hospital clinic. Despite the availability of effective treatment for SAM (BP 100 therapeutic biscuits) its prevalence among under five years children was stagnant over the last decade.

Aims: To describe the coverage and adherence to practices in the management of SAM among 6 to 59 months old children in Sri Lanka.

Methods: A community based cross sectional descriptive study was conducted among 812 children in the age of 6 to 59 months with severe acute malnutrition (as identified at nutrition month survey 2016) from all districts in the country using multistage cluster sampling method. Information was collected using an interviewer administered questionnaire and a data extraction form.

Results: Response rate was 98.6% (n=801). There were 722 children who required fresh referrals to hospital clinic. Of them only 317 (44.5%) were referred to MOH clinic and from there only 112 (15.7%) were referred to the hospital clinic. However, only 13.4% (n=96) went at least once to the hospital clinic (effectiveness of the referral pathway).

Among the total sample of 801 children, only 88 (10.9%) received BP 100 therapeutic biscuits from the nutrition rehabilitation clinics. Mothers gave BP 100 daily for 77 (91.7%) children. But only 46(54.7%) children were given the full dose as prescribed by doctors for a day. Public Health Midwife visited 70.0% (n=56) of children at least once while they were on BP 100 therapy.

Conclusion: Intervention coverage for the management of SAM was low in Sri Lanka. The effectiveness of the referral pathway from the community to the hospital was poor, thus it should be simplified. Individual follow up plans should be implemented at PHM level for all children with SAM.

Email of the Corresponding Author: gayathri_hj@yahoo.com

DIETARY VITAMIN D INTAKE AMONG LACTATING MOTHERS AND ITS CORRELATION TO VITAMIN D STATUS OF THEIR OFFSPRING

Anusha, K¹, Liyanage, G.S.H.², Hettiaratchi, U.P.K.¹

1. Department of Biochemistry, Faculty of Medical Sciences, University of Sri Jayewardenepura
2. Department of Paediatrics, Faculty of Medical Sciences, University of Sri Jayewardenepura

Introduction: Daily requirement of vitamin D during lactation is controversial. However, Institute of Medicine (IOM) task force recommends safe level of 4000 IU/day of vitamin D through diet. Vitamin D occurs naturally in oily fish, egg yolk and fortified milk/milk products. Most of these food items are less affordable to majority in Sri Lanka. Vitamin D supplementation is not routinely done in state sector clinics in Sri Lanka.

Aim/s: To assess adequacy of vitamin D intake through diet among a selected population of pregnant mothers and its correlation to vitamin D level of the infant.

Methods: Lactating women of 4-6 weeks of postpartum (n=102) were interviewed. Vitamin D levels of food items were calculated using validated software (Nutrisurvey). Weekly intake of vitamin D was assessed and average consumption/day was calculated. Serum vitamin D levels of the infant were analysed using mini VIDAS and Parathyroid hormone (PTH) using DRG ELISA kits. Vitamin D (25(OH)D) deficiency was defined as <10 ng/mL. Data were analysed using SPSS version 15.0.

Results: Majority (98%) of infants were exclusively breastfed. Vitamin D deficiency was high (63.1%) among the infants. 25.2% had insufficiency (10-20ng/mL). The total intake of vitamin D from diet was 1297.4±1264.9 IU/day (range32-5400). Main source of their vitamin D in this population was fortified milk powder and small fish. Vitamin D level in the infant correlated significantly with mother's vitamin D intake in the diet. (r=0.204, p=0.039).

Conclusion: Vitamin D deficiency/insufficiency in infants is high. Mother's vitamin D intake, which is the only source of vitamin for the infant, is not adequate. Thus, we suggest vitamin D supplementation during lactation in state sector clinics in Sri Lanka. Further, larger randomized controlled trials are needed to investigate safe dose of supplementation.

Email of the Corresponding Author: guwanil@yahoo.co.uk

OP 73

THE OPTIMUM AGE FOR OTOACOUSTIC EMISSION HEARING SCREENING FOR NORMAL VAGINAL FULL TERM DELIVERED NEONATES.

Jeewanthi, R.N.¹ Kosgallana, P.²

1. ENT department, Lanka Hospitals Corporation, Narahenpita, Colombo.
2. Wickramarachchi Institute of Speech and Hearing, Nugegoda.

Background: Universal Neonatal Hearing Screening (UNHS) is recognized by the Joint Committee of Infant Hearing (1996) as the most efficient protocol for early identification of hearing loss and evoked Otoacoustic Emissions (OAE) are an indispensable part of that protocol. In contrast to the recommendations of the Joint Committee on Infant Hearing (JCIH), neonatal hearing screening programs are still not available in Sri Lanka. Failure rates for OAEs fluctuate within the neonatal period. Mode of the delivery also affect to failure rate of OAE within the neonatal period.

Aims: To assess the most optimum age range for OAE hearing screening for normal vaginal full term delivered neonates.

Methods: Descriptive cross sectional study was carried out from 180 full term vaginal delivered neonates born at North Colombo teaching hospital, Ragama from July 2013 to September 2013, using Biologic AuDX pro equipment. The first screen was 0-48 hours of life. Then the second screen 9-11 days of life and third screen 23-25 days of life was done. For the third stage OAE failures, diagnostic OAE and Auditory Brainstem Response (ABR) were carried out. Analysis were done by using SPSS software.

Results: Among 180 full term vaginal delivered neonates, the initial screening (0-48 hours) failure rate in this study was 68.33% (n= 180) and 9-11 days of life failure rate was 1.8% (n= 167) and 23-25 days of life failure rate was 1.02% (n= 142). No participant was participating for diagnostic OAE and ABR test. There was a significant difference ($p < 0.05$) observed between failure rates of first stage with second and third stage.

Conclusions: It is advisable to conduct hearing screening with DPOAE after 48 hours of neonatal age due to eliminate obstruction course by external canal occlusion which was observed during periodic otoscopic evaluation. This study data can be used as a guideline for implementation of UNHS in Sri Lanka and it's better to conduct further studies on OAE together with High Frequency Tympanometry to rule out the middle ear condition.

Email of the Corresponding Author: nadeesharamanayaka@gmail.com

PREGNANCY AND HEART DISEASE; AN EXPERIENCE FROM CENTRAL PROVINCE OF SRI LANKA

Bandara, H.G.W.A.P.L¹, Jayasekara, N.M.T.C¹, Kodithuwakku, N.W¹, Jegavanthan, A¹, Jayawikreme, S.R¹,

1. Department of Cardiology, Teaching hospital Kandy

Background: Pregnancy complicating heart diseases contribute for significant morbidity and mortality in current obstetrics practice.

Aim/s: To evaluate the pattern of cardiac diseases complicating pregnancy and to assess the fetomaternal outcomes.

Methods: A prospective cross-sectional study was conducted in 2016 January to December. All the pregnant mothers who were referred to cardiology unit teaching hospital Kandy were evaluated by clinical, electrocardiographic and echocardiographic aspects. Patients who belonged to World Health Organization (WHO) cardiac risk category > II were discussed at multi-disciplinary meetings. All of them were followed up during their pregnancy and postpartum period.

Results: There were 81 pregnant mothers included in the study with a mean age of 28.49±6.01 years. Out of the cardiac diseases, valvular heart diseases were the commonest (60%, n=45) pathology. There were 24.69% (n=20) mothers with congenital heart diseases and 11.11% (n=9) with cardiomyopathies. Mitral stenosis was the commonest 48.12% (n=39) among valvular heart diseases. Other valvular lesions included, 30.86% (n=25) of mitral regurgitation, 6.17% (n=5) of aortic regurgitation, 3.70% (n=3) of pulmonary stenosis and 2.45% (n=2) of aortic stenosis. Out of all valvular disease 68.75% (n=33) were rheumatic in origin. According to WHO pregnancy risk assessment 24.69% (n=20), 3.70% (n=3), 40.74% (n=33), 6.17% (n=5), and 22.22% (n=18) were belonged to category I, II, [II-III], III, and IV respectively. There were 75.31% (n=61) had uneventful postpartum period. However there were 2.56% (n=2) maternal death related to cardiac illness, 12.82% (n=10) of re-admissions and 10.26% (n=8) of neonatal complications necessitating intensive care unit admissions. There were 2.56% (n=2) medical termination were performed.

Conclusion: Still the major cause for heart disease complicating pregnancy is the rheumatic valvular heart disease. The study emphasizes the importance of pre-pregnancy detection of cardiac conditions in the community level aiming to reduce the cardiac disease related maternal morbidity and mortality.

Email of the Corresponding Author: lakshmanbandara@gmail.com

OP 75

UNMET NEED FOR FAMILY PLANNING AMONG 15-49 YEAR OLD WOMEN IN THE MEDICAL OFFICER OF HEALTH AREA MALLAVI IN MULLAITIVE DISTRICT

Herath, D.C.K.¹, Kasturiratne, K.T.A.A.¹.

1. Department of Public Health, Faculty of Medicine, University of Kelaniya

Background: The concept of unmet need for family planning is defined as discrepancy between women's contraceptive use and their fertility intentions. The causes and the magnitude of unmet need can vary according to the socio-demographic characteristics of women in different countries and different regions. Mallavi Medical Officer of Health area is situated in the Mullaitivu district in the Northern Province of Sri Lanka. Data on unmet need in the Northern Province are scarce, Due to the effects of more than three decades civil war. Therefore, the findings of this study could help program managers to strengthen the family planning program and further reduce the unmet need in the area.

Aim/s: To determine the prevalence and factors associated with unmet need for family planning among 15-49 year old women in the Medical Officer of Health area Mallavi

Methods: A community based cross sectional study was conducted in the MOH area Mallavi. The study was conducted over two months from August to September in 2014. Data were collected using an interviewer administered questionnaire by trained data collectors. A total of 500 women between 15-49 year of age were enrolled using cluster sampling, according to probability proportional to size. Univariate analysis was performed to describe the characteristics of the study population and women with unmet need. Factors associated for unmet need was tested using chi-squared test where applicable.

Results: Current contraceptive prevalence rate for any method was (n=333, 66.6%), while the prevalence of modern contraceptive methods was (n=273, 54.6%). The extent of unmet need was (n=59, 11.8%), with (n=38, 7.6%) for spacing and (n=21, 4.2%) for limiting. Among the women with unmet need, only one amenorrhic woman reported her most recent pregnancy as mistimed. Ever use of contraception was (n=32, 54.2%). Being employed (OR=1.976; CI: 1.02-3.82; p=0.040) and husband's agreement in fertility goals (OR=0.439; CI: 0.24-0.79; p=0.005) were the factors significantly affecting the total unmet need for contraception, Education level below GCE Ordinary Level was a protective factor (OR=0.452; CI: 0.25-0.81; p=0.006), Age of the respondent, monthly income level, parity and number of living children were not associated with the unmet need. Family planning service related problems were; the distance to the family planning clinic, long waiting in the clinic (n=4, 50%) and lack of privacy (n=2, 25%) were the main reasons cited by women with unmet need.

Conclusion: Program planners should focus on increasing the competence of service providers by updating their knowledge in family planning and skills in counselling. Should create awareness on various methods, their probable side effects and increase access to modern contraceptive methods, in order to reduce the unmet need and empower them to make an appropriate choice of contraception

Email of the Corresponding Author: chandishani11@yahoo.com

PUBLIC AND PRIVATE SECTOR UTILIZATION FOR ANTENATAL CARE BY PREGNANT WOMEN DELIVERING IN GOVERNMENT HOSPITALS IN KALUTARA DISTRICT.

Pathirage, I.D.,¹Hemachandra, D.K.N.N.²

1. Post Graduate Institute of Medicine, University of Colombo, Sri Lanka
2. WHO, Country Office, Sri Lanka

Background: Anecdotal evidence suggests that there is an increased tendency to use the private sector for antenatal care in the recent past, despite the country is providing high quality free antenatal care services. It was found even having problems with affordability, people are utilizing private sector antenatal care services. In contrast to this 96% of the deliveries are taken place at government hospitals.

Aim/s: To assess the extent of public and private sector utilization for antenatal care and to identify the reasons behind their choices; among pregnant women who delivers in government hospitals

Methods: Descriptive cross sectional study was carried on pregnant women admitted for delivery in specialized obstetric units in Kalutara District using multistage sampling method. Data was collected over 2 months by interviewer administered questionnaire and a check list. To minimize the recalling bias data was cross checked with the pregnancy records, clinic records, investigation reports and consultation notes. Data was analysed using SPSS 16 software.

Results: Out of 406 participants 73.4% were living in rural areas and 80.3% had planned pregnancies while 70.2% had registered before 8 weeks. All had received shared care and had more than 4 clinic visits while 84.5% (343) of them had more than 9 clinic visits. More than 93 (22.9%) had visited both public and private sector for specialized care. Ethnicity, residence, planned pregnancy and not having children were significantly associated with private sector clinic attendance (p values 0.000, 0.006, 0.001 and 0.003 respectively) while field staff (76.2%) had more influence over family (46.4%) in selecting private health services. Majority had done the investigations at private sector and only 15(3.7%) pregnant women were able to receive all antenatal care services from public sector. Considerable proportion (46.8%) had taken extra micronutrients from the private sector and majority had no problems regarding the affordability.

Conclusion: Private health sector is gaining high influence in providing antenatal care and the antenatal care coverage was satisfactory considering both National and WHO (world health organization) recommendations. Apart from the socio demographic, socio economic factors and public concern; the health sector itself had great influence on private sector utilization for antenatal care.

Email of the Corresponding Author: dilpathirage@gmail.com

OP 77

EFFICACY OF ULTRASOUND EXAMINATION IN DETECTION OF RENAL TRACT ANOMALIES ASSOCIATED WITH URINARY TRACT INFECTIONS IN CHILDREN.

Kumara, A.W.S.¹, Jayantha, U.K.¹, Kolambage, L.P.²,

1. University Paediatric Unit, Teaching Hospital Karapitiya .
2. Department of Radiology, Teaching Hospital Karapitiya.

Background: Urinary Tract Infection (UTI) is the third most common bacterial infection in children. However UTIs remain as one of the most controversial topic in paediatric practice. Controversy and lack of consensus prevail over the diagnosis and management.

Aim: To evaluate, the efficacy of ultrasound examination to detect renal tract abnormalities and prevalence of renal tract abnormalities in children with UTI.

Method: Prospective cross sectional study done at university paediatric ward and renal clinic from May 2015 to June 2016. Children up to 3 years presenting with febrile UTI for the first time were included. Renal ultrasound, Micturating cysto-urethrogram (MCUG) and Dimercaptosuccinic Acid(DMSA) were done for all patients accordingly. Results were analyzed and sensitivity and specificity was calculated. Ethical clearance has been obtained from the Ethics Committee of the Faculty of Medicine, University of Ruhuna.

Results: Of the 232 patients included in the study, 35 were lost to follow up after the renal ultrasound. Hence the results of 197 patients (infant 121, toddlers 76) were analyzed. Abnormal ultrasound and MCUG was found in 11 (9%) and 32 (26%) infants respectively. Corresponding values of toddlers was 4 (5%) s and 12 (16%) respectively. Normal US results were found in 23 out of 24 (95%) s low grade vesico ureteric reflux (VUR) and 12 out of 20 (60%) high grade VUR (Grade III – V) which shows overall 20% sensitivity and 95% specificity in detection of VUR. Renal scars were noted in 13 children after analyzing 197 DMSA scans and five of them had VUR. In addition to that, normal Ultra Sound was found in one bladder diverticulae and two children with posterior urethral valves (PUV). There were two Posterior urethral junction (PUJ) obstructions among the abnormal ultrasounds.

Conclusion: Vesico-ureteric reflux is the most common renal tract abnormality in children with UTI. Without MCUG majority of VUR, both low grade and high grade and some other abnormalities such as bladder diverticulae and PUV will be missed. Hence the need for MCUG should not be replaced by the results of ultrasound.

Email of the Corresponding Author: wadu8ten@gmail.com

OP 78

PATTERN OF LOWER LIMB VARICOSE VEINS IN PATIENTS PRESENTING TO DEPARTMENT OF RADIOLOGY, BASE HOSPITAL DIYATALAWA FOR ULTRASOUND DOPPLER EVALUATION

Gannoruwa K.M.C.S¹, Kumara D.M.S.P.¹, Ranasinghe B.L.M.G.¹, Gannoruwa M.², Ranasinghe R.A.S.U.K.³

1. Department of Radiology, Base Hospital Diyatalawa.
2. Medical Clinic, Base Hospital Diyatalawa.
3. Psychiatry Unit, Base Hospital Diyatalawa.

Background: Varicose veins cause a significant morbidity in our population. Various patterns of incompetence at the superficial and deep venous junctions, distribution of the incompetent perforators (IP) and the prevalence of deep venous reflux (DVR) in western population have been described. However, the pattern of venous incompetence in Sri Lankan population is not known and comparison data is unavailable to date.

Aim: To assess the pattern of varicose veins in patients referred for Doppler evaluation at our institution.

Methods: This prospective, descriptive study was carried out over a period of one year (May 2016 to May 2017) enrolling all the patients referred for Doppler evaluation of varicose veins. Using Toshiba Xario SSA-660A Color Doppler Ultrasound machine with 5-12 MHz linear array probe, patients were examined in standing position with valsalva maneuver and manual compression. All the studies were performed and interpreted by the Consultant Radiologist.

Results: A total of 741 limbs of 476 patients (Males-49.7%, Females-50.3%) were studied of which 55.68% had bilateral studies. 91.9% of the patients had had some form of venous reflux. Combination of superficial and DVR was more common (87.8%) than single site reflux (12.2%). Sapheno-Femoral incompetence (SFI) with IPs and DVR was the most common combination (19.83%) followed by SFI with DVR (14.44%). DVR was observed in 69.64% of limbs. The most common IP by location was the posterior upper calf (23.29%), however, most number of IPs were seen in the medial aspect of the calf (55.50%). Lesser saphenous vein (LSV) extending in to thigh and draining to Femoral Vein at variable levels was the most common pattern (53.17%) for differential LSV anatomy.

Conclusion: Multiple site venous incompetence is the most common pattern of involvement. High percentage of DVR, pattern of IPs and variable LSV anatomy observed in this study is valuable for personalized treatment strategies and prognostication.

Email of the Corresponding Author: samgannoruwa@hotmail.com

OP 79

DESCRIPTIVE STUDY ON THE EVALUATION OF RENAL SCARS BY ^{99m}Tc DIMERCAPTOSUCCINIC ACID (DMSA) SCANS FOLLOWING THE FIRST EPISODE OF URINARY TRACT INFECTION (UTI) IN CHILDREN ADMITTED TO THE LADY RIDGEWAY HOSPITAL FOR CHILDREN, SRI LANKA.

Pathirana, K.G.¹, Fernando, M.U.J.¹, Samarasinghe R.A.N.K.K.¹, Duminda, W.D.¹, Ranasinghe, D.P.², Mahesh, P.K.B.³.

1. Department of Radiology, Lady Ridgeway Hospital for Children, Colombo-08.

2. Sri Jayewardenepura General Hospital, Kotte.

3. Post graduate institute of Medicine, University of Colombo.

Background: DMSA scan is the best investigation to assess renal scarring following UTI in children. In the Lady Ridgeway Hospital for Children, around 120 DMSA scans are performed monthly.

Aim/s: To describe DMSA scan findings and their associations with selected disease characteristics following first episode of UTI.

Methods: Descriptive cross-sectional study was performed from 15.02.2014 to 30.11.2014. Children who had undergone a DMSA scan following a single episode of UTI (n=200) were selected with systematic sampling. Interviewer administered questionnaire and a data extraction form were used.

Results: There were 112 (56%) boys and 88 (44%) girls. Approximately 99.5% (n=199) of children were below 60 months. All had an UTI 6 month before the date of the DMSA scan. There were positive urine culture reports in 173 (86.5%) of children. There was no statistically significant association between the DMSA scan results and the gender, the family history of UTI (p=1.0), family history of vesico-ureteric reflux (p=1.0), the presence of fever during the UTI (p=0.134), a positive urine culture report (p=1.0) and the urine culture colony count (p=0.36).

Conclusion: In majority of children following first episode of UTI (93%, n=186), DMSA yielded negative findings. This negative association is similar in relation to many selected disease attributes. It is timely that the conventional practice of recommending DMSA scans following UTI is modified with evidence-based strategies.

Email of the Corresponding Author: patirana@eureka.lk

OP 80

A REMEDY FROM SYSTEM DYNAMICS MODELLING FOR DENTAL LABORATORY TECHNICIAN WORKFORCE PLANNING

De Silva, M.D.K¹, Talagala, N.I.¹, Senanayake S.D.P.S¹, Gamage N.T²

1. Family Health Bureau, Sri Lanka.
2. Dental Institute, Sri Lanka

Background: The Department of Health is the single largest dental service provider in Sri Lanka. Government Dental services are managed by 65 Board certified Consultants, 1550 Grade Dental Surgeons, 405 School Dental Therapists, around 150 Nursing Officers, and around 2000 Minor Staff who work as Dental Surgery Assistants.

Dental laboratory Services in Sri Lanka are provided by Dental laboratory technicians (DLTs) and there are only 30 dental laboratory technicians in the entire Government Service, who cater for 20.8 million population.

Aim: Sri Lanka faces an acute shortage of Dental Laboratory technicians (DLTs), hampering specialized dental service delivery. Objective of this research is to find out the number of DLTs the country needs.

Methods: Focus Group Discussions, a questionnaire survey, a work study and a need analysis were carried out. An Operational Research methodology of System Dynamics was used to analyse the DLT requirement. Output data from above studies, were the input data for the System Dynamics model. Model was simulated for different scenarios.

Results- Currently Sri Lanka trains only around 3 DLTs per year due to capacity constraints. Country needs to train at least 20 DLTs per year for optimum service provision.

Conclusion: A proper workforce planning is necessary to address the shortage of DLTs in Sri Lanka.

Email of the corresponding author: dileepdenta@yahoo.com

OP 81

LESSONS LEARNT FROM HEALTH SECTOR RESPONSE, RECOVERY AND PREPAREDNESS TO FLOODS AND LANDSLIDES IN MAY 2017 IN KALUTARA DISTRICT.

Liyanage, C.P.G.¹, Rathnayake, U.I.¹, Kularathne, D.L.A.E.K.¹, Jayasinghe S.A.N.S.K.¹, Ranaweera S.B.V.K.¹, Edirisinghe E.A.R.D.¹, Wijesekara N.W.A.N.Y.²

1. Regional Director of Health Service, Kalutara
2. Disaster Preparedness and Response Division, Ministry of Health

Background: Floods and landslides are historically common disasters to Kalutara district due to heavy monsoonal rainfalls. Highest ever recorded rainfall of 553 mm per day occurred in May 2017 resulting in a massive disaster. Around 165000 people were affected with 70 deaths in 363 “Grama Niladhari” divisions across 8 Medical Officer of Health (MOH) areas. A total of 5365 people were internally displaced.

Aims: To document lessons learnt from health sector response, recovery and preparedness to floods and landslides in May 2017 in Kalutara district.

Methods: Data collected at the field were analysed and disseminated to the Disaster Preparedness and Response Division of the Ministry of Health. Preventive and curative health interventions were implemented. A damage and loss assessment was conducted. A consultative workshop was conducted to review the response and to prepare disaster preparedness and response plans.

Results: 170 IDP and 182 medical camps were conducted. Measures taken to ensure personnel hygiene, supply of safe food and water, proper solid waste management and vector control. Active surveillance of communicable disease was conducted. Non-communicable diseases needs including mental health needs were attended. 10 healthcare institutions were affected with estimated cost of repair around 31 million rupees. Funding secured for reconstruction making the institutions safer. Risk assessment was conducted looking into hazard, vulnerability, exposure and capacity of MOH areas. Disaster Preparedness and Response Plan was developed and establishment of Emergency Operation Centre for the District has been initiated.

Conclusion: Immediate aftermath of the floods and landslides in Kalutara district provided a window of opportunity not only for effective response by health sector but also to take concrete steps for recovery and preparedness. Effective coordination between the district and national health authorities as well as other donors was useful in making health system in Kalutara district more resilient to future disasters and emergencies.

EVALUATION ON SATELLITE LABORATORY NETWORK IN THE DISTRICT OF BADULLA

Bandara, A. M. S.¹, Kavisekara, H. K. M. M. B.²

1. Ministry of Health – Sri Lanka
2. London Metropolitan University – United Kingdom

Background: The laboratory services play a key role in all aspects of patient management such as in ward care, outpatient care and clinic care. They are mainly concentrated in secondary and tertiary care hospitals while only very limited number of investigation are being carried out in divisional hospitals and primary medical care units due to limited resources in health sector. A satellite laboratory system (SLS) was started in 2006 to optimize laboratory services in the district of Badulla by providing a limited number of blood investigations to peripheral hospitals in which those investigations were not possible due to lack of resources.

Aim/s: To assess the feasibility, effectiveness in patient management and possibility of expanding this service to all peripheral hospitals in the district.

Methods: A descriptive cross-sectional study was carried to evaluate the existing SLS and to determine the factors that need to be considered for its expansion in the district. The study conducted in healthcare institution in Badulla in 55 institutions belonging to three categories.

Results: It was found that 5 peripheral hospitals out of 63 hospitals received this service in 2006 and increased up to 12 by 2011. No other hospitals started to receive this SLS after 2011. Nine hospitals (75%) out of 12 received reports three or more days later by October 2013. Most (76%) of the SLS-non - implemented hospitals were aware of such service and requested for such a service for their health facilities. Only very few SLS non-implemented hospitals had facilities for basic tests (ESR, full blood count and UFR). Not receiving reports on time, refusing more samples, delaying payment to minor staff, and inadequate number of minor staff were the main reasons contributed to cessation of SLS from small hospitals.

Conclusion: The data collectively showed that having a satellite laboratory service in Badulla District is going to be useful in patient care. Therefore, it is important to discuss at district and national level regarding importance and issues regarding successful implementation of SLS system.

Email of the Corresponding Author: hanwella4311@gmail.com

IS NATIONAL THALASSAEMIA SCREENING PROGRAMME A VIABLE SOLUTION; A COSTING STUDY ON THALASSAEMIA SCREENING IN THE NORTH WESTERN PROVINCE

Perera, H.A.A.P.K.¹, Attanayake N.²

1. Directorate of Healthcare, Quality & Safety, Ministry of Health
2. University of Colombo

Background: Thalassaemia is an inherited incurable disease of blood, which is genetically transmitted from parents to their offspring and it is a very expensive, cumbersome and lifelong disease. Management cost of Thalassaemia would consume nearly 5% of medicinal drugs expenditure on health. Therefore, prevention is imperative not only because of patients' suffering but also due to the unbearable cost for patients.

Aim: To estimate the cost of providing screening services by the Thalassaemia Screening Programme in the Kurunegala Regional Thalassaemia Centre (RTSC).

Methodology: This study was a descriptive cross-sectional micro costing study conducted at the daily clinic of RTSC, Kurunegala on identified cost items of the blood investigation component of the thalassaemia screening protocol. Systematic random sampling method was used to select the sample from people coming for thalassaemia screening. Data extraction forms, check lists and interviewer administered questionnaire were used as the main study instruments. In addition, the relevant cost centers, data elements and data sources were identified by key informant interviews with service providers of the RTSC, Kurunegala.

Results: According to the study findings, unit cost of Full Blood Count (FBC) is SLRs.137.19 (US\$ 0.97) and that of High Performance Liquid Chromatography (HPLC) is SLRs.856.31 (US\$ 6.12). A green card can be issued at a cost of SLRs. 171.80 (US\$ 1.23) and a pink card at SLRs. 1094.20 (US\$ 7.82). In addition, the people in Kurunegala and Puttalam districts spend SLRs. 226.35 (US\$ 1.62) and 534.41 (US\$ 3.82) respectively per each clinic visit. The study revealed that the expenditure incurred for screening at the daily clinic of the RTSC Kurunegala for one year was approximately SLRs. 8.33 million (US\$ 59,500), which is less than the cost in maintaining 03 thalassaemia patients for 10 years (SLRs. 10.5 million / US\$ 75,000).

Conclusion: Considering an island wide mass screening programme, arranging concessionary rates on chemical reagents for thalassaemia screening will be a possibility and it may become a major cost minimization approach within the existing system.

OP 84

KNOWLEDGE AND ATTITUDES REGARDING MENOPAUSE AND HORMONE REPLACEMENT THERAPY (HRT) AMONG SELECTED HEALTH CARE WORKERS IN TEACHING HOSPITAL KARAPITIYA & TEACHING HOSPITAL MAHAMODARA

Dayani, V.K.Y.¹, Dr. Silva, S.A.C.K.²

1. Out Patient Department, Teaching Hospital, Karapitiya
2. Department of Gynecology & Obstetrics, Base Hospital, Elpitiya

Background: Hormone Replacement Therapy (HRT) could be beneficial for symptom management of menopausal women. Knowledge and attitudes about risks and benefits of HRT have an effect on their HRT use. Knowledge and attitudes towards menopause and HRT are important to Health care personal to impart correct information to their clients.

Aim: To evaluate knowledge and attitudes regarding menopause and HRT among female Nursing officers & midwives working in Teaching Hospitals, Karapitiya and Mahamodara

Methods: A cross-sectional study was conducted among 359 female Nursing Officers & 25 midwives aged 35–59 years using self-administered questionnaire.

Results: Majority of the sample (50.3%) was aged between 35-39 years and had completed tertiary education (72.4%). Approximately 66 % had more than 10 years of service duration. Only 17 % knew hot flushes as a symptom, which is a common symptom in menopause. Majority knew the common causes for menopause. However, many participants (95.6%) knew risks of HRT, though only 10.7% knew stroke is a risk. Only 55.2 % knew that HRT is not a contraceptive method, while nearly 62% agreed that HRT positively affects the sexual life. Health education was the main source of knowledge (37.5%) about menopause & HRT in this sample. There were positive attitudes towards HRT (84.6%) irrespective of religion and cultural background. Nearly 70 % had positive attitudes towards popularizing HRT in Sri Lanka. Younger age of participants ($p<0.001$) and having tertiary education ($p<0.01$) were significantly associated with better knowledge scores.

Conclusion: There are areas of deficient knowledge about menopause and HRT among female nursing officers & midwives. Knowledge about menopausal symptoms was not optimal among the participants. However, their attitudes towards menopause & HRT are good. Those in younger age group and with tertiary education had better knowledge scores.

Email of the Corresponding Author: vkydayani@gmail.com

KNOWLEDGE, ATTITUDE AND PRACTICES OF PRIMARY SCHOOL TEACHERS ON FIRST AID FOR COMMON ACCIDENTS IN PANADURA ZONAL EDUCATION DIVISION

Nadeeka, T.G.C.¹, Pushpika, P.D.V.¹, Dilrukshi, M. A. D. D.¹, Madhavi, A.V.P.²

1. National Hospital of Sri Lanka, Colombo
2. Open University of Sri Lanka, Nawala

Background: Children spend most of their time within the school environment under supervision of teachers. During last few years there has been a rising trend in accidents within school premises. Some children who had suffered fatal injuries from these accidents could have been saved if the proper first aid was given.

Aims: To assess the knowledge, attitude and practices of primary school teachers with regards to first aid.

Methods: A descriptive cross sectional study was conducted in 10 randomly selected schools in Panadura Zonal Education Division. A total of 160 primary school teachers participated in the study. The questionnaire was developed by referring a guide line of paediatric first aid for care givers and teachers from the American academy of paediatrics. The pilot study was conducted among twenty primary school teachers in deferent areas prior to the study. Multiple choice questions were used to assess knowledge and practices and Lickert scale questions were used to assess attitudes. Results were analyzed using Micro soft Excel and score more than 75 was considered as good, less than 25 considered as poor, between 26-50 considered as fair and 51- 75 considered as satisfactory.

Results: Majority of the sample was female (93.12%), married (94.38%) and also have children (89.38%). From the sample 45% of participants had satisfactory level of knowledge, only 17.5% of participants had good knowledge and others had fair and poor knowledge. Out of the sample 77% of participant believed that effective administration of first aid should be provided by a trained person such as a medical officer or a nurse. About 46.25% of sample had good attitude for learning first aid as a subject. Majority of participants (51.25%) believed that first aid knowledge should be updated time to time. Majority of sample (61.25%) had fair practice skill and only 3.75% of participant had good practice skill on first aid. Only 10.6% (n=17) of the sample had proper CPR (Cardio Pulmonary resuscitation) knowledge. More than 20% of the teachers still practice some dangerous maneuvers such as inserting objects into mouth during seizures (29.37%) and create incisions around the fang site following snake bite (21.87%).

Conclusion: The knowledge, attitude, practice of primary school teachers on first aid considering, CPR, choking, fainting, allergies, seizures, nose bleeding and tooth injury were poor and certainly inadequate. Based on the results, training on first aid should be incorporated to the teachers' curriculum and also should be updated at regular intervals. Further research with practical sessions to assess their techniques is recommended.

E mail of the Corresponding Author: cn.nadeegamage@gmail.com

LEVEL OF HEALTH LITERACY AND ASSOCIATED FACTORS AMONG SCHOOL TEACHERS IN THE COLOMBO EDUCATION ZONE

Denuwara H.M.B.H¹, Gunawardena N.S.²

1. Post Graduate Institute of Medicine, University of Colombo
2. National Professional Officer, World Health Organization Country Office for Sri Lanka

Background: Health literacy refers to people's competencies to access, understand, judge and apply health information. There is good relationship between the concept of health promoting school and health literacy of teachers. Health literacy of teachers or associated factors in Sri Lanka has not been assessed.

Aims: To describe the level of health literacy and the associated factors associated among school teachers in the Colombo Education Zone.

Methods: A cross-sectional study among 520 teachers measured health literacy using the self-administered, culturally adapted Sinhalese translation of the survey tool; Health Literacy Survey-European Union (HLS-EU). HLS-EU assesses health literacy based on self-reported competencies to access, understand, judge and apply health information in the domains of disease prevention, healthcare and health promotion and divide respondents into four levels 'inadequate', 'problematic', 'sufficient' and 'excellent' and two levels as 'limited' and 'adequate' of health literacy. Factors associated with 'limited' health literacy were determined by univariate and multivariate analysis.

Results: The response rate was 96.5%. Mean age was 43years (SD=+9.75), 81.7% (n=410) were females, 66.1% (n=332) were graduates and 3.6% (n=18) taught the subject health. 'Limited' health literacy was found in 32.5% (95%CI28.4%–36.6%) while 67.5% (95%CI63.4%–71.6%), 61.2% (95%CI56.9%–65.5%) and 6.4% (95%CI4.3%–8.5%) showed 'adequate', 'sufficient' and 'excellent' levels, respectively. 'Problematic' and inadequate health literacy were 31.5% (95%CI27.4%–35.6%) and 1% (95%CI0.1%–1.9%). Service being ≤10 years (p=0.042), monthly income ≤LKR50, 000.00 (p=0.024), not being a member of health club/welfare group (p=0.034) and visit to a medical practitioner/preventive health staff for six months (p=0.002), were associated with limited health literacy when adjusted for confounding.

Conclusion: Improving health literacy among teachers and adoption of the Health Promoting School concept as an evidence based path to improve health literacy should be advocated to policy makers in health and education sectors. Interventional efforts should be targeted on teachers with a service period of ≤10 years, monthly income ≤LKR50, 000.00, not being a member of health club/welfare group and visit to a medical practitioner/preventive health staff for six months.

IMPROVING AGE APPROPRIATENESS OF IMMUNIZATION BY COMMUNITY EMPOWERMENT - “YOUR IMMUNIZATION CALENDAR”

Gunasekara, H.D.J.J.¹, Wijatilaka, P.V.H.D.K¹, Illangasingha, D.K.¹, Liyanage, N.R¹, Kumari, A.M.U.P.¹, Hettiarachchi, R.S.¹, Abeygunathilaka, D.N¹, Athukorala, K.M.¹, Perera, W.N.D¹, Fernando, T.S.M¹, Vijewardana, S.C.¹, Ferdinando, R²,

1. Post Graduate Institute of Medicine, University of Colombo
2. National Institute of Health Sciences, Kaluthara

Background: Age appropriate immunization one of the most cost effective public health interventions.

Aim: To empower caregivers of children age less than 5 years to improve age appropriateness of immunization in Ethagama PHM area.

Methods: Four related activities were carried out; establishing a Mother Support Group (MSG), an awareness program to improve the knowledge on immunization, introduction of “Your Immunization Calendar” & development of a printed user manual and a user guide. Existing knowledge on age appropriate immunization was assessed using pre-tested self-administered questionnaire on a random sample of care takers of children under five years from the Ethagama PHM area. A Focus Group Discussion was carried out in the newly established Mother Support Group to get an in-depth knowledge of practical issues on immunization. “Your Immunization Calendar” was a suggestion by the participants as a mechanism to remind of individual vaccination dates. The designed calendar composed of two sections; an area displaying myths, false contraindications and instructions to ensure age appropriateness of immunization & a section to write down individual immunization dates by the caretakers themselves. The calendar was supposed to be hung in the living area. An awareness programme was carried out in the aim of educating on EPI schedule, Adverse Events Following Vaccination, myths and false contraindications, importance of age appropriateness of vaccinations. The calendar was also introduced in this event. Project evaluation was done per the Kirkpatrick Training Evaluation Model. The printed user manual and video guide was disseminated to ensure ease of use. Editable soft copy was handed over to the MSG to ensure sustainability. The adoption rates were assessed by visiting the PHM area six months later.

Results: The increase of knowledge was 12.2% following the awareness programme. Paired t value for the pre and post knowledge was 2.081 ($p < 0.05$). Out of the target group 66.24% has received the calendar. Seventy percent of mothers who received the calendar had calculated the vaccination dates correctly and displayed in suitable places after six months. Overall age appropriateness has improved to 86% following one year from the intervention. Established MSG is meeting regularly and carrying a diverse array of activities.

Conclusions: There is a significant change in knowledge following the awareness programme on immunization. “You Immunization Calendar” had been adopted by the majority (80%) of caretakers. Novel and innovative approaches could be useful in empowering communities. A mechanism to ensure financial sustainability of the programme needs to be developed.

OP 88

ADOLESCENTS' EXPERIENCES OF SELF-INGESTION OF POISONING: EXPLORING THE RELATED RISK FACTORS FROM SURVIVORS' PERSPECTIVE

Jayakody, J.A.S.N¹, Wimalasuriya, H.G.G.A.K¹, Wijesinghe, W.M.A.C.L¹, Kumari, U.N.A.K¹, Kuruppu, N.R², Pramuditha Madhavi, A.V²

1. District General Hospital, Matale.
2. Department of Nursing, Faculty of Health Sciences, The Open University of Sri Lanka.

Background: Self ingestion of poisoning is a major public health problem in adolescents. The rate of self-ingestion of poisoning in Sri Lanka has increased in recent years and also high when compared with other developing countries. Due to hazardous nature of the issue, it is imperative at least to control its' occurrence within the society.

Aim: This study was conducted to explore the related risk factors for self-ingestion of poisoning among adolescents from survivors' perspective

Methods: The qualitative descriptive study was carried out using purposively selected 15 patients who committed self-ingestion of poisoning in medical unit, District General Hospital, Matale. The semi structured interview guide was used to explore their experiences under fewer such areas as: psychological risk factors, socio-economical risk factors and environmental risk factors. Ethical clearance was obtained from Ethical Review Board in Teaching hospital Kandy.

Results: Acute distress, interpersonal conflicts, economical barriers and easy access were the emerged themes. Acute distress was emerged theme under psychological risk factors. It was presented with displeasure, emotional pain, sadness, anger, helplessness, loneliness and worthless feeling. Interpersonal conflicts and economical barriers were emerged themes under socio-economical risk factors. Easy access was emerged theme under environmental risk factors. Availability and unsafe storage of poisonous substances and unavailability of proper legislation policy for issuing these substances were promoted easy access.

Conclusion: It is concluded that interpersonal conflicts and economical barriers were more prone to adolescents' self-ingestion of poisoning than acute distress and easy access. Parents of these participants have no deeper understanding of psychological changes occurred during adolescence period and they do not know how to deal with them. Unavailability of proper legislation policy for issuing poisonous substances and unsafe storage were promoted self-ingestion of poisoning among adolescents. Therefore, remedial actions should be focused on developing healthy public policies in terms of issuing poisonous substances and parental education.

Email of the Corresponding Author: omesha08@gmail.com

OP 89

SYSTEMIC ENVENOMING BY SRI LANKAN KEELBACK (*BALANOPHIS CEYLONENSIS*): FIRST REPORTED CASE IN SRI LANKA

Fernando W.K.B.K.M.¹, Kularatne S.A.M.², Wathudura S.P.K.³, De Silva A⁴, Mori A.⁵, Mahaulpatha D.⁶

1. Base Hospital, Balapitiya, Sri Lanka
2. Department of Medicine, Faculty of Medicine, University of Peradeniya, Sri Lanka
3. Base Hospital Panadura, Sri Lanka.
4. Gampola, Sri Lanka
2. Department of Zoology, Graduate School of Science, Kyoto University, Japan
3. Department of Zoology, University of Sri Jayewardenepura, Gangodawila, Nugegoda, Sri Lanka

Background: Envenoming by colubrid snakes is rarely reported. However, some colubrid snakes (e.g. *Rhabdophis tigrinus* and *Rhabdophis subminiatus*) have caused severe systemic envenoming in other countries. There are reports from Sri Lanka of mild local reactions caused by colubrid snakebite, including one due to *Balanophis ceylonensis*, an opisthoglyphous natricine snake endemic to Sri Lanka. The common English names are “Blossom or Flower krait” or “Sri Lankan keelback”, and in Sinhala it is known as Nihaluwa or Mal karawala.

Aim: To report the findings from the first reported case of a bite with systemic envenoming by *Balanophis ceylonensis*.

Case: A 33-year-old healthy male field biologist was bitten on the dorsum of the right hand while handling a *Balanophis ceylonensis* snake for photography at Yagirala forest reserve in southern Sri Lanka. The male reported severe occipital headache, photophobia, chills and transient loss of consciousness within 5 minutes of the bite. Within half an hour of the bite mild swelling developed around the bitten area. He also reported weakness of his limbs and described losing consciousness for a “few minutes”; this occurred approximately 30 min after the bite. The first assessment at the Government hospital approximately 3 h after the bite established that he was conscious and rational, with severe headache, and unable to walk with limb muscle power of grade 4/5, but no imbalance. He was not hyperventilating, but appeared frightened. The blood pressure was 130/80mmHg, the pulse rate 78 beats/min, and the respiratory rate 14 breaths/min. The 20 min whole blood clotting time (20WBCT) was more than 20 min and prothrombin time/INR was more than 10. The patient continued vomiting of fresh blood stained vomitus and started to bleed from venepuncture sites. Six hours after the snakebite, the patient was given intravenous vitamin K. Thereafter, eight units of fresh frozen plasma were administered 9 h after the snakebite with 40 mg of mid-transfusion frusemide. The patient reported a sense of comfort as the headache had subsided by this time. The blood picture was normal with no evidence of disseminated intravascular coagulation, but D-dimers were strongly positive, 9.6 mg/l (normal, less than 0.2 mg/l). On the next day, 20WBCT was repeated at six-hourly intervals, and all were normal. The repeat INR on the next day was 1.8. He recovered and left hospital after 96 hours and subsequent investigations including electroencephalogram, were normal.

Conclusion: We conclude that *B. ceylonensis* should be regarded as a medically significant venomous snake. This case highlights the need for further studies of the oral secretions (venoms) of colubrid snakes.

Email of the Corresponding Author: kasunfernando45@gmail.com

OP 90

CLINICO-EPIDEMIOLOGY OF HUMP-NOSED PIT VIPER (GENUS: *HYPNALE*) ENVENOMING IN WET ZONE OF SRI LANKA

Namal Rathnayaka, R.M.M.K.^{1,2,3}, Ranathunga, P.E.A.N.⁴, Kularatne, S.A.M.⁵, Rajapakse, R.P.V.J.³, Ranasinghe, J.G.S.⁶

1. Intensive care unit, Provincial General Hospital, Ratnapura
2. *Postgraduate Institute of Medicine, Colombo – Clinical Pharmacology and Therapeutics*
3. Department of Veterinary Pathobiology, Faculty of Veterinary Medicine and Animal Science, University of Peradeniya
4. Medical Unit, Provincial General Hospital, Ratnapura
5. Department of Medicine, Faculty of Medicine, University of Peradeniya
6. Department of Biochemistry, Faculty of Medicine, University of Peradeniya

Background: Hump-nosed pit vipers of genus *Hypnale* are responsible for the highest number of venomous snakebites (22-77%) in Sri Lanka. But very few studies have been done regarding its bites in the country.

Aims: To describe clinical and epidemiological features and complications of Hump-nosed pit viper bites in a tertiary care hospital in the wet zone, Sri Lanka.

Methods: This was a prospective observational study of a series of 249 patients with Hump-nosed pit viper bite admitted to Provincial General Hospital, Ratnapura where the study was conducted over 27 months commencing from July 2015. Data were collected using an interviewer-administered questionnaire.

Results: There were 167 males (67%) and 82 females (33%) in age range of 12 to 77 years. The offending snakes were brought by 196 (78.7%) patients. The bitten sites were feet (104; 41.7%), toes (49; 19.6%), ankles (10; 4%), hands (23; 9.2%), fingers (55; 22%) and forearms (3; 1.2%). Majority of bites occurred during day time (6am-6pm) and numbered 150 (60.2%) and 99 (39.8%) were bitten at night (6pm-6am). Seventy six (30.5%) patients were bitten while working at their home gardens, 67 (26.9%) while working in tea estates, 37 (14.8%) while walking on foot paths, 14 (5.6%) in indoors, 10 (4%) while walking on roads and 5 (2%) near gem pits. Majority (61; 24.4%) were not working and other occupations were labourers (47; 18.8%), estate workers (37; 14.8%), gem minors (25; 10%), tea leave pluckers (13; 5.2%) and farmers (12; 4.8%).

Fifteen (6%) were dry bites. Local envenoming was observed in 234 (94%) which included local pain [mild-74 (29.7%), moderate-58 (23.2%), severe-102 (40.9%)] and local swelling [mild-91 (36.5%), moderate-99 (39.7%), severe-44 (17.6%)] -234 (94%), local bleeding-51 (20%), bruising-24 (9.6%), blistering-33 (13.2%), necrosis at the site of bite-31 (12.4%) and lymphadenopathy-25 (10%). Twenty two (8.8%) had systemic envenoming features which included acute kidney injury (AKI)-21 (8.4%), chronic kidney disease-3 (1.2%), coagulopathy-10 (4%), microangiopathic haemolytic anaemia-19 (7.6%) and thrombotic microangiopathy-7 (2.8%). Myalgia was observed in 72 (28.9%), cellulitis in 20 (8%) and 3 (1.2%) patients died.

Conclusions: Local envenoming is the commonest clinical manifestation following Hump-nosed viper bites and AKI occurs as the commonest systemic manifestation infrequently.

Email of the Corresponding Author: namalrath10@yahoo.com

OP 91

IN VITRO CYTOTOXICITY OF THE VENOM COLLECTED FROM THE RUSSELL'S VIPER (*DABOIA RUSSELLII*), COBRA (*NAJA NAJA*) AND HUMP NOSED VIPER (*HYPNALE HYPNALE*) IN SRI LANKA

Dissanayake, D.A.¹, Priyadharshanie, J.W.S.², Edirisinghe, L.E.A.D.A.³, Karunathilake, D.G.K.J.K.⁴, Kularatne, S.A.M.⁵, Rajapakse, R.P.V.J.⁴

1. Base Hospital, Wathupitiwala, Sri Lanka.
2. District General Hospital, Gampaha, Sri Lanka.
3. Department of Laboratory Medical Science, Faculty of allied Health science, University of Peradeniya, Sri Lanka.
4. Department of Veterinary Pathobiology, Faculty of Veterinary Medicine and Animal Science, University of Peradeniya, Sri Lanka.
5. Department of Medicine, Faculty of Medicine, University of Peradeniya, Sri Lanka.

Background: Russell's viper (*Daboia russelii*), Cobra (*Naja naja*) and Hump nosed viper (*Hypnale hypnale*) are medically important highly venomous snakes in Sri Lanka. Generally, toxicity of venom is estimated based on calculation of LD50 (amount of venom that sufficient to kill 50% mice within 24 hrs) based on mice model.

Aim: To explore the cytotoxicity of venom of three snake species based on L929 fibroblast cell lines (IC50) to find out the half maximum inhibitory concentrations of venom.

Methods: Freeze dried pooled venom samples from each of the three species of snakes were used for our preliminary study. Protein concentration was measured in each sample and serial dilution of equal protein concentrations were applied to this assay. Seventy percent ethanol was used as positive control while only media was used as a negative control. Cytotoxic assay was performed by MTT assay (The reduction of the tetrazolium salt MTT (3-[4,5-dimethylthiazol-2-yl]-2,5-diphenyl tetrazolium bromide) and toxicity was measured 24 hrs after incubation with serial dilution of the venom. Growth inhibition was compared with untreated controls to find the venom concentration, which inhibited growth by 50% (IC50). Furthermore, cell morphology versus treatment was examined under dissecting microscope with controls.

Results: Protein concentration of these three species of snakes revealed that venom of *Naja naja* contained highest protein concentration (4055.5mg/ml) compared with *Daboia russelii* (3905.5 mg/ml) and lowest (3655.5mg/ml) in *Hypnale hypnale*. The in vitro cytotoxicity of 24 hrs incubation with *Naja naja*, *Daboia russelii* and *Hypnale hypnale* venom showed mean IC50 value of 1.232mg/ml, 10.457mg/ml and 16.797mg/ml respectively. Following incubation of L929 fibroblast cell lines with three types of venom, mainly irregular and rounded shaped cells were observed.

Conclusion: In conclusion, this study revealed that *Naja naja* has most potent in-vitro cytotoxicity compared with *Daboia russelii* and *Hypnale hypnale* in 24 hrs incubation with L929 fibroblast cell lines. When comparing to other cell lines like A7r5 (rat aorta smooth muscle cell lines) with L929, L929 cell lines were more resistant to venom. Further studies should be needed to compare LD50 with IC50 in order to use this assay for assessment of venoms of the medically important snakes.

Email of the Corresponding Author: dajithd@gmail.com

National Health Research Symposium – 2017 | Page 151

OP 92

ASSESSMENT OF PERCEIVED STRESS AND ASSOCIATED FACTORS AMONG ADOLESCENTS OF G.C.E.ADVANCED LEVEL CLASSES IN THE DIVISIONAL SECRETARIAT AREA OF WENNAPPUWA**Perera, K.T.A.K.D.I.M.¹, Suresh,S.²**

1. Department of Allied Health Sciences, Faculty of Medical Sciences, University of Sri Jayewardenepura.
2. Head of Biochemistry Department, Faculty of Medical Sciences, University of Sri Jayewardenepura.

Background: Adolescents often perceive aspects of their lives to be stressful, Stress is a major issue for adolescent students and they are at risk of having mental health issues. High levels of stress is related to poor coping, academic and social performance and overcoming challenges during the period.

Aim/s: The purpose of this study was to assess stress and associated factors among students of G.C.E. Advanced Level classes in Wennappuwa, Sri Lanka.

Method: A cross-sectional descriptive study was conducted among 360 Advanced Level students who completed the Cohen stress questionnaire. The questionnaire comprised checklists for stressors. Demographic data too were collected. Stress tolerance was calculated, using Cohen perceived stress scale and participants were divided into high stress or normal groups. Statistical differences were determined by Chi-Squared and Student's *t* tests.

Results: Among the participants, 32.2% of male and 38.9% of female students were stressed. However, these differences were statistically not significant ($p>0.05$). A higher incidence of stress was seen among students who were having sexual relationship issues (3.9%) and love affairs (16.7%). Interestingly, the students who were worried for not having a love affair (9.2%) were also stressed ($p<0.05$). Among females, menstrual cycle problems (3.6%) caused significantly higher ($p<0.05$) levels of stress. Association between stress levels and family relationship was statistically significant ($p<0.05$). The other significantly related factors were, not having a good relationship with parents (6.1%), parental neglect (6.7%) and over involvement (16.1%). If a student was an only child, his or her stress was less compared to students who had siblings. However, it was not statically significant.

Conclusion: This study concludes that stress is an issue among the students in the G.C.E. Advanced Level classes in the divisional secretariat area of Wennappuwa. The negative family environment and love affairs lead to higher levels of stress in school adolescents. Measures to reduce high stress in this group of students should be introduced urgently.

Email of the Corresponding Author: ishaperer92@gmail.com

OP 93

IONIZATION CHAMBER BASED DOSIMETRIC MODEL FOR SMALL FIELD PHOTON BEAM RADIOTHERAPY**Jayatissa, R.M.G.C.S.B.**¹, Kulatunga, S.², Kumara, A.³, Sarasanandarajah, S.⁴

1. Department of Radiotherapy, National Cancer Institute Maharagama, Sri Lanka
2. Department of Radiography/Radiotherapy, University of Peradeniya, Sri Lanka
3. Department of Physics, National Cancer Institute Maharagama, Sri Lanka
4. Department of Physical Sciences, Peter MacLlum Cancer Institute, Australia

Background: Cancer is a major public health problem in many parts of the world. A significant increase in the number of cases is anticipated from 2000-2025. According to the clinical requirements, the external beam radiotherapy has been delivered around 50% of the treatments for cancer patients. Modern radiotherapy is highly associated with small fields and demanding use of complex and advanced dosimetry systems. Small field photon beam dosimetry is challenging tasks as there are major problems those are not present in standard photon dosimetry. Development of a dosimetric model is very important for treating small tumors with high precision without taking phantom data frequently.

Aim/s: The aim of this study was to develop an ionization chamber based dosimetric model for small field photon beam radiotherapy.

Methods: Photon beams produced from Varian Clinac 2300CD linear accelerator were used to measure percentage depth dose (PDD), depth dose profile, total scatter factor ($S_{c,p}$), tissue phantom ratio ($TPR_{20,10}$), flatness, symmetry, penumbra and off axis ratio for square fields of side length 1 cm to 10 cm at dose maximum depth (d_{max}) and at 10 cm depths. Second order polynomial and logarithmic regression methods were used to predict the penumbra, symmetry, flatness and $S_{c,p}$ for small fields.

Results: PDD values were in agreement with the theoretical values (at 1.5 cm depth PDD is 100%). $S_{c,p}$ was changed with the volume of ion chambers for small fields. Measured penumbra has drastically deviated from the tolerance value of 2 mm. Symmetry values were within the tolerance limit (<2%). Small fields failed to produce flatness within the tolerance limit (<3%).

Conclusion: PDD can be accurately measured in the build-up region. Polynomial method was more accurate for flatness and penumbra. Logarithmic method was suitable only for $S_{c,p}$. Both methods were not suitable to predict the symmetry.

Email of the Corresponding Author: sameerarmg@gmail.com

OP 94

DENTAL AGE: VALIDATION OF WESTERN METHODS USING SRI LANKAN CHILDREN FOR MEDICO LEGAL APPLICABILITY AND ACCURACY.

Ranasinghe, R.A.S.K.¹, Perera, J.², Taylor, J.A.³, Tennakoon, A.¹, Pallewatte, A.⁴, Jayasinghe, R.⁵

1. Institute of Forensic Medicine and Toxicology, Colombo.
2. Department of Forensic Medicine, Faculty of Medicine, University of Colombo.
3. School of Health Sciences, University of Newcastle, Ourimbah, Australia.
4. Department of Radiology, National Hospital of Sri Lanka, Colombo.
5. Faculty of Dental Sciences, University of Peradeniya.

Background: Age of an individual is important for many circumstances both in the living and the dead which includes identification particularly following disasters. Evaluation of dental development has been an accepted technique and is thought to be precise and reliable but population specific due to regional variations. As such those methods and the readings based on the Western and European population may not be applicable to dental age assessments in Sri Lanka.

Aim/s: To determine the best method for dental age assessment in medico legal practice by validating those common methods, using a group of Sri Lankan children.

Methods: The study evaluated the applicability and accuracy of three dental age estimation methods Demirjian, Goldstein and Tanner (1993), Willems, Van Olmen, Spiessens and Carels (2001) and Blenkin and Evans (2010) with a group of Sri Lankan population. Children of known ages belonged to six age groups ranging from 11 to 16 years were used as the study sample. Dental panoramic radiographs of 420 subjects (Male 210 and Female 210, 35 for each age group) were assessed to calculate dental age (DA) using each of the above methods. Mean age and standard deviations were calculated separately for males and females for each age group. Paired t-test was used to compare the mean DA with the known chronological age (CA) in the six age groups.

Results: The mean CA remained at 14.06 with SD of ± 1.81 . Estimated dental ages for Demirjian et al (1993), Willems et al. (2001) and Blenkin et al. (2010) were 12.77 (SD = ± 1.48), 13.66 (SD = ± 1.70) and 13.25 (SD = ± 1.84) respectively and the mean differences between DA and CA of -1.29, -0.40 and -0.81 respectively, were in the same order ($p < 0.001$). Despite underestimation of the true age of the sample, there was a high correlation between DA and CA for all three methods with Pearson's correlations of 0.902, 0.928 and 0.901 for the Demirjian (1993), Willems (2001) and Blenkin (2010) methods respectively.

Conclusion: Although the all three methods investigated were underestimating the chronological ages of the sample, the Willems et al. (2001) method was the most accurate and therefore the most applicable for the Sri Lankan reference sample. Further study would be required to cover a wide spectrum of age limits and to generalize the outcome for Sri Lanka.

Email of the Corresponding Author: ranasingherask@gmail.com

OP 95

HEALTH SEEKING BEHAVIOUR OF PARENTS OF PATIENTS WITH DENGUE FEVER AND DENGUE HAEMORRHAGIC FEVER AND HEALTHCARE COSTS INCURRED FOR PATIENTS TREATED IN-WARD AT LADY RIDGEWAY HOSPITAL, COLOMBO**Fernando, K.E.S.**¹, Tissera, H.A.², Krishanth, M.D.A.³

1. MOH Office, Moratuwa
2. NDCU, Epidemiology Unit, Colombo
3. Post Graduate Institute of Medicine, University of Colombo

Background: Timely seeking appropriate health care in dengue will reduce the risk for the patient, economic burden to the family and the health system of the country.

Aim: To describe the health seeking behaviour of parents of patients with Dengue Fever and Dengue Haemorrhagic Fever and the healthcare costs incurred for patients treated in-ward at Lady Ridgeway Hospital, Colombo

Methods: A descriptive cross-sectional study was conducted. Health seeking behaviour and household costs were assessed, conducting interviews with 222 caregivers using a pre-tested IAQ and SAQ. System cost was derived using check lists and interviews with key experts in the relevant specialties under three main categories namely, fixed costs/capital costs, recurrent costs and variable costs.

Results: A majority of 64.4% sought prompt and appropriate care for the dengue infection. On average children were admitted to hospital on day 2.25 (IQR 1-3) of onset of the illness.

Mother's level of education, the socio-economic level of the family ($p=0.001$), the distance to western private healthcare provider ($p=0.019$) had a significant association with prompt and appropriate health seeking behaviour ($p=0.001$). The mean total direct household cost of DF was Rs. 1583.13 and DHF was Rs.2711.08. A majority of 85.7% of children missed school on average 4.63 days due to dengue. Among the employed caregivers of the children 93.1% lost 4 days of work on average. The mean hospital cost of DF was Rs. 13,166.11 and DHF was Rs. 32,217.23.

Conclusion: Health seeking behaviour of parents of children who were ill with dengue was relatively poor than expected. System cost of dengue at LRH and the cost incurred by the family members of a child affected with dengue is a considerable burden.

Email of the Corresponding Author: enokasonalifernando@yahoo.com

OP 96

PLAY PARTICIPATION IN CHILDREN WITH CEREBRAL PALSY AGED 1-4 YEARS ATTENDING A SPECIALTY CLINIC IN THE MATARA DISTRICT, SRI LANKA.

Abeynayaka, P.S. 1, Sumanasena S.P. 2

1. Occupational Therapy Unit, General Hospital, Matara.
2. Disability Studies Department, Faculty of Medicine, Ragama

Background: Early manifestations of cerebral palsy (CP) results in activity limitation and impacts participation at play. Play is a most enjoyable experience for children and enables cognitive development. Therefore it is important to understand how families provide play opportunities to children with motor impairment in low resource settings.

Aim: To describe the characteristics of play activities and how these enable participation at home environments in young children with CP.

Methods: A descriptive cross sectional study was conducted at an occupational therapy clinic in a General Hospital in the Matara District of Sri Lanka. 75 children with a primary diagnosis of CP aged 1-4 years were selected. A pre tested interviewer administered questionnaire collected data. Children not living with mother or father and having any other complex disorders were excluded.

Results: Mean age was 27.8 months. 76% were less than 3 years and 56% belonged to the Gross Motor Function Classification System (GMFCS) level 3 and 4. The majority (79%) spent the day time with their mothers at home. Most children engaged in play during the morning hours (31%). 84% spent more than one hour for play activities per day. 95% of parents played with the children with the aim of improving the activity level. Parents perceived the ball as the most preferred toy (44%). There was no statistically significant association amongst the duration children engaged in play with their functionality.

Conclusions: The families engaged in activities with children during a significant duration of the day. However there is limited understanding about the reason to play and how to play correctly. There was lack of variation in the activities and there was minimal use of locally available options in play. Therefore the occupational therapist providing services for these children can contribute to improve awareness amongst the families and home visits may provide further guidance.

Email of the Corresponding Author: Pubuduabeynayaka@gmail.com

OP 97

ACCURACY OF USING CRUTCHES BY COMMUNITY DWELLING PEOPLE WITH AMBULATORY PROBLEMS

Tunpattu, S.¹, Chandratilake, M.²

1. National Hospital of Sri Lanka¹
2. Faculty of Medicine, University of Kelaniya

Background: The use of assistive devices is on the rise due to the increase of aging population, people affected with non-communicable diseases and survivors of road traffic accidents. Crutches are a commonly used assistive device. The correct use of crutches improves the mobility but the incorrect use worsens the disability. However, the technical accuracy of using crutches has been scarcely investigated.

Aim: To determine the accuracy of using crutches by community dwelling people with ambulatory problems.

Method: This study was a cross sectional descriptive study. One hundred community dwelling individuals using crutches due to ambulatory problems were recruited by consecutive sampling. Data on prescription, adjustment and training on usage of crutches and accuracy of the adjustment of crutches and the crutch gait were collected by using an interviewer administered questionnaire and an observational check list.

Results: Crutch users in the study predominantly were men. The main reason for the using crutches was fractures of the lower limb (38%). The crutches have been prescribed for the majority (62%) and 38.7% of them held prescriptions of western medical doctors. Adjustment of the crutches of 82% and the accuracy of the crutch gait of 71% of the participants were incorrect. There was a significant relationship between the accuracy of the adjustment and the adjustment of crutches done by a physiotherapist ($p < .001$), and the accuracy of the crutch gait and the provision of the training by a physiotherapist ($p < .001$).

Conclusion: This study highlighted usage of crutches including the relationship between accuracy of the crutch adjustment, crutch gait and the resources involved in providing the related services. In the majority of the study sample, adjustment of crutches and crutch gait were inaccurate. The results suggest that physiotherapists are the most reliable source of crutch adjustment and crutch gait training for potential crutch users. Other healthcare providers who may prescribe such services need formal training to improve their skills.

E mail of the Corresponding Author: stunpattu@gmail.com

RELATIONSHIP BETWEEN THE ILIOTIBIAL BAND TIGHTNESS AND OSTEOARTHRITIS OF KNEE JOINT IN PATIENTS ATTENDING TO THE RHEUMATOLOGY DEPARTMENT OF THE NATIONAL HOSPITAL SRI LANKA

Fernando, H.C.B.P¹, Atapattu, T.C², Kanapathipillai, K², Tissera, M.H.M.M², Perera, A.D.P³, Kumarasinghe, N⁴

1. School of physiotherapy, Colombo
2. University hospital Kotelawala Defence University
3. Faculty of allied health sciences, Kotelawala Defence University
4. Faculty of medicine, Kotelawala Defence University

Background: Knee osteoarthritis (OA) is a common condition in present society in Sri Lanka. Iliotibial Band (ITB) tightness is one of the causes to develop osteoarthritis at knee joint. The current treatment for knee osteoarthritis is most often based on subsiding pain and there is no significant relief in condition only with pain subsiding drugs or other non-pharmaceutical methods. It is important to find out the exact factors or causes for this condition in individuals

Aim: The aim was to investigate the association between knee OA and ITB tightness among the patients with knee OA.

Method: The descriptive cross sectional study was conducted at national hospital of Sri Lanka with knee OA patients aged between 40-65 years in 2016 after obtaining the ethical clearance from General Sir John Kotelawala Defence University and National hospital of Sri Lanka. Socio-demographic characteristics, activities of daily living (ADL), associated factors of knee OA and ITB tightness were gathered using interviewer-administered questionnaire. Participants were subjected for health examination including Ober's test for ITB tightness severity and goniometric measurements for knee joint ROM.

Results: Hundred patients with knee OA (male= 24 and female= 76) with mean age group 55.69±6.15. Sixty percent of OA patients have ITB tightness. Further, the findings suggest that there was significant association of severity of ITB tightness with ROM ($p=0.04$) and some components of ADL such as Squatting ($p=0.03$) and Carrying a shopping bag for a block ($p=0.05$).

Conclusion: Majority of the study population has ITB tightness (60%) and there is a relationship between ITB tightness and knee joint OA. This study suggests re-evaluating the relationship of ITB tightness with more expanded age group and other causative factors of knee OA.

Email of the Corresponding Author: bhanakaf@yahoo.com

EFFECTIVENESS OF A PULMONARY REHABILITATION PROGRAMME ON PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN A SRI LANKAN GOVERNMENT HOSPITAL WITH MINIMAL EXERCISE EQUIPMENT

Rodrigo, B.K.S.P.¹, Senaratne, W.V.¹, Wickramasinghe, S.W.A.D.A.², Wijesuriya, G.¹, Dalpathadu, K.C.S.¹, Muthukudaarachchi, S.L.¹, Karunawasala, U.K.¹, Marasinghe, M.M.K.¹, Gunatilaka, M.P.N.R.¹

1. National Hospital for Respiratory Diseases, Welisara.
2. Ministry of Health, Colombo.

Background: Prevalence of Chronic Obstructive Pulmonary Disease (COPD) in Sri Lanka is rapidly increasing, resulting significant burden on health care resources. Benefits of Pulmonary Rehabilitation (PR) in COPD patients are widely recognized. In Sri Lanka as there are no organized PR programmes, clinicians who treat COPD patients emphasize more on pharmacological treatment and minimal, if any emphasis is given to PR.

Aim: To assess the effectiveness of a pulmonary rehabilitation programme for COPD patients with minimal exercise equipment at National Hospital for Respiratory Diseases (NHRD) Welisara.

Methods: All COPD patients of stage II and over seen at NHRD during one year period were enrolled. Patients with other underlying lung diseases and patients with heart failure were excluded. PR conducted weekly for six weeks. Breathing exercises, endurance and resistance training were done using Aerobic and Yoga exercises. BODE Index a multidimensional grading system based on Body Mass Index (BMI), forced expiratory volume in one second (FEV1) percentage predicted, modified Medical Research Council (mMRC) dyspnoea grading, 6-Minute Walk Distance (6MWD) used for functional and physiological assessment. Quality of life assessed by WHO Quality of Life (QOL) - BREF questionnaire. 1st assessment done before PR and 2nd assessment done at the end of PR. 3rd and 4th assessments done at 12 and 24 weeks intervals. Data analysed with ANOVA.

Results: Out of 66 patients enrolled, 47 completed 1st assessment and 36 remained at final assessment. BMI showed statistically significant improvement at final assessment compared to baseline assessment ($P < 0.001$). mMRC dyspnoea grading, 6MWD, overall BODE Index, QOL analysis showed statistically significant improvement at 2nd assessment compared to baseline assessment and the improvement sustained at 3rd, 4th assessments ($P < 0.001$). No statistically significant improvement seen in FEV1 as a percentage of predicted.

Conclusion: Significant improvement and sustenance in the outcome measures of COPD in terms of BMI, 6MWD, level of dyspnoea and quality of life observed even when PR was done with minimal exercise equipment.

Email of the Corresponding Author: sujeewa.rodrigo@yahoo.com

EFFECTIVENESS OF EARLY STRETCHING EXERCISES FOR RANGE OF MOTION OF THE SHOULDER JOINT AND STATE OF AXILLARY SCAR IN BURNT PATIENTS ADMITTED TO THE BURNS UNIT OF THE NATIONAL HOSPITAL OF SRI LANKA

Perera, G.A.D.¹, Perera, C.¹, Karunanayake A.L.²

1. Burns and Reconstructive Surgical unit, National Hospital of Sri Lanka
2. Faculty of Medicine, University of Kelaniya, Sri Lanka

Background: Burn injuries can result in long term impairment. Axillary or shoulder burns often develop scar contracture with subsequent loss of shoulder movements and function.

Aims: The purpose of this study was to evaluate the effects of early stretching exercises programme on range of motion of the shoulder joint and state of axillary scar in burnt patient in comparison to a control group.

Methods: A randomized controlled study was conducted. Patients from 15 to 50 years of age with a total burn injury surface area of 10% to 45% involving the shoulder joint with axilla were selected. The subjects were randomized into two groups; intervention and usual care control. There were 110 patients in each group. Rehabilitation was provided according to the study protocol to the intervention group for 14 days. The control group was undergone usual protocol currently used in the unit. Shoulder joint range of motion (ROM) was measured with a Goniometer. The state of the axillary scar was assessed with the Vancouver Scar Scale (VSS). Data were obtained before and after the intervention phase, 1, 3, 6 and 12 months of post burn period.

Results: The mean (SD) age of intervention group and control group were 29.76 [9.81] and 30.31 [9.45] respectively. The mean (SD) TBSA% of intervention group and control group were 26.15[9.45] and 24.60[9.56] respectively. After 12 months of post burn, all the ROM which had been measured was higher in subjects who were in the intervention group than in the control group. Mean scores of VSS values were less in the intervention group compared to the control group. There is a significant beneficial difference ($p=0.000$) in ROM and the state of the axillary scar between the intervention group and the control group.

Conclusion: This study demonstrated that early sustained stretching exercise regime significantly improved the ROM and functional recovery of the shoulder joint and scar condition of the axilla after a severe axillary burn.

Email of the Corresponding Author: amaradamayanthi@gmail.com

EFFECTIVENESS OF ACTION OBSERVATION AND MOTOR IMAGERY IN RECOVERY OF UPPER EXTREMITY FUNCTION AFTER STROKE: A SYSTEMATIC REVIEW AND META-ANALYSIS.

Welage, N.^{1,4}, Liu, K.¹, Bissett, M.², Coxon, K.¹, Schabrun, S.¹, Fong, K.³

1. School of Science and Health, Western Sydney University, New South Wales, Australia.
2. School of Allied Health Sciences, Griffith University, Queensland, Australia.
1. Department of Rehabilitation Sciences, The Hong Kong Polytechnic University, Hung Hom, Hong Kong, China SAR.
3. School of Physiotherapy and Occupational Therapy, Colombo, Sri Lanka.

Introduction: Action observation (AO) and motor imagery (MI) are two interventions that are increasingly used in the rehabilitation of people with stroke. Neuroscience studies found that the activity of the brain during action observation and motor imagery share a common neurophysiological basis in the mirror neuron system, and may facilitate relearning of motor functions after stroke. However, the comparison of the clinical effects of these two forms of intervention has not been developed.

Objective: To evaluate the evidence on the clinical effectiveness of AO and MI in the recovery of upper extremity function after stroke.

Method: A comprehensive electronic search was conducted for articles published up to April 2017, on Medline, CINAHL, PsycINFO (EBSCO host), Embase (Ovid) and PubMed. Randomised controlled trials were located and sorted for relevance independently. Methodological quality was assessed using the PEDro scale and results were analysed both qualitatively and quantitatively.

Results: In the qualitative analysis, four out of eight studies showed significant improvement in AO or MI groups compared to the control groups. However, results of the meta-analysis revealed a small to moderate effect with AO (SMD=0.34; CI=0.08 to 0.59; P=0.35; I²=0.00%) and a non-significant difference with MI (SMD=0.08; CI=-0.26 to 0.42; P=0.65; I²=0.00%) over control groups, on improving upper extremity function after stroke.

Conclusion: This review has implications for health professionals working in the area of stroke rehabilitation. Evidence from the meta-analysis suggests that AO is more effective than MI in the recovery of upper extremity function after stroke.

Email of corresponding author: n.welage@westernsydney.edu.au

OP 102

QUALITY OF DOMICILIARY POSTNATAL CARE PROVIDED BY THE PUBLIC HEALTH MIDWIVES IN THE RDHS DIVISION, KALUTARA

Navodani, K.A.T.¹, Fonseka, P.², Goonewardena, C.S.E.³

1. Epidemiology Unit, Colombo.
2. Retired Professor in Community Medicine.
3. Faculty of Medicine, University of Sri Jayewardenepura

Background: In Sri Lanka, Public Health Midwives (PHMM) have the key responsibility in provision of domiciliary postnatal care (DPNC) at the implementation level. Her performance has a great influence on health of the postpartum mother and her new-born. Maternal and infant morbidity and mortality can be minimized through quality DPNC services.

Aim: To develop and validate an instrument to assess quality of DPNC provided by the PHMM and to assess the quality of DPNC provided by the PHMM in the RDHS division, Kalutara.

Methods: The study had two phases:

1. Development and validation of an instrument.

Quality of Domiciliary Postnatal Care Assessment Tool (QDPCAT) is an observational checklist with three domains, namely, 'Examination of mother and new-born', 'Health education and communication' and 'Logistics and record keeping' which was developed through task analysis and expert opinion. Appraising the validity of QDPCAT was based on the judgment with face, content and consensual validity.

2. Assessment of quality of DPNC provided by the PHMM.

A community based descriptive cross sectional study was carried out in 2014 among 121 PHMM who were selected from 11 MOH areas in the RDHS division, Kalutara using simple random sampling with probability proportionate to the size.

Results: QDPCAT is a valid and reliable instrument for assessment of quality of DPNC provided by the PHMM in Sri Lanka. Higher scores were obtained in relation to 'Examination of mother and new-born' domain (72%) and 'Logistics and record keeping' domain (68.7%). 'Health education and Communication' domain had the lowest mean score of 58%. Total score of quality of DPNC provided had statistically significant association with the level of knowledge and the level of education of PHMM ($p < 0.001$).

Conclusions: QDPCAT can be used to assess the quality of DPNC provided by the PHMM in Sri Lanka. Knowledge and skills of the PHMM need to be optimized with the identified deficiencies to improve the quality of DPNC. Capacity building of PHMM with training, guidance and close supervision is recommended.

Email of the Corresponding Author: tharanganavodani@gmail.com

THE USEFULNESS OF STRUCTURED PAEDIATRIC RECORDS ON IMPROVING DOCUMENTATION QUALITY AND STAFF PERFORMANCE SATISFACTION IN A DISTRICT GENERAL HOSPITAL, SRI LANKA

Rifaya M. I¹, Athambawa S²

1. Paediatric Unit, Base Hospital, Kalmunai North, Sri Lanka
2. Faculty of Management and Commerce, South Eastern University of Sri Lanka

Background: Quality medical record keeping facilitates the management of patient information for better quality care. The pre-printed structured format of record keeping is proved to improve the documentation quality in other countries.

Aim: The aim of this study was to assess the usefulness of structured paediatric records on the documentation quality as well as the performance satisfaction of the staff in a district general hospital of Sri Lanka

Method: A prospective comparative study was carried out in two paediatric units of Ampara District General Hospital. One hundred pre-printed structured records (one record has a set of six forms: admission record, daily status sheet, drug chart, observation form, investigation form and discharge summary) introduced for patient recording of one unit (intervention group) were compared with the traditional free text records of 100 patients of the other unit (control group) over a period of two months. The major outcome measures were the completeness and legibility of documentation which were scored on a ranking scale. Mann-Whitney U test was used to compare both groups. A staff performance satisfaction survey using a self-administered questionnaire was carried out at the end of the study among the nurses and doctors those who were involved in documenting on the newly introduced structured records.

Results: The implementation of the structured records had positively influenced the documentation quality as well as the staff performance in many aspects. In terms of completeness the daily status sheet, investigation chart and discharge summary improved significantly ($p < 0.01$) and with regard to legibility observation chart, drug chart, investigation chart and the discharge summary showed significant improvement ($p < 0.01$) in the intervention group. The satisfaction was high among staff on newly introduced format of documentation during their routine ward work.

Conclusion: Replacing the traditional paediatric records with pre-printed structured records would improve the documentation quality and staff performance satisfaction in future.

Email of the Corresponding Author: mirifaya@hotmail.com

OP 104

IMPROVEMENT OF THE PATIENT WAITING TIME AT OUT PATIENT DEPARTMENT (OPD), TEACHING HOSPITAL PERADENIYA (THP)

Prathapasinghe I.D.,¹, Sridharan, S.¹

1. Ministry of Health

Background: Patients attending clinics / OPD in hospitals face the issue of long waiting times. This affects the patient satisfaction and quality of care. This Project aims to improve waiting time at Teaching Hospital Peradeniya (THP) by introducing an appointment system, and a fast tract drug counter together with OPD Laboratory.

Aim: To assess the effectiveness of an intervention in reducing the patient waiting time of the OPD of the TH Peradeniya.

Methodology: An interventional, time motion, process mapping study was conducted using a sample of 462 out patients. Waiting time was broken down into different processes, registration to doctor, doctor to pharmacy and waiting in pharmacy. A fast tract drug counter was introduced for prescriptions with three or less than three items. An appointment system was developed after having Focus Group discussions. Waiting time and patient satisfaction was compared between pre and post interventional instances, using SPSS software applying two tailed t test.

Results: There was no significant improvement in socio-demographic characters. Satisfaction levels of patients (n=135) shows a significance improvement after the intervention. Significant improvement of waiting time (40.5+/- 21.37 versus 32.03 +/- 24.78 minutes, p= 0.001) observed. Overall satisfaction also showed difference. This was due to the reduction in waiting time. Administrators and OPD staff were willing to continue the appointment system. Results indicate that the Hospital can apply this appointment system to reduce waiting time and improve satisfaction in the OPD.

Conclusion: Waiting time can be improved using suitable managerial interventions.

E mail of the corresponding author: imeshpdent@gmail.com

IN-WARD PATIENT EXPERIENCE ON TREATMENT: CARE OF HEALTH CARE PERSONNEL AND PHYSICAL ENVIRONMENT AT BASE HOSPITAL HORANA

Krishanth, M.D.A.¹, Dalpatadu, K.C.S.², Fernando, K.E.S.³, Yapa, Y.M.S.S.¹

1. Post Graduate Institute of Medicine, University of Colombo
2. Institute of Policy Studies
3. Medical Officer of Health Office, Moratuwa

Background: Positive experience of health care provision contributes not only to the speedy recovery of in-ward patients but also to high public recognition of the hospital.

Aim: To evaluate in-ward patient experiences on treatment relating to care by health care personnel and physical environment of wards at Base Hospital Horana.

Methodology: Descriptive cross-sectional study was done on 440 consecutive patients, age above 18 years with 24 hours or more inward stay. Validated interviewer administered questionnaire was used to determine perceived level of patient experience and factors affecting patient experience in wards at BH Horana. Mean comparisons, T- test, and ANOVA were used in data analysis.

Three patient experience domains namely; Physical environment of wards, care and treatment of doctors and care of nurses were used to measure patient experience level during in-ward stay.

Results: Patient experience for domains, treatment and care of doctors (Mean 2.506, SD= 0.322) and care of nurses (2.498, SD= 0.335) was moderately low (<3.5). Experience for physical environment domain was moderately high (>3.5).

Female patient experience was more positively stated than male patient experience in each domain ($p < 0.05$). Inverse association was observed between education level and patient experience in domains of care and treatment of doctors and nurses ($p = 0.02$). The mean experience of unskilled workers in each domain was higher than of other occupational categories ($p = 0.043$).

Conclusion: Findings conclude that gender, education and occupation have strong influence on patient experience. Experience of care provision and treatment by doctors and nurses continue to be less satisfied. Results of this study can be useful for policymakers in identifying areas of service provision that need further improvement and design training/policies accordingly.

Email of the Corresponding Author: krishanthmda@gmail.com

EVALUATION OF FUNCTIONALITY OF THE WORK IMPROVEMENT TEAMS IN LINE MINISTRY HEALTH CARE INSTITUTION

Wijemanne, W.M.U.S.¹, Perera, H.A.A.P.K.¹, Somathunga, C.², Sridharan, S.³, Eranga, V.P.¹, Rathnayake, R.M.N.N.K.¹

1. Healthcare Quality & Safety, Ministry of Health
2. Medical Services Division, Ministry of Health
3. Management Development and Planning Unit, Ministry of Health

Background: Work Improvement Teams (WITs) could be identified as a small groups of employees from same ward/unit, meet regularly and participate in problem-solving activities with a view to improve quality and safety of an organization. WIT is a synonym of “Quality Circle”.

Aim: To identify “ Functional Work Improvement Teams (FWIT)” in each ward/unit of a HCI out of the established WITs and to assess the effectiveness of FWITs in each ward / unit of HCI towards quality and safety improvement.

Methods: In a descriptive cross sectional study, data of 42 line-ministry institutions (Teaching Hospitals, Base Hospitals and Specialised Hospitals) was observed in 4th-quarter / 2016 and 1st quarter 2017. First objective was assessed based on the criteria identified a WIT to be functional (PRF, Version 2 updated in January 2017) such as meeting monthly, participation should be >50% of total in the ward, minutes recorded and at least one matter should be discussed and implemented per month. The second objective was achieved through Focus Group Discussions (FGDs) held with the Medical Officers of Quality Management Units (MOO/QMU).

Results: Out of 42 line-ministry-institutions, only 6 institutions have established WITs for all wards/units, 8 have established in 75%-99% of the units and 17 have established 50-74% at the end of 2016. Thereafter criteria were introduced and assessed FWITs. The results were as follows in the 1st quarter of 2017. Out of the 42, none of them had 100% FWITs, seven had 75-99% FWITs and eight had 50-74% FWITs. FGDs revealed that to improve quality and safety in a HCI, regular meetings of WIT is a requirement. MOO/QMU revealed that WITs have been considered as forum to raise the problems in wards, to find solutions and to be forwarded to the top management, and as a result, more effective management could be seen in the ward.

Conclusion: It was explored once the criteria for WITs were established; there was a huge difference in the percentage of the established WITs and FWITs. As WIT is the platform for quality and safety improvement and only if it is a FWIT, the quality-and-safety-improvement could be addressed. The static phase of quality-and-safety-improvements could be a result of non-functioning WITs in most of the HCIs.

OP 107

IMPROVING BASIC LIFE SUPPORT KNOWLEDGE AMONG STUDENTS, THE FIRST STEP TO IMPROVE BYSTANDER CARDIOPULMONARY RESUSCITATION

Nizar, M.H.F.¹, Lokubalasooriya, A.²

1. De Soysa Maternity Teaching Hospital, Colombo.
2. School Health Unit, Family Health Bureau, Ministry of Health, Colombo.

Background: At a scene of cardiac arrest, medical personnel may not always be present. Empowering school students with Basic Life Support (BLS) knowledge is an effective way to empower the community with same whereby morbidity and mortality could be significantly reduced. Presently Ministry of Education has incorporated BLS in the curriculum of Health Science which is an optional subject (the other being Information Technology) for Grade 10 students in government schools.

Aims: To describe student's knowledge pertaining to BLS and factors relevant for its improvement.

Methods: A descriptive cross sectional study was conducted in November 2014 among all Grade 10 students in 5 selected schools in Colombo District through a self-administered questionnaire which was given a maximum score of 100 and categorized as Good (>60), Average (30-60) and Poor (<30).

Results: Out of 2203, 1331 students participated in the study resulting in a response rate of 60%. Health Science being an optional subject, 485(36%) students had not selected it. Out of all respondents 34(3%) scored above 60, 616(46%) scored from 30 to 60, and 681(51%) scored less than 30. The average score was 25.6 (Poor). Those who opted to study Health Science had a marginally higher score (27.2) than students who opted for Information Technology (22.8). Although 991(80%) respondents were interested in obtaining practical training on BLS, 757(62%) were not willing to stay after school to obtain training.

Conclusions: Knowledge on BLS among majority of students was poor. Approximately 1/3 of students in Grade 10 miss the opportunity to learn BLS as they choose Information Technology instead of Health Science.

Ministry of Health, Ministry of Education together with Professional Colleges could jointly prepare a comprehensive chapter on BLS. Including this in Grade 9 Health Curriculum (which is compulsory for all students) will enable every student to learn BLS. Training Health teachers on BLS would contribute effectively to teach and train students during school hours itself. This would make BLS a life skill among the community which would result in effective bystander CPR during the golden hour whereby morbidity and mortality could be reduced. Further, the collective community response could be improved in disaster situations.

Email of the Corresponding Author: doctorhils@gmail.com

COMPARISON OF THE CLINICAL COMPETENCES BETWEEN THE NURSING STUDENTS FOLLOWING A BACHELOR'S DEGREE AND THE GOVERNMENT DIPLOMA, IN THE EASTERN PROVINCE OF SRI LANKA

Anvar Azam, M.M.,

1. Orthopedic unit, Teaching Hospital, Batticaloa

Background: In Sri Lanka, the traditional state Nurses training schools produce nearly 2000 nurses per year following a 3 year Diploma, and the newly formed nursing faculties of state universities produce much fewer (approximately 200) graduate nurses annually. It is uncertain whether the newer and more academically oriented university based training can produce equally skilled nurses as the time tested experienced nursing schools.

Aim/s: To describe the differences between different nursing competencies between the Bachelors nursing students and Diploma nursing students.

Methods: A descriptive cross-sectional study was conducted among 73 nursing students) following the final year of their studies in Eastern Province of Sri Lanka. A self- administered questionnaire with a validated tool for measuring clinical competency used in Taiwan. This consisted of 4 domains Professional Behaviour, General Performance, Core Nursing Skills and Advanced Nursing Skills. The scoring was given using a Likert scale (1-5).

Results: The mean age of the Bachelor is 24.1 and diploma is 25.1 (Bachelor: Diploma). Out of the 73 respondents, 22 were Bachelors and 51 were Diploma students. There were statistically significant differences between the two groups (Bachelors vs. Diploma) in the mean scores for Professional Behaviour (4.42 vs. 3.6), General Performance (4.57 vs. 3.82), Core Nursing Skills (4.68 vs. 3.82) and Advanced Nursing Skills (4.39 vs. 3.6), where in all cases the Bachelors students scored higher and scores. The overall competency was higher among Bachelors compared to Diploma (4.51 vs. 3.71). Furthermore, all (100%) Bachelors students were satisfied with the training they received, and only 64.7% of the Diploma students were satisfied with the training they received.

Conclusion: This study shows Bachelors' degrees have a higher overall competency than diplomats in most of individual's aspects of all domains. This may be due to the difference in training they receive. Further evaluation has to be done through the mentors in an extended manner.

Email of the corresponding author: azamgnoa@gmail.com

OP 109

INNOVATIVE INTRODUCTION OF THREE-DIMENSIONAL DIGITAL ANATOMY ANIMATIONS IN TO CADAVER DISSECTIONS AT THE DEPARTMENT OF ANATOMY, UNIVERSITY OF SRI JAYEWARDENEPURA

Edirisinghe, E.A.S.T.¹, Indunil, L.A.¹, Niluka, D.H.M.¹, Madushika, P.K.K.¹, Deegodagamage, Y.S.¹, Wijesundara, W.M.C.S.¹, Dissanayake, P.H.¹, Yasawardene, S.G.¹

1. Department of Anatomy, Faculty of Medical Sciences (FMS), University of Sri Jayewardenepura (USJP)

Background: Anatomy remains an essential component of medical knowledge. Cadaver dissections play a key role in learning three-dimensional(3D) structures in the human body. Development in computer capabilities and digital technology is used more in medical education.

Aim: To incorporate Three-Dimensional Digital Animations in to Cadaver Dissections

Methods: Four networked 55inch LED panels with 3D facility were installed in the dissection halls. Commercially available recommended software and Anatomy videos were incorporated with cadaver dissections. The department provided the 3D glasses to the students during demonstration sessions.

Dissection schedules were given in advance and students were expected to come prepared. Initial 15 minutes of the dissection time was used to give an overview of the area to be covered utilizing the 3D software in LED panels and students' questions were discussed.

During dissections if there is a variation or proper/clean dissections, they were transmitted live through all LED panels. The difficult areas of dissection were explained directly using the 3D software for better understanding

During the last 15minutes, the summary of the dissection and a system generated quiz were given.

Results: Discussion of variation, student dissections and explanations using 3D software was an effective method of delivering the anatomy content. Students compared the side-by-side radiological images on the LED-panels with same gross specimen during dissections. This has helped the students to understand and recall the specific dissections. Preliminary study of this method has been tested with pre-interns and it is found to be effective.

Conclusions: This is the first instance where a Sri Lankan Medical Faculty has incorporated 3D teaching technology in to cadaver dissections. This incorporation of new technology with cadaver dissection will generate enthusiasm to learn. Outcome of this incorporation of three-dimensional digital animations in to cadaver dissections is to be continued with the new intakes.

Email of the Corresponding Author: edirisinghe@sjp.ac.lk

OP 110

WORK-RELATED BARRIERS FOR UNIVERSITY EDUCATION: SPECIAL REFERENCE TO UNDERGRADUATE NURSES

Ariyaratne, S.S., De Silva, H.D.W.², Hettiarachchi, D.R.², Gunawardana, K.W.S.², Hewabatage, P.N.², De Silva, B.S.S.³.

1. Base Hospital, Warakapola.
2. The National Hospital of Sri Lanka, Colombo.
3. Department of Medical Lab. Sciences, the Open University of Sri Lanka, Nawala.

Background: University education is a key initiative for nursing higher education. The Open University of Sri Lanka (OUSL) is the pioneer in providing graduate education for nurses from 1994 through Open and Distance Learning (ODL) in Sri Lanka. However, only very few graduate nurses pass out each year, despite some attempts taken by the government to facilitate university education. Understanding barriers for this may contribute to designing degree programs to maximize success. Furthermore, knowing the barriers in ODL will aid development and orientation of these programs. Work-related barriers are identified as accountable for failures in international context. However, many studies have not been done with this regard in Sri Lanka.

Aim/s: To assess work related barriers related to engagement in Open and Distance Learning among undergraduate nurses.

Methods: Data were collected through self-administered questionnaires from a convenience sample of 225 Registered Nurses (RNs) at OUSL Nawala. Cross sectional descriptive design was used for the study and data were analyzed using descriptive statistics.

Results: The response rate was 97%. The results highlighted that attendance for lectures on a regular basis was 53.8% among the participants. Majority of them (46.8%) were not allowed duty leave. When working hours are considered; 45.1% participants work 50-60 hours per week, 26.3% participants work 40-50 hours per week, 16.5% participants work more than 60 hours per week and only 13.2% nurses work less than 40 hours per week. Additionally, 60.4% of the participants indicated that overtime is compulsory in their work places. Consequently, 73.3% spend less than 10 hours per week for their studies.

Conclusion: It was found that nurses were having many work related barriers for participation of lectures and to engage in studies. Results highlighted that strenuous duty schedule and less organizational support seem to be affecting negatively on nurses' higher education. This resulted in a deprivation of opportunity for higher education. Therefore, nurses should be provided with continuous support to reinforce positive factors and to overcome barriers to engage more effectively in university education.

Email of the Corresponding Author: pavithra.nadeeshani@yahoo.com

OP 111

INTEGRATION OF KNOWLEDGE MANAGEMENT TO IMPROVE PATIENT SATISFACTION IN MATERNITY CARE

Rathnayake, R.M.C.K.¹, Jiffry, M.N.¹, Weerabandara, A.M.S.¹, Manawadu, A.¹, Jayasundara, J.M.S.¹

1. Teaching Hospital, Gampola

Background: Estate sector worker communities are relatively under-privileged with a poor socio-cultural background. Their level of education, living conditions, working norms, family bonds and gender relations all play a part towards them having myths, unreasonable doubts and poor satisfaction with the obstetric care they receive. Busy clinics, wards and understaffed units make it difficult to impart even the basic patient information that may ultimately lead to better treatment compliance, better patient satisfaction and better overall obstetric well-being. This iatrogenic knowledge gap represents a previously unidentified area of need.

Aim: Improvement patient satisfaction in maternity care, through an integrated intervention using Knowledge Management and Innovation (KMI) System.

Methodology: The study included 209 and 202 pregnant women population of fifteen tea estates managed by the Regional Plantation Companies (RPC) in the catchment area of Teaching Hospital Gampola, in years 2013 and 2016 respectively. Patient satisfaction was measured using a validated interviewer administered pre- and post-intervention questionnaire, as a part of the overall KMI program assessment.

In 2014, we established, integrated and applied the KMI system to the empirical health care system using existing resources, forcing it beyond its previous norms. To change and improve **Policies, Processes, Partnerships, Programs and People (5Ps)** by bridging the identified knowledge gaps, KMI program targeted all five levels of people (individual, family, teams, intra-organizational and inter-organizational). The community included maternal health care providers and receivers related to preventive and curative sectors.

Results: The questionnaire assessed patient satisfaction under four domains namely, antenatal clinic, antenatal ward, labor room and postnatal ward. In 2013 the percentage patient satisfaction of above four levels was 22%, 38%, 10% and 49% respectively. After implementation of KMI program the satisfaction levels were 98%, 99%, 100% and 100%. There was a statistically significant improvement of patient satisfaction after KMI project ($p=0.001$)

Conclusions: The integration of the KMI system to the exiting health care framework significantly improved patient satisfaction of antenatal, perinatal and postnatal obstetric care.

Email of the Corresponding Author: cinla007@yahoo.com

OP 112

IMPLEMENTATION AND EVALUATION OF A TRAINING MODULE ON IMPROVING HEALTH SYSTEM RESPONSIVENESS FOR NURSING OFFICERS

Somaratne, C.J.K.¹, Sridharan, S.²

1. Sirimavo Bandaranayake Specialized Children's Hospital, Peradeniya
2. Ministry of Health, Colombo

Background: Health System responsiveness is a quality indicator introduced by the World Health Organization in the field of health performance evaluation. Knowledge, attitudes and practices of health care workers on the subject of responsiveness affect the level of responsiveness perceived by the patients as customers of the health system.

Objective: The objective of the study was to develop, implement and evaluate effectiveness of a training module which was designed to improve the practices of nursing officers with regard to responsiveness perceived by the patients.

Methodology: The study was carried out at medical wards of District General Hospital-Gampola in year 2016. A validated instrument was developed in order to assess the nursing care responsiveness and a training module was developed to address the gaps in nursing care responsiveness. This study was performed utilizing the domain specific and the overall mean responsiveness score perceived by the patients selected from pre-test and post-test samples of 130 patients who were discharged from the wards at least after 48 hours of care. Domain specific and overall responsiveness scores of the pre-test sample were assessed and training module was conducted as the intervention. Training module consisted of a lecture-discussion, a video presentation and a story telling / case study presentation and it was conducted by two Post graduate trainees in Medical Administration and a Consultant Medical Administrator. The Post-test sample was evaluated and compared with the pre-test sample using independent t- test.

Results: The results showed that the improvement in the domains of 'dignity' ($p = .007$), 'communication' ($p = .016$) and 'basic amenities' ($p = .001$) were statistically significant. The improvement in overall responsiveness was also statistically significant ($p = .003$).

Conclusions: The results show the ability of enhancing responsiveness by the capacity building of health care workers who deal in the health system. The study recommends that the training module for nursing officers on improving health system responsiveness can be implemented in other clinical units of the hospital in order to improve the perception of responsiveness by the patients.

Email of the Corresponding Author: janaka.somaratne@yahoo.com

OP 113

PREVALENCE OF PAP SMEAR CERVICAL EPITHELIAL CELL ABNORMALITIES AMONG HIV POSITIVE WOMEN ATTENDING (NATIONAL STD/AIDS CONTROL PROGRAMME), COLOMBO, SRI LANKA

Perera, H.P.¹, Weerasinghe W. H.K¹, Mayadunne , P.B.¹, Colombage P.M.H.¹

1. National STD/AIDS Control Programme, Colombo, Sri Lanka.

Background: Cervical cancer ranks as the second most frequent cancer among women in Sri Lanka. It has been established that oncogenic subtypes of human papillomavirus is a cause of cervical cancer .Invasive cervical cancer was defined as an AIDS related malignancy and was the commonest malignancy among women with HIV . HIV infected women were not only 5 fold more likely to develop cervical dysplasia but were at 2 fold increased risk for cervical cancer compared to HIV negative. Invasive cervical cancer is preventable through Papanicolaou (pap) smear screening if detected early. Sri Lankan policy is to provide this screening five yearly if the first test becomes normal. Sri Lankan guideline recommended that all HIV positive women should receive yearly Pap smear.

Aim/s: To determine the prevalence of pap smear cervical epithelial cell abnormalities among HIV positive women attending National STD/AIDS Control Programme, Colombo, Sri Lanka.

Methods: Hundred and seventy six HIV positive females, followed up at the National STD/AIDS clinic, were recruited to the study on non-random all inclusive basis. However, females with a history of cervical malignancy or hysterectomy were excluded. Pap smear screening results of these females were analysed. Cytology was interpreted according to the National guideline, based on Bethesda system. Pre-tested data extraction sheets were used and analysed done with SPSS version 21.

Results: Prevalence of cervical cytological abnormalities was only 8.3% out of which 5.5% was low grade squamous intraepithelial lesions and 2.7 % was high grade squamous intraepithelial lesions. The cervical cancer prevalence was zero.

Conclusion: Cervical cytological abnormalities are commoner among HIV positive females compared to the Sri Lankan general population (3.3%). However, yearly screening with Pap smear will minimize the risk of cervical carcinoma among HIV infected patients.

Email of the Corresponding Author: pererahimali.perera@gmail.com

OP 114

SOCIO-DEMOGRAPHICAL DATA, HISTOLOGICAL CHARACTERISTICS, TREATMENT VARIATION AND SURVIVAL ANALYSIS OF TRIPLE NEGATIVE BREAST CANCER IN NATIONAL CANCER INSTITUTE OF MAHARAGAMA, DURING YEAR 2009 AND 2010

Nawarathna, N. M. T. E. K.¹, Perera, M.¹

1. National Cancer institute, Maharagama, Sri Lanka

Background: Triple negative breast cancer (TNBC) which lack expression of both oestrogen (ER) and progesterone (PR) receptors and Her2, accounting for 15% -20% of all breast cancers. TNBC is different from other breast cancer sub types due to its molecular profile, aggressive behaviour, patterns of metastasis, and poor prognosis and also less treatment options compare to other sub types of breast cancer.

Aim/s: The main objectives, in this study were to assess 3 years and 5 years disease free survival and overall survival, epidemiologic factors, prognostic factors and treatment modalities in patients with TNBC treated in routine clinical practice in two units at National Cancer Institute, Maharagama, between January 2009 and December 2010

Method: In this retrospective study, Total of 752 patients were registered in clinics with the diagnosis of breast cancer during year 2009 and 2010. Out of that, 550 clinic records were traced and 89 of that were found to have triple negative disease. Four cases were not included to this study due to lack of data (89/550=16.18%). Socio-demographical data, histological characteristics and treatments data were collected. Kaplan-Meier method was performed to analyses the survival. Pearson Chi-Square test and Two Sample T- test were used to calculate differences. All p values are two tailed.

Results: In my study population, 52.51 years was the mean age (27-76) and majority was post-menopausal female (n=35, 57.6%). There was an early peak of recurrence in first three years of diagnosis. First relapse was predominantly observed in visceral organs, account for 64.8% (n=24) of total recurrences, Loco-regional metastasis was seen in 17.6% (n=6) and bone metastasis in 14.1% (n=5). Disease free survival (DFS) at 3 years of diagnosis was 62.3% (n=32) and at 5 years it was 47% (n=19). The 3-year overall survival (OS) was 58.8% (n=50) and 5-year OS was 47% (n=40). Out of prognostic factors, only tumour size was found to have a significant impact on recurrence rate. ($X^2 = 99.9$, $df=3$, $p < 0.05$). T4 tumours (Tumour involving skin or chest wall or both) had the lowest 5 years DFS (11.1%).

Conclusion: This study found that the majority of recurrences were reported during the first 3 years after the diagnosis of Triple negative breast cancer. It also found that 5-year survival of TNBC remains below 50% with current treatments. Thus, patients with triple negative breast cancer may need closer active surveillance in the first three years of the follow-up. Adding platinum based treatment and novel agents may improve the survival. Proper documentation of information and maintain good clinical records, especially risk factor will helpful in future retrospective studies. Also national data base will be beneficial in future studies done nationally.

Email of the Corresponding Author: tirushanavarathna@gmail.com

OP 115

SURVIVAL OF BREAST CANCER PATIENTS TREATED AT TEACHING HOSPITAL KARAPITIYA, GALLE FROM 2004 TO 2008

De Silva, H.R.T.¹, Wickremasinghe, A.R.², Perera, S.C.R.¹

1. Onco Surgical Unit, teaching Hospital Karapitiya, Galle
2. Department of Public Health, Faculty of Medicine, University of Kelaniya

Background: Breast cancer is the commonest cancer in women worldwide and in Sri Lanka. Early detection and improvements in therapy will help to improve survival of breast cancer patients. Data on survival of patients treated for breast cancer are limited in Sri Lanka.

Aim: To determine the survival and its predictors of breast cancer patients treated at Teaching Hospital, Karapitiya, Galle from 2004 to 2008

Methods: A retrospective study was done among 590 female breast cancer patients who were registered at the oncology clinic of Teaching Hospital, Karapitiya, Galle from 2004 to 2008 and followed up till 31st December 2012. Patient details were extracted from oncology clinic records. The patients who have stopped clinic visits were contacted via telephone or a letter to determine their current status. Kaplan Meier curves were generated with and without controlling for other variables. The log-rank test was used to compare survival times between the groups. Cox's proportional hazards model was used to model survival after controlling for other variables.

Results: The mean survival time was 56.3 months (SD=31.67) and the median survival time was 62 months. The commonest age group presenting with breast cancer was between 45-54 years. Tumour status, nodal status, presence of metastases, Nottingham grade and status of treatment were statistically significant ($P<0.001$) independent predictors of survival. Nodal status, presence of metastases, Nottingham grade and treatment status were significant predictors of survival after controlling for other variables.

Conclusion: Nodal status, onset of metastases, Nottingham grade and treatment status were significant predictors of survival in breast cancer patients.

Email of the Corresponding Author: ruwandi09@gmail.com

OP 116

FACTORS ASSOCIATED WITH DELAYED PRESENTATION OF CERVICAL CANCER AMONG WOMEN IN SRI LANKA

Senarathne, R.S.J.¹, Senarathne, R.C.N.¹, Dissanayake, D.M.P.P.²

1. National Cancer Institute (Apeksha Hospital), Maharagama
2. Navy Hospital, Welisara Sri Lanka

Background: Cervical cancer is a preventable disease and it is curable if detected early. However, majority of women present for the treatment when the disease has reached an incurable stage. Therefore, cervical cancer is one of the leading causes of cancer related disabilities and death.

Aim/s: To explore factors associated with delayed presentation of cervical cancer among female patients at National Cancer Institute, Maharagama (NCIM).

Methods: Cross sectional descriptive study was conducted with 422 female patients above 21 years of old. They have already diagnosed the disease and have been treated for invasive cancer of the uterine cervix. The data were collected from women who have visited their regular clinic at NCIM by using an interviewer administered questionnaire. It consisted in demographic, knowledge attitudes and socio-cultural domain. The data were analysed and processed using MS Excel statistical software.

Results: Total 422 patients were recruited in the study and non-respondent rate was 2%. Majority of participant (n=289, 69.8%) were married at early age below 20 years and 204 of them were in low economical group of the sample. 85.99% (n=356) of the participants had not known that cervical cancer is a preventable and curable if detected early. Almost all the participants were not aware of risk factors (n= 395, 95.41%), of the cervical cancer and its symptoms (94.69%, n= 392). 21. Among 414 women, 74.8% (n= 310) believed Pap test as not necessary and 398, (96.14%) stated that Pap test need not be repeated. Most of women were neutral (63.77, n=264) in the necessity of attending well women clinics.

Conclusion: The results of this study revealed that patients were in lower in the overall knowledge and attitudes in relation to early detection of cervical cancer and in addition, low economical level, fear, dislike and shame for screening were more related with the problem. The results of the study suggest that necessity of awareness the community and establishing a community health nurse for prevention and early detection with higher chances of survival.

Email of the Corresponding Author: samrsj22@gmail.com

OP 17

RANDOMIZED DOUBLE-BLIND PROSPECTIVE CLINICAL TRIAL ON EFFECTIVENESS OF A HERBAL PREPARATION IN IMPROVING THE PROGNOSIS OF ORAL CANCER

Dias, D.K¹.

1. Maxillofacial Unit, Teaching Hospital Karapitiya Galle

Background: In Sri Lanka, oral cancer (OSCC) is the most common cancer among males and ranks sixth among women, reported to account for 12.9% of total malignancies in the country. The buccal mucosa and tongue are the commonest sites involved. Present study was focused on secondary chemoprevention.

Aim: The objective of the present study was to determine whether *Emblica officinalis* (Nelli) and *Tinospora cordifolia* (Rasakinda) has a prognostic effect in the treatment of oral cancer.

Method: The study was a randomized double blind prospective clinical trial comprised 114 consecutive patients with OSCC of buccal mucosa and tongue who had treatment in our unit during 2005 to 2015. Of this 70 had carcinoma in the buccal mucosa and 44 in the tongue. After conventional treatment, they were randomly assigned. 51 were in the trial group and 63 in the control. 7 were young (<45) 70 were in middle (46-65) and 37 were in old (>66) age groups. 15 females and 99 were males. 73 were an early (stage 1&2) and 41 were in late (stage 3&4a) stages.

The Trial group was given 10gms of equal quantity of above herbs twice a day in powdered form for three months postoperatively. The Control was given a placebo (Viva milk powder) instead.

Efficacy of herbal regime was determined by recurrence free survival and incidence of recurrence. SPSS software and chi square statistical method was used.

Results: Recurrence OSCC buccal mucosa were greatly reduced in the trial group showing statistically significant ($p=0.02$) for local recurrence and ($p=0.05$) for overall recurrence. Nodal and overall recurrences of trial group of OSCC tongue was reduced highly statistically significantly ($p=0.01$).

Five-year recurrence-free survival of the trial groups of both carcinoma together, was 62.7% compared to 42.3% in the control ($p=0.031$) and statistically significant.

Conclusion: It is justifiable to conclude that *Emblica officinalis* (Nelli) and *Tinospora cordifolia* (Rasakinda) prevented cancer recurrence of trial groups and improvement in the survival rate.

E mail of the corresponding author – dkdias@sltnet.lk

OP 118

GENETIC BIO-MARKER DISCOVERY IN *DE NOVO* MYELOYDYSPLASTIC SYNDROMES

Bandara, W.M.M.S.^{1,2}, **Rathnayake, A.J.I.S.**^{1,2}, Neththikumara, N.F.¹, Goonasekera, H.W.W.¹,
Dissanayake, V.H.W.¹

1. Human Genetic Unit, Faculty of Medicine, University of Colombo, Colombo 8, Sri Lanka.
2. Department of Pre-Clinical Sciences, Faculty of Medicine, General Sir John Kotelawala Defence University, Rathmalana, Sri Lanka.

Background: Myelodysplastic syndromes (MDS) are a complex clonal hematopoietic stem cell (HSCs) malignancy where global biomarkers for early diagnosis, prognosis and therapy are lacking. Altered interactions between HSCs and Mesenchymal stem cells (MSCs) in the bone marrow (BM) milieu are implicated in its pathogenesis. Therefore parallel study of HSCs and MSCs should enable greater insights into disease pathobiology. Ethnic variation in MDS biology has also been reported and research into genetics of MDS in South Asians is limited.

Aims: To identify genetic bio-markers having potential for early diagnosis, prognostication and treatment in MDS.

Methods: DNA was isolated from BM-HSCs and BM-MSCs from 11 newly diagnosed untreated *de novo* MDS patients. Next Generation Sequencing was performed by Illumina MiSeq platform, using a panel of 54 genes commonly mutated in myeloid malignancies. Variants were annotated against 1000 Genomes, Exome Variant Server, COSMIC and dbSNP142 databases. Sift and Polyphen software was used to predict the potential effect of mutations.

Results: Out of 54 genes, 37 and 30 genes were mutated in HSCs and MSCs respectively. Both reported and novel mutations were present. Frequently mutated genes in both cell types included *DNMT3A*, *TET2*, *KDM6A*, *STAG2*, *BCOR/BCORL1*, *KIT* and *CUX1*. Refractory anaemia with excess blasts had the highest number of mutations in both compartments and Refractory cytopenia with multilineage dysplasia demonstrated more mutations in MSCs. Recurrent novel mutations in HSCs and MSCs included *BCOR*(C1505W), *KTMA*(D2488V), *SF3B1*(Y623N) and *KIT*(H485P), *TET2*(L1742W), *DNMT3A*(H588P), *KDM6A*(T181P & T833P) respectively. Missense mutations were shown to have deleterious effects on function.

Conclusion: Our findings of altered genome of MSC support the theory of involvement of MSCs in MDS pathogenesis. Detection of distinct mutations in HSCs and MSCs suggest that the origin of mutations in two compartments is independent. Presence of recurrent mutations in genes regulating epigenetic mechanisms and cell signalling pathways raises novel therapeutic perspectives. Further bioinformatics analysis will be done on the novel mutations; detected in this South Asian MDS cohort; to determine their potential as early diagnostic and prognostic markers and as therapeutic targets.

Email of the Corresponding Author: manojsbw@yahoo.com

**SUMMARY OF ABSTRACTS FOR
POSTER SESSIONS**

SUMMARY OF ABSTRACTS FOR POSTER SESSIONS

POSTER SESSION 01 - PATIENT PERSPECTIVES

PP 01

PERCEPTION, ATTITUDE AND PRACTICES TOWARDS THE STATE-SECTOR FIELD WELL WOMWN CLINIC AND FAMILY PLANNING CLINIC SERVICES AMONG CLIENTS WHO DO NOT UTILIZE THOSE IN THE PITAKOTTE MOH AREA.

Gunawardhana, Y.A.G.K., Saranajeewa, K.S, Ranasinghe, S, Dayarathne, B.H.R.S, Peiris, D.P.B.K.

POSTER SESSION 02 - OCCUPATIONAL HEALTH

PP 02

OCCUPATIONAL HEALTH AND SAFETY ISSUES IN THE RUBBER GLOVE MANUFACTURING INDUSTRY: A DESCRIPTIVE STUDY CONDUCTED IN THE FREE TRADE ZONE, KATUNAYAKE, SRI LANKA IN 2016

Wijayaweera, W.K.D.K.K., Cooray, M.P.N.S., Yapa, Y.M.M.M., Karunaratne W.C.D.

PP 03

DESCRIPTIVE STUDY OF OCCUPATIONAL EYE INJURIES AND COMPLIANCE RESPONSIBILITIES OF PERSONAL PROTECTIVE EYE EQUIPMENT (PPE) AMONG PATIENTS PRESENTING AT EMERGENCY MEDICAL DEPARTMENT, NATIONAL EYE HOSPITAL (NEH) – COLOMBO

De Silva, S.K.D., Amarasinghe, B., Fernando, H.S.I.N., Samanthi, M.I., Perera, K.C.

PP 04

TB AMONG HEALTH WORKERS- A THOUGHT FOR FUTURE ACTION

Pallewatte, N.C., Samarasinghe, A.I.P., Hemachandra, C.D.¹, Thilakaratne, J.S.

PP 05

PREVALENCE AND SOURCES OF WORKPLACE STRESS AMONG MEDICAL OFFICERS IN KEGALLE HEALTH REGION OF SRILANKA

Pelapolwatte, K.C.R., Jayatunge, L.V.

PP 06

STUDY ON PREVALENCE OF WORK RELATED STRESS AMONG NURSING TUTORS IN GOVERNMENT SCHOOLS OF NURSING IN SRI LANKA

Wimal, M.A., Thalagala, T.R.J.

PP 07

PERCEIVED WORKLOAD RELATES WITH STRESS AMONG INTENSIVE CARE UNIT NURSES AT THE NATIONAL HOSPITAL OF SRI LANKA

Lokuheetti, S.A.K., Rupasingha₂, H.M.P.S.K., Jayewardene, W.D.K.K., Krishanthi, K.M.D.G., Samarasekara, P.W.G.D.P.

PP 08

OCCUPATIONAL EXPOSURE TO SHARPS INJURIES AMONG MEDICAL OFFICERS IN BASE HOSPITAL IN A DISTRICT OF SRI LANKA

Dilrukshi, D.A.R.K., Ranga, S.D.U.M., Jayalal, T.B.A.

PP 09

OCCUPATIONAL INJURIES IN CARPENTERS IN THE MORATUWA MEDICAL OFFICER OF HEALTH AREA

Fonseka, H.N.A., Arnold S.M

PP 10

BIO MEDICAL HAZARDS MANAGEMENT IN SELECTED UNITS OF NATIONAL HOSPITAL OF SRI LANKA AND KNOWLEDGE, PRACTICES AND PERCEPTIONS AMONG HEALTH ASSISTANTS

Abeygunathilaka, D.N., Mallawarachchi, D.S.V.

POSTER SESSION 03 – CLINICAL MEDICINE

PP 11

HEAMOPHAGOCYTIC LYMPHOHISTIOCYTOSIS COMPLICATED DENGUE HEAMORRHAGIC FEVER

Pathiratne P.A.S.R., Samarasinghe R.

PP 12

THE PREVALENCE OF HAEMOGLOBINOPATHIES AMONG SCHOOL CHILDREN AGED BETWEEN 16 TO 18 YEARS IN BATTICALOA DISTRICT OF SRI LANKA

Pullaperuma, D. R., Jayawardena, A.

PP 13

OUTCOME OF PERCUTANEOUS CORONARY INTERVENTION (PCI) PERFORMED FOR THE PATIENTS PRESENTED WITH ACUTE CORONARY SYNDROME TO DR.NEVILLE FERNANDO TEACHING HOSPITAL, MALABE

Pathiratne, P.A.S.R., Ranawaka, H., Samarasinghe, R.

PP 14

FETAL, MATERNAL AND PERINATAL RISK FACTORS FOR THE DEVELOPMENT OF INFANTILE HAEMANGIOMAS

Sudusinghe, H.S., Lukman, T., Loganathan, T., Katugaha, H.M.C.D., Seneviratne, J.K.K.

PP 15

PREVALENCE, FACTORS FOR VISUAL IMPAIRMENT AMONG ELDERLY POPULATION IN THE DISTRICT OF KALUTARA

Piyasena, D.A.K.N., Fonseka, P

PP 16

IDENTIFICATION OF DELAYS IN DIAGNOSIS AND MANAGEMENT OF ACUTE MYOCARDIAL INFARCTION AT PRILIMINARY CARE UNIT OF BASE HOSPITAL PANADURA: AN INTERIM ANALYSIS

Mahindadasa, A.T.H.E.S., de Silva, S.H.P, Dassanayake, R.S.W.M.U.B, Wijesekera, HMW, Gajadeera, G.A.M.P

PP 17

ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION IN YOUNG; AN EXPERIENCE FROM TERTIARY CARE CARDIAC CENTER IN SRI LANKA

Bandara, H.G.W.A.P.L., Jegavanthan, A., Jayasekara, N. M. T. C., Kogulan, T., Sirisena, T.

PP 18

HEADACHE AMONG SCHOOL GOING ADOLESCENTS AGED 13 TO 15 YEARS IN COLOMBO DISTRICT

Mambulage, R.U., Gunawardena, N., Padeniya, A.

PP 19

FACTORS ASSOCIATED WITH PATIENT'S RECURRENT VISIT WITH ASTHMATIC ATTACKS IN TEACHING HOSPITAL KANDY

Jayarathna, D.G.A.I., Dharshanamali, A. G.T, Bandara, S.M.R., Samitha, S., Siribaddana, A., Siriwardena, B.E.

POSTER SESSION 04 – COMMUNICABLE DISEASES

PP 20

METHODS TO IMPROVE SCREENING SUSPECTS OF TUBERCULOSIS IN ANURADHAPURA DISTRICT: AN IMPLEMENTATION RESEARCH

Waidyaratne, R.A.D.K.M.D., Rathnayake, R.M.A.N., Sameera, T.G.P, Rajapathirana S., Chadrakanthi, K.G.S., Raveesha, C.,

PP 21

IMPACT OF PRE-IMPRISONMENT STATUS ON PREVALENCE OF SPUTUM POSITIVE TUBERCULOSIS AMONG CONVICTED PRISONERS IN MAJOR PRISONS IN SRI LANKA

Pallewatte, N.C.¹. De Alwis, A.K.S.B.², Samaraweera, S.D.¹, Ambagahage, T.M.¹

PP 22

TUBERCULOSIS AMONG YOUNG PEOPLE ON RISE IN SRI LANKA - AN ANALYSIS OF TREND

Pallewatte, N. C., Samaraweera, S.D., Kapilawanse, S., Jayakody, W., Vitharana, H., Gangetheshwaran, M.

PP 23

ASSESSMENT OF THE ECONOMIC BURDEN TO PATIENT HOUSEHOLDS DUE TO CUTANEOUS LEISHMANIASIS IN THREE SELECTED MEDICAL OFFICER OF HEALTH (MOH) AREAS IN KURUNEGALA DISTRICT, SRI LANKA.

Wijerathna, A.C.T., Gunathilaka, P.A.D.H.N., Gunawardana, N.K., Rodrigo, W.W.P

PP 24

PREVALENCE OF NOSOCOMIAL INFECTIONS AND ASSOCIATED FACTORS AMONG PATIENTS IN THE INTENSIVE CARE SETTING OF THE COLOMBO NORTH TEACHING HOSPITAL, SRI LANKA

Pemasinghe, K.A.M.S., Vithanage, V.M.D., Fonseka, T.S.N., Kandearachchi, K.A.M.S.P., Fernando, U.C.P., Jayasinghe, P.P.

PP 25

PREVALENCE OF CLOSTRIDIUM DIFFICILE ASSOCIATED DIARRHOEA AMONG HOSPITALIZED PATIENTS AT THE NATIONAL CANCER INSTITUTE (NCI) OF SRI LANKA, MAHARAGAMA

Patabendige, C.G.U.A., Pitigalage, N.J.

PP 26

CHARACTERISTICS AND CAUSATIVE ORGANISMS OF DEEP-SEATED ABSCESES AMONG PATIENTS REFERRED TO THE MICROBIOLOGY UNIT IN A TERTIARY CARE CENTER, SRI LANKA

Piyasiri, D.L.B., Samarawickrama, T.K.S., Thewarapperuma, C.N., Jayasekara, J.V.G.M., Nanayakkara, I.R.S., Priyanganie, L.U.A., Kumari, E.H.D.S., Pathirana, R.C.W.

PP 27

STUDY TO DETERMINE CLINICALLY SIGNIFICANT STRPTOCOCCAL AND ENTEROCOCCAL INFECTIONS, THEIR ANTIBIOTIC SUSCEPTIBILITY AND ASSOCIATED PATINTS FACTORS WITH INFECTION AMONG INWARD PATIENT OF NATIONAL HOSPITAL, SRI LAKA

Perera W.P.D.P., Patabendige C.G.U.A

PP 28

PERFORMANCE OF NANO-SCALE LIQUID-GLASS COATING IN INFECTION CONTROL IN SRI LANKAN HEALTHCARE SETTING

Karunanayake, L.I., Waniganayake, Y.C., Gunawardena K. D. N., Peter, D., Padmaraja, S.A.D., Jayasekera U.S.R.S.³, Karunanayake, S.A.A.P.⁴

PP 29

PREVALENCE AND CHARACTERIZATION OF COLONIZING METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS ISOLATED FROM THE PATIENTS ADMITTED TO SURGICAL, MEDICAL AND ORTHOPAEDIC UNITS OF TEACHING HOSPITAL, KARAPITIYA

Kurukulasooriya, M.R.P., Tillekeratne, L.G., Wijayaratne, W.M.D.G.B., Bodinayake, C.K., Rajapakshe, M.D., Umesha, B.G.J., De Silva, A.D., Nicholson, B.P., Stbye, T., Woods, C.W., Nagahawatte, A. De.S.

PP 30

SALMONELLA PARATYPHI A AS AN UNUSUAL PATHOGEN ISOLATED FROM AN INFECTED DIABETIC WOUND

Dilhari, K.A.A., Pathirage, S., Gunasekara, T.D.C.P., Fernando, S.S.N., Weerasekara, D.D., Bulughapitiya, U., Weerasekera, M.M.

PP 31

DETERMINING MINIMUM INHIBITORY CONCENTRATIONS OF VANCOMYCIN FOR METHICILLIN RESISTANT *STAPHYLOCOCCUS AUREUS* ISOLATES USING AN AGAR DILUTION METHOD

De Silva, P.H.C.J., Wickramasinghe, D., Vidanagama, D.S., Nagawattha, A.

PP 32

MOLECULAR DETECTION OF *bla*_{NDM-1} STRAINS IN GRAM NEGATIVE BACILLI AND COMPARISON OF PHENOTYPIC METHODS: A MULTICENTER STUDY

Sajeevan, T.R., Karunanayake, L.I., Patabendigae, C.G.U.A., FN Mubarak., Ravikumar, R.

PP 33

PREVALANCE OF CARBAPENEMASE PRODUCING ENTEROBACTERIACEAE IN CLINICAL SPECIMENS AT NATIONAL INSTITUTE OF HEALTH SCIENCES

Senevirathna, N. M. N., Liyanage, T. C. H., Arunprasath, G., Pushpakumara W. K. W., Jayasuriya, L. J.

POSTER SESSION 06 – MENTAL HEALTH

PP 34

PREVALENCE OF ALCOHOL, TOBACCO AND ILLICIT NARCOTIC SUBSTANCES USAGE AND ASSOCIATED FACTORS AMONG PATIENTS ATTENDING MENTAL CLINICS CONDUCTED BY THE BASE HOSPITAL MARAWILA

Bandara W.H., Abeysena, H.T.C.S.

PP 35

KNOWLEDGE AND PRACTICES OF CONTRACEPTIVE USE AMONG FEMALE BIPOLAR AFFECTIVE DISORDER PATIENTS ATTENDING PSYCHIATRIC CLINIC, GENERAL HOSPITAL KANDY

Ariyasena, A.P., Pethiyagoda, D.C.K.1, Rupasinghe, D.C.1, Wickramasinghe, M.P.H.C., Jayasinghe, M.G.A.B., Jayasinghe, P.P.

PP 36

VALIDATION OF THE MODIFIED CAREGIVER STRAIN INDEX AS AN ASSESSMENT TOOL OF BURDEN AMONG CAREGIVERS OF PATIENTS WITH SPINAL CORD INJURIES

Chandrasekara, K.P.S.D.S., Balasuriya, I., Rajapaksha, H., Wijesinghe, C. J.

PP 37

SPORTS COMPETITION RELATED ANXIETY, ITS ASSOCIATED FACTORS AND COPING STRATEGIES USED AMONG SCHOOL ATHLETES IN COLOMBO EDUCATION ZONE

Rajasinghe, S., Arambepola, C.

POSTER SESSION 07 – SOCIAL HEALTH

PP 38

INTIMATE PARTNER VIOLENCE (PHYSICAL) AMONG WOMEN PRESENTING TO JMO OFFICE BASE HOSPITAL PANADURA AND HORANA IN 2016

Hirimuthugoda, L.K., Jayasinghe, N.L.L., Wijetunga, P, Wijayanayake, B.Y.A., Dammika, K.K.I., Elangovan, A.

PP 39

DETERMINANTS OF RESILIENCE IN A SRI LANKAN POPULATION AFTER A NATURAL DISASTER

Rowel, W.W.J.S.M., Hewawitharana, U.H., Kumarasinghe, W.G.G.B., Askath, M.S.A., Rodrigo, A.

PP 40

SOCIOECONOMIC STATUS AND PREVALENCE OF CARDIOVASCULAR RISK FACTORS AMONG PATIENTS WITH END STAGE RENAL FAILURE (ESRF) AT TEACHING HOSPITAL, KARAPITIYA: A PRELIMINARY SURVEY

Silva, E. H., Wicramatilake, C. M., Lekamwasam, S., Mudduwa, L. K. B., Ubayasiri, R. A.

PP 41

ACADEMIC PERFORMANCE, SOCIAL RELATIONSHIPS AND PERCEIVED FUTURE EMPLOYABILITY ON TOTAL LIFE SATISFACTION AMONG SECOND YEAR SCIENCE UNDERGRADUATES OF THE UNIVERSITY OF COLOMBO

Dias, H.C.R., Dharmawardena, C., Dharmawardana, D.D.L.P., Dilexson, K., Pathirana, S.

PP 42

AN EXAMINATION OF FACTORS AFFECTING ON SELF INGESTION OF POISON

Sujeewa J.A., Lakmali D.D.A., Wijesinghe W.M.M.K

PP 43

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF FAMILIES, WITH A CHILD LESS THAN 5 YEARS OF AGE HAVING A CONGENITAL HEART DISEASE, ATTENDING CARDIOLOGY CLINIC AT SIRIMAVO BANDARANAIKE SPECIALIZED CHILDREN'S HOSPITAL PERADENIYA, SRI LANKA AND THE OUT OF POCKET EXPENDITURE OF THOSE FAMILIES FOR A CLINIC VISIT

Jayasinghe, P.P., Iddamalgoda, V.L., Kulathunga, K.M.D.S., Kumara, W.A.A., Waldeniya, W.G.W.P.K., Dharmaratne, S.D.

POSTER SESSION 08 – SURGERY AND ANAESTHESIA

PP 44

MORPHOMETRY OF ADULT HUMERUS BONE IN A COHORT OF SRI LANKAN POPULATION

Edirisinghe, E.A.S.T., Deegodagamage, Y.S., Indunil, L.A., Madushika, P.K.K., Niluka, D.H.M., Wijesundara, W.M.C.S., Dissanayake, P.H., Yasawardene, S.G.

PP 45

PATTERN OF ILLNESS, TREATMENT AND THE OUTCOME OF PATIENTS PRESENTED TO THE INTENSIVE CARE UNIT IN A SELECTED GENERAL HOSPITAL, SRI LANKA

Wattuhewa, S. K., Kumarasinha, S.L., Dharmaraja, R.A.N., Dharmaraja, Y.C.P., Ranasinha, C.G., Jayasinghe, P.P.

PP 46

DESCRIPTIVE STUDY OF AGE AT SURGICAL REFERRAL AND, ANATOMICAL LOCATION OF UNDESCENDED TESTIS IN CHILDREN

Ranawaka, U. A. R. S., Azmy, F. H, Bannaheke, R. T, Nasar, A.M.A, Palipana, R.A.R.P.W.M.P.

POSTER SESSION 09 – EPIDEMIOLOGY

PP 47

EPIDEMIOLOGY OF PATIENTS WITH RHEUMATIC FEVER ATTENDING TO THE PAEDIATRIC CARDIOLOGY CLINIC IN SRI LANKA

Irugal Bandara, S., Karunadasa, K.M.W.M, Dissanayaka, D.M.I.B, Jayasundara, J.W.K.A, Chandralal U.L.N

POSTER SESSION 10 – DIAGNOSTICS

PP 48

PREVALENCE OF HLA ANTIGENS AMONG HEALTHY SRI LANKAN POPULATION TESTED AT NATIONAL BLOOD CENTRE

Manchanayake, S.M.G.S.

PP 49

HAEMATOLOGICAL CORRELATES OF ISCHEMIC STROKE AND TRANSIENT ISCHEMIC ATTACK: LESSONS LEARNED

Gunasekara, H., Jayaratne, B

PP 50

DIFFERENCES OF PLATELET COUNT BETWEEN MANUAL AND AUTOMATED TECHNIQUES IN THROMBOCYTOPENIA IN IDIOPATHIC THROMBOCYTOPENIC PURPURA (ITP)

Vidyarathne, G.G.K., Gunarathne, K.G.D.T., Gunawardena, D..

PP 51

COMPARISON OF COMMONLY AVAILABLE HAEMOGLOBIN ESTIMATION METHODS IN DETERMINING THE HAEMOGLOBIN CONCENTRATION IN PREGNANT WOMEN IN COLOMBO SOUTH TEACHING HOSPITAL, SRI LANKA

Perera, U.P.N., De Silva, A.C.I., Wijesiriwardena, I.S.

PP 52

ASSOCIATION OF SELECTED INFLAMMATORY MARKERS WITH LUMBAR DISC HERNIATION AND DEGENERATION

Withanage, N.D., Perera, S., Peiris, H., Athiththan, L.V.

PP 53

THE CLINICAL UTILITY OF IMMATURE PLATELET FRACTION (IPF) IN DENGUE FEVER (DF), AND VERIFICATION OF THE REFERENCE INTERVAL OF IPF%

Dhammika, L., Priyadarshane, R.A.D.T., Jayarathne, H.J.M.B.R., Rathnamalala, V.

PP 54

SERUM MAGNESIUM REFERENCE INTERVALS IN A GROUP OF HEALTHY SRILANKAN ADULTS FROM AMPARA AND KANDY DISTRICTS

Shiffana, S., Sivakanesan, R., Dissanayake, D.M.A.K.

POSTER SESSION 11 – MENTAL ILL-HEALTH AS CO-MORBIDITY

PP 55

A PSYCHOLOGICAL STUDY OF BABY DELIVERY, POSTPARTUM DEPRESSION, AND SOCIAL SUPPORT IN SRI LANKA

Rathnayake, R.M.C.N.

POSTER SESSION 12 – ENVIRONMENTAL HEALTH

PP 56

CHARACTERISTICS OF HOSPITAL WASTEWATER DISCHARGED FROM BASE HOSPITAL BIBILE

Kumara, A.M.I.U., Yapa, Y.M.S.S., Young, S.M., Amaraweera, T.H.N.G.

PP 57

THE INTERRELATIONSHIP BETWEEN DENGUE INCIDENCE AND DIURNAL RANGES OF TEMPERATURE AND HUMIDITY IN KANDY MUNICIPAL COUNCIL AREA AND ITS POTENTIAL APPLICATIONS

Ehelepola, N.D.B., Ariyaratne, K.

PP 58

GAPS IN OCCUPATIONAL HEALTH, FOOD SAFETY AND ENVIRONMENTAL HEALTH SERVICE DELIVERY IN NORTHERN AND EASTERN PROVINCES OF SRI LANKA

Wickramasinghe S. C., Suraweera S.A.I.K., Herath H. D. B., Wijesekara N², Senanayake S.J

PP 59

CITY DWELLERS VIEW AND ATTITUDE TOWARDS NEWLY IMPLEMENTED WASTE SEGREGATION PROGRAM IN COLOMBO MUNICIPAL COUNCIL, SRI LANKA

Prakash, T.G.S.L., Mirihana, M.K.P.S.

PP 60

CURRENT DISPOSAL MODALITIES, KNOWLEDGE, ATTITUDES AND ITS CORRELATES ON ELECTRONIC AND ELECTRICAL WASTE AND ITS MANAGEMENT AMONG GRADE TEN STUDENTS IN MEDICAL OFFICER OF HEALTH AREA NIVITHIGALA

Weerakoon, W.M.K.P., Suraweea, S.A.I.K.

POSTER SESSION 13 – ORAL HEALTH

PP 61

EARLY CHILDHOOD DENTAL CARIES AND PREVENTION

Rameskumar, S., Sithy Safna, M.B, Appu Thanthirige, D, Sathananthan, J., Wanasinghe, W.K.W.K.W, Subaskaran, S

PP 62

PATTERN OF DENTAL ILLNESSES AND SOCIODEMOGRAPHIC FACTORS OF PATIENTS PRESENTED TO THE RESTORATIVE DENTISTRY UNIT- TEACHING HOSPITAL KANDY, SRI LANKA

Jinadasa, M.V.N., Rupasinghe, I.P.K., Dissanayake, D.M.M., Ajith, B.P., Yapa, R.Y.M.V.U.K., Jayasinghe, P.P.

PP 63

ASSESSMENT OF SELECTED FACTORS ON AFTER MEAL TOOTH BRUSHING IN KALUTARA MEDICAL OFFICER OF HEALTH (MOH) AREA

Chintha Sepali H A

PP 64

EPIDEMIOLOGICAL FACTORS OF TRAUMATIZED PERMANENT ANTERIOR TEETH, TREATMENT OUTCOME AND COMPLICATIONS OF COMPLICATED CROWN FRACTURES, AT RESTORATIVE UNIT, SOUTHERN SRI LANKA

Abeygunawardhana, S.N.W., Kottahachchi, M.J., Mahappukorala, W., Mendis M.P. S., Kumara, W.A.G.I., Jayani, W.K.

PP 65

EARLY CHILDHOOD CARIES BURDEN AMONG PRESCHOOL CHILDREN OF GALLE MUNICIPAL COUNCIL AREA: AN INTERVENTION FOR IMPROVEMENT

Abeygunawardhana, S.N.W., Kottahachchi, M.J., Perera, I.R., Jayasinghe, M.

PP 66

SOCIO-ECONOMIC BACKGROUND OF THALASSAEMIC PATIENTS ATTENDING NATIONAL THALASSAEMIA CENTRE AND COMPARISON OF THEIR ORAL HEALTH WITH HEALTHY POPULATION

Kularatne, W.N., Jayasinghe R.M., Diyunugala M.C., Bandara, D., Abeyundara, S., Perera, I.

POSTER SESSION 14 – NON COMMUNICABLE DISEASES

PP 67

EPIDEMIOLOGY, INJURY PATTERN, SEVERITY OF INJURIES AND RISK FACTORS OF ROAD TRAFFIC ACCIDENT CASES AT A GENERAL SURGICAL UNIT OF A TERTIARY CARE HOSPITAL IN SRILANKA

Bandara, W.A.K., Wijesundara, W.N.T, Premathilake, T.L., Wikkramasooriya, W.M .C. B., Niyas, S.M.M.

PP 68

ANALYSIS OF SEVERE TRAUMATIC BRAIN INJURIES IN TERTIARY CARE UNIT IN SRI LANKA

Peiris, B.H.D.R., de Silva. D.U., de Silva, K.H.R., Basnayake, B.M.G.S.K., Wasala, T.A.S., Siripala, P.A.

PP 69

PREVALENCE OF DIABETES MELLITUS IN TUBERCULOSIS PATIENTS IN ANURADHAPURA DISTRICT OF SRI LANKA AND ITS INFLUENCE ON TREATMENT OUTCOME

Waidyaratne, R.A.D.K.M.D., Niranjala, M.W.S., Waidyaratne, D.L,

PP 70

SCREENING PROFILE AND SOURCES OF AWARENESS ABOUT NON COMMUNICABLE DISEASE SCREENING AMONG ATTENDEES AT HEALTHY LIFESTYLE CENTRE, DISTRICT GENERAL HOSPITAL, KEGALLE

S.A.P.L. Nanayakkara

PP 71

BODY MASS INDEX (BMI) AND IT'S ASSOCIATION WITH DIET AND EXERCISE AMONG MEDICAL STUDENTS; ARE FUTURE DOCTORS AT RISK OF NON-COMMUNICABLE DISEASES

Wickramasinghe W.W.A.J.K.B., Jayawardhana S.M.P.C. Padeniya P.S.M.A.B, Rathnayeka R.M.T.M.

PP 72

KNOWLEDGE AND ATTITUDES TOWARDS NON COMMUNICABLE DISEASES (NCD) AND HEALTHY LIFESTYLE CLINICS (HLC) AMONG TARGET GROUP (AGE 35-65) IN THE MENIKHINNA MOH AREA OF THE CENTRAL PROVINCE OF SRI LANKA

Dayaratna, S. N., Weerakoon, A.P.2, Hettiarachchi, A.3, Jayawardana, U.4, Nilmani M.M.E.⁵

PP 73

COST OF ROAD TRAFFIC CRASHES IN A DEVELOPING COUNTRY, SRI LANKA

Amarasinghe, P.G., Dharmaratne, S.D., Bandara, M.R.S.S., Amarasinghe, J.N.P

PP 74

THE BURDEN CREATED TO THEIR FAMILIES BY PATIENTS WITH UNINTENDED INJURY

Mahindawansa, S. I., Udayakumara, H. K. N., Jayasinghe Bandara, W. M., Wijayathilake, A. D., Peramuna, P. K. P. D., Jayasinghe, P. P.

PP 75

COMPLIANCE FOR TREATMENT OF DIABETES MELLITUS –TEACHING HOSPITAL JAFFNA

Subaskaran, S, Indrani, D.R.L, Samaraweera, D.P, Balasuriya, A.P, Lasanka, T.K.S, Pathmanathan, S

PP 76

PREVALENCE OF CHRONIC COMPLICATIONS, THEIR RISK FACTORS, AND THE CARDIOVASCULAR RISK FACTORS AMONG PATIENTS WITH TYPE 2 DIABETES ATTENDING THE DIABETIC CLINIC AT A TERTIARY CARE HOSPITAL IN SRI LANKA

Arambewela, M.H., Somasundaram, N., Fernando, K.R.A.S., Jayasena, P.M., Chandrasekara, C.M.P.H., Kusumsiri, D.P., Jayasekara, H.A.B.P.R., Kumbukage, M.P.

PP77

PREVALENCE OF SOCIO-DEMOGRAPIC AND BEHAVIORAL CHARACTERISTICS ON NON-COMMUNICABLE DISEASES

Lasanthi, W.M.S., Yapa, Y.P.R.D.

PP 78

A STUDY ON THE NATURE OF ADMISSIONS TO ACCIDENT AND EMERGENCY DEPARTMENT IN A TERTIARY CARE HOSPITAL IN SRI LANKA

Jayasekera M.M.P.T, Dasanayake G.K.G, Bandara P.M.K, Jayawardhena D.A.N.L, Malkanthi K.M.S.

POSTER SESSION 15 – PHARMACEUTICALS

PP 79

WHAT DO PATIENTS IN PSYCHIATRY OUTPATIENT CLINICS OF TEACHING HOSPITAL, KARAPITIYA, KNOW ABOUT THEIR LITHIUM THERAPY AND WHAT ARE THE FACTORS THAT MAY INFLUENCE THEIR KNOWLEDGE?

Ruben, R., Nanayakkara, N.J.M.N., Prabhath, T.A.S., Attanayaka, A.D., Ranaweera, S.G.C.S.

PP 80

MANAGEMENT OF DIGESTIVE SYSTEM DISORDERS USING NATURAL ENZYMES WITH THEIR ENZYME INHIBITION PROPERTIES

Manoj Kanth, N. P., Chanjugaa, U., Santhosh R.

PP 81

FACTORS AFFECTING NON-ADHERENCE TO TB MEDICATION IN SELECTED TB PATIENTS AT CENTRAL CHEST CLINIC, COLOMBO.

Hennayake, H.M.K.D., Karunarathne, R.M.C.S., Rathnayake, R.M.S.P., Srimali, W.I., Samarasinghe, P., Fernandopulle, B.M.R.

PP 82

ADVERSE REACTIONS DUE TO ANTI-TUBERCULOSIS MEDICINES AND its ASSOCIATED FACTORS

Samarasinghe, A.I.P., Pallewatte, N.C., Samaraweera, S., Ambagahage, T., de Alwis, A.K.S.B., Senevirathne, G., Fernadopulle, R., Ariyaratne, A.K.S.K.

PP 83

POLYCYSTIC OVARY SYNDROME IN PATIENTS WITH SCHIZOPHRENIA TREATED WITH ATYPICAL ANTIPSYCHOTICS: A COMPARATIVE GROUP STUDY

de Silva, V.A., Senanayake, W.H.A.P, Ratnatunga, S.S, Dissanayake, S, Gamage, S, de Silva, S, Hanwella, R, Wijeyaratne, C.N

PP 84

DRY POWDER INHALER TECHNIQUE OF PATIENTS ATTENDING AN OUTPATIENT CLINIC OF A SUBURBAN HOSPITAL, AND ITS RELEVANCE TO ASTHMA STABILITY.

Sathislal L.R.C., de Silva M.K, Siriwardene W.I., Samaranyake W.M.S.

PP 85

ANALYSIS OF STOCK VS NON-STOCK ITEMS PURCHASED LOCALLY DURING 2012 AND 2016 PERIOD IN TEACHING HOSPITAL KURUNEGALA

Hettiarachchi, H.A.L.P.K., Kariyapperuma, K.A.S., Kendangamuwa, C., Wasana, A.V.G.T., Warnasooriya, W.M.S.N., Liyanarachchie, L.C.P.T.

POSTER SESSION 16 – HEALTH INFORMATICS

PP 86

ANALYZE INCIDENTS OF MORTALITY AND PERMANENT DISABILITIES AMONG IN SERVICE NAVAL POPULATION 1995-2015

Samarawickrama, H.D.I.

PP 87

EFFECTIVE USE OF MOBILE TECHNOLOGY FOR NUTRITION SURVEILLANCE

Hettiarachchi R, Amarakoon P.M, Hewapathirana R.H

OP 88

DESIGN AND DEVELOPMENT OF LOW COST TELEMEDICINE SYSTEM FOR REFERRAL OF ORTHOPEDICS PATIENTS

Wickramasinghe S., Ranwala R.A.D.L.M.K., Suraweera H.J., Weerasinghe J., Samarasinghe A.S., Piyarathna C., Thennegedara A., Jayasinghe J.A.L.A., Wijesinghe W.M.N.C., Marasinghe R.B.

OP 89

IDENTIFYING AND OVERCOMING BARRIERS TO UTILIZATION OF THE MEDICAL RECORD SYSTEM AT THE HUMAN GENETICS UNIT FACULTY OF MEDICINE COLOMBO

Kulasiri, K.H.S.

PP 90

SRI LANKAN TWIN REGISTRY BIOBANK: A RESOURCE FOR HUMAN GENETIC RESEARCH IN SRI LANKA

Warnakula, L., Skandhakumar, R., Madanayake, R., Jayaweera, K., Abeysinghe, M.R.N., Zunszain, P.A., Zavos, H.M.S., Rijdsdijk, F., Siribaddana, S., Pariante, C.M., Sumathipala, A., Hotopf, M.

PP 91

USE OF DIGITAL DEVICES AMONG SCHOOL GOING ADOLESCENTS IN KURUNEGALA MUNICIPAL COUNCIL AREA AND ITS ASSOCIATION WITH THEIR ACADEMIC PERFORMANCE AND SLEEP

Ranasinghe R.A.S.U., Danansuriya M.

PP 92

MINIMUM SOFTWARE DOCUMENTATION REQUIREMENTS TO ENSURE MAINTAINABILITY AND EXTENSIBILITY IN LOW RESOURCE SETTINGS

Hapudeniya, H.W.M.M., Attapatu, A.M.A.

PP 93

AN AUDIT ON PRACTICES OF GRADE MEDICAL OFFICERS ON MANAGEMENT OF BED HEAD TICKETS IN BASE HOSPITAL, WATHUPITIWELA AND DISTRICT GENERAL HOSPITAL, GAMPAHA, SRI LANKA

Mallawarachchi, S.M.N.S.M., Mallawarachchi, C.H., Chandradasa, D.H.N.S., Dilrukshi, D.A.R.K., Samarakoon, D.S.

PP 94

LOW COST, LOW POWER E-SOLUTION FOR PATIENT MANAGEMENT SYSTEM USING MICRO CONTROLS AND EMBEDDED TECHNOLOGY

Piyasena, M. G. Y., Karunarathna P. G. P. S., Priyanatha K. U. G.

PP 95

UTILIZATION AND FACTORS ASSOCIATED WITH THE USE OF INFORMATION TECHNOLOGY IN A HEALTH ADMINISTRATIVE OFFICE

Hettiarachchi, J.

POSTER SESSION 17 – CAPACITIES OF HEALTH PROFESSIONALS

PP 96

PERCEPTIONS AMONG PRE INTERN DOCTORS IN SRI LANKA ON WRITING DIAGNOSIS CARDS

Ranasinghe D., Rathnayake D.R.D, Padeniya A, Epitakaduwa C

PP 97

ASSESSMENT OF KNOWLEDGE AND ATTITUDE OF NURSING STAFF REGARDING CRITICAL PHASE CHART MONITORING OF DENGUE HEMORRHAGIC FEVER (DHF) PATIENTS; SRI JAYEWARDENEPURA GENERAL HOSPITAL (SJGH), SRI LANKA.

Edirimanna, R.S., Edirisinghe, K.

PP 98

KNOWLEDGE AND PRACTICES OF VENTILATOR CARE BUNDLES AMONG THE INTENSIVE CARE NURSES OF THE NATIONAL HOSPITAL SRI LANKA, (2015).

Senanayaka, S.M.T.P. Edirishinghe, K.

PP 99

ATTITUDE AND AWARENESS ABOUT BREAKING BAD NEWS (BBN) AMONG THE SURGICAL NURSES AT NATIONAL HOSPITAL, SRI LANKA

Senevirathna, T.M.U.A.B, Silva, S.N.

PP 100

KNOWLEDGE, ATTITUDES AND LEVEL OF ENGAGEMENT OF MEDICAL OFFICERS IN HEALTH RESEARCH IN GENERAL HOSPITALS, BADULLA AND GAMPAHA

Wijetunga, W. M. T. S., Kumarapeli, V.

PP 101

KNOWLEDGE, ATTITUDE, AND PRACTICES OF MEDICAL OFFICERS IN NATIONAL HOSPITAL OF SRI LANKA ON PSYCHOLOGICAL FIRST AID DURING DISASTER RESPONSE

Perera, W.D.S.C, Vallipuranathan, M., Rajapaksha, R.M.N.U.

PP 102

AN EVALUATION OF RESEARCH SKILLS AND ATTITUDES ABOUT RESEARCH SKILLS TRAINING, AMONGST MEDICAL STUDENTS OF FACULTY MEDICINE, UNIVERSITY OF KELANIYA

Jayalal M.D.S., Sandanayake A.P., Hewageegana U W., Chandrakumara U.P.M

PP 103

ARE THE INTENSIVE CARE NURSES KNOWLEDGABLE IN CARING FOR PATIENTS WITH ENDORACHEAL TUBE? RESULT FROM NATIONAL HOSPITAL COLOMBO

Colombage, T.D., Goonewardena, C.S.E.

PP 104

CAPACITY BUILDING NEEDS OF THE PUBLIC HEALTH STAFF IN RELATION TO ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND FOOD SAFETY IN NORTHERN AND EASTERN PROVINCES OF SRI LANKA

Wickramasinghe S. C., Suraweera S.A.I.K., Herath H. D. B., Wijesekara N, Senanayake S J

PP 105

CORE COMPETENCIES OF PRIMARY HEALTH CARE WORKERS IN DEVELOPING HEALTH PROMOTION SETTINGS IN KALUTARA RDHS DIVISION

Ranga, S.D.U.M., Hewageegana, N.S.R., Dilrukshi, D.A.R.K.

PP 106

KNOWLEDGE ATTITUDES AND PRACTICES OF MEDICAL OFFICERS AT THE LADY RIDGEWAY HOSPITAL COLOMBO ON PREPAREDNESS FOR SELECTED DISEASES WITH PANDEMIC POTENTIAL

Lakmali, A.K.S^{1*}, Kumarapeli, V²

POSTER SESSION 18 – NUTRITION

PP 107

THE EFFECTIVENESS OF A HOMEMADE SUPPLEMENTARY FOOD, IN IMPROVING THE WEIGHT GAIN OF MODERATELY ACUTE MALNOURISHED CHILDREN, BETWEEN 02 TO 05 YEARS IN KOPAY MEDICAL OFFICER OF HEALTH AREA

Sivashankar, J.T., Thalagala N

PP 108

PREVALENCE ASSOCIATED FACTORS AND MANAGEMENT OF LONG STANDING GROWTH FALTERING AMONG CHILDREN OF 15-60 MONTHS ATTENDING PRIMARY HEALTH SERVICES IN MORATUWA MEDICAL OFFICER OF HEALTH AREA

Nilaweera, W.R.L., Arnold, S.M,

PP 109

ASSOCIATION OF LOW BIRTH WEIGHT WITH GROWTH PROBLEMS, DEVELOPMENTAL DELAY AND SELECTED ILLNESSES DURING 2ND YEAR OF LIFE AMONG CHILDREN IN MORATUWA MOH AREA

Alagiyawanna, A.M.A.D.K., Thalagala, N.

PP 110

A STUDY TO IDENTIFY ASSOCIATED FACTORS OF ANAEMIA UNDER FIVE YEARS CHILDREN FROM MOTHERS PERSPECTIVE

De Silva B.S.S., Dissanayaka D.M.T.M , Amaradasa, Y.S.

PP 111

COMPARATIVE ANALYSIS OF THE NUTRITIONAL QUALITIES OF EDIBLE NUTS IN SRI LANKA WITH SPECIAL REFERENCE TO TROPICAL ALMOND

Rizniya, M.N.F., Rifaee, M.M.M., Arawwawala, L. D. A. M., Mawjood, A.H.M., Nasmeeer M.S.M.

PP 112

IMPROVEMENT OF MULTISECTORAL NUTRITION PROMOTION ACTIVITIES IN KOTHTHMALE MEDICAL OFFICER OF HEALTH AREA IN NUWARAELIYA DISTRICT

Senevirathna, W.R.M.M., Gunawardana, S.R.H.P.

POSTER SESSION 19 – MATERNAL AND CHILD HEALTH

PP 113

CONTRACEPTIVE USE BY 15-24 YEAR OLD SRI LANKAN YOUTH: NATIONAL YOUTH HEALTH SURVEY, SRI LANKA (2012/13)

Danansuriya, M.N., Thalagala, N. , Lokubalasooriya, A., Godakandage, S.S.P., Dhanapala, S., De Silva, C.

PP 114

PREPAREDNESS AMONG MALE PARTNERS OF PREGNANT WOMEN FOR BIRTH AND RELATED COMPLICATIONS IN A MEDICAL OFFICER OF HEALTH (MOH) AREA IN SRI LANKA

Rodrigo, U.C.H., Kumarapeli, V.

PP 115

BIRTH AND EMERGENCY PREPAREDNESS AND ITS ASSOCIATION WITH MATERNAL AND NEONATAL OUTCOMES AMONG POSTNATAL MOTHERS AT BASE HOSPITAL, BALANGODA

Perera WND, Goonewardena CSE

PP 116

OUTCOME OF MISCARRIAGES, AMONG PATIENTS ADMITTED FOR POST ABORTION CARE TO BASE HOSPITAL WATHUPITIWALA, SRI LANKA

Amarasiri, A., Ganepola, G.A.M.P., BhagyaLochana, R.P.S.S., Wickramarathna W.A.I., Herath, H.M.L.P., Jayasinghe P.P.

PP 117

PROPORTION, KNOWLEDGE, ATTITUDES AND CORRELATED OF ADVANCED MATERNAL AGE AMONG PREGNANT WOMEN, ATTENDING ANTENATAL CLINICS IN COLOMBO MUNICIPAL COUNCIL.

Nawaratne, S. D., Vidanapathirana, J. M. J. P.

PP 118

DISEASE PATTERNS OF MATURE BABIES ADMITTED TO NEONATAL INTENSIVE CARE UNIT (NICU) OF SRI JAYEWARDENEPURA GENERAL HOSPITAL.

Suwarnaseeli, E.D.D.

POSTER SESSION 20 – RADIOLOGY

POSTER SESSION 21 – HEALTH SYSTEMS

PP 119

A PROSPECTIVE STUDY TO EVALUATE ACCESS TO ELECTIVE SURGICAL SERVICES IN A UROLOGICAL UNIT OF SRI LANKA

Jayawardene, M. D., Balagobi, B., Weligamage, W. A. S., Ishak, M. C. M., Gobi, U., Suwendiran, S., Mahadeva, S., Abeygunasekera, A. M.

PP 120

SELECTED COMPONENTS OF EMERGENCY PREPAREDNESS TO MANAGE ACCIDENTS IN SELECTED HEALTH CARE INSTITUTIONS

Chandradasa, DHNS

PP 121

COST ANALYSIS OF MEDICAL SPECIALTY TRAINING PROGRAMMES IN SRI LANKA

Jeevanie B. H. B.

PP 122

KNOWLEDGE AND PRACTICES OF GRAMANILADHARI OF KALUTARA DISTRICT ON CAMP MANAGEMENT DURING DISASTER SITUATIONS

Rupasinghe, M.C.S., De Silva, S.

PP 123

FACTORS INFLUENCED FOR SELECTION OF PRIVATE VERSUS PUBLIC ORAL HEALTH CARE SERVICE PROVIDER IN AGRICULTURE BASED AREA

Yapa, Y.M.S.S., Kanthi, R.D.F.C., Krishanth, M.D.A.

PP 124

ADEQUACY OF EQUIPMENT AVAILABLE FOR THE INSERTION OF CHEST DRAINS IN TERTIARY CARE UNITS IN SRI LANKA: A MULTICENTER STUDY

Harischandra, D.V.T., Hewage, H.V.G., Amarashriyan, L, Indrapala K, Perera, N, Jayaweera, J.M.R.G.

PP 125

COMPARISON OF ANTI HAEMOPHILIC FACTOR CONSUMPTION AND FREQUENCY OF HOSPITALIZATION BETWEEN ON DEMAND THERAPY AND HOME TREATMENT IN ADULT HAEMOPHILIA PATIENTS

Rathnayake, R.M.P.M., Nanayakkara, S.N.N.K, Vindupani, D.G.C, Dissanayake, A

PP 126

ARE THE HEALTH CARE WORKERS A BARRIER FOR EXCLUSIVE BREASTFEEDING IN SRI LANKA?

Ratnayake, R.M.H.E., Rowel, D.

PP 127

DIRECT AND INDIRECT COST BURDEN TO PATIENTS UNDERGOING CORONARY ARTERY BYPASS GRAFTING (CABG) IN TEACHING HOSPITAL KARAPITIYA

Sanjeewa G.G.C

PP 128

REASONS INFLUENCING IRREGULAR ATTENDANCE OF CLINIC APPOINTMENTS AMONG DIABETIC PATIENTS

Ranasinghe, R.A.D.M.N., Akarawita, A.S.K., Fernando, W.B.N.P., De Silva B.S.S., Kumari, E.A.R.D.

POSTER SESSION 22 – HEALTH LITERACY

PP 129

AWARENESS AND ATTITUDES OF BLOOD DONATION AMONG UNDERGRADUATE STUDENTS IN UNIVERSITY OF PERADENIYA

Sumali, G.A.K., Illeperuma, R.P.

PP 130

PERSONNEL HYGIENE AMONG ADOLESCENTS; KNOWLEDGE, ATTITUDES AND PRACTICES

Zoysa, H.N.D., Lokubalasuriya, A.,

PP 131

KNOWLEDGE ON RISK FACTORS FOR SUBFERTILITY AMONG ELIGIBLE FAMILIES IN KAHATHUDUWA MEDICAL OFFICER OF HEALTH AREA AND ITS ASSOCIATIONS WITH SELECTED FACTORS

Nanayakkara, I.O.K.K., Nanayakkara, M.E., Chandradasa, A.D.P.P., Thalagala, H.E., De Silva, A.S., Mahesh, P.K.B.

PP 132

KNOWLEDGE ATTITUDES AND REPORTED PRACTICES ON RESPONSIBLE DOG OWNERSHIP AMONG PERSONS AGED 20-59 YEARS IN A MOH AREA IN COLOMBO DISTRICT

De Silva, L.S.D., Kumarapeli, V.

PP 133

KNOWLEDGE, ATTITUDES, PRACTISES AND CORRELATES OF KNOWLEDGE OF MOTHERS WITH CHILDREN LESS THAN FIVE YEARS REGARDING THE SAFETY OF DRINKING WATER IN KALUTARA MEDICAL OFFICER OF HEALTH AREA

Fernando, W.B.S.P.

PP 134

KNOWLEDGE, ATTITUDES AND PRACTICES ON FIRE SAFETY AMONGST OFFICE WORKERS AT GOVERNMENT OFFICES IN THAMANKADUWA DIVISIONAL SECRETARIAT

Kithalawa arachchige, T.K., Ferdinando, R,

PP 135

KNOWLEDGE AND ATTITUDES ON INFERTILITY AMONG COUPLES ATTENDING TO INFERTILITY CLINIC AT CASTLE STREET HOSPITAL FOR WOMEN, COLOMBO

Dahanayake, S.D., Hunukumbure, R.M.C.B, Illeperuma, R.P

PP 136

AWARENESS AND PRACTICES RELATED TO RABIES AMONG GRADE 12 ADVANCED LEVEL (A/L) STUDENTS IN SELECTED SCHOOLS OF COLOMBO DISTRICT

Sooreakumar, A., Somarathna, H.P.S.H., Sivarasa, K., Sithara, J.S., Mambulage, U.

PP 137

PARENTS' KNOWLEDGE ATTITUDES AND PRACTICES ON MANAGING ASTHMA OF THEIR CHILDREN AT HOME ENVIRONMENT.

Rajapaksha, N.M.D., Rathnayake, R. M.P.S., Dissanayake, D.M.H.S., Pramuditha Madhavi, A.V

PP 138

ATTITUDES AND WILLINGNESS TO UNDERGO A PAP SMEAR TEST AMONG MARRIED WOMEN IN INGIRIYA MOH AREA, SRI LANKA

Dodangoda, T.C., Meegoda, M.K.D.L.

PP 139

KNOWLEDGE, ATTITUDE AND PRACTICES RELATED TO EXCLUSIVE BREAST FEEDING AMONG MOTHERS ATTENDING THE WELL-BABY CLINICS AT MOH AREA JA-ELA.

De Silva, G.R.S., Silva, L.L.L., Rathnasekera, N.P., Silva, S.C.R.S., Nandasoma, A.W.C.J

PP 140

KNOWLEDGE AND ATTITUDES RELATED TO STD AND HIV/AIDS IN ADVANCED LEVEL SCHOOL CHILDREN IN MALIMBADA MOH AREA

Meegoda, D.G.D.W., Dileka, W.S.C, De Silva, D.G.D.I, Sugathadasa, M.R.D.L, Jayaweera, N

PP 141

KNOWLEDGE, ATTITUDES, PRACTICES AND CONTRIBUTORY FACTORS ON DISASTER PREPAREDNESS AMONG FISHERMEN AT DEVINUWARA FISHING HARBOR

Ravindra K.A.1

PP 142

KNOWLEDGE, ATTITUDES AND PRACTICES OF MOTHERS OF PRESCHOOL CHILDREN IN PREVENTION AND CONTROL OF WATER-BORNE DISEASES DURING FLOODS, IN MEDICAL OFFICER OF HEALTH AREA, PANADURA

Fernando, P.S.N

PP 143

KNOWLEDGE AND ATTITUDE REGARDING TUBERCULOSIS IN ADVANCED LEVEL SCHOOL CHILDREN AT TWO MAJOR SCHOOLS IN GAMPAHA DISTRICT

Senarathne, R.M.C¹, Senarathna, S.A.M.A.S.R.K², Mangalika, K.I,¹Weerasuriya, K.D.G.C.K, Liyanawidane, L.W.S¹

POSTER SESSION 23 – TOXICOLOGY

PP 144

CARDIOTOXIC MANIFESTATIONS FOLLOWING 'NIYAGALA' (*GLORIOSA SUPERBA*) POISONING

Namal Rathnayaka, R.M.M.K., Ranathunga, P.E.A.N., Fernando, R.

POSTER SESSION 24 – MISCELLANEOUS

PP 145

CRITICAL APPRAISAL OF CONSUMER HEALTH LITERATURE IN TAMIL PRINT NEWS MEDIA IN SRI LANKA

Sri Ranganathan, S., Balasubramaniam, R., Thayaharan, M., Thiruvarangan, S.

PP 146

EVALUATION OF HEALTH POLICIES ON PREVENTION AND CONTROL OF ISCHEMIC HEART DISEASE IN SRI LANKA: A DESK REVIEW

Thubellage, D.S., Dharmasiri, A.S., Senarath, J. U.

PP 147

A RETROSPECTIVE STUDY OF LEPROSY REACTION PATTERN IN A TERTIARY CARE HOSPITAL

Ranasinghe, A.C., Warnasooriya, W, Mendis, W.J.S

POSTER SESSION 25 – RHEUMATOLOGY AND REHABILITATION

PP 148

COMPARISON OF THE EFFECT OF PROGRESSIVE MUSCLE RELAXATION AND MUSIC ASSISTED PROGRESSIVE MUSCLE RELAXATION ON RELIEVING STRESS AMONG RESIDENT IN SELECTED ELDERLY HOMES COLOMBO DISTRICT.

Faries, M. R. M., Alwis, B. H. P. P. , Weerasinghe, S. A. P. T., Jayawardana, S. M., Pathiraja, S. P. H. S., Dabare, H. P. M., Fernando, N.

PP 149

THE EFFECT OF OBESITY ON CARDIAC REHABILITATION IN PATIENTS WHO HAVE UNDERGONE CORONARY ARTERY BYPASS GRAFT SURGERY AT THE NATIONAL HOSPITAL OF SRI LANKA.

Dharmapriya MKJKB, Bandara DMAK, Ranasinghe RAMC, Weerathunge MPM, Silva MCD, Wijesinghe RANK, Mendis SAES

PP 150

EFFECTIVENESS OF SPINAL MANIPULATION OVER SHORT WAVE DIATHERMY ON PATIENTS WITH CHRONIC POSTURAL LOW BACK PAIN, DEPARTMENT OF PHYSICAL MEDICINE AT TEACHING HOSPITAL, KANDY, SRI LANKA

Aluthge, I.N., Illukkumbura, K.N.B., Nisansala, W.A.T., Shashikala, H.H.T.

PP 151

A DESCRIPTIVE STUDY ON QUALITY OF LIFE AFTER SPINAL CORD INJURY PATIENTS IN A GOVERNMENT HOSPITAL IN SRI LANKA

Rajapaksha, D.G.O., Iresha, E.G.A., Bandara, S.G.D.C.

PP 152

FACTORS INFLUENCING PRE-STROKE AND POST-STROKE QUALITY OF LIFE AMONG STROKE SURVIVORS IN SRI LANKA

Maresh, P.K.B., Gunathunga, M.W., Jayasinghe, S., Arnold, S.M, Croos, J.S.V., Liyanage, S.N., Jayasinghe, D.S.A.

POSTER SESSION 26 – QUALITY AND SAFETY

PP 153

PATIENTS' VISITORS SATISFACTION OF SERVICE AT THE MEDICAL INTENSIVE CARE UNIT (MICU) IN COLOMBO NORTH TEACHING HOSPITAL, SRI LANKA.

Chandrasena, P.K.G.S.

PP 154

MATERNAL SATISFACTION REGARDING CARE RECEIVED FROM GOVERNMENT HEALTH SERVICES TO MOTHERS AND THEIR NEONATES DURING HOSPITAL STAY IN DISTRICT OF GAMPAHA

Jayasinghe, D.U.C.J., Abeyseena, C., Jayasinghe, D.S.A.

PP 155

IN- PATIENT SATISFACTION WITH THE NURSING CARE IN MEDICAL WARD OF DISTRICT GENERAL HOSPITAL, MONARAGALA

Upul Priyantha Ratnayaka, N.A.

PP 156

PERCEIVED LEVEL OF SATISFACTION ON CLINIC CARE AND ASSOCIATED FACTORS AMONG CAREGIVERS OF CHILDREN WITH CEREBRAL PALSY ATTENDING THE RHEUMATOLOGY AND REHABILITATION CLINIC AT LADY RIDGEWAY HOSPITAL, COLOMBO.

Herath M.D., De Silva S.H.M., Ginige, S.

PP 157

PRIMI-MOTHERS' EXPERIENCES ON NORMAL VAGINAL DELIVERY AT LABOR ROOM

Abeyasinghe, R.U.S.L., Kaluthanthri, K.D.N.D., Nanayakkara, J.A.G.D.S.C., Senadheera, A.S.P.L., De Silva, B.S.S.

PP 158

APPLICATION OF LEAN MANAGEMENT TO MINIMIZE WASTAGES OF PHARMACEUTICALS IN STORES

Ariyaratne, D.R.C.K.

PP 159

IMPACT OF THE QUALITY OF NON-CLINICAL SERVICES ON PATIENTS' SATISFACTION: A STUDY OF COLOMBO SOUTH TEACHING HOSPITAL, SRI LANKA.

Priyadarshanie, R.A.D.R., Sudasinghe, S.R.S.N., Wedage, D,

PP 160

PATIENT PERCEPTION ON RESPONSIVENESS OF BASE HOSPITAL, NIKAWERATIYA

S.S.A.B.M.S.K.Attanayake, P.A.D.D.S.Ponweera

PP 161

A NOVEL INTEGRATED INTERVENTION TO IMPROVE INTRAPARTUM CARE SATISFACTION AMONG PREGNANT WOMEN OF TEA ESTATES

Madugalle T.M.S.S.B, Panadare C.M.A.B.C, Jiffry M.N, Rathnayake R.M.H.M, Rajapakshe R.N

PP 162

IMPLEMENTATION OF STANDARD CRITERIA FOR EFFECTIVE MEDICAL EQUIPMENT PREVENTIVE MAINTENANCE PRACTICE IN RELATION TO SERVICE AGREEMENTS OF DISTRICT GENERAL HOSPITAL – NAWALAPITIYA

Somarathne, C.J.K., Dharmaratne, G.S.K

PP 163

EFFECTIVENESS OF DRUG INFORMATION SHEETS ON THE MEDICATION COMPLIANCE AMONG PATIENTS ON LONG-TERM TREATMENT FOR HYPERTENSION IN THE NATIONAL HOSPITALS SRI LANKA

Karunaratne, A.S, Kumarapeli, V., Samarage, S.

PP 164

SERVICE EVALUATION OF NEW PATIENTS' CARE PATHWAY INCLUDING REFERRALS TO CHILDREN'S HOSPITAL

Gajanayake, C., Zaitoun, H.

PP 165

AN AUDIT OF DIABETES MELLITUS MANAGEMENT IN GENERAL MEDICAL CLINIC AND THE DIABETIC CLINIC AT NORTH COLOMBO TEACHING HOSPITAL.

Hemachandra, K.A.S., Premaratna, R.

POSTER SESSION 27 – EDUCATION AND TRAINING

PP 166

LEARNING STYLES AMONG MEDICAL UNDERGRADUATES AND PRE-INTERN DOCTORS OF UNIVERSITY OF SRI JAYEWARDENEPURA

Indunil, L.A., Madushika, P.K.K., Deegodagamage, Y.S., Niluka, D.H.M., Wijesundara, W.M.C.S., Edirisinghe, E.A.S.T., Dissanayake, P.H., Yasawardene, S.G.

PP 167

THE EFFECTIVENESS OF IN-SERVICE TRAINING WORKSHOPS FOR NURSES TO IMPROVE MICROBIOLOGICAL DIAGNOSIS

Wickramasinghe D. Ransimali L.G.H.N., Vijayapabu V., Piyadasa U.P.L.A., Kumari E.H.N.N.

PP 168

EVALUATING THE EFFICACY OF A PRE-INTERN TRAINING PROGRAMME ON ESSENTIAL CLINICAL SKILLS

Padeniya P.S.M.A.B., Heenatigala C.S.N., Ratnayaka D.R.D., Pieris K. V. M., Epitakaduwa D. C., Ranasinghe D.

POSTER SESSION 28 – ONCOLOGY

PP 169

DEPTH OF INVASION AS A PREDICTIVE FACTOR FOR CERVICAL LYMPH NODE METASTASIS IN ORAL SQUAMOUS CELL CARCINOMA

Abeyasinghe, W.A.M.U.L., De Silva, R.K., Siriwardena, B.S.M.S., Samaranayaka, A, Tilakaratne, W.M.

PP 170

ANALYSIS OF HUMAN EPIDERMAL FACTOR RECEPTOR 2 (HER2) EXPRESSION BY IMMUNOHISTOCHEMISTRY (ICH) METHOD IN BREAST CANCER AT THE NATIONAL CANCER INSTITUTE OF SRI LANKA

Ganewatte, W.D.A.K., Polgampala, B.A., Dahanaka, D.M.N.P.K., Abeywardana, R.M.W., Wijeratna, T.D., Rajaguru H.M.S.P.

PP 171

CHANGES OF HEALTH-RELATED QUALITY OF LIFE IN HEAD AND NECK CANCER PATIENTS TREATED WITH CHEMORADIATION

Sumith Gunawardane, Priyantha Madawala, Manjula Attygalla, Ruwan Jayasinghe, Nadeena Jayasooriya

PP 172

TECHNOLOGICAL ADVANCES IN RADIOTHERAPY FOR THE TREATMENT OF LOCALIZED PROSTATE CANCER - A SYSTEMATIC REVIEW

Jayatissa R.M.G.C.S.B., Cottrell J., Hewavithana, P.B.

PP 173

EXPRESSION OF VASCULAR ENDOTHELIAL GROWTH FACTOR (VEGF) IN ORAL CANCER PATIENTS ATTENDING NATIONAL CANCER INSTITUTE MAHARAGAMA- SRI LANKA

Edirisinghe, EAST, Weerasekera, MM, Rich, A, de Silva, H, Hussaini, M, de Silva K, Goonasinghe, R, Yasawardene, SG

PP 174

IMPROVING DISEASE NOTIFICATION IN MEDICAL UNITS AT A BASE HOSPITAL: AN EXPERIENCE FROM SOUTHERN SRI LANKA

Mohotti I.R., Fernando B.D.A., Kumara L.H.A.S., Dharmadasa O.A., Wanigathunga S.G.

PP 175

PERIPHERAL NEUROPATHY IN LEPROSY AMONG PATIENTS ATTENDING THE DERMATOLOGY CLINIC IN A TERTIARY CARE HOSPITAL IN SRI-LANKA: CLINICAL, ULTRASOUND MEASURES AND ELECTROPHYSIOLOGICAL CORRELATIONS

Prasangika T.G.C.

PP 176

KNOWLEDGE ON TREATMENT FOLLOWING DOG BITES & RABIES AND ASSOCIATED FACTORS AMONG ADULTS AGED 20-59 YEARS IN A MEDICAL OFFICER OF HEALTH AREA IN COLOMBO DISTRICT

De Silva, L.S.D., Kumarapeli, V.

PP 177

EFFECTS OF CASSIA AURICULATA LEAF EXTRACT ON DIGESTIVE ENZYMES, ALPHA AMYLASE AND PEPSIN

Salam, S.A1 and Rupert, S

**ABSTRACTS FOR
POSTER SESSIONS**

PP 01

PERCEPTION , ATTITUDE AND PRACTICES TOWARDS THE STATE-SECTOR FIELD WELL WOMWN CLINIC AND FAMILY PLANNING CLINIC SERVICES AMONG CLIENTS WHO DO NOT UTILIZE THOSE IN THE PITAKOTTE MOH AREA.

Gunawardhana, Y.A.G.K¹, Saranajeewa, K.S², Ranasinghe, S³, Dayarathne, B.H.R.S⁴, Peiris, D.P.B.K⁵.

1. Family Planning Unit, Family Health Bureau.
2. Medical Officer of Health Office- Pitakotte
3. Medical Officer of Health Office- Pitakotte
4. Central Dispensary- Angampitiya.
5. Central Dispensary- Madiwela.

Background: To improve the family planning, WWC statistics and to increase the benefits to the public, the acceptability of the public for the MOH staff should be improved. Hence exploring the perceptions, attitudes towards the state Well Women Clinic and Family Planning services among clients is worthy especially of them who do not utilize those services. Finding will help MOH area to improve their family planning and WWC acceptability.

Aim/s: To describe perceptions, attitudes and practices towards the state-sector field Well Women Clinic and Family Planning Clinic services among clients who do not utilize those in the Pitakotte MOH area.

Methods: A community based descriptive cross sectional study was carried out in Pitakotte MOH area. A sample of 392 women age between 35 and 49 years who did not utilized health care services (both WWC and family planning services) from the state sector were recruited using random sampling technique. Sampling frame prepared using updated eligible family register. To capture adequate sample size with inclusion criteria all the PHM areas had to be included for sampling. Supervising officers (MOOH, PHNS, and SPHMM) supervised the completeness of the eligible family register with random field visits to minimize the bias.

Results: Majority of women who do not utilize services from the government sector belongs to the monthly income above Rs.45000 (54.3%) and employed (65.9%). Reason for taking care from the private sector, 62.8% of clients pointed out, saving and convenient time when taking care from the private sector is the first reason. Majority having attitude that communication facilities are more convenient (69.5%) and protecting privacy (69.6%) are better in private sector than state sector. Out of the clients who did not participated for the government sector WWC 14.5% mentioned that they are hoping to participate for the government sector WWC in future. There is no significant association between clients who did not attend family planning clinics and having attitude of private sector is good ($p=0.124$). Also no significant association between clients did not attend WWC and having attitude of private sector is good ($p=0.273$).

Conclusion: There is no significance of having attitude of private sector is good among clients who did not attend Family Planning and WWC in government sector. Main reasons for taking private sector services are convenient time and communication facilities with their busy schedules as majority of them belong to high income and employed category.

Email of the Corresponding Author: gayanikau@gmail.com

PP 02

OCCUPATIONAL HEALTH AND SAFETY ISSUES IN THE RUBBER GLOVE MANUFACTURING INDUSTRY: A DESCRIPTIVE STUDY CONDUCTED IN THE FREE TRADE ZONE, KATUNAYAKE, SRI LANKA IN 2016

Wijayaweera, W.K.D.K.K.¹, Cooray, M.P.N.S.¹, Yapa, Y.M.M.M.², Karunaratne W.C.D.³

1. Post Graduate Institute of Medicine, University of Colombo, Sri Lanka
2. Ministry of Health, Sri Lanka
3. Faculty of Medicine, University of Kelaniya, Sri Lanka

Background: The Sri Lankan rubber glove industry plays a major role in global medical supply chain, which supplies 5% of the global demand for medical gloves. Despite its economic value, the industry claims to be associated with occupational health and safety hazards. However, minimal attempts have been taken in the local context to understand the gravity of the problem and to evaluate the safety measures adopted.

Aim/s: To determine the occupational health issues and safety measures occupied in the glove manufacturing industry in Sri Lanka

Methods: A cross sectional descriptive study was conducted in the Free Trade Zone, Katunayake. A sample of 375 was selected by simple random sampling from the population of glove manufacturing employees. An interviewer administered questionnaire was utilized as the study tool. Data analysis was done using Epi Info™ statistical analysis software package.

Results: Sample was predominantly male (85.9%) while majority (97.3%) was employed permanently and 78.7% were working more than 3 years in the present employment. There is a statistically significant difference in the presence of dermatitis between the category with experience more than 3 years and others (Fisher's exact test two-tailed p-value=0.011). 61.5% respondents believed that the present working environment is a potential source of occupational injuries and 78.1% believed that the present working environment is a potential source of occupational hazards. With the exception to the use of protective gloves majority has agreed with underutilization or unawareness on following occupational and safety measures during the job.

Conclusion: Engagement of employees in a continuous dialog to improve occupational health and safety culture in factories would ultimately improve the productivity of the glove manufacturing industry.

Email of the Corresponding Author: kusalwijayaweera@gmail.com

PP03

DESCRIPTIVE STUDY OF OCCUPATIONAL EYE INJURIES AND COMPLIANCE RESPONSIBILITIES OF PERSONAL PROTECTIVE EYE EQUIPMENT (PPE) AMONG PATIENTS PRESENTING AT EMERGENCY MEDICAL DEPARTMENT, NATIONAL EYE HOSPITAL (NEH) – COLOMBO

De Silva, S.K.D.¹, Amarasinghe, B.¹, Fernando, H.S.I.N.¹, Samanthi, M.I.¹, Perera, K.C.¹

1. National Eye Hospital Colombo

Background: Occupation related eye injuries have remained persistently high over the last decade. As well as human suffering was involved, there is an economic impact also. Every year the direct cost for these injuries is established to be very high. Most important thing is that almost all of these injuries are preventable. Most of injuries were happened when the workers were not wearing PPE.

Aim/s: To study of occupational eye injuries and compliance responsibilities of PPE among patients presenting at Emergency Medical Department, NEH. To find out why workers are reluctant to wear PPE during the work.

Methods: This descriptive cross sectional study was conducted at Emergency Medical Department of NEH. The study enrolled 700 patients with occupational eye injuries and presented to the NEH from 01/12/2016 to 01/03/2017. The study population included all male patients above 16 years and had given written consent attended during our casualty days. The predesigned questionnaire was presented to them in their mother language to mark their answers. The first part of questionnaire was filled by the patient and second part by a medical officer. For the analysis of data, a computer programme called Statistical Package for Social Science (SPSS) was used.

Results: According to the results the majority of patients (81%) hadn't used PPE during the work. Out of them 42% hadn't used PPE due to low perception of risks, 15% workers weren't provided PPE by employers, 28% due to discomfort, 11% due to high cost and 4% due to underneath vanity. Majority of patients (59%) belonged to 16-30 years age group and 19% had eye injuries while wearing PPEs. Out of them 82% hadn't checked PPE before they used them. Considering the mechanism of injury majority (91%) were due to debris and flying particles. Considering clinical presentation 87% had superficial foreign bodies. Out of all 72% had recurrent eye injuries. Considering the nature of work welding was the most susceptible cause (62%).

Conclusion: Majority of Occupational Eye Injuries were due to not wearing of appropriate PPEs. The main reason was low perception of risk. The workers' education and introduction of high quality PPEs are required to minimize the incidence of ocular injuries in the work place.

E mail of the Corresponding Author: indika.niranjan@hotmail.com

PP 04

TB AMONG HEALTH WORKERS - A THOUGHT FOR FUTURE ACTION

Pallewatte, N.C.¹, Samarasinghe, A.I.P.¹, Hemachandra, C.D.¹, Thilakaratne, J.S.¹

1. National Programme for Tuberculosis Control & Chest Diseases, Narahenpita, Sri Lanka

Background: Health workers are at greater risk of getting TB due to their occupational exposures. Poor respiratory hygiene and inadequate infection control practices in low and middle income countries increase the risk of transmission of TB from patient to health workers. Since 2015, TB among health workers are notified to National Programme for Tuberculosis Control and Chest Diseases (NPTCCD) through routine reporting system.

Aim: To assess the extent of TB situation among health workers

Methods: Analysis of secondary data received to NPTCCD by quarterly return on case finding (TB 08) for 2015 & 2016 was carried out as a preliminary step. Further assessment of treatment files of health workers with TB was carried out using a structured checklist.

Results: Out of 9575 cases of TB in 2015, 80 (0.84%) and out of 8886 cases in 2016, 99 (1.1%) cases were from health workers. When considering the total government health work force. TB in health workers account for 65 per 100000 in 2015 and 80 per 100000 in 2016 respectively. The highest percentage of cases was reported from Colombo (51.3% in 2015 and 27.3% in 2016). In 2016, there were 43 bacteriologically confirmed, 13 clinically diagnosed pulmonary TB and 43 EPTB cases among health workers. Majority were in the age group of 31-40 years. There were four retired health workers with TB. Higher percentages of cases were reported among minor employees (36.4%) and nurses (31.3%). Majority (52%) of them were ward staff. Only 24% had household contact with TB patients.

Conclusion: Notification of TB among health workers were 1.5 to 2 folds higher than the general population (42 per 100,000 populations in 2016) and would be several times more, if workers involved in patient care were considered only. TB was more among workers with first hand contact with patients. Measures should be taken to improve infection control in health care settings. Further research is needed in order to take evidence based approaches to control patient–worker transmission of TB.

Email of the Corresponding Author: ccpnptccd@hotmail.com

PP 05

PREVALENCE AND SOURCES OF WORKPLACE STRESS AMONG MEDICAL OFFICERS IN KEGALLE HEALTH REGION OF SRILANKA

Pelapolwatte, K.C.R.¹, Jayatunge, L.V.²

1. ENT Unit, Base Hospital, Mawanella, Sri Lanka.
2. Blood Bank, General Hospital, Kegalle, Sri Lanka.

Background: Stressors in the workplace could affect the lives of Medical Officers, and also patient care, deleteriously. Lapses in medical care can lead to disasters, including morbidity and mortality of health care seekers, conflicts, and even verdict against medical profession, in court of law. It is questionable, whether medical mistakes could be attributed to workplace stress among Medical Officers. Work related stress has been identified as a big problem, in other countries. It seems that, there are no studies done on Medical Officers in Sri Lanka. Hence, work place stress is a critical problem which should be addressed soon.

Aims: To assess the prevalence and sources of workplace stress among Medical Officers, in a district in Sri Lanka.

Methods: This is a descriptive cross sectional study, from November to December 2012. All 226 Medical Officers working in the area under the purview of the Regional Director of Health Services Kegalle, were selected for the study. Response rate was 53.98 % (122/226). The Hospital Consultant's Job Stress and satisfaction Questionnaire V.2, was used as the standardized questionnaire. Only the section pertaining to the factors contributing to stress, bearing 36 questions was utilized. A Likert scale from 0-3 which ranges from "not at all" to "a lot" ,was used to rate the responses. Purposely designed questionnaire was developed, to collect personal and job demographic factors.

Results: Majority of Medical Officers (69.89%, n=85), claimed that they are under stress. The prime sources of stress were: perceived underpayment (69.7%, n=85), inadequate facilities (68.9%,n=84), disruption of family life due to long working hours (67.2%,n=82),inadequate staff (66.4%,n=81),work overload (61.5%,n=75),holding responsibility for work of other staff (54.1%,n=66),inadequate administration systems (52.5%,n=64),and disruption of family life due to on-call duties (50%,n=61).

Conclusions: This study shows, majority of Medical Officers were under stress. Reasons for the perceived stress and causes for the stress need further evaluation.

Email of the Corresponding Author: chamari_100@yahoo.com

PP 06

STUDY ON PREVALENCE OF WORK RELATED STRESS AMONG NURSING TUTORS IN GOVERNMENT SCHOOLS OF NURSING IN SRI LANKA

Wimal, M.A.¹, Thalagala, T.R.J.².

1. School of Nursing, Anuradhapura
2. School of Nursing, Ampara

Background: Nursing and teaching are considered as stressful jobs worldwide. Work related stress is a pattern of reactions that workers have to work demands that are not matched with their knowledge, skills or abilities that challenge their ability to cope. Job stress of nursing tutors may affect to the health of individuals, their relations, and risk of reduce the reputation of their institutions. Social effect of their job stress may become worse effecting on learning activities of the students leading to reduced motivation of the teachers'.

Aim/s: To identify the prevalence of work related stress among the nursing tutors in the government Schools of Nursing, Sri Lanka

Methods: The cross sectional survey has been done with employing validated self-administered questionnaire via post to the tutors working in all the government Schools of Nursing, Sri Lanka.

Results: Response rate was 57.58% (n=114). Females were represent 75.44% (86) and 67.54% (n=77) were aged of 40 – 49 years. Of the participants 87.72% (n=100) were married and 36% (n=41) of them had children between 2 – 20 years. Of the participants 65.87% (n=75) were graduates and 13.2% (n=15) had post graduate qualifications. A high level of stress was reported by 20.18% (n=23) while moderate level of stress was reported 21.93% (n=25). Among the participants 28.1% (n=32) had spent 1 – 2 hours for travelling to the job daily while 10.5% (n=12) spend more than 5 hours daily for travelling. Travelling contributed high stress (p=0.02). Low support contributed significant level of high stress (p=0.002 & CI=1.741-19.25). Unsatisfied income and high stress was significant at p=0.05 level (p=0.035). Staying out of the home contributes significant stress (n=40, p=0.003)

Conclusion: High level of stress was reported significant amount (20.18%) (n=23) of respondents. Most significant factors related to the stress among population are marital status, level of education, staying out of the home for the work, unsatisfactory income, and distance of travelling daily to the job. Low job support contributed significant amount of stress of the nursing tutors.

Email of the Corresponding Author: tutorwimalmallawaarachchi@gmail.com

PP 07

PERCEIVED WORKLOAD RELATES WITH STRESS AMONG INTENSIVE CARE UNIT NURSES AT THE NATIONAL HOSPITAL OF SRI LANKA

Lokuhetti, S.A.K.¹, Rupasingha, H.M.P.S.K.², Jayewardene, W.D.K.K.³, Krishanthi, K.M.D.G.⁴, Samarasekara, P.W.G.D.P.⁵

1. Military Nursing Training School, Jayanthi mawatha, Anuradhapura, Sri Lanka.
2. School of Nursing, Hambanthota, Sri Lanka.
3. School of Nursing, Colombo, Sri Lanka.
4. School of Nursing, Ampara, Sri Lanka.
5. The Open University of Sri Lanka

Background: The high level of workload has been identified as a one of the major problems in health care system globally. Regulating of workload neither being under load nor over load has been identified as the way to prevent possible negative consequences and also for the workers optimal potentiality. Nurses are more vulnerable of being work overloaded particularly nurses in Intensive Care Units (ICU) due to their works are higher demanding in nature and need urgent therapeutic interventions. Similarly, they face a number of stressful events within the working environment.

Aims: To examine the perceived workload and it relate with the stress of nurses who are working in ICUs at the National Hospital of Sri Lanka (NHSL).

Methods: A cross sectional study was conducted. A random sample of 131 nurses participated. Self administered questionnaire was utilized for the data collection which included The NASA-TLX (National Aeronautic Space Administration- Task Load Index) for assessing perceived workload and the stress scale that was prepared base on the Nursing Stress Scale (NSS) for measuring stress. Data was analysed using the Statistical Package of Social Sciences version 18 for Windows.

Results: The sample consisted of 102 female (77.9%) and 27 male (20.6%). The ICUs nurses average total perceived workload was 59.75 and Effort Dimension-(physically and mentally tiredness) was rated as the highest (68.0) among the all sub dimensions. 72 nurses (54.9%) presented with stressed (mean 42.92). The most stressful events were rated as; verbal or physical harassment from patients or family members (86%), lack of support from others (80.9%), long duty shifts (81.7%), dealing with high skilled procedures (85.5%) and the continuous changing of patient's condition (83.2%). There were positive correlation between nurses' stress level and total average of workload ($r = 0.329$, $p < 0.01$) and for the sub dimensions of workload; Temporal Demand ($r = 0.194$, $p = 0.026$), Frustration ($r = 0.255$, $p = 0.003$), Temporal Demand ($r = 0.194$, $p = 0.026$).

Conclusion: ICUs nurses perceived moderately higher level of workload as physical and mental tiredness is as their major concern. The majority are at the mild to moderate level of stress. Stress is a significant factor for perceived workload among nurse in ICUs. These findings indicate the need for interventions and strategies to lower the perceived workload with reducing stress among nurses who work in ICUs.

Email of the Corresponding Author: lokuhetti72@yahoo.com
National Health Research Symposium – 2017 | Page 211

PP 08

OCCUPATIONAL EXPOSURE TO SHARPS INJURIES AMONG MEDICAL OFFICERS IN BASE HOSPITAL IN A DISTRICT OF SRI LANKA

Dilrukshi, D.A.R.K.¹, Ranga, S.D.U.M.¹, Jayalal, T.B.A.³

1. PGIM, University of Colombo
2. Youth, Elderly and Disabled Unit, Ministry of Health

Background: Health care workers (HCW) are at high risk of exposure to blood borne pathogens during their routine works, commonly to Hepatitis B (HBV), Hepatitis C (HCV) and Human Immunodeficiency Virus (HIV). The risk of transmission of infection depend on type of the injury, viral load of the source, immune status of the recipient and risk reduction strategies implemented in the institutions. Despite introduction of many preventive measures, occupational exposure of blood and body fluid is continued to occur. In 2007 the world health organization estimated global sharps injuries among HCWs were at two million per year. In Sri Lankan context there is no national surveillance data regarding occupational exposure to blood and body fluid.

Aim: To determine the prevalence, correlates and post exposure response of occupational sharps injuries among Medical Officers in base hospitals in Kalutara district.

Methods: A cross sectional descriptive study conducted in all Base Hospitals in Kalutara district. The all eligible MOs (287) working in the Base Hospitals were included. Data was collected from 265 consented MOs, using a structured, pre-tested self-administered questionnaire; analysed by using frequency distribution and Chi-square value.

Results: The prevalence of the sharps injury among MOs was 63.4% and incident rate was 29.4%. MOs with 5 years or less experience and age 30 years or below were more likely to expose ($p = 0.010$ and 0.001 respectively). About 44.2% had satisfactory knowledge on sharps injury.

Only 19% had received the relevant trainings and 54% were satisfied regarding the working environment. Almost 94% were covered with HBV vaccine, 43% of vaccinated participants had checked the antibody level and out of them 10.7% had shown satisfactory antibody level. Majority of exposures were due to suture needles and place was Operation theatre. About 34.5% of exposed participants had ignored the exposure; 38.7% reported to take necessary action and 5.1% of exposed participants had obtained post exposure prophylaxis.

Conclusion: The study reveals there is considerable risk to percutaneous exposure to sharp injuries among medical officers, but their knowledge and attention is inadequate.

Email of the Corresponding Author: deerasinghekanchana@yahoo.com

PP 09

OCCUPATIONAL INJURIES IN CARPENTERS IN THE MORATUWA MEDICAL OFFICER OF HEALTH AREA

Fonseka, H.N.A¹, Arnold S.M²

1. Post Graduate Institute of Medicine, University of Colombo.
2. Office of the Regional Director of Health Services Colombo.

Background: Carpentry is a common industry in Sri Lanka and work related injuries among carpenters are largely neglected. Epidemiology of injuries among carpenters is required to plan timely interventions and reduce the burden of injuries.

Aims: To determine the incidence of occupational injuries, describe type of occupational injuries and associated factors among carpenters in the Moratuwa Medical Officer of Health area.

Methods: A community based retrospective descriptive study was conducted to determine the incidence of occupational injuries during a three month period immediately prior to the survey. Sample size was 352. Twenty one Grama Niladhari divisions were selected randomly. The clusters were selected using probability proportional to population size method. From each selected workshop, one carpenter was selected randomly. Interviewer administered questionnaire was used as the study instrument. Associations were tested using chi square test and probability of less than 0.05 was selected as the significant level. Results were expressed as Odds Ratio (OR) and 95% Confidence Interval (CI) using bivariate analysis.

Results: Cumulative incidence of occupational injuries for a period of three months was 255.5 per 1000 carpenters (95% CI: 209.8-305.7). The commonest type of injury was superficial cuts (44.6%, n=42). Hands and fingers were commonly affected (64.9%, n=61). Carpenters who do not check machines (OR 2.85; 95% CI: 1.105-7.22, P=0.032), use personal protective equipments (OR 2.14; 1.087-4.21, P=0.025), work without rest (OR 2.3:95%, CI: 1.08-4.94, P=0.034) and work with vibrating equipments continuously (OR 1.9: 95% CI: 1.11-3.37, P=0.024) were significantly associated with occurrence of occupational injuries.

Conclusions: Incidence of occupational injuries observed is considerably high. Therefore proper mechanism for implementation of regulations, increase awareness and provision of training is required. Focus should be made to conduct prospective longitudinal studies in future.

Email of the corresponding Author: fony_14@yahoo.co.in

BIO MEDICAL HAZARDS MANAGEMENT IN SELECTED UNITS OF NATIONAL HOSPITAL OF SRI LANKA AND KNOWLEDGE, PRACTICES AND PERCEPTIONS AMONG HEALTH ASSISTANTS

Abeygunathilaka, D.N.¹, Mallawarachchi, D.S.V.²

1. Health Promotion Bureau, Ministry of Health
2. Non Communicable Disease Unit, Ministry of Health

Background: Practicing of different treatment modalities and technologies in health sector institutions has increased the risk of Biomedical Hazard (BMH) among healthcare workers. Knowledge, perceptions and practices of healthcare workers directly affect the proper management of BMH at the institutional settings.

Aim/s: To assess the Biomedical hazards management in Surgical Units (SUs) and Operation Theatres (OTs) of National Hospital of Sri Lanka and to study knowledge, practices and perceptions among Health Assistants (HA) on BMH handling.

Methods: A cross-sectional study using self-administered questionnaire was conducted to assess the knowledge, practices and perceptions on BMH handling among 420 HAA in SUs and OTs. Management of BMH in above units (n=60) was assessed with an observational check list. Practices on selected types of BMH handling among a sub-sample (n=40) was done using an observational check list.

Results: Majority (75%) of units had well established waste disposal system with a guidance (>70%). Hand washing facilities were available in 60-70% with cleaning facilities in > 90% and personal protective Equipments > 90% of studied units. However, instructions given to patients and visitors on BMH management (38%), hand washing (58%) and facilities for hand drying (27%-66%) were inadequate. Over all Knowledge (79.3%, n=311), practices (90.8%, n=356) and perception (95.9%, n=376) of HAs on BMH management was satisfactory. Training status (p=0.048) and experience at work (p=0.048) were found to be significantly associated with the knowledge but on practices or perceptions.

Conclusion: Although BMH management together with overall Knowledge Practices and Perceptions of the HAs was satisfactory, there was a gap in knowledge and practices in certain aspects which might make HAs vulnerable to hazards.

Email of the Corresponding Author: danu.abey@yahoo.com

PP 11

HEAMOPHAGOCYTIC LYMPHOHISTIOCYTOSIS COMPLICATED DENGUE HEAMORRHAGIC FEVER

Pathiratne P.A.S.R.¹, Samarasinghe R.¹

1. Department of Medicine, Dr.Neville Fernando Teaching Hospital, South Asian Institute of Technology and Medicine

Background: Dengue Fever caused by Dengue virus is an important mosquito transmitted disease due to its increased worldwide incidence and its related complications. Heamophagocytosis is an uncommon presentation of dengue infection. We describe a patient with dengue heamorrhagic fever who developed heamophagocytosis and recovered.

Case Presentation

A 16 year old young male patient presented to medical ward with 3 days history of fever, headache, arthralgia and myalgia. On admission, he was febrile 102f, pulse was 98bpm and blood pressure 110/80Hgmm. He had diffused blanching Erythema. Chest examination showed clearly reduced right sided air entry. Abdomen was distended and shifting dullness and right flank dullness was elicited. Laboratory examination on admission showed a WBC` count of $4.5 \times 10^9/l$ heamoglobin of 14.5g/dl, heamatocrit of 45.2% and platelet count of $140 \times 10^9/l$. The AST 132u/l and ALT was 77.7u/l. At 4 days after admission the patient WBC count has decreased to $1.89 \times 10^9/l$, heamoglobin level to 10g/dl, Heamatocrit 38.9% and platelet count to $3 \times 10^9/l$. Total cholesterol was 86mg/dl, Ionized calcium 1.02mg/dl, serum albumin 3.15g/dl, serum ferritin 5245ng/ml and plasma fibrinogen is 1.9g/dl. However phagocytosis by monocytes of erythrocytes, leukocytes and platelets were noted with severe neutropenia and thrombocytopenia in blood picture. Ultrasonographically revealed established leaking of dengue heamorrhagic fever with fluid seen in the peritoneal cavity with distended thickened gall bladder with pericholecystic fluid and in the hepatorenal pouch and splenomegaly with bi lateral pleural effusion in day 4.

The patient received supportive care, and managed according to DHF guidelines. He was treated with CaCO₃ 500mg tds, IV methyl prednisolone 1g daily for 3 days and was recovered after few days and repeated blood counts were normal.

Discussion

Although most Dengue infections were asymptomatic, the disease may present in a variety of clinical manifestations, ranging from mild febrile illness to severe fatal disease. Heamophagocytic lymphohistiocytosis does not feature in the WHO guidelines. However, during the past two decades, it has been reported occasionally as a complication of dengue.

PP 12

THE PREVALENCE OF HAEMOGLOBINOPATHIES AMONG SCHOOL CHILDREN AGED BETWEEN 16 TO 18 YEARS IN BATTICALOA DISTRICT OF SRI LANKA

Pullaperuma, D. R.¹, Jayawardena, A².

1. Teaching Hospital, Karapitiya, Galle
2. District General Hospital, Gampaha

Background: Hypochromic microcytic anemia is a major cause of anemia in the world. Thalassaemias and other Haemoglobinopathies are a significant part of this. As a tropical country Sri Lanka also has a significant number of Thalassaemia and other Haemoglobinopathy patients and carriers. Currently there is no prevalence data for the entire country.

Aim: This study aims at finding the prevalence of iron deficiency anaemia (IDA), Beta Thalassaemia and other Haemoglobinopathies carrier status in a group of school children in the district of Batticaloa Sri Lanka.

Method: 768 students were selected from eight schools representing the whole district using the formula $n = \frac{Z^2 P(1-P)}{d^2}$ and full blood counts were performed on each. Serum ferritin levels were done in all samples if the Mean Corpuscular Volume (MCV) of <80 fl and or Mean Corpuscular Haemoglobin of < 27pg to identify iron deficiency. The samples with low MCV or MCH and normal or high ferritin were further analyzed with high performance liquid chromatography for haemoglobin quantification. The prevalence of iron deficiency, Beta Thalassaemia and other Haemoglobinopathy carrier status were calculated as a percentage.

Results: The prevalence of IDA was 1.04 % (8/768). The prevalence of Beta Thalassaemia and other Haemoglobinopathy carrier status was 2.7 % (21/768).

Conclusion: This shows the importance of Beta Thalassaemia and other Haemoglobinopathy carrier status in the differential diagnosis of hypochromic microcytic anaemia in a setting where the prevalence is known to be high.

Email of the Corresponding Author: rohan4don@gmail.com

OUTCOME OF PERCUTANEOUS CORONARY INTERVENTION (PCI) PERFORMED FOR THE PATIENTS PRESENTED WITH ACUTE CORONARY SYNDROME TO DR.NEVILLE FERNANDO TEACHING HOSPITAL, MALABE

Pathiratne, P.A.S.R.¹, Ranawaka, H.¹, Samarasinghe, R.¹

1. Department of Cardiology, Dr. Neville Fernando Teaching Hospital, South Asian Institute of Technology and Medicine

Background:

Cardiovascular diseases, including myocardial infarction (MI) and heart failure, are the leading causes of death. Use of percutaneous coronary intervention (PCI) is the preferred re-perfusion strategy, either as primary PCI or PCI secondary to thrombolysis, depending on resource availability.

Methods:

We respectively reviewed 42 consecutive patients transferred from NFTH to Nawaloka Hospitals Cardiac Catheterization Laboratory to undergo percutaneous transluminal coronary angioplasty. The Procedure was carried out by the resident Consultant Cardiologist at NFTH.

Results:

Among 40 consecutive patients who underwent percutaneous coronary intervention, 79% (N=33) were males and 21% (n=9) were females (3.66:1). Age ranged from 31-80 years (mean (40%) between 51-60 years of age). The Analysis of indications for PCI revealed that majority were due to STEMI (63%,N=22), consecutively 17% (N=7) due to NSTEMI and 9% (N=4) due to high risk stress test findings respectively. These angiography results showed that 86% (N=36) were with normal left main coronary artery, 9% (N=4) with minor plaque disease and 5% (N=2) with more than 50% stenosis. The analysis of left anterior descending artery showed 41% (N=15) with severe stenosis, 24% (N=9) with minor disease and 24% (N=9) with more than 50%stenosis. The Analysis of Circumflex and its branches showed that 25% (N=9) with severe disease and 14% (N=2) with acute total occlusion. 8% (N=3) of The Right Coronary artery with acute total occlusion and 8% (N=3) with chronic total occlusion. Of all 23% (N=9) had undergone Primary PCI and rest with PCI with 100% success. All patients achieved excellent angiographic results with TIMI iii flow in blocked arteries.7.5% (N=3) had cardiogenic shock and 2.5% (N=1) had cardiac arrest before the procedure.

Conclusions: The results of this study raise the possibility that outcomes of PCI after Acute coronary syndrome are highly successful.

PP 14

FETAL, MATERNAL AND PERINATAL RISK FACTORS FOR THE DEVELOPMENT OF INFANTILE HAEMANGIOMAS**Sudusinghe, H.S.**¹, Lukman, T.¹, Loganathan, T.¹, Katugaha, H.M.C.D.¹, Seneviratne, J.K.K.¹

1. Department of Dermatology, Lady Ridgeway Hospital, Colombo, Sri Lanka

Background: Haemangioma is the most common benign tumor occurring in infancy. Pathogenesis of infantile haemangioma remains uncertain. A number of risk factors have been identified in association with the development of haemangioma with inconclusive evidence. Occurrence of these risk factors in Sri Lankan population has not been studied

Aim/s: To evaluate risk factors associated with the development of infantile haemangiomas in Sri Lankan population

Methods: A prospective case control study was carried out at Dermatology unit, Lady Ridgeway Hospital for 2 years duration (2015- 2016). All the children with haemangiomas were included in the study and age and sex matched children attending for other minor dermatological conditions included in the control group. Data were collected using a comprehensive data- sheet and analyzed.

Results: A total of 290 children were enrolled in the study with an equal number in test and control arms. This included 50.3% boys and 49.6% girls. Age ranged between one month and 4 years. Majority (74.5%) had single lesion and located on scalp and face (47.2%). Prematurity (P=<0.05, OR= 0.369, CI 95= 0.210-0.649), Low birth weight (P= <0.05, OR= 3.231, CI 95= 1.629-6.409), Female sex (P=<0.05, OR= 0.473, CI 95= 0.294- 0.762) Incubator therapy (P= < 0.05, OR= 4.37, CI 95= 1.425- 13.418) and preconception use of medicines (P=0.003, OR=4.68, CI=1.535- 14.279) were significantly associated with the development of haemangioma. Parity, previous history of haemangioma, maternal age, mode of delivery, number of gestations and maternal complications did not show significant association (P=>0.05).

Conclusion: Apart from well known risk factors incubator therapy and preconception use of progesterone and antibiotics showed a significant association with infantile haemangioma. A study with larger sample size is needed to exclude other independent risk factors such as pre natal interventions, mother being a manual labourer, mode of delivery and obstructed labour.

Email of the Corresponding Author: hssudusinghe@gmail.com

PREVALENCE, FACTORS FOR VISUAL IMPAIRMENT AMONG ELDERLY POPULATION IN THE DISTRICT OF KALUTARA

Piyasena, D.A.K.N.¹, Fonseka, P²

1. Non-communicable Disease Unit, Vision 2020 Secretariat, Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka.
2. Former Professor of Department of Community Medicine, University of Sri Jayewardenepura University.

Background: Visual impairment is vision loss to such a degree (visual acuity $\leq 6/18$) with significant limitation of visual capability. Many of the causes of impaired vision are avoidable or correctable by recognizing the problem at the correct time and providing simple interventions and modifying relevant risk factors.

Aim/s: To assess the prevalence of Visual Impairment and factors associated with it.

Methods: The study was conducted in the district of Kalutara which included urban and rural elderly population (age ≥ 60 years). A total of 1100 elders were selected according to multi stage stratified cluster sampling technique. The participants were screened for visual acuity by trained technicians with Snellen's chart. Visual acuity 6/6 or 6/9 considered normal, 6/12 as mild visual impairment and $\leq 6/18$ as visual impaired. Except the normal visual acuity other participants were referred to field eye examination centre by Eye specialist. Slit lamp, gonioscope and ophthalmoscope were used for the confirmation of the diagnosis at field level. For conformation and for treatment participants were referred to local eye units.

Results: Among the study participants majority were elders < 70 years, 70.3% (n=730), females 50.5% (n=524). Prevalence of Visual impairment was 43.5% (95% CI: 41.96 –45.04) mild visual impairment 9.2% (95% CI: 8.30-10.1) and normal vision 47.3% (95% CI: 45.76-48.84). There was a significant association between visually impaired elders with age < 70 years, sex, level of education and average monthly income. Among the visually impaired 20% were diabetic and 30% were hypertensive. Majority of the patients with visual impaired were Cataract 66.4% (n=97), diabetic retinopathy 11.6% (n=17), Glaucoma, 9.7% (n=14). Age related macular degeneration had 2.7% (n= 4) each. Totally blind persons were 5 (0.6%) of the participants.

Conclusions: Majority of the patients with visual impairment were Cataract among the elderly population in the district of Kalutara.

Email of the Corresponding Author: kapilapiyasena@yahoo.com

PP 16

IDENTIFICATION OF DELAYS IN DIAGNOSIS AND MANAGEMENT OF ACUTE MYOCARDIAL INFARCTION AT PRILIMINARY CARE UNIT OF BASE HOSPITAL PANADURA: AN INTERIM ANALYSIS

Mahindadasa, A.T.H.E.S.¹, de Silva, S.H.P², Dassanayake, R.S.W.M.U.B³, Wijesekera, HMW⁴, Gajadeera, G.A.M.P⁴

1. Post graduate trainee of MSc Community Medicine, PGIM, Colombo
2. Consultant Community Physician, National Institute of Health Sciences
3. Consultant Physician – BH Panadura
4. Medical Officer – BH Panadura

Background: Ischemic heart disease including acute myocardial infarction (AMI) is the leading cause of deaths in Sri Lanka. Efficacy and speed are necessary for its effective management. Thrombolytic therapy has been shown to reduce early and long-term mortality and commenced within 1-2 hours has the greatest benefit.

Aims: To identify the delays in diagnosis and management of AMI patients using a three-delay model

Methods: A descriptive cross-sectional study was conducted at BH Panadura among all patients diagnosed and managed for AMI from 1st of January 2016. Standard criteria were used to diagnose AMI. Time from onset of symptoms to initiation of management was assessed using a three-delay model: time taken on deciding to seek medical care, to reach the hospital, and to diagnose and initiate thrombolytic therapy. A structured, pretested, interviewer administered questionnaire (for first two delays) and an extraction sheet from the BHTs (3rd delay) were used to collect the data. Data were collected by the principal investigator. Delays were identified against minimum time durations reached by consensus.

Results: During the first quarter of 2016, 117 participants had been recruited with 2 non-responders and 5 deaths. Non-response rate was 1.7% and mortality rate for AMI was 4.3%. Only 43.5% (n=50) had decided to seek medical care (first delay) within the first hour. Only 61.3% (n=60) had reached the hospital within 1 hour of decision (second delay), while 16% (n=28) had taken more than 2 hours. The median time taken to initiate treatment was 162 minutes with an Inter Quartile Range of 31 to 170 minutes. Only 38.2% (n=42) had received treatment within the first hour while 21.8% (n=24), 26.4% (n=29) and 13.6% (n=15) had received treatment within 1.0, ~ 2 hours, 2.01-5 hours and more than 5.01 hours respectively.

Conclusions: Considerable delays exist in all three areas. Awareness needs to be done on the need for urgent medical referral. A system of emergency medical service would reduce the second delay and management protocols and standard operational procedures (SOP) need to be strengthened at the PCU for AMI management.

Email of the Corresponding Author: eshamahindadasa@gmail.com

ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION IN YOUNG; AN EXPERIENCE FROM TERTIARY CARE CARDIAC CENTER IN SRI LANKA

Bandara, H.G.W.A.P.L.¹, Jegavanthan, A.¹, Jayasekara, N. M. T. C.¹, Kogulan, T.¹, Sirisena, T.¹

1. Cardiology Unit, Teaching Hospital Kandy

Background: Coronary Artery Disease (CAD) in young carries a significant health-economic burden in the community with respect to non-communicable disease.

Aims: To evaluate the clinical and angiographic characteristics of young patients (age \leq 45 years) with ST segment elevation Myocardial Infarction (MI).

Method: The study was conducted at Cardiology Unit Kandy January 2015 to January 2017. Since there are no universal definition of the age group belongs to younger sub category, an arbitrary cut-off of age \leq 45 years is considered. All patients aged \leq 45 years presented with angina, ST segment elevation in electrocardiography and raised Troponin-I were enrolled. ECGs were interpreted by a cardiologist and 6 hours troponin level above the MI cut-off were consider as abnormal. Patients' clinical characteristics, risk factors, laboratory test results and coronary angiography patterns were evaluated by recruiting a convenient sample. Current smokers were defined as someone who has smoked greater than 100 cigarettes in their lifetime and has smoked in the last 28 days.

Results: A total of 165 patients (81.8% were males) with a mean age of 38.3 ± 5.9 years were reviewed. Among them, there were 9.6% (n=16) below 30 years, 43.6% (n=72) between 31-40 years and 46.6% (n=77) between 41-45 years. The main risk factors were current smoking 52%, Increased Low Density Lipoproteins (LDL) [i.e. LDL >100 mg/dl] 42%, diabetes 28%, arterial hypertension 22% and family history of significant CAD 22%. There were only 8% had positive thrombophilia tests. In the sample 20% were overweight (BMI 23-25kg/m²) and 26% were obese (BMI ≥ 25 kg/m²). Only 12% with Recreation Related Physical Activity level up to World Health Organization (WHO) recommended activity standard. Angiographically normal coronary arteries were found in 11% of patients. There were 30% had Single Vessel Disease (SVD), 15% had double vessel disease and 17% had triple vessel disease. Among the majority of SVD, left anterior descending artery was the commonest (32.6%) territory involved.

Conclusion: Smoking, lack of exercise up to WHO recommended level and obesity are the main risk factors. These findings reflect that still the adjustment and promotion of healthy life style would be the primary goal in prevention of MI even at the younger age.

Email of the Corresponding Author: lakshmanbandara@gmail.com

PP 18

HEADACHE AMONG SCHOOL GOING ADOLESCENTS AGED 13 TO 15 YEARS IN COLOMBO DISTRICT**Mambulage, R.U.¹**, Gunawardena, N.², Padeniya, A.³

1. DDG(PHS)I Office, Ministry of Health, Nutrition and Indigenous Medicine
2. World Health Organization Country Office for Sri Lanka
3. Lady Ridgeway Hospital for Children

Background: Globally, headache among adolescents has been identified as a public health problem. Scarcity of evidence among adolescents in Sri Lanka has hindered appreciation of the magnitude of the problem.

Aims: To determine the prevalence of headaches among adolescents aged 13 to 15 years in the district of Colombo.

Methods: A cross-sectional study among adolescents aged 13-15 years (n=920) selected by a multistage cluster sampling from public schools of Colombo District determined the period prevalence of any headache, migraine and tension type headache(TTH). Adolescent Headache Attributed, Restriction, Disability, Social Handicap, and Impaired participation (HARDSHIP) questionnaire validated to be used in Sri Lankan setting was used. The tool uses an algorithm to determine the type of headache. Crude prevalence of headaches for different durations and types as well as age and sex standardized prevalence for the adolescents in the Colombo district were estimated. Ethical clearance and administrative permission were obtained prior to data collection.

Results: Crude prevalence of any headache during life time among aged 13-15 years was 77.2% (95%CI:74.4%-79.9%) while one-year, one-month, one-week and one-day prevalence were 71.5% (95%CI:68.4-74.4), 48.6% (95%CI:45.3-51.9), 39.5%(95%CI:36.5-43.0) and 21% (95%CI 18.4-23.8), respectively. Age and sex standardized prevalence of any headache were 77.2 (95%CI: 76.9-77.5), 71.6 (95%CI: 71.3 -71.9), 48.6 (95%CI: 48.3-49.0), 39.5 (95%CI: 39.2 – 39.9) and 21.0 (95%CI: 20.8-21.3) respectively for life time, one-year, one-month, one-week and one-day. One-year crude prevalence of migraine was 20.6% (95%CI: 18.0-23.4) while it was 23% (95%CI: 20.3-25.9) for TTH. Once standardized for age and sex, prevalence of migraine was 20.5% (95%CI: 20.8-21.3) while prevalence of TTH was 23.2 (95% CI: 22.9 – 23.5).

Conclusions: Prevalence of headache was high among adolescents in Colombo district warranting a screening programme recommended to be incorporated to the existing school health programme.

Email of the corresponding author: mambulage@gmail.com

FACTORS ASSOCIATED WITH PATIENT'S RECURRENT VISIT WITH ASTHMATIC ATTACKS IN TEACHING HOSPITAL KANDY

Jayarathna, D.G.A.I¹, Dharshanamali, A. G.T², Bandara, S.M.R.³, Samitha, S.⁴, Siribaddana, A.⁵, **Siriwardena, B.E.**⁶

1. Cardiothoracic Intensive Care Unit Teaching Hospital, Kandy,
2. Maternity ward, Teaching Hospital, Kandy.
3. Neurology ward, Teaching Hospital, Kandy.
4. Postgraduate institute, University of Peradeniya
5. Respiratory ward, Teaching Hospital, Kandy.

Background: Asthma is chronic inflammatory disease of the airways. Several factors are co related with poor asthma control such as lack of asthma education, low in come, irregular clinic follow up, and improper using inhaler technique and so on. However, recurrent hospital visit with asthmatic attack still remain as a burden in Sri Lanka as well as global.

Aim/s: To examine the factors associated with patients' recurrent visits to the TH Kandy Sri Lanka with asthmatic attack.

Methods: Two hundred fifty patients were enrolled in a quantitative descriptive study comprising of patients who visited all medical wards, chest wards, and chest clinic with bronchial asthma attacks over a two month period in the Teaching Hospital Kandy. Each patient were assessed an existing knowledge and attitude regarding asthma and the inhaler technique for using an inhaler according to the check list. Information about demographic data and the type of living and working condition were noted, and the associated with recurrent visits was identified. Data were analyzed by statistical analysis system version 9.1 (SAS 9.1) chi-squared tests were used to recognize association between the environment and working conditions and asthma control as well as recurrent visits.

Results: Two hundreds forty six asthma patients were enrolled and 124 (50.41%) were female and 122 (49.59 %) were male. The amount of vulnerable group of patients who visited TH Kandy for asthma therapy was 60 years (53.25%). Majority of asthma patients who visited was worked at private sector (30%) and 25% of old age men and women were visited recurrently. Patients from urban area (55.28%) and their living condition is common with dust (45%) and it has an association between recurrent hospital visit ($p=0.005$). Patients who lived with rural area (44%) was exposed to dust condition was 24% and poor knowledge of asthma was 41.95% and 60.08% think that asthma is negligible and can be treated at home and 37.4% patients had irregular clinic follow up. More patients (56%) had used dry powder inhaler. Improper use of inhaler device was observed 186 (75%). Patients with poor knowledge and technique has significant association (0.0001), associated with technique and type of device ($p=0.0167$), improper use of device and trainer had significant association ($p=0.001$).

Conclusion: Recurrent hospital visits are due to uncontrolled bronchial asthma caused by main factors such as poor knowledge and attitudes about asthma and improper use of inhaler devices. More over identified dry powder inhaler is easier to use than pressurized meter dose inhaler

Email of the Corresponding Author: jannuruddika@gmail.com

PP 20

METHODS TO IMPROVE SCREENING SUSPECTS OF TUBERCULOSIS IN ANURADHAPURA DISTRICT: AN IMPLEMENTATION RESEARCH

Waidyaratne, R.A.D.K.M.D¹, Rathnayake, R.M.A.N²., Sameera, T.G.P², Rajapathirana S.¹, Chadrakanthi, K.G.S.¹, Raveesha, C.¹,

1. District Chest Clinic, Anuradhapura
2. Department of Community Medicine, Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka, Saliyapura.

Background: Tuberculosis is a major health problem. TB incidence in Anuradhapura district was 28.1, while, WHO estimated incidence was 66 in 2013. The low case detection rate was mainly due to inadequacy of referrals of TB suspects, for screening to chest clinics. Only 0.19% instead of WHO recommended 4% of OPD patients were referred.

Aim/s: To identify the barriers/bottle necks for screening of TB suspects in Anuradhapura district.

Methods: A sequential exploratory study was conducted at OPD of three different level hospitals and three MOH divisions, during 3 months from 01.05. 2016. It included consenting patients attending the outpatient departments and health personnel. In-depth interviews using interviewer guide questionnaire concerning knowledge on available facilities for screening and treatment of TB and health care seeking behaviours.

Results: Total of 330 OPD Patients (109 male 221 female with mean age 41.2 ± SD 15.282) and 39 (16 male, 23 female) working in OPD and 80 (31 male and 49 female) from public and private sector field staff were recruited. Majority (94%) Patients had heard about tuberculosis, 65.5% knew at least two main symptoms (80%) were aware of the nearest microscopy centre. Nevertheless, 99% sought treatment at OPD. Most health personnel knew the main symptoms and that sputum microscopy was the main investigation. Nevertheless, 61.5% recognized referral for screening as their responsibility. Only 44% knew that any health worker can refer.

Conclusions: Public knows about tuberculosis adequately but poorly aware of available services and facilities for diagnosis and treatment. Alertness of health personnel towards referring TB suspects to Chest clinics or microscopy centres is insufficient. A novel public awareness and education campaign is needed to fill the gaps in existing knowledge.

Email of the Corresponding Author: kmdrwaidya@gmail.com

PP 21

IMPACT OF PRE-IMPRISONMENT STATUS ON PREVALENCE OF SPUTUM POSITIVE TUBERCULOSIS AMONG CONVICTED PRISONERS IN MAJOR PRISONS IN SRI LANKA

Pallewatte, N.C.¹, De Alwis, A.K.S.B.², Samaraweera, S.D.¹, Ambagahage, T.M.¹

1. National Programme for Tuberculosis Control & Chest Diseases, Narahenpita, Sri Lanka.
2. Ministry of Health, Sri Lanka

Background: Tuberculosis is still a public health problem in Sri Lanka. High incidence of TB among socially deprived, difficult to reach populations such as prisoners made it difficult to control TB. The unfavorable conditions prevailing in prisons as well as poverty and life style associated pre imprisonment factors favour the development and spread of TB.

Aims: To determine the prevalence of sputum positive TB among convicted prisoners in Sri Lanka and to identify pre imprisonment factors contributing to it.

Methods: A descriptive cross sectional study was conducted among convicted prisoners in major prisons in Sri Lanka. Information on socio-demographic, occupational, life style and behavioral factors, pre imprisonment living conditions, past and present medical history and contact history with TB before/after imprisonment were collected using an interviewer administered questionnaire. Information on weight and height on admission was obtained from prison records.

All the prisoners were subjected to a symptom checklist (TB suspect screening questionnaire). Prisoners with scoring of 5 or more and past history of TB were considered as TB suspects. All TB suspects were subjected to sputum microscopy for Acid Fast Bacilli in 3 sputum samples collected in 3 consecutive mornings, sputum culture and drug sensitivity test.

Results: A total of 5510 prisoners were included in the study. Prevalence of sputum smear positive TB among study population was 1688 per 100,000 population (N=93). Significant associations were found between smear positive TB and inadequate space in the house previously lived ($p=0.0049$), dirty/untidy previously lived house ($P=0.0172$), poor lighting in the previously lived house (0.0003), BMI<18 ($p=0.0000$), perception of poor nourishment ($P=0.0409$), perception of poor health status ($p=0.0001$) and previous contact with TB patients ($p<0.0000$).

Conclusions: Prevalence of TB among prisoners was 17 times higher than the prevalence among general population (99 per 100000 populations in 2015). Screening for TB should be made mandatory during entry medical examination. Attention should be given to inmates who come from poor economic settings, with low BMI, poor health status, contacts of TB patients during the entry medical examination. Measures should be taken to strengthen contact tracing and to improve living conditions in order to prevent spread of TB.

Email of the Corresponding Author: ccpnptccd@hotmail.com

PP 22

TUBERCULOSIS AMONG YOUNG PEOPLE ON RISE IN SRI LANKA - AN ANALYSIS OF TREND

Pallewatte, N. C.¹, Samaraweera, S.D.², Kapilawanse, S.³, Jayakody, W.¹, Vitharana, H.¹, Gangetheshwaran, M.⁴

1. National Programme for Tuberculosis Control & Chest Diseases, Narahenpita, Sri Lanka
2. National Cancer Control Programme Narahenpita, Sri Lanka
3. Provincial General Hospital, Badulla, Sri Lanka
4. District Chest Clinic, Badulla, Sri Lanka

Background: Sri Lanka is a middle burden country for tuberculosis (TB). However, Tuberculosis remains a widespread problem and poses a threat to health and development of the people. Observations from clinical practice showed significant differences in age distribution of TB with more young adults presenting with TB.

Aim: To describe the trend of new cases of TB over past 6 years in Sri Lanka

Methodology: The analysis of the trend of TB was carried out as a part of a survey among TB patients of younger age groups, using secondary data available at the National Programme for Tuberculosis Control and Chest Diseases. The trend was analysed over the period of 6 years from 2008 -2014 for all new, new sputum positive/ negative and extra pulmonary TB (EPTB) and for age categories of 15-34,15- 24 and 24 -34 years. Trend of TB was assessed separately for males and females and for districts.

Results: Around one fourth (25%) of the TB patients detected during 2010-2014 were belong to the age group of 15-34 years. Two peaks of TB incidence were observed in the trend across age groups. The first peak was in the age group of 25-34 years and the second peak was in the age group of 45-54 years. Overall trend of TB was more towards the older age groups (over 45 years). An increasing trend among young (15-34 years) age groups was observed in 15 out of 26 districts. The incidence of TB was more in females of age 15-24 years than males in the same age group though incidence was high among males in all the other age groups.

An increasing trend of EPTB among 15-34 years was observed in all the years except in 2009. Increasing trend of sputum negative TB was observed up to 2011 but it was more or less static over the subsequent years.

Conclusions: More emphasis should be given to control the spread of TB in districts where shift of trend was more towards the younger ages as it indicates spread of the disease. Further research should be encouraged to identify risk factors for developing TB among younger population.

Email of the Corresponding Author: ccpnptccd@hotmail.com

PP 23

ASSESSMENT OF THE ECONOMIC BURDEN TO PATIENT HOUSEHOLDS DUE TO CUTANEOUS LEISHMANIASIS IN THREE SELECTED MEDICAL OFFICER OF HEALTH (MOH) AREAS IN KURUNEGALA DISTRICT, SRI LANKA.

Wijerathna, A.C.T.¹, Gunathilaka, P.A.D.H.N.¹, Gunawardana, N.K.¹, Rodrigo, W.W.P.².

1. Department of Parasitology, Faculty of Medicine, University of Kelaniya, Sri Lanka.
2. Biotechnology Unit, Industrial Technology Institute, Colombo 7, Sri Lanka.

Background: Cutaneous leishmaniasis is a parasitic disease that can cause serious health conditions if left untreated. Although the disease does not cause a significant morbidity, patients may lose productive days due to treatment procedures requiring multiple episodes. Therefore, it is very important to assess the magnitude of the economic impact caused by the disease on the households of patient.

Aim: This study aims to understand the economic impacts of cutaneous leishmaniasis on households in three selected Medical Officer of Health (MOH) areas in Kurunegala district.

Methods: The study was conducted in Polpithigama, Maho and Galgamuwa MOH areas in Kurunegala District. Patient records were obtained from each MOH office and an interviewer administered questionnaire was used to collect information on the direct and indirect expenditure relevant to the infection. Data were arranged and analyzed using R statistical software package.

Results: Total of 64 patients were recruited from the study area and interviewed. All the patients had received medical care from government hospitals free of charge. Therefore, direct expenditures were limited only to traveling and other minor costs while, loss of productive days due to hospital visits was the main indirect expenditure. Among the study participants 37% (n=24) depended on agricultural practices while 30 % (n=19) depended on non-agricultural practices and 33 % (n=21) depended on monthly wages. An average of 7 treatment episodes were received by a patient. Mean cost of illness was Rs. 7833.88 at the completion of the treatments which is 17.45% of the mean annual per capita income of the study group. Though this value is less when compared to other diseases, since the majority of the affected population are farmers and laborers with low income, loss of a single working day has a significant impact on the households during the course of treatment.

Conclusion: Improvements of treatment facilities at regional levels may reduce illness associated costs significantly as the direct costs are mainly due to long distance travel to government hospitals with dermatological clinics. However, studies on other aspects related to treatment services is also needed before further conclusions.

Email of the corresponding author: n.gunathilaka@kln.ac.lk

PP 24

PREVALENCE OF NOSOCOMIAL INFECTIONS AND ASSOCIATED FACTORS AMONG PATIENTS IN THE INTENSIVE CARE SETTING OF THE COLOMBO NORTH TEACHING HOSPITAL, SRI LANKA

Pemasinghe, K.A.M.S.¹, Vithanage, V.M.D.¹, Fonseka, T.S.N.¹, Kandearachchi, K.A.M.S.P.¹, Fernando, U.C.P.¹, Jayasinghe, P.P.²

1. Teaching Hospital Ragama
2. Post Graduate Institute of Medicine.

Background: A Nosocomial infection is an infection which was not present or was in the incubation period at the time the patient is admitted to the hospital, but occurs within 72 hours after admission. They are potentially caused by organisms that are resistant to antibiotics. Highest prevalence of nosocomial infections is found in intensive care units and also it is one of the leading causes of death in intensive care units.

Aims: To describe the prevalence of nosocomial infections and describe the types and distribution of associated factors of nosocomial infections in the intensive care setting of Colombo North Teaching Hospital, Sri Lanka.

Methods: A descriptive cross sectional study was conducted among patients admitted to the Intensive Care Unit of Colombo North Teaching Hospital for one year duration from August 2015. Patients who did not have fever spikes 48 hours before the admission were included. Systematic random sampling technique was applied. Data collection was done by using an Interviewer Administered questionnaire and analyzed by SPSS 23.0 statistical software. 95% confidence interval was taken for statistical significance.

Results: Prevalence of nosocomial infections in the study sample was 41.58% (N= 42). This male predominant study sample (51.6%), showed a normal distribution of age which ranged from 9 years to 83 years (Mean=51.17: SD=17.98). Acquiring infections did not depend on the sex of the patient. (OR=0.767; 95% CI=0.347-1.695). Mechanical ventilation was identified as a risk factor for acquiring nosocomial infections (OR=1.97; 95 CI%= 0.847-4.58). Using dedicated instruments was identified as a protective measure for nosocomial infections (OR=0.903:95%: CI=0.409-1.994). Risks identified for acquiring nosocomial infections include age above 50 years (OR=1.947:95%: CI=0.838-4.42) and more than three days stay at the intensive care unit (OR=1.335:95%: CI=0.82-2.173).

Conclusion: Except using dedicated instruments all the associated factors considered in the study were identified as risk factors for nosocomial infections. Using dedicated instruments was recognized as a protective factor for nosocomial infections. Duration of intensive care unit stay and the treatment procedures directly affected the spreading of nosocomial infections. As morbidity and mortality trends of the patients are remarkably increased with nosocomial infections, it is essential to suppress the associated factors and minimize the spread of nosocomial infections.

Email of the Corresponding Author: meghasripemasinghe@yahoo.com

PREVALENCE OF CLOSTRIDIUM DIFFICILE ASSOCIATED DIARRHOEA AMONG HOSPITALIZED PATIENTS AT THE NATIONAL CANCER INSTITUTE (NCI) OF SRI LANKA, MAHARAGAMA

Patabendige, C.G.U.A.¹, Pitigalage, N.J.¹

1. National Cancer Institute, Maharagama¹

Background: Patients with haematological and solid malignancies are susceptible to *Clostridium difficile* associated diarrhoea (CDAD) due to the exposure of multiple antibiotics and chemotherapeutic agents during the treatment. No previous studies have been done so far to assess the prevalence among patients receiving antibiotics and antineoplastic therapy at NCI. Early diagnosis is helpful in effective patient management and implementing infection prevention and control practices. *Clostridium difficile* associated diarrhoea is not routinely diagnosed in Sri Lanka at present.

Aims: To study the prevalence of *Clostridium difficile* associated, antibiotic or chemotherapy induced diarrhoea.

Method: A prospective descriptive study was conducted at the NCI for 1 year from November 2012. The study population included all hospitalized patients ≥ 1 year of age developing diarrhoea who had been on antimicrobial/antineoplastic therapy within last 30 days of onset of diarrhoea, passage of three or more unformed stools in 24 hours or fewer consecutive hours who collected a stool samples according to recommended methods. One hundred and four samples were collected during the study period. All the specimens were processed for qualitative detection of *Clostridium difficile* toxin A and B using Enzyme Immunoassay. Demographic and clinical data were collected from an investigator administered validated questionnaire.

Results: Only 2 out of 104 samples became positive giving the prevalence of 1.92%. CDAD. Male and female proportions were equal in the toxin positive group. Both were children having haematological malignancies treated at the paediatric ICU, neutropenic on antibiotics and antineoplastic drugs, having fever at the time of detection.

Conclusions: This is the first study done at NCI to assess the prevalence of CDAD. Though hospital associated CDAD is found at NCI the prevalence is found to be low. Introduction of diagnostic method is needed because rates may go up with the increasing use of antibiotics as well as antineoplastic drugs in this setting. Further studies with higher sample numbers are needed.

Email of the Corresponding Author: geethika_patabendige@hotmail.com

CHARACTERISTICS AND CAUSATIVE ORGANISMS OF DEEP-SEATED ABSCESSSES AMONG PATIENTS REFERRED TO THE MICROBIOLOGY UNIT IN A TERTIARY CARE CENTER, SRI LANKA

Piyasiri, D.L.B.¹, Samarawickrama, T.K.S.¹, Thewarapperuma, C.N.¹, Jayasekara, J.V.G.M.¹, Nanayakkara, I.R.S.¹, Priyanganie, L.U.A.¹, Kumari, E.H.D.S.¹, Pathirana, R.C.W.¹

1. Teaching Hospital Karapitiya, Galle, Sri Lanka

Background: Deep seated abscesses of lungs, kidneys, liver, brain and other organs are often causing increased mortality and morbidity with a significant contribution by the associated comorbidities.

Aims: To describe the patient characteristics, comorbidities and the aerobic causative organisms of the deep-seated abscesses among patients in a tertiary care center.

Method: A retrospective analysis of the records of all patients with deep seated abscesses who were referred to the microbiology unit of a teaching hospital was carried out from January 2014 to February 2017. Cases of skin and soft tissue abscesses were excluded.

Results: There were 100 patients with deep abscesses during the study period. Among them 69% (69/100) were males. Majority were (40%) aged between 40 and 60 years while 35% were above 60 years. There were 34, 28, 17 and 10 patients with abscesses in lungs, kidneys, brain and liver respectively. Eighty percent of the patients had identifiable comorbidities such as diabetes (37%), chronic kidney disease (10%), shunts and stents (9%), and recent surgery (8%) while 20% had multiple co-morbidities. Type specific risk factors such as renal calculi (3%), chronic pulmonary diseases (3%) and shunts and extra-ventricular drains (3%) were seen among some patients. Treatment of 55 cases was guided by positive aerobic cultures such as pus (21), and blood (18). There were respiratory samples with significant isolates from 9 lung abscesses and positive urine cultures from 7 renal abscesses. Most frequent isolate from all samples was *Klebsiella* species (18/55, 33%) followed by *Escherichia coli* (14/55, 25%) and *Staphylococcus aureus* (9/55, 16%). 56% of coliforms were extended spectrum beta lactamase producers while 45% of *S.aureus* were methicillin resistant. There were pathogens like *Burkholderia pseudomallei* (7 of lung and liver abscesses) and *Chromobacterium violaceum* (1 liver abscess). Most frequently used antibiotics in treatment were carbapenems (55%), broad spectrum penicillins (23%), 3rd generation cephalosporines (22%) and glycopeptides (16%).

Conclusions: There is a male predominance in deep seated abscesses and the middle aged and elderly are the mostly affected. Diabetes is the main associated comorbidity. Treatment should be guided by the cultures of relevant samples due to the antibiotic resistance and emergence of rare pathogens.

E mail of the Corresponding Author: bhagyapiyasiri@yahoo.co.uk

STUDY TO DETERMINE CLINICALLY SIGNIFICANT STRPTOCOCCAL AND ENTEROCOCCAL INFECTIONS, THEIR ANTIBIOTIC SUSCEPTIBILITY AND ASSOCIATED PATINTS FACTORS WITH INFECTION AMONG INWARD PATIENT OF NATIONAL HOSPITAL, SRI LAKA

Perera W.P.D.P.¹, Patabendige C.G.U.A¹

1. National Hospital of Sri Lanka.

Background: Genera *Streptococcus* and *Enterococcus* play a major role in community acquired and hospital acquired infections. Proper identification of locally clinically significant species would help in deciding empirical treatment. The increase in antibiotic resistance is a problem in treating these infections.

Aims: This study was carried out to describe the species of clinically significant streptococci and enterococci, the antibiotic susceptibility pattern and the patient factors associated with infection among inward patients in National Hospital of Sri Lanka (NHSL), and to compare antibiotic susceptibility with that of previous two years.

Methods: A descriptive cross sectional study was carried out from December 2014 to March 2015. A sample of 110 was selected through convenient sampling from the inward patients at NHSL.

Clinically significant isolates of streptococci and enterococci in blood, sterile fluid, pus, sputum and urine were processed and identified up to species level according to standard microbiological methods and Remel Rap ID STR system. Antibiotic susceptibility was done according to CLSI 2014 and compared with that of last two years. Associated factors were assessed using an interviewer administered questionnaire.

Results: Streptococcal infections (n=67) were commoner than enterococcal infections (n=43). *Streptococcus agalactiae* was the commonest isolate in the study (n=31). *Streptococcus pneumoniae* was the only isolate in sputum (n=12). *Enterococcus faecium* (n=27) was commoner than *Enterococcus faecalis* (N=16) and more resistance to antibiotics. *Streptococcus pyogenes*, *Streptococcus agalactiae* and *Streptococcus pneumonia* were 100% sensitive to penicillin while significantly resistant to erythromycin.

Antibiotic resistance had increased during the last three years in all species except *Streptococcus* species Viridans Group. Associated factors differed according to organisms.

Conclusion: *Streptococcus agalactiae* is an important cause of skin and soft tissue infection and urinary tract infection. *Enterococcus faecium* is commoner than *Enterococcus faecalis*. Penicillin has preserved its sensitivity over years. Antibiotic resistance has increased over last three years. Regular surveillance and long term studies on antibiotic resistance pattern are important for early detection of resistance.

Email of the Corresponding Author: deepaperera22@yahoo.com

PERFORMANCE OF NANO-SCALE LIQUID-GLASS COATING IN INFECTION CONTROL IN SRI LANKAN HEALTHCARE SETTING

Karunanayake, L.I.¹, Waniganayake, Y.C.², Gunawardena K. D. N.¹, Peter, D.¹, Padmaraja, S.A.D.³, Jayasekera U.S.R.S.³, Karunanayake, S.A.A.P.⁴

1. Department of Bacteriology, Medical Research Institute, Dr. Danister De Silva Mawatha, Colombo 08, Sri Lanka
2. Postgraduate Institute of Medicine, University of Colombo
3. Infection Control Unit, Base Hospital Homagama
4. Department of Medicine, Faculty of Medicine, University of Colombo

Background: Bacterlon® is a nano-scale liquid-glass coating that lines surfaces. The hydrophobic and antimicrobial effects of the solution claims to prevent adhesion and growth of bacteria over a prolonged period of time after application.

Aim: To evaluate the performance of Bacterlon® in Intensive Care Unit (ICU), medical ward, and laboratory in a healthcare setting.

Methods: Prospective study was conducted from 09/2015 to 01/2016 at ICU and a medical ward in Base Hospital Homagama and bacteriology laboratory in Medical Research Institute. Bacterlon® was applied to work benches, telephones, sinks, glass walls, door knobs, table tops, bedside cupboards, bed railings, trolleys, and stethoscopes. During 12-week follow-up period, these test sites and non-coated similar sites were used for routine work. Bacterlon®-coated and non-coated (control) sites were cleaned with routine disinfectants as per institute protocol. Swabbing was done for coated and non-coated sites using swab/surface weekly for 12 weeks at unannounced times. Aerobic plate count agar (3M) was used for total viable count (TVC). Surfaces were categorized in to low (<10 CFU/mL), moderate (10-99 CFU/mL) and high (>100 CFU/mL) contamination by TVC in non-coated sites at any given time.

Results: Samples from telephone and glass-wall in laboratory; telephone, bed railing, door knob, nurses table in ICU and bed railing in ward had moderate contamination. Stethoscope in ICU had low contamination. Other surfaces had high contamination.

In low and moderate contaminated surfaces, 27.5% percentage-bioburden reduction was observed by 4th week with Bacterlon® and a significant reduction ($P<0.05$) was seen in the bioburden in coated than the non-coated surfaces by the 12th week with paired-sample-T-test.

With all surfaces together, no significant difference was seen between Bacterlon®-coated and non-coated surfaces at 4th week ($P=0.30$), 6th week ($P=0.51$), 8th week ($P=0.33$) and 12th week ($P=0.74$) by chi square test.

Conclusion: Bacterlon® demonstrates a significant reduction of the bacterial bioburden in low and moderate contaminated surfaces for 12 weeks in healthcare settings. It does not show any significant effect for highly contaminated surfaces.

Email of the Corresponding Author: yasindu.waniganayake@gmail.com

PREVALENCE AND CHARACTERIZATION OF COLONIZING METHICILLIN-RESISTANT *STAPHYLOCOCCUS AUREUS* ISOLATED FROM THE PATIENTS ADMITTED TO SURGICAL, MEDICAL AND ORTHOPAEDIC UNITS OF TEACHING HOSPITAL, KARAPITIYA

Kurukulasooriya, M.R.P.¹, Tillekeratne, L.G.², Wijayarathne, W.M.D.G.B.¹, Bodinayake, C.K.¹, Rajapakshe, M.D.¹, Umesha, B.G.J.¹, De Silva, A.D.³, Nicholson, B.P.², Stbye, T.², Woods, C.W.², Nagahawatte, A.De.S.¹

1. Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka
2. Duke University, Durham, North Carolina, USA
3. Faculty of Medicine, Kotelawala Defense University, Ratmalana, Sri Lanka

Background: Methicillin-resistant *Staphylococcus aureus* (MRSA) causes a significant burden of infection. Colonization is a recognized risk factor for infection. MRSA is mainly classified as community-associated (CA) or healthcare-associated (HA) based on antibiotic susceptibility patterns and molecular typing. CA-MRSA is more virulent and has rapidly spread into healthcare settings. In Sri Lanka, limited molecular characterization data exist to describe the associated MRSA types.

Aims: To describe the prevalence, in-hospital acquisition and associated MRSA types colonizing the patients admitted to surgical, medical and orthopaedic units of Teaching Hospital Karapitya.

Methods: Consecutive admissions to orthopaedic and every fifth admission to medical and surgical wards were enrolled for six months from September 2016. Nasal swabs were collected from anterior nares within 24 hours of admission and within 48 hours prior to discharge. Standard antibiotic susceptibility testing (ABST) and Staphylococcal Cassette Chromosome *mec* (SCC*mec*) typing were performed. Isolates were classified as CA-MRSA and HA-MRSA as previously described.

Results: A total of 502 (surgical-201, medical-152, and orthopaedic-149) patients were enrolled. On admission, 6.2% (n=31) [surgical:3.5%, medical:4% and orthopaedic:12.1%] and at discharge, 6.7% (n=24) [surgical:1.3%, medical:8.4% and orthopaedic:12.8%] were colonized with MRSA. Of the 24 patients at discharge, 37.5% (n=9) were not colonized with MRSA on admission. ABST profiles identified CA-MRSA:62% and HA-MRSA:38% on admission and CA-MRSA:67% and HA-MRSA:33% at discharge. SCC*mec* typing identified, CA-MRSA:87% (SCC*mec*IV:58%, SCC*mec*V:29%) and non-typable:13% on admission. The isolates colonized only at discharged carried SCC*mec*IV:75% and SCC*mec*V:12.5% indicating 89% of them were CA-MRSA associated types. No isolates carried HA-MRSA associated SCC*mec*I, II or III.

Conclusions: MRSA colonization was highest in orthopaedic patients. More than one third of patients with MRSA at discharge were not colonized on admission, raising alarm for nosocomial acquisition. Molecular and antibiotic profiles confirmed that the majority of patients admitted to THK carry CA-MRSA which can cause more virulent infections.

Email of the Corresponding Author: ruhunasearch@gmail.com

SALMONELLA PARATYPHI A AS AN UNUSUAL PATHOGEN ISOLATED FROM AN INFECTED DIABETIC WOUND

Dilhari, K.A.A.¹, Pathirage, S.², Gunasekara, T.D.C.P.¹, Fernando, S.S.N.¹, Weerasekera, D.D.³, Bulugahapitiya, U.⁴, Weerasekera, M.M.¹

1. Department of Microbiology, Faculty of Medical Sciences, University of Sri Jayewardenepura
2. Department of Bacteriology, Medical Research Institute
3. Department of Surgery, Faculty of Medical Sciences, University of Sri Jayewardenepura
4. Endocrinology Unit, Colombo South Teaching Hospital

Introduction: Polymicrobial infections of chronic wounds are a serious complication among diabetic patients. We present a case report of the *Salmonella Paratyphi A* as an unusual pathogen isolated from an infected diabetic wound. In the international literature similar case was reported from India.

Case: This case was identified as a part of a study on microbial profiling of diabetic chronic wound infections.

A 76 year old female patient with type II diabetes mellitus, hypertension, and hyperlipidemia who was on oral hypoglycemics and insulin for the last fifteen years presented with a wound on the left leg. The wound was seen in the lateral side of the middle of left leg for the past 2 months. There was no evidence of local or systemic infections. Her C-reactive protein was 51 mg/l and white blood cells were $17.37 \times 10^3/\mu\text{l}$, with a neutrophil count of $9.12 \times 10^3/\mu\text{l}$. Liver and renal functions were within normal limits.

Two specimens were aseptically collected from each patient with infected diabetic chronic wounds during surgical wound debridement at Colombo South teaching hospital. One specimen was collected in to a sterile container for aerobic culture and another in to a sterile Robertson Cooked Meat Medium for anaerobic culture.

Grams' stain of the specimen, and aerobic and anaerobic cultures were performed following the Standard Operating Procedure (SOP) within 4hr of collection. Gram negative bacilli were observed under Grams' stain. Samples were inoculated in Blood agar, chocolate agar and MacConkey agar and incubated 18-24hrs at room air except chocolate agar which was incubated at 5-10% CO₂. Anaerobic cultures were performed as per SOP. Direct Grams' stain revealed pus cells (>25 cells/Low Power Field) with Gram negative bacilli.

The culture isolates were presumptively identified using colony morphology, Grams' stain and appropriate biochemical tests. *Salmonella Paratyphi A* was isolated from a specimen collected from together with *Pseudomonas aeruginosa*. Identification and confirmation of suspected *Salmonella species* was done at the Enteric Reference Laboratory, Medical Research Institute, Colombo-08.

Conclusions: This is an unusual pathogen and the first case of *Salmonella Paratyphi isolation* from an infected diabetic wound from Sri Lanka according to the available literature.

Email of the Corresponding Author: mmweera@yahoo.com

DETERMINING MINIMUM INHIBITORY CONCENTRATIONS OF VANCOMYCIN FOR METHICILLIN RESISTANT *STAPHYLOCOCCUS AUREUS* ISOLATES USING AN AGAR DILUTION METHOD

De Silva, P.H.C.J.¹, Wickramasinghe, D.², Vidanagama, D.S.², Nagawattha, A.¹

1. Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka

² 2. Department of Microbiology, Teaching Hospital Karapitiya, Galle, Sri Lanka

Background: Methicillin resistant *Staphylococcus aureus* (MRSA) is an extra-ordinarily versatile pathogen causing a wide spectrum of infections ranging from minor skin abscesses to more serious invasive diseases. So MRSA has become an important health care burden, because it is colonized and infected both patients in the hospital and the community. For various reasons, primarily for its resistance array which severely limits treatment options leaving Vancomycin as the only alternative in many cases. Although new agents such as linezolid and daptomycin have been developed, their cost and limited clinical experience means that Vancomycin remains as the drug of choice for the MRSA infections. Recent Vancomycin treatment failures have been raised questions regarding optimal treatment.

Aim/s: This study was to analyse minimum inhibitory concentration (MIC) values and detect the sensitive antibiotics of 54 MRSA clinical isolates from clinical samples which were sent to microbiology laboratory Teaching hospital Karapitiya (THK).

Methods: Vancomycin agar dilution method was used to determine the Vancomycin MIC values of clinical isolates. 6 µg/mL, 4 µg/mL, 2 µg/mL, 1 µg/mL, 0.5 µg/mL, 0.25 µg/mL dilution plates were prepared. Vancomycin resistant *Enterococci* clinical isolate and Vancomycin sensitive *Staphylococcus aureus* ATCC isolate was used as two control samples.

Results: Fifty four MRSA isolates were collected from different microbiological specimens including wound swabs (31), pus aspirations (17), HVS (3), blood (2) and ET aspiration (1). Within MRSA isolates the highest Vancomycin MIC (6.0 µg/mL) was seen in two isolates (3.70%); the other MRSA isolates had lower Vancomycin MICs (96.30%) of 3.0 µg/mL. Erythromycin (87.03 %), Clindamycin (79.62 %) and Ciprofloxacin (57.41 %) were resistant more than 50 % of the MRSA isolates. Gentamycin resistance of 36.17 %, Co-trimoxazole resistance of 33.33 %, Amakacin resistance of 34.15 % and Fusidic acid resistance of 35.85 % were observed. Considerable numbers of samples (48.18%) were collected after giving antibiotics. That was affected to isolate the microorganisms in clinical samples.

Conclusion: Vancomycin still remains as the drug of choice for MRSA infections. Gentamycin, Co-trimoxazole, Amakacin, Fusidic acid can be optional antibiotics for MRSA infections. Microorganisms' isolation can be missed due to prior antibiotic treatments of sample collection.

Email of the Corresponding Author: dwickw2@yahoo.co.uk

MOLECULAR DETECTION OF $\text{bla}_{\text{NDM-1}}$ STRAINS IN GRAM NEGATIVE BACILLI AND COMPARISON OF PHENOTYPIC METHODS: A MULTICENTER STUDY

Sajeevan, T.R.¹, Karunanayake, L.I.¹, Patabendigae, C.G.U.A.², FN Mubarak.³, Ravikumar, R.⁴

1. Department of Bacteriology, Medical Research Institute, Colombo - 8
2. Department of Microbiology, National hospital of Sri Lanka, Colombo
3. Department of Microbiology, Teaching Hospital, Jaffna.
4. Department of Neuromicrobiology, National Institute of Mental Health and Neuro Sciences (NIMHANS), Hosur Road, Bangalore, 560029, India

Background: Emergence of carbapenem resistance in Gram negative bacilli is a concern in healthcare setting due to its limited therapeutic options and rapid nosocomial spread of New Delhi Metallo β lactamase (NDM-1) producers. Early detection of these resistant strains is a challenge in poor resource settings.

Aim: We studied the prevalence of $\text{bla}_{\text{NDM-1}}$ strains among Gram negative bacilli in clinical isolates from Teaching Hospital Jaffna, National Hospital of Sri Lanka and Medical Research Institute (MRI) and compared 3 phenotypic screening methods: modified Hodge test (MHT), imipenem (IPM)/EDTA only and IPM/IPM plus EDTA.

Method: A total of 145 Gram negative isolates were obtained from 3 centers. Isolates were identified using rapid identification system (RapID-remel). The MHT, IPM/EDTA only and IPM/IPM plus EDTA were used to screen carbapenemases and metallo-beta lactamases. Conventional PCR for $\text{bla}_{\text{NDM-1}}$ gene was used to identify NDM producers. Laboratory tests were performed at the bacteriology laboratory, MRI. Socio-demographic data were collected using the data extraction form. Analysis was done by Chi-Square and Kappa tests with SPSS statistical package.

Results: Among the total isolates, 28.96% (42/145) were $\text{bla}_{\text{NDM-1}}$ positive by PCR and the commonest species were *Klebsiella pneumoniae* (40.47 %). Among them, 76.2% (n=32, P=0.08), were identified by MHT, 57.14% (n=24, P=0.00) from IPM/EDTA only test and 80.95 % (n=34, P=0.01) from IPM/IPM+EDTA were identified. Their sensitivity and specificity are 55.46% and 61.99%, 68.55% and 63.26%, 57.35% and 67.64% respectively. The kappa analysis (0.1, 0.2, and 0.1 respectively) suggests poor agreement among the 3 phenotypic methods.

Conclusion: Prevalence of NDM-1 carbapenemase resistance is high in our study population. Implementation and strengthening of infection control strategies is an urgent necessity to prevent rapid dissemination in the country. Laboratory surveillance with phenotypic screening tests may be employed even though they show variable sensitivity. Containment of antimicrobial resistance should be addressed at national level by development of antibiotic and infection prevention policies.

Email of the Corresponding Author: trsajeevan@gmail.com

PREVALANCE OF CARBAPENEMASE PRODUCING ENTEROBACTERIACEAE IN CLINICAL SPECIMENS AT NATIONAL INSTITUTE OF HEALTH SCIENCES

Senevirathna, N. M. N.¹, Liyanage, T. C. H.², Arunprasath, G.³, Pushpakumara W. K. W.⁴, Jayasuriya, L.J.⁵

1. Pathology Laboratory, General Hospital, Kalutara.
2. Pathology Laboratory, General Hospital, Matara.
3. Pathology Laboratory, General Hospital, Baticaloa.
4. Pathology Laboratory, Teaching Hospital, Mahamodara
5. Department of Microbiology, National Institute of Health sciences, Kalutara

Background: Antibiotic resistance has become a major global concern. Among them Carbapenemase producing Enterobacteriaceae (CPE) are a serious emerging problem for health care settings worldwide. Enterobacteriaceae such as *E.coli*, *Klebsiella* and *Acinetobacter* are highly prevalent in community acquired and nosocomial infections. Carbapenems are often the last resort for the treatment of infections. Because of their resistance to most of antimicrobial therapies, CPE's present a challenge in treatment and infection prevention and control. Primary identification of carbapenemase producers is the important initial step of the control measures. A phenotypic simple method called Modified Hodge Test (MHT) or Cloverleaf technique is recommended by the CLSI (Clinical Laboratory Standard Institute) for the detection of carbapenemase activity.

Aim: To assess the prevalence of carbapenemase producing Enterobacteriaceae among isolates with carbapenem resistance in clinical specimens received at National Institute of Health Sciences, Sri Lanka within the study period from January 20th to April 20th 2017 from three different hospitals named as General Hospital Kaluthara, Base Hospital Panadura and base Hospital Horana.

Methods: An analytical cross sectional study was done and one hundred and thirteen (113) Enterobacteriaceae from different types of clinical samples with resistant to any one of carbapenem group antibiotic and taken as the carbapenem resistant Enterobacteriaceae. Then the isolates were evaluated for the production of carbapenemase during the sample collection period. The MHT was performed with standard procedure.

Results: Among carbapenem resistant group 33.6% (n=38) of isolates produced Carbapenemase. Carbapenemase producers were isolated 42.1% (n=16) and 21.0% (n=8) from Sputum and Wound swab samples respectively.

Conclusion: Among the three hospitals, Base Hospital Panadura had the higher prevalence of Carbapenemase producing Carbapenem Resistant Enterobacteriaceae (CP-CRE) while Base Hospital Horana the lowest. The majority of CP CRE is associated with ICU patients. The prevalence of CP CRE in these three hospitals is more close to the Asian prevalence of CP CRE (37.5%).

senevirathnenmn@gmail.com

Email of The Corresponding Author:

PP 34

PREVALENCE OF ALCOHOL, TOBACCO AND ILLICIT NARCOTIC SUBSTANCES USAGE AND ASSOCIATED FACTORS AMONG PATIENTS ATTENDING MENTAL CLINICS CONDUCTED BY THE BASE HOSPITAL MARAWILA

Bandara W.H.¹, HTCS.Abeysena²

1. Ministry of Health, Sri Lanka;
2. Department of Public Health, University of Kelaniya

Background: Consumption of alcohol, tobacco and illicit narcotics affects the clinic visits and compliance among mental health patients and other factors affect to alcohol, tobacco and illicit narcotics usage among mental health patients.

Aim/s: To describe prevalence of Alcohol, Tobacco and Illicit Narcotic Substances usage and associated factors among patients attending mental clinics.

Methods: A descriptive cross sectional study was carried out in out-reach clinics conducted by the Mental Health Unit of the Base Hospital Marawila during July to November in 2013. All mental health patients who had registered and followed up ≥ 1 year were the study population. Using systematic sampling, 404 patients were recruited. A pre-tested Interviewer administered questionnaire was used. Results were expressed as prevalence and 95% confidence interval (CI). Chi-squared test **was** applied for assessing the associations.

Results: Life time prevalence of alcohol usage was 53.7%, (95%CI=48.8-58.6), smoking was 24.3%, (95%CI=20.1-28.5) and illicit narcotic usage 5.9%, (95%CI=3.6-8.2). Current alcoholics, smokers and narcotic uses were 42.6% (95% CI=38.2-47), 15.3% (95%CI=11.8–18.8) and 2.7% (95%CI= 1.1–4.3) respectively. Statistically significant associations were found between male psychiatric patients and current usage of alcohol ($p < 0.05$), tobacco ($p < 0.05$) and illicit narcotic substances ($p < 0.05$). Mental health patients with monthly income $>$ LKR 5000 had a significant association with current usage of alcohol ($p < 0.05$) and tobacco ($p < 0.05$). Current alcohol usage was significantly higher among currently married psychiatric patients ($p < 0.05$). The current alcohol consumption of care givers was significantly associated with current alcohol usage of mental health patients ($p < 0.05$).

There were no statistically significant associations between number of clinic attendance during last 12 months and consuming alcohol, tobacco and illicit narcotics substances, age, education level, distance between clinic and residence, and marital status.

Conclusion: Consuming alcohol, tobacco and narcotics substances were higher among mental health patients. Conducting regular awareness and education programmes for mental health patients and care givers/family members to reduce usage of alcohol and tobacco are recommended.

Email of the Corresponding Author: harshanabandara@gmail.com

KNOWLEDGE AND PRACTICES OF CONTRACEPTIVE USE AMONG FEMALE BIPOLAR AFFECTIVE DISORDER PATIENTS ATTENDING PSYCHIATRIC CLINIC, GENERAL HOSPITAL KANDY

Ariyasena, A.P.¹, Pethiyagoda, D.C.K.¹, Rupasinghe, D.C.¹, Wickramasinghe, M.P.H.C.¹, Jayasinghe, M.G.A.B.¹, Jayasinghe, P.P.²

1. Teaching Hospital Peradeniya
2. Faculty of Medicine Peradeniya

Background: Bipolar affective disorder is characterized by recurrent episodes of depression and mania or hypomania with recovery between illness episodes. These patients are treated with mood stabilizing drugs to prevent these recurrences. Unplanned pregnancies in women with mental illnesses are common and exposes foetus to multiple psychotropic medications during the first trimester. Therefore use of reliable contraceptive methods is vital.

Aims: To describe the contraceptive prevalence among female patients with bipolar affective disorder attending a psychiatric clinic and identify risk factors for irregular contraceptive usage.

Methods: A descriptive cross-sectional study was conducted for six months on patients presented to the psychiatric, clinic Teaching Hospital Kandy. Systematic sampling was used. Data was collected using an interviewer administered structured questionnaire.

Results: Participants' age ranged from 19 years to 52 years (Mean=36.42:SD=8.49). Prevalence of contraceptive usage among participants was 58.9% (N=72). Majority had followed long term treatment schedules for bipolar affective disorder (67.2%: N=82). Majority showed a good compliance for psychotropics (63.1%: N=77) but 51.6% had contraceptive failures (N=63). Receiving long term treatment for bipolar affective disorder was identified as a risk factor (OR=1.718:95%CI=1.292-2.283) for irregular contraceptive usage. Poor compliance to treatment a known risk factor for non-adherence to contraceptive method was not significantly associated (OR=1.49:95%CI=0.88-3.76).

Conclusion: Irregular contraceptive usage was raised among patients on bipolar affective disorder treatment. Receiving long term treatment for bipolar affective disorder and poor treatment compliance were identified as risk factors. Well organized feasible interventions should be conducted to promote regular contraceptive usage among patients who are taking treatment for bipolar affective disorders.

E mail of the Corresponding Author: ajithsenna@gmail.com

VALIDATION OF THE MODIFIED CAREGIVER STRAIN INDEX AS AN ASSESSMENT TOOL OF BURDEN AMONG CAREGIVERS OF PATIENTS WITH SPINAL CORD INJURIE

Chandrasekara, K.P.S.D.S.¹, Balasuriya, A.², Rajapaksha, H.³, Wijesinghe, C. J.³

1. Department of Health Services, Southern Province
2. General Sir John Kothalawala Defence University, Kandawala, Rathmalana
3. Department of Community Medicine, Faculty of Medicine, University of Ruhuna

Background: As the caregiver is the key person supporting the spinal injury patient to survive in the community, attending to their health problems will in turn have a great impact on the patient. Assessment of caregiver burden is necessary for the early identification of individuals who were burdened in order to direct them for necessary interventions.

Aim/s: To adapt, translate and validate a suitable instrument to assess the burden of caregiving for spinal injury patients.

Methods: With a thorough literature survey and with expert opinion Modified Caregiver Strain Index (MCSI) was selected and translated into Sinhala language and validated. The validation study was conducted on a sample of 93 caregivers permanently residing in the district of Kandy.

Convergent and discriminant validity was assessed with already validated Perceived Stress Scale (PSS) and the WHO Quality Of Life Brief (WHO QOL Brief) respectively, given simultaneously to the same individuals and correlation between the scores of each tool was calculated. Reliability was assessed with calculating the test retest reliability; inter rater reliability and the internal consistency.

Results: The correlation between the MCSI total score and the scores of PSS and the WHO QOL Bref demonstrated spearman correlation coefficients of +0.46 ($p < 0.01$) and -0.41($p < 0.01$) respectively. The internal consistency reliability was assessed with Chronbach's Alpha which was found to be 0.81. The test retest reliability was calculated with Wilcoxon pair wise correlation which was found to be 0.16. The inter rater reliability was assessed with intraclass correlation coefficient which was came as 0.99.

Conclusion:

The MCSI Sinhala version is a valid and reliable instrument to assess the caregiver burden of caregivers of spinal injury patients. The validated MCSI should be promoted as a screening tool in identifying caregivers who are burdened with caregiving process

Email of the Corresponding Author: pushpikac@g

SPORTS COMPETITION RELATED ANXIETY, ITS ASSOCIATED FACTORS AND COPING STRATEGIES USED AMONG SCHOOL ATHLETES IN COLOMBO EDUCATION ZONE

Rajasinghe, S.¹, Arambepola, C.²

1. Postgraduate Institute of Medicine, University of Colombo
2. Department of Community Medicine, University of Colombo

Background: Sports competition related anxiety is a major psychological issue seen among athletes purely due to the competitive nature of sports. School athletes are more at risk as they have to manage not only sports but also their academic aspects.

Aims: To estimate the prevalence of sports competition related anxiety, its associated factors and coping strategies used among school athletes in the Colombo education zone

Methods: A school-based cross-sectional study was conducted among 330 athletes in Type I AB government schools of Colombo education zone. Sampling of athletes was done in two stages using simple random sampling method. Data were obtained using a self-administered, culturally adapted Sinhalese translated questionnaire including Sport Competition Anxiety Test for adults (SCAT-A) with the cut-off value of 24 to assess high level of sports competition related anxiety.

Results: Majority of the sample were males (54.8%, n=181) with the response rate of 96.5% (n=330). Mean age was 16.2 (SD=1.6) years. Prevalence of high sports competition related anxiety among athletes was 19.4% (n=64). Sports done at individual level, fear of failure, poor support received from others (coach, friends and parents), experience of past defeat and fear of negative social evaluation were significantly associated ($p<0.05$) with high level of sports competition related anxiety.

A wide variety of positive and negative coping strategies were used by athletes and the majority failed to get good sleep (54.3%, n=179). Only a few (9.7%, n=32) received some kind of psychological assistance related to their sport while the majority (79.4%, n=260) had the idea that psychological help is for weak people.

Conclusions: About one fifth of school athletes showed high level of sport competition related anxiety due to several reasons. Early screening of such vulnerable school athletes, incorporation of psychological element into every physical training session and establishment of accessible facilities for psychological help are recommended.

Email of the Corresponding Author: sumuviraj@gmail.com

PP 38

INTIMATE PARTNER VIOLENCE (PHYSICAL) AMONG WOMEN PRESENTING TO JMO OFFICE BASE HOSPITAL PANADURA AND HORANA IN 2016

Hirimuthugoda, L.K.¹, Jayasinghe, N.L.L.², Wijetunga, P³, Wijayanayake, B.Y.A.², Dammika, K.K.I.³, Elangovan, A.²

1. Post Graduate Institute of Medicine, University of Colombo.
2. Base Hospital, Panadura.
3. Base Hospital, Horana.

Background: Intimate partner violence (IPV) is a leading health problem affecting working female population distributed in various proportions all around the world. Though female were affected due to many reasons, there were limited options available against the act of IPV due to social, family and individual constraints.

Aim/s: To describe injury pattern and determinants related to IPV among women presented to JMO offices.

Methods: Between 6/ 2016 and 12/ 2016, total of 84 women attending JMO office in Base hospital, Panadura and Horana were assigned to collect the data by using pretested interviewer-administered questionnaire. Participants were surveyed over socio-demographic factors, selected determinants related to IPV and reasons behind on avoidance of legal procedures against assault.

Results: Distribution of age of women presented to JMO office is almost similar throughout all age from age of 18 to 48 years of age. Of the total 84 51.4 % were assaulted however only 12% requested to legal procedure. Fifty seven percent of intimate partners were under influence of alcohol or drug at the time of assaulting. Of all women who faced IPV, daily assaulting frequency was 13% and major injuries detected were contusions (33%), abrasions (10%) and fractures (4.3%). Proportion of grievous injuries was 13%. Percentage of women, who ever been assaulted by intimate partner and assaulted by IP in this presentation was 54.3 and 51.4 consecutively. There were no significant association between IPV and others. Percentage of women not willing to proceed for legal procedure due to children were significantly higher than their counter part ($p < 0.001$). There were no significant association between assaulting frequency of >3 time/ week over proceeding to legal procedure with <3 times/week.

Conclusions: Under the influence of drug/ alcohol may associate with IPV among women presented to JMO office.

Email of the Corresponding Author: krishan824@yahoo.com

DETERMINANTS OF RESILIENCE IN A SRI LANKAN POPULATION AFTER A NATURAL DISASTER

Rowel, W.W.J.S.M.¹, Hewawitharana, U.H.¹, Kumarasinghe, W.G.G.B.², Askath, M.S.A.², Rodrigo, A.³

1. National Hospital of Sri Lanka.
2. General Hospital, Nuweraeliya
3. Colombo North Teaching Hospital, Ragama.

Background: Natural or man-made disasters have been a part of life for many Sri Lankans. One of the biggest landslides in Sri Lanka happened on 17/05/2016 in Aranayaka. Following trauma or disasters, some show resilience – ability recovers from and successfully adapt to adverse events. Improving resilience has been identified as an important step in disaster management. There are no Sri Lankan studies on resilience.

Aim/s: Estimate the level of resilience among the Aranayaka landslide victims and describe the contributory factors.

Methods: A cross sectional descriptive study was conducted five month after the tragedy. Data was collected from the consenting adult victims of the landslide who live in eight relief camps using self and interviewer administered questionnaires. Operational definition used for resilience was having 1 or 0 posttraumatic stress disorder symptoms and absence of depression and substance misuse following the disaster. People with established diagnosis of PTSD, depression and substance misuse before the landslide were excluded from the study.

Results: Of 363 participants, 65.1% were males and the mean age was 43.9yr. Majority lived in camps (91.1%) with their nuclear families (84%). All of the participants (100%) witnessed the tragedy at close quarters and 9.1% lost a close relative, 57.3% lost their property, 39.1% lost their livelihood and 9.1% had sustained significant physical injuries due to the landslide. While 21.5% had depression, 25.7% had PTSD and only 2 developed substance misuse following the tragedy. Majority, 59.9%, participants showed resilience. Loss of relatives /properties has a significant association with PTSD symptoms /depression. Resilience positively correlated with the healthy familial relationships, better social connectedness and involvement but not with the education, income or religious beliefs.

Conclusion: Rates of resilience in our study is comparable to the rates reported in similar studies. Findings of this study highlights importance of social capital in post-disaster recovery.

Email of Corresponding Author: madushi1985@yahoo.com

PP41

ACADEMIC PERFORMANCE, SOCIAL RELATIONSHIPS AND PERCEIVED FUTURE EMPLOYABILITY ON TOTAL LIFE SATISFACTION AMONG SECOND YEAR SCIENCE UNDERGRADUATES OF THE UNIVERSITY OF COLOMBO

Dias, H.C.R.¹, Dharmawardena, C.¹, Dharmawardana, D.D.L.P.¹, Dilexson, K.¹, Pathirana, S.²

¹. Faculty of Medicine, University of Colombo, Sri Lanka.

². Department of Parasitology, Faculty of Medicine, University of Colombo, Sri Lanka.

Background: Life satisfaction is overall cognitive assessment of one's quality of life. Second year science undergraduates have a clearer idea about their future career than first years and are not separated to subject specialties.

Aims: This study was conducted to find out the overall life satisfaction of students has association with academic performance, social relationships or their perception on certainty of future employability among second year science undergraduates of the University of Colombo.

Methods: This institution-based cross sectional study enrolled 108 second year male and female science undergraduates, 54 each from Bioscience and Physical science streams of the University of Colombo. Cluster sampling method was used. Data were collected after practical sessions in relevant clusters, using a self-administered questionnaire developed by the investigators. Participants with Grade Point 3.00 or above were considered good academic performers. Research participants' perception, based on responses to few questions, was considered in deciding good social relationship and certainty of future employability. Chi square test was used to compare the proportions between groups.

Results: Of the participants, 83% were satisfied with their overall life. Eighty one percent of the participants achieved good academic performance. Proportion of participants with good overall life satisfaction was comparable ($p>0.05$) between good and poor academic performers (86% and 88% respectively). Seventy eight percent of students had satisfactory social relationships. Proportion of participants with overall life satisfaction was statistically significantly higher ($p= 0.013$) in the group with satisfactory level of social relationships compared to the group with unsatisfactory level of social relationships (88% and 67% respectively). Seventy percent of students thought that their future employability was 'certain' and 80% among them were satisfied with their overall life compared to 91% in the perceived uncertain employability group. This difference was not statistically significant ($p>0.05$).

Conclusion: Majority in the sample had overall life satisfaction. Having good social relationships contribute to overall life satisfaction of the study sample while good academic performance and the perceived employability do not.

Email of the Corresponding Author: chamalikadias@yahoo.com

SOCIOECONOMIC STATUS AND PREVALENCE OF CARDIOVASCULAR RISK FACTORS AMONG PATIENTS WITH END STAGE RENAL FAILURE (ESRF) AT TEACHING HOSPITAL, KARAPITIYA: A PRELIMINARY SURVEY

Silva, E. H.¹, Wicramatilake, C. M.², Lekamwasam, S.³, Mudduwa, L. K. B.⁴, Ubayasiri, R. A.⁵

1. Faculty of Medicine, University of Ruhuna, Galle
2. Department of Biochemistry, Faculty of Medicine, University of Ruhuna, Galle.
3. Department of Medicine, Faculty of Medicine, University of Ruhuna, Galle.
4. Department of Pathology, Faculty of Medicine, University of Ruhuna, Galle.
5. Vascular and Transplant Unit, Teaching Hospital, Karapitiya.

Background: Patients with ESRF are susceptible to vascular events leading to increased mortality and morbidity. Apart from conventional vascular risk factors, they have a socio-economic background that predisposes them to cardiovascular events.

Aim: The aim of this study was to describe the socioeconomic status and to find out the proportions of patients with conventional cardiovascular risk factors in a group of patients with ESRF.

Methods: A group of (n= 65) patients with ESRF attending for regular haemodialysis at Teaching Hospital, Karapitiya were interviewed and their medical records were examined after the consent. It was a preliminary survey conducted after the ethical clearance. Information on socioeconomic status and the presence of conventional cardiovascular risk factors were collected. Social class of the patients was determined using the criteria defined for Sri Lankans.

Results: Mean (SD) age of the group was 46 (12) years. Forty eight (73.9%) patients were from the 'poor' social class and only 3(4.61%) were from the 'upper middle' class. Forty seven (72.3%) had education below GCE ordinary level and only 4 (6.2%) had received university education. Fifty five, (84.6%) patients had monthly family income below Rs.25,000. Proportion of patients with ischaemic heart disease, hypertension, diabetes mellitus, peripheral vascular disease and hypercholesterolaemia were 15.4%, 90.8%, 33.9%, 7.7%, 29.2% respectively. Twenty two (22/45, 48.9%) men were smokers. Thirty one (31/45, 68.89%) men had taken alcohol at some stage in life.

Conclusions: The proportion of patients with poor socio-economic status is high. High prevalence of known CV risk factors, was observed.

Email of the Corresponding Author: eranga.silva@yahoo.com

PP 42

AN EXAMINATION OF FACTORS AFFECTING ON SELF INGESTION OF POISON

J.A Sujeewa¹, D D A Lakmali², W M M K Wijesinghe³

1. District General Hospital Monaragala
2. Base Hospital Thanamalwila
3. Base Hospital Bandarawela

Introduction: In Sri Lanka, ischemic heart disease, self-harm, and cerebrovascular disease were the highest ranking causes in 2010 [1]. Self-Ingestion of Poison (SIP) is very popular way to commit suicide among worldwide.

Aim: This study aimed to examine factors affecting on attempted suicide by self-ingestion of poison survivors admitted to three hospitals in Uva province in Sri Lanka.

Methods: The descriptive cross sectional study was conducted at DGH Monaragala, DH Bandarawela and DH Thanamalwila. It was conducted from 1st of September 2012 to 31st of January 2013 with 150 individuals who had attempted suicide by SIP. Data was collected until the sample size of 150 achieved. Informed written consent was sought from patients. Ethical clearance was obtained from Ethical Review Committee, Lady Ridgeway Hospital.

Results: Among the patients, 56 % were female and 44 % were male. Teenagers (30.6%) and young adults (37.3%) attempted for self-ingestion of poison than others. Most of them were Buddhist (89.3%) and others were Catholic (2%), Hindu (2%) and Islam (1.3%). More than half of them were married (52.6 %) while others were single (42 %), divorced (3.3%) and widow (2%).

According to education level of the participants, 38.6% had learned up to primary level, 46% of them were studied up to ordinary level, 14% of them studied up to advanced level and 1.3% of them were completed their graduation.

Some patients attempted the suicide due to economic problems (21.3%) while others tried to make someone frighten (20.6%) or due to breaking of love affair (20%) or get the attention of family members (12.67%) or unable to bare the mental stress (14%) or death of a close person (2.6%). Only, there were seven persons who had mental health disorders (4.6%).

Conclusion: Low literacy level, poverty, breakage of romantic relationship, get attention from family, unable to bear stress and mental disorders were the leading factors on SIP.

Email of the Corresponding Author : ari_jayasinghe@yahoo.com

PP43

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF FAMILIES, WITH A CHILD LESS THAN 5 YEARS OF AGE HAVING A CONGENITAL HEART DISEASE, ATTENDING CARDIOLOGY CLINIC AT SIRIMAVO BANDARANAIKE SPECIALIZED CHILDREN'S HOSPITAL PERADENIYA, SRI LANKA AND THE OUT OF POCKET EXPENDITURE OF THOSE FAMILIES FOR A CLINIC VISIT

Jayasinghe, P.P.¹, Iddamalgoda, V.L.², Kulathunga, K.M.D.S.², Kumara, W.A.A.³, Waldeniya, W.G.W.P.K.³, Dharmaratne, S.D.⁴

1. Regional Epidemiologist Kandy
2. Sirimavo Bandaranayake Specialized Children's Hospital Peradeniya
3. Teaching Hospital Peradeniya
4. Department of Community Medicine, Faculty of Medicine Peradeniya

Background: Congenital Heart diseases are the commonest congenital disease in the world. It requires regular frequent monitoring and necessary adaptations of the life style. Although the clinic services are free for a child with Congenital Heart Disease, attending the clinic generates a significant amount of out of pocket expenses; studying them and associated factors is a timely need.

Aims: To describe the Socio-demographic characteristics of families that owns a child less than 5 years of age with congenital heart disease and calculate the out of pocket expenditure of those families for a clinic visit.

Methods: A descriptive cross sectional study was conducted among 335 children from September to November 2014. Systematic random sampling technique was applied with an interviewer administered structured questionnaire. Data was analyzed by using SPSS version 23.0

Results: There was a Sinhala Buddhist female predominance, (53.4%) which was not significant. Majority of them were from the central province and were diagnosed during their infancy. Ages of the children varied between 12 to 60 months (Mean 37.1:SD14.5). Among them the most common (40.3%) congenital heart disease was Mitral Valve Prolapse (N=135). Twenty three percent of participants had taken support from outside people to attend the clinic but no one had to pay for them. Majority (80.9%) of employed parents could not attend to work on the clinic day and 23% of participants lost their daily income due to the clinic visit. Total income of the families varied from Rs.12,000/= to Rs.80,000/= (Mean=Rs.23759.7: SD=Rs.9026.6). Mean expenditure for clinic visit was Rs1246/= (SD=Rs.650.8). Expenses were not associated with the age ($p>0.05$), type of the CHD ($p>0.05$), or gender ($p>0.05$).

Conclusion: Reducing the period of stay at the clinic by allocating a specific time and providing an efficient service during that time can be used to minimize the expenses for food lodging and transport. This study can be expanded to calculate then on-medical out of pocket expenses when undergoing a corrective surgery. The psychological effects generated on a congenital heart disease child when living with the limitations of life should be studied in detail.

Email of the Corresponding Author: pasan978@gmail.com

PP 44

MORPHOMETRY OF ADULT HUMERUS BONE IN A COHORT OF SRI LANKAN POPULATION

Edirisinghe, E.A.S.T.¹, Deegodagamage, Y.S.¹, Indunil, L.A.¹, Madushika, P.K.K.¹, Niluka, D.H.M.¹, Wijesundara, W.M.C.S.¹, Dissanayake, P.H.¹, Yasawardene, S.G.¹

1. Department of Anatomy, Faculty of Medical Sciences, University of Sri Jayewardenepura.

Background: Humeral head diameter(HHD) and inclination angle(IA) are important parameters during shoulder reconstruction and prosthetic replacement. Differences in placement of the greater tuberosity have an impact on postoperative range of movement. Increasing incidence of comminuted osteoporotic distal humeral fractures will result in greater utilization of elbow arthroplasty in future. In forensic anthropology, humeralostometry is important in estimating height of an individual. There is minimal data available in Sri Lankan population on above subject.

Aim: To study the osteometry of proximal and distal humeri in a Sri Lankan population

Methods: Forty-eight (left28:right20) humeri, donated for teaching and research purposes to Department of Anatomy, University of Sri Jayawardenepura were analyzed. Humeri were stabilized in anatomical position by a fixator board. Length measurements were taken by a digital Vernier caliper in millimeters up to 2 decimal points by two independent individuals and mean value was taken. Angle of inclination was measured by 360° Dial Universal Bevel Protractor.

Results: Mean HHD was 42.24 ± 3.7 mm. Majority (60.4% [29/48]) ranged between 41-46mm. Left HHD had twice the standard deviation (42.14 ± 4.32 mm) than right(42.39 ± 2.87 mm). Mean distance between most proximal points on humeral head and greater tuberosity (AB) was 4.93 ± 1.62 mm [right side- 5.10 ± 1.73 mm and left side- 4.81 ± 1.56 mm]. Majority 52%(25/48) ranged between 4-6mm. IA ranged from 104.55° - 149.05° and mean was $131.5^\circ \pm 6.91^\circ$ [right side- $131.5^\circ \pm 6.91^\circ$ and left side- $130.21^\circ \pm 8.42^\circ$]. Majority (37.5% [18/48]) of Humeral length (HL) was between 300 and 340mm. Mean was 307.90 ± 16.50 mm [right side- 308.30 ± 15.90 mm and left side- 307.50 ± 17.2 mm]. Mean distance between most distal and most proximal points along the edge of olecranon fossa (PQ) was 18.70 ± 2.35 mm [right side- 18.83 ± 2.14 mm and left side- 18.60 ± 2.52 mm]. Majority ranged between 19.00-20.99mm (14/48). Mean distance between most distal point of trochlea and most distal end of olecranon fossa (RS) was 16.44 ± 1.95 mm [right side- 15.82 ± 1.75 mm and left side- 16.89 ± 2.00 mm]. Majority ranged between 15.00- 16.99mm (17/48).

Conclusion: This study helps in forensic and archeological fields to identify unknown bodies as well as for surgeons for reconstruction of proximal and distal humeral fractures.

Email of the Corresponding Author: steusjp@gmail.com

PP 45

PATTERN OF ILLNESS, TREATMENT AND THE OUTCOME OF PATIENTS PRESENTED TO THE INTENSIVE CARE UNIT IN A SELECTED GENERAL HOSPITAL, SRI LANKA

Wattuhewa, S. K.¹, Kumarasinha, S.L.², Dharmaraja, R.A.N.², Dharmaraja, Y.C.P.²,
Ranasinha, C.G.² Jayasinghe, P.P.¹

1. Post Graduate Institute of Medicine
2. General Hospital Gampaha

Background: History of Intensive Care Units (ICU) spreads towards the 18th century and it is said to be commenced when critically ill patients were treated in a separate unit of the hospital. Intensive care has shifted from open ICUs to closed ICUs, along with dedicated specialist doctors and nurses with focused critical care training. The general health budget provides capital and recovery expenses for all the ICUs, therefore it is necessary to describe the distribution of ICU patients, scope of the treatment facilities and the outcome of the patients.

Aims: To describe the illnesses, treatment procedures and the outcome of patients presented to the intensive care unit in a selected General Hospital, Sri Lanka.

Methods: A descriptive cross sectional study was conducted for one year duration from November 2015 among 248 patients admitted to the intensive care unit, General Hospital Gampaha. Systematic random sampling technique was applied. Patients admitted to the Intensive Care unit for more than 24 hours were included. Data were collected by using an interviewer administered structured questionnaire. Data were analyzed by using statistical software for social sciences version 22.0.

Results: Age of the participants varied from 12 years to 81 years (Mean=51.04 years; SD=17.71). Duration of ICU stay ranged from 24hrs to 408hrs (Mean 90hrs; SD=64.8). A slight male predominance was identified in the sample (N=128; 52%). Majority (62.6%) participants (N=154) were managed with mechanical ventilation. Majority (79.3%; N=195) of ICU patients were admitted to ICU for post-surgical care. Majority (84.7%) of the patients recovered from the critical state and they were sent to the relevant wards. Death rates of the patients in the ICU was 15.3% (N=38). Mechanical ventilation (OR=1.76) and long duration hospital stay (OR=1.32) were associated with ICU deaths.

Conclusion: Mortality of the critically ill, ICU admitted patients was satisfactorily less. Detail studies are needed to decide on the significance of the associated factors with ICU deaths. Benefit and effectiveness analysis regarding patient care should be recommended in every ICU in future studies.

Email of the Corresponding Author: kaseelu@gmail.com

PP 46

DESCRIPTIVE STUDY OF AGE AT SURGICAL REFERRAL AND, ANATOMICAL LOCATION OF UNDESCENDED TESTIS IN CHILDREN

Ranawaka, U. A. R. S.¹ Azmy, F. H¹, Bannaheke, R. T¹, Nasar, A.M.A¹, Palipana, R.A.R.P.W.M.P¹.

1. Lady Ridgeway Hospital for Children, Colombo 8

Background: Undescended testis (UDT) results when the descent of testis from foetal intra-abdominal position to scrotal sac gets arrested along its pathway. The incidence of UDT is between 1.5-2%. UDT has 3.7-7.4 times malignant transformation risk in adulthood (higher locations have increased risk) and, reduced fertility. "British Association of Paediatric Urologists' consensus statement on management of undescended testis 2012", recommends orchidopexy around six months of age to minimise these risks. According to our pre-study, practice of timely orchidopexy is unsatisfactory in Sri Lanka.

This first Sri Lankan study on age at surgical referral and anatomical position of UDT in children analysed data on 200 subjects to enable comparison with other international studies.

Aims: 1. analyse child's age at surgical-referral and utilise this data to motivate stakeholders for timely orchidopexy.

2. Study anatomical locations of UDT in children and offer data to future researches managing adult testicular malignancy and subfertility.

Methods: Data was collected prospectively from 2014/01/01 onwards from hospital records of 200 consecutive children managed at OPD surgical unit of Lady Ridgeway Hospital for Children. All subjects were random referrals through hospital outpatient department.

Results: Number of children with UDT: 200; Number of testes: 217 (17 bilateral). Child's age at surgical referral: 27% (54) below 6 months, 22% (44) between 6.1-12 months, 15.5 % (31) between 12.1-24 months, 18% (36) between 2.1-5 years, 15% (30) between 5.1-10 years and 2.5% (5) between 10.1-12 years.

Anatomical locations of testes: high iliac fossa: 1.38% (3), low iliac fossa: 8.29% (18), internal inguinal ring: 14.75% (32), inguinal canal: 37.79% (82), superficial inguinal ring: 23.04% (50), high scrotal: 13.36% (29), ectopic: 0.92% (2), intra-abdominal testicular atrophy 0.46% (1)

Conclusions: Only 27% (54/200) of children with UDT were referred for orchidopexy before six months of age. Authors have already educated paediatricians, neonatologists, general and urological surgeons and health policy makers on the importance of timely orchidopexy through publications and academic sessions on many occasions. Intra-abdominally located 9.7% (21/217) UDT carry higher risk of malignancy and subfertility. Assessment of malignant risk and subfertility needs long term follow up requiring input from surgeons, urologists and oncologists. Drafting of a national policy on timely orchidopexy is necessary.

Email of the corresponding author: rravibindu@yahoo.com

PP47

EPIDEMIOLOGY OF PATIENTS WITH RHEUMATIC FEVER ATTENDING TO THE PAEDIATRIC CARDIOLOGY CLINIC IN SRI LANKA

Irugal Bandara,¹ Karunadasa¹, K.M.W.M, Dissanayaka¹, D.M.I.B, Jayasundara², J.W.K.A, Chandralal U.L.N³

1. Paediatric Cardiology Unit, Sirimavo Bandaranaike Specialized Children's Hospital, Peradeniya, Sri Lanka
2. Teaching Hospital, Peradeniya.
3. Teaching Hospital, Kandy.

Background: Rheumatic fever with or without rheumatic heart disease (RF+/- RHD) is a significant public health problem worldwide and is preventable. No published data on Sri Lankan children was found. This study was planned to determine the epidemiology of RF+/- RHD patients referred to a paediatric cardiology clinic (PCC).

Aims: To determine the socio-demographics, the clinical presentation and the cardiovascular complications of patients with RF+/- RHD among patients referred to the PCC at Teaching Hospital, Kandy and Sirimavo Bandaranaike Specialized children's hospital, Peradeniya.

Methods: This was cross sectional descriptive study of all patients referred for cardiac assessment following a diagnosis of rheumatic fever between 01/11/2010 - 01/11/ 2013 with follow up component. Patients were recruited following ascent and consent from the parent/guardian. Parent/guardian was interviewed by the investigators. Echocardiography was used for cardiac assessment by the consultant pediatric cardiologist. All data was recorded on a data sheet. Means and proportions were calculated using the SPSS statistical package.

Results: Out of a total of 18859 patients referred to PCC 109 were referred for RF +/- RHD (0.6%). Mean age of the patients was 11.3(SD 6.8) years and 53.2% were females. 56.5% were Sinhalese, 45% were Tamil and 4.6% were Muslims. All the patients were followed up. Patients were residents of 9 districts of Sri Lanka with the largest majority coming from Nuwara Eliya (41.3%), and Kandy (34.9%). Most had Poor socio economic and educational background and mean income Rs.17, 875.00(SD 16,953).

Out of the 109, 94 (86%) had cardiac involvement. 93 patients and 32 patients had mitral and aortic valve involvement respectively. All patients required treatment and prophylaxis for streptococcal infection while 13 patients had to be treated for heart failure and 6 patients needed cardiac surgery. One patient died due to late complication following cardiac surgery.

Conclusion: Less than % of patients followed up at PCC had RF+/- RHD. Out of them more than 80% had cardiac involvement and 1/10th required major medical or cardiac surgical interventions.

Email of the Corresponding Author: sunethra.irugalbandara@gmail.com

PP 48

PREVALENCE OF HLA ANTIGENS AMONG HEALTHY SRI LANKAN POPULATION TESTED AT NATIONAL BLOOD CENTRE

Manchanayake, S.M.G.S.¹

1. Blood Bank, Lady Ridgeway Hospital for Children, Colombo 08

Background: The knowledge about HLA antigen frequencies of a population is important factor for determining the genetic disease prevalence, origin of the population, developing national bone marrow and organ registry.

Aim/s: To determine HLA antigen frequencies among Sri Lankan healthy population tested at National Blood Centre

Methods: This study was carried-out at National Blood Centre (NBC) from 1st of June 2015 to 31st of May 2016. HLA class I and class II typing data of kidney donors with Sri Lankan origin, tested by serological method at histocompatibility laboratory of NBC, were taken as the study population. HLA antigen frequencies of HLA-A, -B, -C, -DR and -DQ loci were assessed in relation to ethnicity.

Results: Total number of population studied was 1172 including 399 (34%) females and 773 (66%) males. Among the study group, 864 (73.72%) were Sinhalese, 172 (14.68%) Tamils and 138 (11.77%) Moors. The five most frequent antigens of HLA-A locus were -A33, -A24, -A2, -A11 and -A1. The order of frequencies were, in Sinhalese- A33(20%), -A24(15.4%), -A2(12%); in Tamils- A1(15%), -A2(15%), -A33(12.6%), -A24(12%), -A11(12%); and in Moors -A24(19%), -A2(17.5%), -A33(16%), -A1(10%), -A11(10%). The most frequently occurring HLA-B locus antigens were -B57, -B51, -B35, -B7 and -B44. The order according to frequencies was as follows. In Sinhalese- B57(16%), -B51(10.4%), -B35 (10%); in Tamils- B57(13.5%), -B51(11.5%), -B35(10%); and in Moors- B57(13%), -B51(11.5%), -B44(10%). In HLA-C locus, -C7, -C6, -C4 and -C3 were the commonest antigens in descending order. The frequencies in Sinhalese were -C7(20.5%), -C6(14%), -C4(10%), -C3(11%); in Tamils- C7(20%), -C6(17%), -C4(10%); and in Moors- C7(22%), -C6(15%), -C4(10%). In HLA-DR loci, most common antigens and their frequencies were as follows. In Sinhalese- HLA-DR15(19%), -DR7(19%), -DR14(11.5%); in Tamils- DR15(20%), -DR7(14%), -DR13(12%), -DR4(11%); and in Moors- DR7 (18%), -DR15(16%), -DR14(11%), -DR13(11%). HLA-DQ5 and -DQ6 in HLA-DQ locus were commonest in all three races.

Conclusion: In all three races, higher frequencies were seen in a common set of antigens.

Email of the Corresponding Author: geethika.manchanayake@yahoo.com

HAEMATOLOGICAL CORRELATES OF ISCHEMIC STROKE AND TRANSIENT ISCHEMIC ATTACK: LESSONS LEARNED

Gunasekara, H^{1,2}, Jayaratne, B²

1. Teaching Hospital, Kegalle
2. National Hospital of Sri Lanka

Background: Haematological abnormalities are known to cause Ischemic Stroke or Transient Ischemic Attack (TIA). The identification of haematological correlates plays an important role in management and secondary prevention.

Aims: To describe haematological correlates of stroke and their association between stroke profile.

Methods: A cross sectional descriptive study was conducted in a sample of 152 stroke patients referred to haematology department of National Hospital of Sri Lanka for thrombophilia screening. The haematological correlates screened were Lupus Anticoagulant, Dysfibrinogenemia, Paroxysmal nocturnal haemoglobinuria (PNH), Sickle cell disease, Systemic Lupus Erythematosus (SLE) and Myeloproliferative Neoplasms (MPN). Following tests were performed.

Hematological correlate	Tests performed
Lupus anticoagulant	Diluted Russels Viper Venom Test and Kaolin clotting time (Diagnostic criteria: Presence of clinical and laboratory criteria, Positive DRVVT or KCT in two occasions, 3 months apart)
Sickle cell disease	Full blood count (FBC), blood picture and sickling test and High Performance Liquid Chromatography
Paroxysmal nocturnal haemoglobinuria	FBC, blood picture, Ham test and flowcytometry
Myeloproliferative neoplasms	FBC , blood picture, Janus Kinase 2 (V617F) mutation analysis, erythropoietin level and bone marrow examination
Dysfibrinogenaemia	TT, fibrinogen antigen test, clot observation and claus test (Diagnostic criteria: Positive claus test)
Systemic lupus erythematosus	Anti-nuclear antibodies (Diagnostic criteria: Positive ANA)

Results: Among study sample, 134 patients had strokes and only 18 had TIA. The recurrence of stroke/TIA was observed in 13.2% of patients. The majority of patients (94.7%) have had radiological evidence of thrombotic event. One fourth of patients had past thrombotic events while 12.5% had family history of thrombosis. Out of haematological correlates screened Lupus anticoagulant was the most common haematological correlate (n=16) and dysfibrinogenemia (n=11) had the next high prevalence. One patient was diagnosed with essential thrombocythemia and one with SLE. None of the patients were positive for screening tests done for sickle cell disease and PNH.

Conclusions: The Haematological correlates were identified in 19% of our study sample. Among stroke profile only presence of past thrombotic history was statistically significantly associated with haematological disorders (P= 0.04). Therefore hematological disorders appear to be an important factor in etiological work up of stroke patients particularly in patients with past thrombotic events.

DIFFERENCES OF PLATELET COUNT BETWEEN MANUAL AND AUTOMATED TECHNIQUES IN THROMBOCYTOPENIA IN IDIOPATHIC THROMBOCYTOPENIC PURPURA (ITP)

Vidyarathne, G.G.K¹, Gunarathne, K.G.D.T.¹, Gunawardena, D.².

1. Department of medical laboratory science faculty of medical sciences university of Sri Jayawardenepura
2. Department of Haematology faculty of medical sciences university of Sri Jayawardenepura

Background: Reliable platelet count is of prime importance in clinical management of thrombocytopenia where transfusion, splenectomy, therapeutic or any other appropriate intervention is concerned. Methods available for the accurate estimation of platelets like immunoflowcytometry remain at research or highly specialized laboratory set up. Automated analyzer count is based on impedance and optical technology whereas the manual chamber count method based on phase contrast and naked eye observation. Results of the automated counts especially at severe thrombocytopenia seem to be uncertain and less reliable.

Aims: Main objective of this research is to determine the Platelet count variation between manual (chamber) and automated techniques in thrombocytopenia. Analytical variation between two systems is compared.

Method: Descriptive cross-sectional study was carried out on blood samples of 83 ITP (idiopathic thrombocytopenic purpura) patients at the Haematology clinic, Colombo South Teaching hospital during six months. Platelet count was estimated by manual chamber method and Mindray 5500BC 5 part analyzer. Internal quality control measures were maintained and the laboratory had been participating in external quality assessment for automated platelet count measurement. Both manual and automated platelet counts were duplicated by two researchers and average figure was reported on every specimen. Data record sheet was analyzed and stratified into two strata as; moderate thrombocytopenia ($\leq 150,000 - \leq 50,000/\text{mm}^3$) and severe thrombocytopenia ($< 50,000/\text{mm}^3$). Differences between two methods in severe thrombocytopenia were determined by comparing the mean of four manual counts and the mean of automated count. Statistical analysis performed by Statistical Package for Social Sciences (SPSS) version 16.

Results : Pearson correlation coefficients and the levels of agreement (according to the Bland and Altman comparison method) were calculated for each stratum. The Standard Deviation (SD) and bias of the difference scores of moderate thrombocytopenia; manual versus auto-analyzer are -9.12×10^3 and 5.04×10^3 respectively. Computed upper limit and lower limit agreement of moderate thrombocytopenia are 12.83×10^3 and -22.90×10^3 . The SD and bias of the difference scores of severe thrombocytopenia; manual vs auto-analyzer are 16.42×10^3 and -4.35×10^3 respectively. Computed upper limit and lower limit agreement of moderate thrombocytopenia are 27.84×10^3 and -36.38×10^3 . Pearson Correlations(r) was 0.53 at moderate thrombocytopenia ($p < 0.05$) where as it was low as 0.36 at severe

thrombocytopenia (P=0.06). There was a tendency of around 20,000/mm³ deviation of automated counts from the true count at moderate thrombocytopenia and that was 13,000/mm³ at extremely severe thrombocytopenia.

Conclusion: Pearson correlation(r) was satisfactory and the limits of agreement were clinically acceptable at moderate thrombocytopenia. Both correlation and limits of agreement at severe thrombocytopenia were significantly beyond the clinically acceptable level. Automated platelet counts especially at severe thrombocytopenia should be validated with manual counts and stained smears and interpretation of low platelet counts should cautiously be done

Email: gayanthavidya@gmail.com

COMPARISON OF COMMONLY AVAILABLE HAEMOGLOBIN ESTIMATION METHODS IN DETERMINING THE HEAMOGLOBIN CONCENTRATION IN PREGNANT WOMEN IN COLOMBO SOUTH TEACHING HOSPITAL, SRI LANKA

Perera, U.P.N¹, De Silva, A.C.I.², Wijesiriwardena, I.S.³

1. Medical Laboratory Technology School, National Institute of Health Sciences, Kalutara.
2. Prison Hospital, Colombo 09.
3. Department of Pathology, Faculty of Medical Sciences, University of Sri Jayewardenepura.

Background: Assessment of haemoglobin (Hb) is one of the reliable indicators for diagnosing anaemia. It is widely used to screen pregnant women. Cyanmethaemoglobin Automated analyzer Method (Gold Standard), Manual Photometric Cyanmethaemoglobin Method (Manual Method), Portable Haemoglobinometers (PHbMeters) and World Health Organization (WHO) colour scale method are commonly used.

Aims: To compare clinical acceptability of different haemoglobin estimation methods.

Methods: Cross sectional study was carried out among 50 pregnant women and 50 healthy volunteers with Hb \geq 12 g/dl in Gold Standard. Venous blood used for Gold Standard and Manual methods. Capillary blood used for PHb Meters and WHO-Colour Scale. Each method was compared with Gold Standard using SPSS 16.0 software.

Results: Among healthy people correlation coefficient and limits of agreement are as follows 0.972,(0.952,-0.432),0.974,(0.587,-0.735),0.781,(2.54,-1.036) for Gold Standard vs Manual method, Gold Standard vs PHb Meters and Gold Standard vs WHO Colour Scale method respectively.

Among pregnant women correlation coefficient and limits of agreement are as follows: 0.957, (1.048,-0.153), 0.542, (2.353,-1.957) ,0.408, (2.764,-2.116)for Gold Standard vs Manual method, Gold Standard vs PHbMeter and Gold Standard vs WHO Colour Scale respectively.

Conclusion: Haemoglobin assessment by Manual Method using venous blood has acceptable agreement with Gold Standard and it is concluded that the Manual method is clinically acceptable to analyze haemoglobin level among pregnant women. Haemoglobin assessment by PHb Meters using capillary blood showed unacceptable agreement for pregnant women and acceptable agreement for healthy people.

Haemoglobin assessed by WHO colour scale using capillary blood showed an unacceptable agreement for both pregnant women and healthy people. The results of this study showed that PHb Meters and WHO colour Scale are clinically unacceptable to analyze haemoglobin level in pregnant women.

Further studies are recommended to prove or disprove the clinical acceptability of PHb Meters when screening anaemia in pregnant women whose haemoglobin level varies during pregnancy.

Email of the Corresponding Author: upniluperera@gmail.com

ASSOCIATION OF SELECTED INFLAMMATORY MARKERS WITH LUMBAR DISC HERNIATION AND DEGENERATION

Withanage, N.D.¹, Pathirage, S.², Perera, S.³, Peiris, H.⁴, Athiththan, L.V⁴

1. Department of Allied Health Sciences, Faculty of Medical Sciences, University of Sri Jayewardenepura, Nugegoda, Sri Lanka.
2. Medical Research Institute, Colombo 08, Sri Lanka.
3. The Central Hospital, Colombo 10, Sri Lanka.
4. Department of Biochemistry, Faculty of Medical Sciences, University of Sri Jayewardenepura, Nugegoda, Sri Lanka.

Background: Lumbar disc degeneration and herniation (LDHD) is considered as the major contributing factor for low back pain. Although LDHD is a multifactorial condition recent studies have suggested that microorganisms play a possible role in LDHD.

Aim: To identify the association of selected inflammatory markers in LDHD patients with positive and negative lumbar disc cultures and to compare with controls.

Method: Test subjects were patients undergoing lumbar discectomy (n=104), while controls subjects (n=104) were healthy adults who did not obtain treatment for back pain for the past one month period and without having acute or chronic inflammation/infection. Surgically removed disc was taken for aerobic and anaerobic studies whereas muscle biopsies were used as controls. In order to prevent bacterial contamination of the skin, stringent aseptic procedures were followed; this included cleaning the skin of the surgical field preoperatively two times with 70 % (v/v) isopropyl alcohol and three times with povidone iodine solution prior to skin incision. Gram stain, coagulase and catalase test were performed for the isolates and RapID ANA II ID kit (remel, USA) was used for the identification of anaerobes. Venous blood samples were obtained from test subjects (prior to the surgery) and control subjects. Serum aliquots were analyzed for C-reactive protein (CRP) and high sensitivity CRP using KONE 20 XT auto analyzer. One-way ANOVA (Post Hoc) was used for statistical analysis using SPSS 20.0 version.

Results: Among 104 disc cultures, there were 18 (17.3 %) subjects with positive disc cultures; 12 were positive for aerobes (coagulase negative *Staphylococci* species) and 6 for anaerobes. Identified anaerobic cultures represented *Propionibacterium acnes* (n=2) and *Gemella morbillorum* (n=1). However, three anaerobic cultures could not identify due to slow growth. Mean CRP and hs-CRP were significantly higher in patients with LDHD and positive disc cultures (p=0.003 and p=0.021) when compared to controls. Further mean CRP and hs-CRP concentrations were higher in positive disc cultures (8.2 ± 12.7 mg/L and 5.1 ± 11.8 mg/L) when compared to those of negative disc cultures (6.2 ± 8.3mg/L and 3.9 ± 6.6 mg/L) and control subjects (3.4 ± 2.7 mg/L and 1.9 ± 3.1 mg/L).

Conclusion: Significantly higher CRP and hs-CRP were present in LDHD positive disc cultures when compared to control subjects. Increased level of CRP and hs-CRP in both microorganism positive and negative patients suggest the role of inflammatory changes in LDHD. Elevation of inflammatory markers, hs-CRP and CRP could be used as early inflammatory markers in clinical assessment of patients with LDHD.

Email of the Corresponding Author: withanagend@sjp.ac.lk

PP 53

THE CLINICAL UTILITY OF IMMATURE PLATELET FRACTION (IPF) IN DENGUE FEVER (DF), AND VERIFICATION OF THE REFERENCE INTERVAL OF IPF%

Dhammika, L.¹, Priyadarshane, R.A.D.T.², Jayarathne, H.J.M.B.R.¹, Rathnamalala, V.¹

1. Department of Hematology, National Hospital Sri Lanka
2. Base Hospital Diyathalawa

Background: Immature platelet fraction (IPF%) is a measure of reticulated platelets, which represents the rate of thrombopoiesis in bone marrow. It is a rapid and inexpensive novel underutilized parameter. IPF% is given as a parameter of platelets, in full blood count analysis performed by fully automated hematology analyzer equipped with a reticulocyte detection channel.

Aims: To assess the clinical utility of IPF% in DF, and to verify the existing reference interval for IPF% with comparison between two genders.

Methods: Descriptive cross sectional study was performed at the department of hematology, National Hospital, Sri Lanka from December 2016 to March 2017. Reference interval of IPF% was verified by analyzing data of 144 healthy individuals with normal full blood count parameters. The difference between mean IPF%, of two genders was compared. The IPF% and the platelet count of dengue patients were followed until recovery. Internal quality control was performed for IPF% and platelet count in tri levels (low, normal, and high) for entire duration of study period and monitored.

Results: The verified reference interval for IPF% was 0 - 5.8%. IPF% for gender subgroups did not reveal significant difference ($p > 0.05$). All DF patients showed rise in platelet count, when IPF% reached to the peak value and started falling off.

Conclusion: The verified reference interval for IPF% (0 - 5.8%) of study population showed a significant difference from manufacturer's reference interval for IPF% (0 - 10%). There is a pronounced relationship between the IPF% and the platelet count in diagnosed dengue patients which indicates the commencement of the recovery of platelets.

Email of the Corresponding author: ledhammika@gmail.com

SERUM MAGNESIUM REFERENCE INTERVALS IN A GROUP OF HEALTHY SRILANKAN ADULTS FROM AMPARA AND KANDY DISTRICTS

Shiffana, S.^{1,2,3*}, Sivakanesan, R.³, Dissanayake, D.M.A.K.⁴

1. Postgraduate Institute of Science, University of Peradeniya, Sri Lanka.
2. School of Medical Laboratory Technology, Peradeniya, Sri Lanka.
3. Department of Biochemistry, Faculty of Medicine, University of Peradeniya, Sri Lanka.
4. Teaching Hospital, Peradeniya.

Background: Reference intervals is the decision making tool. It may vary depending on age, sex, race, and diet. Since no reference intervals are available for Sri Lankans.

Aim: Establish reference interval for serum magnesium (Mg).

Method: One hundred and ninety five apparently healthy Sri Lankan adults between 20 to 60 years of age from Ampara [Muslims (64), Tamils (21) and Sinhalese (11)] and Kandy [Sinhalese (80), Muslims (12) and Tamils (7)] districts were recruited for the study. Ethical clearance for the study was obtained from Postgraduate Institute of Science, University of Peradeniya. Mg was measured using xylidyl blue method.

Results: Reference interval established considering 2.5th to 97.5th percentile for Mg was 1.17 - 2.24 mg/dl. No significant differences ($p>0.05$) were observed between gender and among age and BMI groups. The mean serum concentrations of Mg was significantly ($p<0.05$) higher in subjects from Ampara (1.68 mg/dl) than subjects from Kandy (1.58 mg/dl). Therefore separate reference intervals are proposed for Ampara (1.21 - 2.38 mg/dl) and Kandy (1.13 - 1.91 mg/dl) districts. Mean concentration of Mg in Muslims (1.72 mg/dl) was significantly ($p<0.05$) higher than Sinhalese (1.55 mg/dl). The mean Mg concentration in Tamils (1.62 mg/dl) showed no significant ($p>0.05$) differences with Sinhalese (1.55 mg/dl) and Muslims (1.72 mg/dl). The mean value of Mg reported from Hong Kong, North India, Basra and Singapore are higher than the results of the present study, possibly because of differences in the test procedure, dietary habits, life styles and ethnicity.

Conclusion: Each country should try to establish reference intervals that are representative of local populations. Districts wise and ethnicity wise reference intervals were established.

Email of the corresponding Author: sshiffana@gmail.com

PP 55

A PSYCHOLOGICAL STUDY OF BABY DELIVERY, POSTPARTUM DEPRESSION, AND SOCIAL SUPPORT IN SRI LANKA

Rathnayake, R.M.C.N.¹

1. Divisional Hospital Glennanore

Background: Though many researches have been conducted in many countries over the world regarding postpartum depression, there are only few studies have been done so far in Sri Lanka. But the studies according to statistics by country for postpartum depression and prevalence of postpartum depression in 2009 shows that there are 29,272 postpartum mothers in 19, 905, 1652 population Sri Lanka. Therefore it is very clear that postpartum depression is a big burden in Sri Lanka and wants to find the precipitating factors and the role of social support.

Aims: The purpose of this study was (1) to explain how postpartum depressed mothers appraise baby delivery and their life changes and (2) to explain how the social support they experience could buffer the postpartum depression.

Methods: Fourteen postpartum depressed mothers from the National Institute of Mental Health in Angoda, Sri Lanka were purposively recruited as informants. Based on qualitative study, information about cognitive appraisal and social support, as well as depression, was collected through non-participatory observation and in-depth interview.

Results: Results revealed that postpartum depressed mothers appraised pregnancy and baby delivery and their life changes negatively and they have received poor social support during their prenatal, delivery period and post natal period. Poor social support from their husbands, relatives, and hospital staff; death of the husband; unwanted pregnancy; and extra marital affairs of the husband were associated with negative appraisal of the pregnancy and baby delivery. It was also found that if they receive good social support from their closest persons and hospital staff in the beginning of the illness it could buffer the depressive symptoms. As well as they could recover from their depressive feelings more quickly.

Conclusion : postpartum depression is strongly associated with negative feelings and lack of social support during the pregnancy period and postnatal period specially from their closest people. as well as satisfactory social support can improve the negative symptoms of the illness and depression can be cured completely.

Based on these findings, several recommendations are made including providing knowledge about postpartum depression to society, educating the hospital staff who work with delivering mothers, improving the quality of service at the government hospital by providing more social support to the delivering mothers at delivery and after delivery; and giving advice to the husband and other close family members to provide support for the mother. Furthermore, a reproductive health program to provide knowledge and protect women's rights and women's reproductive rights should be established.

POSTER SESSION 12 – ENVIRONMENTAL HEALTH

PP 56

CHARACTERISTICS OF HOSPITAL WASTEWATER DISCHARGED FROM BASE HOSPITAL BIBILE

Kumara, A.M.I.U.¹, Yapa, Y.M.S.S.², Young, S.M.³, Amaraweera, T.H.N.G.¹

1. Department of Science and Technology, Uva Wellassa University, Sri Lanka
2. Postgraduate Institute of Medicine, University of Colombo, Sri Lanka
3. Department of Environmental Technology, University of Colombo, Sri Lanka

Background: Discharge of untreated hospital wastewater containing infectious materials, pathogens, toxic, and radioactive contaminant can result in environmental pollution and health problems. Detail investigation of hospital wastewater and its characteristics in base hospitals in Sri Lanka are rare. Further, hospital wastewater is directly discharged into the environment untreated.

Aim: The objective was to determine the current wastewater characteristics of Base Hospital Bibile to suggest the necessity in implementing a wastewater treatment plant to the hospital.

Methods: The samples were collected from wastewater outlets from the laboratory, laundry, wards, septic tanks, water purification plant and kitchen weekly over a period of three weeks. Eighteen physical, chemical and biological water quality parameters have been measured over a period of three weeks in four locations. The raw data is compared with standards of the National Environmental act of 2008 for effluents discharged to the environment.

Results: The results show that the water qualities for the three days are different from each other indicating that the inputs entering the water from the hospital vary daily. The Common Water Outlet has the maximum reading for conductivity reaching up to 84,900 ($\mu\text{s}/\text{m}$) on day two. The maximum values for Nitrate, Phosphate, Chemical oxygen demand (COD), Biological oxygen demand (BOD) and Suspended Solids are 14.6, 7.21, 221, 94.5, 480 mg/L respectively obtained in one of the three days. These values have exceeded the standards used for industrial effluents while the other discharge point parameters also exceed the standards.

Conclusions: It is highly recommended to design and implement a waste water treatment plant since the waste water currently discharged directly to the environment exceeds the standard values. The toxic material can easily enter the water bodies and cause health issues. A detailed study is also required to decide on an appropriate Treatment Plant.

Email of the Corresponding Author: ymssyapa@gmail.com

PP 57

THE INTERRELATIONSHIP BETWEEN DENGUE INCIDENCE AND DIURNAL RANGES OF TEMPERATURE AND HUMIDITY IN KANDY MUNICIPAL COUNCIL AREA AND ITS POTENTIAL APPLICATIONS**Ehelepola, N.D.B.**¹, Ariyaratne, K.²

1. Lanka Hydraulic Institute, Moratuwa, Sri Lanka.
2. The Teaching (General) Hospital-Kandy, Sri Lanka.

Background: Temperature, humidity, and other weather variables influence dengue transmission. Published studies show how the diurnal fluctuations of temperature around different mean temperatures influence dengue transmission. There are no published studies about the correlation between diurnal range of humidity and dengue transmission.

Aims: The objectives of this study were to determine the correlation between dengue incidence and diurnal fluctuations of temperature and humidity in Kandy and to explore the possibilities of using that information for better control of dengue.

Methods: We calculated the weekly dengue incidence in Kandy municipal council area during the period 2003–2012, after collecting data on all of the reported dengue patients and estimated midyear populations. Data on daily maximum and minimum temperatures and night-time and daytime humidity were obtained from two weather stations, averaged, and converted into weekly data. The number of days per week with a diurnal temperature range (DTR) of $>10^{\circ}\text{C}$ and $<10^{\circ}\text{C}$ and the number of days per week with a diurnal humidity range (DHR) of >20 and $<15\%$ were calculated. Wavelet time series analysis was performed to determine the correlation between dengue incidence and diurnal ranges of temperature and humidity.

Results: There were negative correlations between dengue incidence and a DTR $>10^{\circ}\text{C}$ and a DHR $>20\%$ with 3.3-week and 4-week lag periods, respectively (3.3 weeks after a week with DTR $>10^{\circ}\text{C}$ dengue incidence decreases and the same happens 4 weeks after a week with DHR $>20\%$). Additionally, positive correlations between dengue incidence and a DTR $<10^{\circ}\text{C}$ and a DHR $<15\%$ with 3- and 4-week lag periods, respectively, were discovered.

Conclusion: High DHR is unfavorable for dengue transmission. Our findings are consistent with the results of previous entomological studies and theoretical models of DTR and dengue transmission correlation. It is important to conduct similar studies on DHR in the future. There are prospects to use this information for local dengue control and to mitigate the potential effects of the ongoing global reduction of DTR on dengue incidence.

Email of the Corresponding Author: drehelepola@gmail.com

PP 58

GAPS IN OCCUPATIONAL HEALTH, FOOD SAFETY AND ENVIRONMENTAL HEALTH SERVICE DELIVERY IN NORTHERN AND EASTERN PROVINCES OF SRI LANKA

Wickramasinghe S. C.², Suraweera S.A.I.K.¹, Herath H. D. B.³, Wijesekara N², Senanayake SJ⁴

1. Environmental and Occupational Health Directorate, Ministry of Health
2. Ministry of Health
3. Anti-Malaria Campaign, Ministry of Health
4. Faculty of Medicine, University of Colombo

Background: Environmental and Occupational Health service delivery in Northern and Eastern provinces of Sri Lanka becomes very important with the rapid development that is expected in those provinces during the next decade.

Aim: To identify gaps in environmental, occupational health and food safety service delivery in Northern and Eastern provinces

Methods: A descriptive cross sectional study was carried out among the in-charge persons of small scale food manufacturing industries in two randomly selected districts each from Northern and Eastern Provinces. A small scale food manufacturing industry was defined as an institution with less than 50 workers and 400 such establishments were selected from each province. A. The sample was distributed among the two selected districts in a province according to probability proportionate to size of the population. Trained data collectors administered a pretested interviewer administered questionnaire.

Results: In charge persons of 806 small scale food manufacturing industries in four districts of Northern and Eastern Provinces were interviewed. Food handling establishments surveyed in both provinces lacked the basic requirements needed for a worker, such as separate toilet facilities (n= 302; 37.45%), separate meal room (n =612; 75.9%) and first aid facilities (n=751; 93.2%).

Collection by the Municipal Council was the main method of solid waste disposal used in both provinces. Diverting the liquid waste into a public drain was the main method (n=106; 26.1%) of liquid waste disposal in Northern Province while collecting into the backyard through drains was the main method (n=93; 23.4%) in the Eastern Province.

PHI has visited 88.3% (n=712) of the food handling establishments surveyed, during the previous year. According to the in-charge person interviewed, the assessment using the H800 had been done by the PHI in 44.0% (n=355) of the food handling establishments surveyed. However, it was physically available at the establishments only in 26.2% (n=211) of the establishments surveyed.

Conclusion: Gaps were evident in environmental, occupational health and food safety service delivery in Northern and Eastern provinces which need urgent attention.

Email of the Corresponding Author: sam197902@gmail.com

PP 59

CITY DWELLERS VIEW AND ATTITUDE TOWARDS NEWLY IMPLEMENTED WASTE SEGREGATION PROGRAM IN COLOMBO MUNICIPAL COUNCIL, SRI LANKA

Prakash, T.G.S.L.^{1,2}, Mirihana, M.K.P.S.³

1. Ministry of Health, Nutrition, and Indigenous medicine, Sri Lanka
2. Department of forestry and environment science, University of Sri Jayewardenepura, Sri Lanka
3. Public Health Department, Colombo Municipal Council, Sri Lanka

Background: Non availability of proper mechanism to segregate municipal solid waste makes the management more difficult in Sri Lanka. As an initial step of waste segregation all Municipal Councils in Sri Lanka were advised to segregate waste as biodegradable and non-biodegradable prior to collection effective November 01, 2016.

Aim/s: To explore the view and attitude of city dwellers of Colombo Municipal Council (CMC) area towards this waste segregation program after three months from the implementation.

Methods: Random sampling method was used to select respondents (n=68) and data collection was done through a pretested Self-administered questionnaire survey. Data analysis was done with Microsoft excel 2010.

Results: The respondents' mean age was 40 (± 13.4) and belonged to 19 occupations. Eighteen (26%) house wives and 2 (3%) unemployed. Majority of 28 (41%) have passed G.C.E. Ordinary level examination. Twenty one (31%) have less and 19 (28%) have higher education qualification than G.C.E. Ordinary level. The study found out that waste segregate percentage has increased up to 90% following the new program. Fifty percent of respondents (n=34) thought that the program was successful. Rest of 16% (n=11) had neutral thoughts and 21% (n=14) thought that the program was not successful. However, 13% (n=9) has not responded. Fifty four percent (n=37) thought that this begins a sustainable future [18% (=12) - deceive the public, 9% (n=6) - distress the public, and 3% (n=2) - defaults CMC responsibility]. Eighty seven percent (n=59) thought that the program was essential and the rest (n=9) thought that it was not essential. Sixty nine percent (n=47) thought that segregation was a responsibility of waste generator, 26% (n=18) CMC responsibility, and 5% (n=3) no one responsibility. Forty eight percent (n=33) like to bear the cost of segregation by segregating their waste by themselves, 34% (n=23) need CMC to provide bags for segregation, 13% (n=9) think cost should manage by CMC through assessment tax. 5% (n=3) like to pay additionally to CMC for segregate their waste.

Conclusion: Majority of the city dwellers have positive attitude towards newly implemented waste segregation program in Colombo Municipal Council, Sri Lanka. However, continue effort to drive the outliers towards the objective could be recommended to make this event success.

Email of the Corresponding Author: prakashtgsl@gmail.com

PP 60

CURRENT DISPOSAL MODALITIES, KNOWLEDGE, ATTITUDES AND ITS CORRELATES ON ELECTRONIC AND ELECTRICAL WASTE AND ITS MANAGEMENT AMONG GRADE TEN STUDENTS IN MEDICAL OFFICER OF HEALTH AREA NIVITHIGALA

Weerakoon, W.M.K.P.¹, Suraweea, S.A.I.K.²

1. Post Graduate Institute of Medicine, University of Colombo
2. Environmental and Occupational Health Directorate, Ministry of Health

Background Information: Economic and social development due to technological revolution has led to an increased demand for the production and consumption of electronic and electrical equipment (EEE). Disposal of waste EEE in an unsound manner has created significant public health problems needing urgent attention world over and Sri Lanka is no exception. To achieve the desired e-waste management, community participation is essential as it should start from the household level. Considering the current trend, EEE would be easily accessible and will become a basic need in the life of future generations. So the motivation and good attitudes among the children are essential for sustainability of the e-waste management in the country.

Aims: This cross sectional study was conducted to describe the current disposal modalities, knowledge and attitudes on e-waste and its management and to determine its correlates, among grade ten students in the MOH area of Nivithigala.

Methods: Data was collected among all the eligible 570 students in type 1AB, 1C and type 2 schools in Nivithigala MOH area without sampling, using pretested self-administered questionnaire. Usage at household level was evaluated as the availability of equipment on six EEE categories and usage pattern was assessed according to the number of equipment groups. Availability of more than three groups was categorized as high usage. Disposal was assessed using seven common methods. Knowledge on e-waste was assessed under the definition of e-waste, examples for e-waste, contents of e-waste, health and environmental hazards and safe disposal practices. The attitude on e-waste was assessed by using questions on attitude on e-waste generation procedures, discarding EEE and the safe e-waste disposal. 4 point likert scale was used. Having more than 55% for knowledge and attitude considered as satisfactory. Analysis was done descriptively while associations were assessed by using chi-squared test at 5% significance level.

Results: High usage pattern (65.8%, n=360) of equipments at household level was found among two thirds of the study participants. With regards to disposal, 25.8% (n = 141) handed over to a recycler while 22.1% (n = 121) dumped the e-waste into a garbage pit. Among 73.1% (n= 400) who claimed they knew, only 56.5% (n = 226) were able to select the correct definition of e-waste. However, 91.6% (n =501) knew that e-waste is hazardous and 79.7% (n=435) knew about the safe disposal methods. Though overall knowledge was satisfactory in 55.6% (n = 304) it was revealed that 54.5% (n = 298) had unsatisfactory attitudes on e-waste and its management. However, 65.5% (n = 376) positively responded that they could promote safe practices among the family members. Attitudes and knowledge showed a statistically significant association ($\chi^2 = 27.9, p < 0.001$).

Conclusion: Priority shall be given to improve the knowledge on e-waste identification, contents in the e-waste and the different ways which these elements would contribute to health and environmental hazards due to unsafe disposal and safe disposal practices

Email of the Corresponding Author: kumuduweerakoon21@gmail.com

PP 61

EARLY CHILDHOOD DENTAL CARIES AND PREVENTION

Rameskumar,S¹, Sithy Safna, M.B², Appu Thanthirige, D³, Sathananthan, J⁴, Wanasinghe, W.K.W.K.W⁵, Subaskaran,S⁶

1. Dental unit, Teaching Hospital, Jaffna
2. Dental Department, RDHS Division, Kalmunai
3. National Hospital of Sri Lanka
4. National Hospital of Sri Lanka
5. Infectious Disease Hospital, Angoda
6. Ministry of Health

Background: Early childhood caries, also known as baby bottle caries, baby bottle tooth decay, and bottle rot, is a disease characterized by severe decay in the teeth of infants or young children. Early childhood caries (ECC) is a very common bacterial infection.

Aim/s: To describe the knowledge, attitudes and practices on childhood dental caries and its prevention and associated factors, among pregnant mothers attending antenatal clinics in Kopay Medical Officer of Health Area.

Methods: This was a descriptive cross-sectional study and the study setting was the Kopay MOH area. The study population was the antenatal mothers attending dental clinic in PU/ Kopay and the sample size was 393. Data collection was carried out by trained data collectors who were Tamil speaking A/L passed students. The study instrument was an interviewer administered questionnaire developed by the PI. Data analysis was done using SPSS 15.0 with relevant statistical tests.

Results: Four hundred and twenty five antenatal mothers from Kopay MOH area who attended the dental clinic in Kopay hospital were included in the study. Among them more than three quarter (79.2%) correctly knew that they should brush the child's teeth twice daily. Only 4.0% knew soft drinks also a high risk food item. There is discrepancy between knowledge and attitudes and knowledge and practices by 10-20% drop.

Conclusion: The results revealed that knowledge of the mothers was satisfactory in some areas like brushing of teeth and number of times and symptoms of childhood dental caries and poor with high risk food items causing dental caries. Attitudes and practices were not satisfactory with majority of the mothers amidst comparatively good knowledge fail to practise that. High level of education and income were associated with good knowledge. It is important to conduct behavioural change modification programmes for mothers on prevention of childhood dental caries, as the knowledge is satisfactory.

Email of the corresponding author: saseelasubash@yahoo.com

PATTERN OF DENTAL ILLNESSES AND SOCIODEMOGRAPHIC FACTORS OF PATIENTS PRESENTED TO THE RESTORATIVE DENTISTRY UNIT- TEACHING HOSPITAL KANDY, SRI LANKA

Jinadasa, M.V.N.¹, Rupasinghe, I.P.K.¹, Dissanayake, D.M.M.¹, Ajith, B.P.¹, Yapa, R.Y.M.V.U.K.¹, Jayasinghe, P.P.²

1. Teaching Hospital Kandy
2. Department of Community Medicine, Faculty of Medicine Peradeniya

Background: Restorative Dentistry is the study, diagnosis and integrated effective management of diseases of the oral cavity, the teeth and supporting structures. This includes rehabilitation of teeth and oral cavity to functional, psychological and aesthetic requirements of the patient. The services provided by the government specialized restorative dentistry unit are distributed in a vast spectrum of patients including every age group and every social class.

Aims: To describe the Sociodemographic profile, illnesses and outcome of patients presented to the Restorative Dentistry Unit Teaching Hospital Kandy, Sri Lanka.

Methods: A descriptive cross sectional study was conducted among 423 patients from November 2015 to October 2016. Systematic random sampling technique was applied with an interviewer administered structured questionnaire for data collection. Data was analyzed by using SPSS version 23.0

Results: There was a Sinhala Buddhist female predominance (63.4%), majority were educated up to Ordinary level (64%). Mean age was 34.5 years (SD: 8.7 years) Majority presented with a spontaneous onset tooth ache (67.3%). Majority (72.4%) had at least one carried tooth. Majority (82%) had periodontal plaque. Discoloration of teeth was the problem with 43% of participants. Majority were followed up at the clinic. Dental caries were associated with the educational level and the age of the patient. Majority of the patients with dental caries had studied up to ordinary level (OR=1.71:95%CI=0.76-2.83) and more than 40 years old (OR=1.48:95%CI=0.86-3.42). History of trauma to teeth was identified as a favourable factor for periodontal plaques (OR=1.25:95% CI=0.91-3.74) and discoloration of teeth (OR=2.13:95%CI=0.67-3.21). Majority (74%) of people presented after more than one year from the onset of the dental problem.

Conclusion: Prevalence of dental caries and periodontal complications were high among patients presented to the clinic. Majority of the problems were not settled by a single visit. Primary preventive methods for dental caries and periodontal complications should be implemented widely and surveillance of relapses of problems should be considered. More attention should be paid regarding the improvement of dental health of the adults. Programmes targeted to encourage seeking dental advice as soon as the detection of the dental problem should be conducted.

Email of the Corresponding Author: nadikajinadasa@gmail.com

PP 63

ASSESSMENT OF SELECTED FACTORS ON AFTER MEAL TOOTH BRUSHING IN KALUTARA MEDICAL OFFICER OF HEALTH (MOH) AREA

Chintha Sepali HA¹

1. Oral Health Institute Maharagama

Background: Oral health is fundamental to overall health. A healthy mouth enables people to eat, speak well and socialize in the community. According to 2001/2002 oral health survey, prevalence of dental carries in the age group. 12 –15 years was 39.17% - 52.27 and the national value for prevalence of periodontal disease in the same age group was 11.79% - 61.82%. Both Dental carries and periodontal diseases are related to brushing habits especially after meals and before going to bed.

Aim: To describe selected factors on after meal tooth brushing among grade eight students in Kalutara MOH area

Methodology: Descriptive cross sectional study was carried out. A total of 360 grade eight students were included in the study. Random Systematic Sampling was used as the sampling method. A pre tested self-administered questionnaire and a check list were used as data collecting tools. Data was analyzed using Microsoft Office 2010.

Results: A total of 54.09 % of children brushed their teeth after every meal while 40.01% of them brushed teeth only once during the day. Majority of the students included in the study, specially 13 -15 year age group, were well informed about the correct tooth brushing frequency and the method of selecting and preparing a brush for their oral hygiene maintenance. However, majority of students did not apply this knowledge in to their day to day practice.

The majority had adequate brushing facilities at home. The parents who have passed at least O/L & work either in government or private sector were the largest groups which motivated their children to brush teeth after meal.

Conclusion: It is important to make the children more aware of the importance of after meal tooth brushing and also convert this awareness in to practice through behavior modification programs by addressing laziness and time management.

Email of the corresponding Author: chinthasepali6@gmail.com

EPIDEMIOLOGICAL FACTORS OF TRAUMATIZED PERMANENT ANTERIOR TEETH, TREATMENT OUTCOME AND COMPLICATIONS OF COMPLICATED CROWN FRACTURES, AT RESTORATIVE UNIT, SOUTHERN SRI LANKA

Abeygunawardhana, S.N.W.¹, Kottahachchi, M.J.¹, Mahappukorala, W.¹, Mendis M.P. S.¹, Kumara, W.A.G.I.², Jayani, W.K.²

1. Restorative Unit, Teaching Hospital, Karapitiya
2. Teaching Hospital, Karapitiya

Background: Traumatic dental injuries are odontological emergencies and important health problem because of their high prevalence and large impact on individuals' life. Anterior permanent incisors have a major value functionally and aesthetically. Therefore it is vital to assess the causes, type of trauma, age of occurrence, seasonal trends, time of presentation and treatment outcomes.

Aim/s: This study was done to describe the epidemiology of traumatic anterior permanent teeth, treatment outcome and complications of complicated crown fractures in patients presented to Restorative Unit, Teaching Hospital-Karapitiya

Methods: This was a descriptive study with retrospective data extraction. All the patients (n=768, Age range (7yrs–78yrs) presented with traumatic anterior permanent teeth from 2012 to 2016 who completed one year follow up, were selected excluding teeth with previous pulp treatments. Data was extracted from the detailed trauma sheet which maintained for each patient with follow-up records.

Results: Commonest age group was 7-10yrs (32%) with male predominance (79%). Common teeth involved were upper central incisors (63%). Road traffic accidents (49%) and falls (32%) were common causes. 16.5% showed seasonal trends during school holidays and festival seasons.

From all traumatic injuries, 21% were complicated crown fractures. Only 15% of those presented within 24 hrs. Treatment provided at the first visit was direct pulp capping (16.5%), partial pulpotomy (23%) and pulpectomy (44.5%). Unrestorable teeth (2%) were extracted and replaced with dentures. From the teeth which received vital pulp therapy, 61% of teeth remained vital. Thirty nine percent needed further pulp therapy during follow up visits due to complications. Nineteen percent of complicated crown fractured teeth were immature and 32% of those remained vital at one year follow-up. There was a significant ($p < 0.05$) positive correlation with early treatments and maintenance of vitality ($r = 0.1$).

Seventy eight percent completed treatment at one year follow-up. Twelve percent completed treatment but loss to follow up after 6 months review. Two percent are still on treatment.

Conclusion: Main aetiological factors for traumatic injuries were Road traffic accidents and Falls with male predominance. Significant percentage received vital pulp therapy and remained vital at one year follow up. Prompt and timely intervention can greatly improve the prognosis. Measures need to be taken to reduce the percentage of loss to follow-up for better treatment outcome.

Email of the Corresponding Author: shirnilmi@gmail.com

EARLY CHILDHOOD CARIES BURDEN AMONG PRESCHOOL CHILDREN OF GALLE MUNICIPAL COUNCIL AREA: AN INTERVENTION FOR IMPROVEMENT

Abeygunawardhana, S.N.W.¹, Kottahachchi, M.J.¹, Perera, I.R.², Jayasinghe, M.³

1. Restorative Unit, Teaching Hospital, Karapitiya
2. Preventive Oral Health Unit, National Dental Hospital (Teaching), Colombo
3. Faculty of Dental Sciences, University of Peradeniya

Background: Early childhood caries (ECC) is the presence of one or more primary teeth with caries (cavitated or non-cavitated) in a child 71 months of age or younger. 65.5% of 5-year-olds and 32.2% of 1-2 year olds suffer from ECC with 95% untreated caries. It is a significant burden to cater by School Dental Services. ECC is associated with pain, inability to eat. Premature loss of deciduous teeth affects healthy permanent dentition, proper nutrition, language patterns and aesthetics.

Aim/s: To assess the disease status before and after intervention among preschool children of Galle Municipality. The intervention aimed to improve their oral health status and parental knowledge.

Methods: Caries assessment according to the International Caries Detection & Assessment System (ICADS 11) of 408 children and Focus Group Discussion of parents were conducted. As an intervention, Fluoride Varnish application on needy children and health education sessions were conducted. Improvement was assessed after 6-months using same method.

Results: 48% had distinct enamel caries, 29% with distinct cavity and 25% with extensive cavity. 58% were with dmft>0 and 55% had at least 1 decayed tooth. 10% had at least 1 tooth extracted due to caries and 3% had filled teeth. 82% of children never visited to a dental clinic where as 88% not seek dental care even with active caries and 67% with symptoms. There was a significant negative correlation between caries status and their service utilization. 22% parents perceived that it was unnecessary to visit a dental clinic if child is not complaining. This decreased up to 5% after intervention. The awareness about regular checkups was improved from 15% to 75%. Awareness of importance in early detection of ECC to avoid caries progression was improved from 20% to 70% with intervention. Caries were arrested in 89% who underwent fluoride varnish application. 53% demonstrated oral hygiene improvement, 40% maintained the same level but 7% showed progressive caries. From all referrals, 52% utilized services. Filled teeth component improved up to 25%. The reduction of active caries after intervention was statistically significant ($p < 0.05$).

Conclusion: The intervention deemed successful to reduce the ECC burden of these preschool children and to improve their dental service utilization.

Email of the Corresponding Author: mudithajk@gmail.com

SOCIO-ECONOMIC BACKGROUND OF THALASSAEMIC PATIENTS ATTENDING NATIONAL THALASSAEMIA CENTRE AND COMPARISON OF THEIR ORAL HEALTH WITH HEALTHY POPULATION

Kularatne, W.N.¹, Jayasinghe R.M.², Diyunugala M.C.³, Bandara, D.⁴, Abeyesundara, S.⁵, Perera, I

1. Restorative Dentistry Unit, Teaching Hospital, Kandy
2. Faculty of Dental Sciences, University of Peradeniya
3. Teaching Hospital, Kurunegala
4. Base Hospital, Matale
5. Faculty of Science, University of Peradeniya
6. Community Dental Unit, Dental Institute, Colombo

Background: Thalassaemias are a heterogeneous group of inherited disorders of haemoglobin synthesis with variable oral and dental features compared to healthy population.

Aims: Our aim in this study was to investigate the socio-economic background and to compare the extra oral features and oral health status of thalassaemic patients, with healthy individuals

Methods: The data were collected by means of a questionnaire and an examination. Patients attending out-patient department with age, sex matched were considered as the control group. Both groups were compared in terms of facial profile, skeletal pattern facial angles, DMFT and periodontal health (plaque index, bleeding on probing and probing pocket depth). SPSS 17 software was utilized for statistical analysis.

Results: Ninety seven point two percent of them were unemployed as majority of them were in the schooling age. 40% of their fathers were unskilled labourers. Analysis of the association between FMPA and gender indicated that the female predominance with average FMPA is significant at p value less than 0.05.

The association between convex facial profile, class II skeletal pattern and the thalassaemic status were statistically significant when compared with healthy individuals. Decayed, missing and filled teeth in the permanent and deciduous dentition of the control group (1.79) were significantly higher than thalassaemic group (0.85) ($p < 0.001$). Plaque index (201 in control group and 47 in thal group) and probing pocket depths (120 in control group and 31 in thal group) were also significantly higher in the control group than the thalassaemic ones. ($p < 0.001$)

Conclusions: Families of thalassaemic patients attending national thalassaemia center are from a low socioeconomic class. Their DMFT and periodontal health are significantly better than healthy individuals. However, oral health preventive measures will be beneficial to maintain same oral health status during adulthood in order to improve their quality of life. The association between convex facial profile, class II skeletal pattern and the thalassaemic status needs further investigations.

Email of the corresponding author: manoripathiraja@yahoo.com

PP 67

EPIDEMIOLOGY, INJURY PATTERN, SEVERITY OF INJURIES AND RISK FACTORS OF ROAD TRAFFIC ACCIDENT CASES AT A GENERAL SURGICAL UNIT OF A TERTIARY CARE HOSPITAL IN SRILANKA

Bandara, W.A.K.¹, Wijesundara, W.N.T¹, Premathilake, T.L.¹, Wikkramasooriya, W.M .C. B.¹, Niyas, S.M.M.¹

1. General Surgical Unit II, General Hospital (Teaching) Kandy, Sri Lanka.

Background: Road traffic accident (RTA) has become an important cause of morbidity and mortality in Sri Lanka and worldwide. Rapidly developing roads with highway circuit, increasing number and types of vehicles, increasing road users, and rise in alcohol and other narcotic usage are seems to be affecting the number, severity and types of injuries.

Aims: To give high quality updated data of RTA injury pattern to optimal utilization of health care resources. Further studies at regional and institutional level is needed in view of minimize RTA and to explain the recent surge of RTA incidents in Sri Lanka.

Methods: This is a descriptive, prospective study of patients admitted following RTAs to the General Surgical Unit II, General Hospital (Teaching) Kandy Sri Lanka, from 1st December 2014 to 31st May 2015. Study Instrument was an interviewer administered questionnaire. Severity of injuries was assessed using Injury Severity Score (ISS).

Results: Out of 4727 of total general surgical admissions 303 (6.40%) were RTA victims. Males were 207 (79.92%). Highest affected age group is 21-40 years 122 (48.6%). Most of accidents were occurred during the daytime (6.00am- 6.00pm) 173 (66.79%), 80.46% were on carpeted roads, 102 (39.38%) were following motorbike accidents, and 99 (38.22%) were three-wheeler accidents. Out of RTA victims 130 (50.19%) were drivers, 97 (37.45%) were passengers and 32 (12.35%) were pedestrians. 59 (46.45%) drivers were met with accidents within the first 15 minutes of driving. Out of the RTA victims 97 (37.59%) were alcohol users, 99.61% had less severe injuries (i.e. ISS<15), 39.9% of victims had abrasions, 33.01% had lacerations, 36.51% had lower limb injuries, 28.37% had head and neck injuries and 93.98% of injuries were due to primary impact.

Conclusions: Younger age groups and males were predominantly victimized by RTA. Most accidents occurred during the daytime and within first 15 minutes of driving. However injuries are less severe in this cohort. It needs further evaluation and urgent attention to prevent RTA by educating the affected groups. Teaching road safety in the school curriculum will be helpful.

Email of the corresponding author: wakbandara@gmail.com

PP 68

ANALYSIS OF SEVERE TRAUMATIC BRAIN INJURIES IN TERTIARY CARE UNIT IN SRI LANKA

Peiris, B.H.D.R.1, de Silva, D.U.2, de Silva, K.H.R.2, Basnayake, B.M.G.S.K.2, Wasala, T.A.S.2, Siripala, P.A.2

1. Lady Ridgeway Hospital Colombo
2. National Hospital Of Sri Lanka

Background: Each year, traumatic brain injuries (TBI) contribute to substantial number of deaths and cases of permanent disability.

Aim/s: To evaluate and describe the epidemiological and clinical characteristics of patients with severe traumatic brain injury (TBI-with GCS<9) and their clinical outcomes following admission to ICU in National Hospital of Sri Lanka.

Methods: A retrospective analysis was carried out using data extracted from bed head tickets. Consecutive sampling was taken during the period of three months(01/10/2015-31/12/2015).

Results: A total of 411 cases of severe TBI were admitted to ICU amounting 4.47 per day. Males outnumbered females by a ratio of 80%:20%. Majority from the age group of 40–60 years(35%) followed by over 60 (26%), 20-40 (24%) and 0-20 (15%). RTA continued to be the leading cause of TBI 60% (247) and next was falls 25% (101). Violence accounted for 9% (38). SDH found on 159 patients followed by ICH(147), EDH(130), SAH(119) and 17 patients had only DAI while 11 had only concussion. Out of 130 EDH only 59 patients had skull fractures. Less than 20 and 20-40 age groups more prone to get EDH followed by SDH, SAH and ICH while 40-60 group SDH, ICH, SAH, EDH and more than 60 years ICH, SAH, SDH & EDH. Out of 411 patients 296 patients(73%) were operated and other 27% were managed conservatively. Majority of the patients(79%) were sent to wards, while only 9% were transferred to the other hospitals. There were 48 deaths(12%) in the ICU. Deaths were more common in 60+ age group(23.7%) followed by 40-60 (9.4%). Deaths of DAI patients were 52.9% followed by ICH, SAH, SDH and EDH.

Conclusion: Urgent preventive measures targeting at reducing the occurrence of RTA is necessary. Since the economically productive age-group were mostly involved calls for an urgent public policy response.

Email of the corresponding author: peirisdil@gmail.com

PREVALENCE OF DIABETES MELLITUS IN TUBERCULOSIS PATIENTS IN ANURADHAPURA DISTRICT OF SRI LANKA AND ITS INFLUENCE ON TREATMENT OUTCOME

Waidyaratne, R.A.D.K.M.D.¹, Niranjala, M.W.S.², Waidyaratne, D.L.²,

1. District Chest Clinic, Anuradhapura.
2. Teaching Hospital, Anuradhapura.

Background: Though tuberculosis (TB) is curable, 10 million fall ill and 1.7 million die annually. 60% TB deaths were associated with co morbidities including diabetes mellitus (DM). DM is known to increase risk of TB, deaths, relapses and multi drug resistant tuberculosis (MDR-TB).

Aim/s: To assess the prevalence of DM among TB patients and evaluate influence of management of DM for success of TB treatment.

Methods: Patients registered were screened by random blood sugar (RBS) testing on each visit for anti-tuberculosis treatment (ATT). Those with RBS above 140 mg/dl were investigated with fasting and two hour blood glucose levels (PPBS) and *Hb A_{1c}*. Diabetics were managed with dietary advice, behavioural modifications and commencement of hypoglycaemic drugs or dose adjustments if already on treatment. Continuous follow-up was done and TB treatment outcome was evaluated.

Results: Out of 150 registered, 136 patients, 108 (79.4%) men with mean age of 50.01 and 28(20.6%) women with 41.28 years were included, where 105 (77.2 %) were direct smear positive and 16 (11.76%) negative pulmonary TB cases while 20 (14.7%) were extra pulmonary TB. Twenty four (7.35%) were known diabetics and 48 were identified during study as diabetics.

A treatment success rate of 97.92% with a death rate of 2.08% was the TB treatment outcome in study population. However, 15 out of 48 (31.3%) diabetics remained uncontrolled with high plasma glucose levels at the end of 6 month successful ATT course.

Conclusion: By treatment of both conditions with close supervision and monitoring, higher TB treatment success rate could be achieved in 35.2% TB patients who had co existing DM. TB death rate was significantly reduced. Screening diagnosed TB patients with RBS levels by glucometer facilitated detecting of a 17.6% new cases of DM. Screening TB patients for DM as well as screening of DM patients for TB is highly beneficial.

Email of the Corresponding Author: kmdrwaidya@gmail.com

SCREENING PROFILE AND SOURCES OF AWARENESS ABOUT NON COMMUNICABLE DISEASE SCREENING AMONG ATTENDEES AT HEALTHY LIFESTYLE CENTRE, DISTRICT GENERAL HOSPITAL, KEGALLE

Nanayakkara, S.A.¹, Illangakoon, R.A.¹, Najumudeen, F.A.¹, Kumarasiri, H.A.¹, Ranasinghe, S.M.¹

1. District General Hospital, Kegalle

Background: Screening apparently healthy individuals is a strategy used in controlling Non communicable Diseases (NCDs). The Ministry of Health has established Healthy Lifestyle Centres (HLCs) in primary health care institutions to provide NCD screening facilities. As the screening is voluntary, it is essential to make the public aware of the service to make it a success.

Aims: To study the screened profile and sources of awareness about NCD screening.

Methods: A descriptive cross sectional study was conducted among the attendees at the HLC in DGH Kegalle from 28th April 2016 till 27th April 2017. The source of information about the HLC was assessed by an interviewer administered questionnaire. Blood pressure, BMI and FBS/RBS levels were recorded.

Results: During the period of study, 1023 individuals were screened. The mean age was 47.8 (SD 7.6) years. There were only 16.9% males. 49.7% were aware by sensitization talks given by the HLC staff and the rest were as follows:- 30.8% from a friend, 6.6% from posters, 4.1% from OPD, 0.7% from GPs, 0.2% from media, 3.1% from the Public Health field staff (PHI/PHM) and 4.8% by more than one of the above mentioned sources. On examination, 37.5% were overweight (BMI 25 – 29.9), 9.6% were obese (BMI >30), 26.3% had a family history of Diabetes Mellitus (FBS>126mg/dl or RBS>200mg/dl).

Conclusions: Majority of the HLC attendees were females. Awareness and referrals from OPD, GPs and Public Health field staff was minimal. Peer group influence on screening awareness is significant. Planned interventions are needed to encourage more male participation and to get more referrals from the OPD and the field level.

PP 71

BODY MASS INDEX (BMI) AND IT'S ASSOCIATION WITH DIET AND EXERCISE AMONG MEDICAL STUDENTS; ARE FUTURE DOCTORS AT RISK OF NON-COMMUNICABLE DISEASES

Wickramasinghe W.W.A.J.K

B¹. Jayawardhana S.M.P.C¹. Padeniya P.S.M.A.B¹, Rathnayeka R.M.T.M¹.

1. Department of Paediatrics, Faculty of Medicine and Allied Health Sciences, Rajarata University

Background: Underweight and obesity are major risk factors for Non-communicable diseases (NCDs) in adulthood which lead to 63% of mortality in worldwide. This study gives insight to medical students to keep BMI in normal range

Aim/s: This study was conducted to determine the distribution of Body Mass Index (BMI) among medical students of Faculty of Medicine and Allied Health Sciences in Rajarata University and association with exercise and dietary habits.

Methods: A descriptive cross sectional study was conducted among medical student of Faculty of Medicine and Allied Sciences of Rajarata University from 01.06.2016 to 15.06.2016. Their height and weight were recorded using standard methods and BMI was calculated. BMI was categorized as <18.5=Underweight, 18.5–22.9=Normal, 23–24.9=Overweight, 25–29.9=Pre-Obese and >30=Obese. Self-administered questioner was distributed among medical students regarding their types of foods, frequencies, exercise etc.

Results: There were 395 of students of this study sample. Mean age is 23.43 years, SD 1.73. There were 142(39.9%) of males and 253(64%) of females. Mean BMI is 22.44, SD 3.59. 23(5%) males and 57(14%) of females were in underweight category while 65(16%) males and 69(17%) females were in overweight or obese category. The mean BMI of males was 20.3, (SD= 6.8) and among 20.2 (SD=5) females. 277 students could remember their past BMI which was measured before minimal period of 3 months. The mean past BMI was 20.78 and the present mean BMI is 21.31. The increment of BMI was significant. (Pared t = 5.025, p = 0.001). Only 50 (12%) students allocated time for exercise. The BMI is significantly higher among those who are engaged in exercise compared to non-exercising group. (Chi square= 0.014, p=0.11). The average number of student who consume high fatty diet for breakfast, tea break and dinner was 42(10.6%), 43(10.6%) and 43(10.6%) respectively. There is no significant association with BMI and academic performance of students.

Conclusion: Students with higher BMI were more careful on their BMI. A considerable number of students consume unhealthy foods. Even though medical students have knowledge on importance and risk behaviors for NCDs our data shows inadequate care and practices towards healthy life. New strategies must be implemented to improve health status among medical students

Email of the corresponding author: amilakasunw@gmail.com

KNOWLEDGE AND ATTITUDES TOWARDS NON COMMUNICABLE DISEASES (NCD) AND HEALTHY LIFESTYLE CLINICS (HLC) AMONG TARGET GROUP (AGE 35-65) IN THE MENIKHINNA MOH AREA OF THE CENTRAL PROVINCE OF SRI LANKA

Dayaratna, S. N.¹, Weerakoon, A.P.², Hettiarachchi, A.³, Jayawardana, U.⁴, Nilmani M.M.E.⁵

1. District Hospital, Menikhinna
2. PDHS Office, Central Province
3. SBSCH, Peradeniya
4. MOH, Menikhinna
5. District Hospital, Katugastota

Background: Non Communicable Diseases (NCD) account for 82% deaths globally and 71% in Sri Lanka. Hypertension, Obesity, Hyperglycemia and Hyperlipidemia are main risk factors. National policy and strategic framework for prevention and control is formulated by the Ministry of Health. Establishing Healthy lifestyle Centers (HLC) in every MOH areas has commenced in 2011 for screening of people between 35-65 ages. The goal of the NCD prevention program is to reduce premature mortality by 2% annually.

Aims: to describe the knowledge and attitudes towards NCDs and HLCs among target population and to identify the barriers to attending HLC.

Method: Series of Focus Group Discussions were conducted with Health workers, Community leaders, Clients of HLC and Target population not attending HLC. Data was analyzed qualitatively.

Results: Clients are reluctant to attend HLC as they feel healthy; services and facilities at HLC not satisfactory; increased waiting time; busy with day-to-day activities; they do not consider it worth attending; no motivation to participate; fear of invasive investigations; fear of finding a disease and social stigma; feeling private sector is better. In order to increase participation their suggestions were repeated awareness programs, motivate health staff and community leaders to educate clients ,training of health staff for proper conduction of HLCs, proper public relationship, appointment system, HLCs on Saturdays and Sundays for working people, on the spot screening, no outside investigations and cutting down of waiting time.

Conclusions: Majority of participants have a fairly good awareness about NCDs and their complications .But majority are not happy and feels not worth attending HLCs due to poor services and lack of facilities at HLCs, feeling healthy and lack of time mainly. Poor attitudes among health workers and community are the major obstacles to attend HLCs. Community awareness, motivation, improving health sector facilities and services at HLCs, staff training, proper guidelines and evaluation system should be improved to achieve targets.

Email of the Corresponding Author: sndkandy@gmail.com

COST OF ROAD TRAFFIC CRASHES IN A DEVELOPING COUNTRY, SRI LANKA

Amarasinghe, P.G.¹, Dharmaratne, S.D.², Bandara, M.R.S.S.³, Amarasinghe, J.N.P.⁴

1. Office of the Provincial Director of Health Services, North Western Province, Kurunegala, Sri Lanka.
2. Department of Community Medicine, Faculty of Medicine, University of Peradeniya, Sri Lanka and the Institute for Health Metrics and Evaluation, Department of Global Health, School of Public Health, University of Washington, Seattle, USA.
3. Regional Office, Anti-Malaria Campaign, Kurunegala, Sri Lanka.
4. Nutrition Coordination Division, Ministry of Health, Sri Lanka.

Background: Road Traffic Crashes (RTCs) kill an estimated 1.24 million and injure 20 to 50 million people each year, globally. Sri Lanka is facing the growing burden of RTCs due to the exponential growth in motorization causing a heavy burden on national and household economies.

Aim: To estimate the cost of RTCs recorded at police stations in Kurunegala Police Division (KPD) in Sri Lanka.

Methods: A descriptive, cross-sectional study was conducted for 9 months in 2013, which included all the RTCs recorded at the ten police stations situated in KPD. Data was collected using an interviewer administered structured questionnaire and two data record sheets. Gross output method was used for the calculation of cost of RTCs, which included six cost components: medical treatment cost, lost labour output cost, cost of pain, grief and suffering, cost of vehicle and property damage and administrative cost.

Results: 851 RTCs were recorded at the ten police stations involving 1,481 vehicles and 1,887 road users. They consisted of 66 (7.8%) fatal RTCs with 71 deaths, 596 (70%) non-fatal injury producing RTCs and 189 (22.2%) RTCs with property damage only. The total cost of 851 RTCs was Rs 183,404,130.80 with a mean cost of Rs 215,516.02 (SD 4,133.90) per RTC. This cost consisted of the medical treatment cost of Rs 10,523,759.13 (mean=Rs 11,797.00, SD-644.61), lost labour output cost of Rs 127,011,642.00 (mean=Rs 67,308.77, SD-4,122.80), vehicle damage cost of Rs 16,180,000.00 (mean=Rs 10,925.05, SD-966.92), property damage cost of Rs 925,350.00 and an administrative cost of Rs 2,800,379.32. Although, there were only 7.8% fatal RTCs, 83.7% of RTC cost was incurred by fatal RTCs.

Conclusion: Cost of RTCs is significant and could be reduced by implementation of preventive strategies. Highest cost incurred by fatal crashes indicates the burden imposed from premature death due to this man made epidemic.

Email of the Corresponding Author: mrssbandara@yahoo.com

THE BURDEN CREATED TO THEIR FAMILIES BY PATIENTS WITH UNINTENDED INJURY

Mahindawansa, S. I.¹, Udayakumara, H. K. N.¹, Jayasinghe Bandara, W. M.¹, Wijayathilake, A. D.¹, Peramuna, P. K. P. D.¹, Jayasinghe, P. P.²

1. Teaching Hospital Kandy
2. Faculty of Medicine Peradeniya

Background: An injury is defined as a bodily lesion resulting from an acute exposure to a physical agent. Injuries are categorized as intended and unintended injuries. Traumatic injuries are a leading cause of hospital admissions, which require longer treatment/rehabilitation. This long recovery period remarkably affects the family economy and causes occupational disturbances to the victim.

Aims: To describe social and economic burden to a family following an unintended injury.

Methods: A descriptive cross sectional study was conducted among 204 patients admitted to orthopaedic surgery unit, Teaching Hospital Kandy for one year duration. Systematic random sampling technique was applied. An interviewer administered structured questionnaire including questions on social and economic burden was used. Patients aged 15 to 60 years, admitted for more than 24hrs were included. School children, unemployed patients and victims of road traffic accidents were excluded. Data was analyzed by using SPSS Version 22.0. Ethical clearance was obtained by the Hospital Ethical Committee.

Results: A male predominance was identified in the study sample (73.2%: N=149). Average monthly Income of the participants was Rs. 33759.7 (SD: Rs.9026.6). Average hospital stay was 6.5 days (SD: 1.42). 82% missed previously scheduled social events during hospital stay. Children of 65% of the participants had interrupted educational activities due to the injury. Earning capacity of 56% spouses was affected and 42% of them got illnesses. 88% of participants had to depend on external sources for out of pocket expenses. 26% lost their earning capacity for more than one month duration. 37% of the participants had to face many difficulties in finding covering up people for their duties. There was a male predominance among the patients who underwent severe stress due to missed social activities. (OR=1.63:95% CI=0.62-3.24)

Conclusion: Activities and earning capacity of the family were affected due to unintended injuries. Majority of victims had to depend on external sources to overcome the unexpected burden created by the unintended injury. Attention should be paid on developing policies regarding health and administration to address these psychosocial problems.

Email of the Corresponding Author: indika.mahindawansa@gmail.com

PP 75

COMPLIANCE FOR TREATMENT OF DIABETES MELLITUS –TEACHING HOSPITAL JAFFNA

Subaskaran, S¹, Indrani, D.R.L¹, Samaraweera, D.P¹, Balasuriya, A.P¹, Lasanka, T.K.S¹, Pathmanathan, S²

1. Ministry of Health
2. District General Hospital, Trincomalee

Background: More than 80% of diabetes deaths occur in low- and middle-income countries. Literature shows poor control of diabetes all over the world including developed countries.

Aim: To describe the prevalence and associated factors of compliance and health seeking behaviour for diabetes treatment among diabetes mellitus patients attending Teaching Hospital, Jaffna.

Methodology: The study was conducted among patients with Diabetes Mellitus attending medical clinics of Teaching Hospital, Jaffna. The sample was 425 and consecutive sampling method was used to achieve the sample size. The study instrument was an interviewer administered questionnaire developed by the investigator with expert consultation.

Results: Almost all the patients belonged to Tamil ethnicity and the mean age was 58.6 years and the sex distribution was little higher with males than females. Approximately two thirds of the patients studied up to G.C.E (O/L). Among the patients, 77.8 were non-smokers and 68.4% were non alcoholics. Majority of the patients (64.7%) attended the clinic regularly and majority had taken the medicines regularly (61.8%). More than half of the patients reported that they follow the dietary advice of the health staff and less than 10% reported doing exercise. Approximately 15% of patients reduced alcohol consumption and smoking after getting the disease.

Conclusions: The compliance for clinic attendance and the medication intake was good while compliance for the life style modifications is not satisfactory.

Health education on importance of compliance for diabetes mellitus may pave way to improve the control

Email of the Corresponding Author: saseelasubash@yahoo.com

PREVALENCE OF CHRONIC COMPLICATIONS, THEIR RISK FACTORS, AND THE CARDIOVASCULAR RISK FACTORS AMONG PATIENTS WITH TYPE 2 DIABETES ATTENDING THE DIABETIC CLINIC AT A TERTIARY CARE HOSPITAL IN SRI LANKA

Arambewela, M.H.¹, Somasundaram, N.¹, Fernando, K.R.A.S.¹, Jayasena, P.M.¹, Chandrasekara, C.M.P.H.¹, Kusumsiri, D.P.¹, Jayasekara, H.A.B.P.R.², Kumbukage, M.P.²

1. Endocrine and diabetes unit, National Hospital Sri Lanka
2. Ministry of Health, Sri Lanka

Background: Diabetes causes many chronic complications which reduces quality of life of the patient and incurs heavy burden to the health care system.

Aim/s: To determine the prevalence of macro and microvascular complications, their risk factors and cardiovascular disease (CVD) risk factors among patients with type 2 diabetes mellitus (T2DM) attending the diabetic clinic at National Hospital Sri Lanka.

Methods: A descriptive cross sectional study was carried out among 3,000 patients diagnosed with T2DM attending the diabetic clinic at National Hospital Sri Lanka from January to July 2016. Systematic sampling method was used to select the participants where every 3rd registered patient for the clinic was recruited for the study. All participants were screened for vascular complications using clinical parameters and specific investigations.

Results: The study population had 2181 (72.7%) females and 819 (27.3%) males. Mean age and disease duration were 58.3(SD- 10.3) and 10.8(SD-7) years respectively. Prevalence of CVD, stroke and peripheral vascular disease were 308(10.5%), 33(1.1%) and 140(4.7%) respectively while diabetic retinopathy, neuropathy, nephropathy and diabetic foot were 783(26.1%), 1879(62.6%), 446(50.8% n=878) and 78(2.6%) respectively. Among the patients, 2292(76.4%) had at least one chronic complication and 315(10.5%) had both macro and microvascular complications. Assessment of CVD risk factors revealed overweight/obesity in 2400(80%), hypertension in 1,308(43.6%), dyslipidemia in 969(76.7% n=1259) and smoking in 330(11%). Increased age, disease duration and HBA1c were risk factors for microvascular disease and diabetic foot while the only risk factor for macro vascular complications was age.

Conclusions: This study highlights the major burden of chronic complications and high prevalence of CVD risk factors in this population. Comparative to neighboring regions, Sri Lanka had a higher microvascular and lower macro vascular disease burden. All rates of complications were increased compared to Sri Lankan data 4 years ago with CVD increasing in two fold

Email of the Corresponding Author: maulee_80@yahoo.com

PREVALENCE OF SOCIO-DEMOGRAPHIC AND BEHAVIORAL CHARACTERISTICS ON NON-COMMUNICABLE DISEASES

Lasanthi, W.M.S.¹, Yapa, Y.P.R.D.²

1. Medical Statistics Unit, Ministry of Health, Nutrition and Indigenous Medicine
2. Department of Statistics and Computer Science, University of Peradeniya, Sri Lanka

Background: Non-communicable diseases (NCDs) are becoming the major causes of morbidity and mortality in most of the countries including Sri Lanka. Various genetic, behavioral and socio-demographic variables are known as the risk factors on NCDs. Because of the heavy burden of the NCDs, global and national policies target these risk factors to reduce their impact.

Aim/s: This study aims to estimate the prevalence of some behavioral and socio-demographic risk factors for NCDs.

Methods: Binary logistic regression was used to determine behavioral and socio-demographic factors predictive of the presence of reported NCDs. The dependent variable was the self-reported presence of NCDs, namely heart diseases, hypertension, asthma or wheezing, stroke, diabetic and cancer. Independent variables were alcohol consumption, smoking, age, sex, marital status, educational level and type of residence. The initial model included only main effects. The study further examines the factors associated with NCDs using a classification tree approach. This study was carried out using the primary data extracted from the Demographic and Health Survey (SLDHS) conducted by the department of Census and Statistics in 2006/07. The study sample contained usual residents aged 18 years or above.

Results: The study has found that about 15 percent of the study sample had at least one of reported NCDs. The most prevalent self-reported NCD was Hypertension. Multivariate logistic regression analysis showed that the variables age group 50+, female, separated/divorced, residing in urban area, having primary education, use of alcohol and smoking were associated with the presence of reported NCDs. Classification tree analysis clearly showed these complex relationships between various subgroups of the society and identified persons at high risk of NCDs.

Conclusion: Age was the major determinant of presence of the any kind of reported NCDs. Because NCDs are more common with aging timely actions must be taken for more productive lives. Strategic decisions and care policies will be urgently needed targeting high risk subgroups of the society.

Email of the Corresponding Author: sardhakg@yahoo.com

A STUDY ON THE NATURE OF ADMISSIONS TO ACCIDENT AND EMERGENCY DEPARTMENT IN A TERTIARY CARE HOSPITAL IN SRI LANKA

Jayasekera M.M.P.T¹, Dasanayake G.K.G¹, Bandara P.M.K¹, Jayawardhena D.A.N.L¹, Malkanthi K.M.S¹.

1. Accident and Emergency Department Teaching Hospital Kurunegala

Introduction: The new healthcare reform policies of our country include development of Accident and Emergency (A&E) Departments in all major hospitals. Department of Teaching Hospital Kurunegala (THK) is the first established A&E Department in Sri Lanka. This 14 bedded unit, with a staff of 42 nurses and 39 doctors, headed by an acute care specialist, provides 24 hour services daily to a 2.4 million population in the North-Western province and a part of Sabaragamuwa province.

Aim: To describe characteristics of all the admissions to A&E at Teaching Hospital Kurunegala.

Methods: Prospective observational study was carried out from 1st July 2016 to 30th June 2017 (1 year) to identify the nature of admissions to A&E Department.

Results: There were 49213 admissions to A&E Department during the study period. Average number of admissions per day was 135 (+/-17.9). Deaths in A&E Department were 0.21%. The mean age of the admitted patients was 46.7 (+/- 21.7) years and 62% of them were males. The proportion of medical, surgical, paediatric and gynecology and obstetrics were 55%, 42%, 3.5% and 0.22% respectively. The common emergency medical presentations included chest pain 34%, shortness of breath 10% and faintishness 9%. Among emergency surgical presentations, trauma due to accidents were 83% in which road traffic accidents were 27%. The commonest emergency paediatric presentations were animal bites 66% and seizures 8.5%.

Conclusion: A&E Department of THK provides services to a significantly high number of health emergencies every day. The majority of these admissions were due to chest pain and trauma from accidents. The lower recorded number of paediatric, gynecological and obstetric emergencies presented to the A&E department is a result of national A&E policy to admit these patients directly to their respective wards. Further infrastructure development, with dedicated chest pain unit, staff recruitment and training has to be planned to cater this high number of A&E admissions to A&E Department of THK.

Email of the Corresponding Author: priyamja@yahoo.com

PP 79

WHAT DO PATIENTS IN PSYCHIATRY OUTPATIENT CLINICS OF TEACHING HOSPITAL, KARAPITIYA, KNOW ABOUT THEIR LITHIUM THERAPY AND WHAT ARE THE FACTORS THAT MAY INFLUENCE THEIR KNOWLEDGE?

Ruben, R.¹, **Nanayakkara, N.J.M.N.**¹, **Prabhath, T.A.S.**¹, **Attanayaka, A.D.**¹, **Ranaweera, S.G.C.S.**¹

1. Department of Psychiatry-Hospital Side, Teaching Hospital, Karapitiya

Background: Lithium is mainly used for the prophylaxis of bipolar affective disorder. It has a narrow therapeutic range. Optimal patient education is essential as there are substantial risks of significant adverse drug reactions, even with accepted pharmacological treatment regimens. Therefore, for lithium to be prescribed safely and effectively, clinicians must ensure that the patients are knowledgeable of lithium treatment, specially the features of lithium toxicity.

Aims: To identify the knowledge of lithium treatment and factors that may influence the knowledge of lithium treatment in patients treated in Psychiatric clinics, Teaching hospital, Karapitiya.

Methods: All patients who are on lithium registered in Psychiatric clinics, Teaching hospital, Karapitiya, Sri Lanka, between March 2016 and September 2016 were enrolled in the study. All patients were assessed by a questionnaire about the knowledge of lithium treatment. Domains of the knowledge were mode of action of lithium, behavioral adaptations required in long term lithium treatment, identification of side effects and intoxication and general treatment related issues. Information about age, sex, accommodation, education and primary diagnosis was collected as the factors that may influence the knowledge of lithium treatment. The “Lithium knowledge score” was calculated by deducting the percentage of wrong answers by the percentage of correct answers. Comparisons were analyzed with relative risk calculations.

Results: A total of 149 patients participated in the study. Distribution in age groups was 18-34y 39 (26.17%) patients, 35-49y 55 (36.91%) patients and 50-65y 55 (36.91%) patients. There were 77 (51.68%) males and 72 (48.32%) females. There were 48 (32.22%) urban patients and 101 (67.78%) rural patients. 31 (20.81%) patients had education of primary or below, 78 (52.34%) patients had secondary education, 30 (20.13%) patients had tertiary education and 10 (6.71%) patients had a degree or post degree education. 30 (20.13%) patients had a primary diagnosis of schizophrenia and 119 (79%) patients had a primary diagnosis of a mood disorder. The mean “Lithium knowledge score” was 32. (95% CI 9.14-54.86) Following are the results obtained for the factors influencing the knowledge of lithium treatment. Age groups $P = 0.92$, male vs female $P = 0.41$, urban vs rural $P = 0.25$, education level $P = 0.25$ and schizophrenia spectrum disorders vs mood disorders $P = 0.096$.

Conclusion: There are no significant factors that may influence the knowledge of lithium treatment identified in patients treated in Psychiatric clinics, Teaching hospital, Karapitiya

Email of the Corresponding Author: rumiruben@yahoo.com

MANAGEMENT OF DIGESTIVE SYSTEM DISORDERS USING NATURAL ENZYMES WITH THEIR ENZYME INHIBITION PROPERTIES

Manoj Kanth, N. P.¹, Chanjugaa, U.,¹ Santhosh R.¹

1. School of Science, Business Management School (BMS), Colombo 6, Sri Lanka

Background: Inhibition of enzymes plays a critical role in understanding the metabolic disorders related to catalyzed reactions, especially in the digestive system. Natural components, in comparing with synthetic drugs, have shown less side effects while producing the desired therapeutic results against many clinical conditions. This study emphasized on the methanolic extracts of *Pleurotus ostreatus* and *Phyllanthus amarus* in evaluate their potential in inhibiting the selected digestive enzymes.

Aim: To identify potential natural extracts that can be helpful in managing or treating disorders related to the digestive system using their enzyme inhibition potential.

Methods: Enzymes assays of three different enzymes, pepsin, trypsin and alpha amylase were used for the study with different concentration of the extracts (0.04mg/ml to 1.28mg/ml). The ability of the extract to withstand extreme temperatures was tested by performing the above assays after incubating the extract at various extreme temperature (4°C to 99°C). The extracts were fractionized using ammonia sulphate and the assays were performed again to check the ability of the fractioned proteins to inhibit the respective enzymes. All the assays were performed in triplicates.

Results: The methanolic extracts of *Pleurotus ostreatus* and *Phyllanthus amarus* can inhibit all three digestive enzymes. *Pleurotus ostreatus* was more potent in inhibiting alpha amylase especially at 0.08mg/ml concentration (93%) whereas *Phyllanthus amarus* was more potent in inhibiting trypsin at 1.28mg/ml (87%). Temperature and ammonium sulphate fractionation had no significant impact in terms of the enzyme inhibition.

Conclusion: *Pleurotus ostreatus* and *Phyllanthus amarus* extracts can be a potential source in terms of addressing clinical conditions related to the digestive system based enzymes.

Email of the Corresponding Author: chanjubms@gmail.com

PP 81

FACTORS AFFECTING NON-ADHERENCE TO TB MEDICATION IN SELECTED TB PATIENTS AT CENTRAL CHEST CLINIC, COLOMBO.

Hennayake, H.M.K.D.², Karunaratne, R.M.C.S.², Rathnayake, R.M.S.P.², Srimali, W.I.², Samarasinghe, P.³, Fernandopulle, B.M.R.¹

1. Faculty of Medicine, Kotelawala Defence University, Rathmalana.
2. Department of Pharmacy, University Hospital KDU, Werahera.
3. National Program for Tuberculosis Control and Chest Diseases. Public Health Department, Colombo.

Background: Adherence to Tuberculosis (TB) treatment regime is critical in achieving cure whilst avoiding the emergence of drug resistance. In the year 2016, 9,500 cases of TB were detected of which 21 cases were diagnosed to have multidrug resistant TB (MDR-TB).

Aim/s: To determine the default rate and identification of factors leading to default.

Methods: The study sample was identified from registers of the last two quarters of 2014 and first two quarters of 2015 maintained at central chest clinic Colombo. Default was defined as a TB patient who did not start treatment or whose treatment was interrupted for 2 consecutive months or more. Twenty percent of the traceable defaulters were randomly selected to complete a pre- designed questionnaire through home visits, work place visits and by telephone calls.

Results: A total of 2350 were classified as TB patients of whom 187 were identified as defaulters giving a default rate of 7.96%. Majority (55.9%) had stopped medication in the initial phase. Main reasons for default were; “did not know that they have to continue it for 6 months, felt better after few weeks and believed that they were cured of TB”. Other reasons were side effects, interference with work schedules, lack of money and the long distance of travel to the chest clinic. They had a positive image on health care staff.

Conclusion: The identified risk factors should be considered in addressing care and policy actions to tuberculosis control in Sri Lanka.

Email of the Corresponding Author: kanchana19109@gmail.com

ADVERSE REACTIONS DUE TO ANTI-TUBERCULOSIS MEDICINES AND its ASSOCIATED FACTORS

Samarasinghe, A.I.P.¹, Pallewatte, N.C.¹, Samaraweera, S.² Ambagahage, T.³, de Alwis, A.K.S.B.⁴, Senevirathne, G.¹, Fernadopulle, R.⁵, Ariyaratne, A.K.S.K.¹

1. National Programme for Tuberculosis Control and Chest Diseases, Sri Lanka.
2. National Cancer Control Programme, Sri Lanka.
3. Ministry of Health, Sri Lanka
4. Education, Training & Research Unit, Sri Lanka.
5. Kottalawala Defence University, Sri Lanka

Background: Adverse reactions to anti-tuberculous medication are relatively common, but scarcely reported in Sri Lanka.

Aim: To describe the spectrum of Adverse Drug Reactions (ADR) associated with anti-TB medicines and to identify factors associated with adverse reactions.

Methods: All the patients registered in 17 selected district chest clinics (DCC) for anti-TB treatment during a period of six months were prospectively followed up till end of their treatment period. Data were collected using a pre-tested interviewer administered questionnaire by the District Tuberculosis Control Officers at relevant DCCs. An adverse drug reaction was defined as a response to an anti-TB medicine which is noxious and unintended and which occurs at doses normally used in treatment.

Results: The total number of patients recruited for the study were 2751. The mean age was 46.3 (SD: 33) years. The majority (62.9%) were males and Sinhalese (69%). Forty-six percent were educated up to grade 10, and 53.4% were employed. Seven percent were current or past alcohol consumers, 6.8% were smokers (current or past).

Among them 50.2% were sputum positive pulmonary TB and 96.1% were on first line anti-TB drugs. Nearly 36% had a BMI less than 18.5 Kg/M², and 20% had one or more co-morbidities. Most common co-morbidities were Diabetes (13.1%), Asthma (4.9%) and Hypertension (4.4%).

The prevalence of one or more adverse reactions was 19.6 % (95%CI 18.1%-21.1%). Most prevalent were itching with skin rashes on body (6.9%), followed by persistent nausea and vomiting (3.2%) and severe progressive loss of appetite (1.3%).

Statistically significant associations with ADRs were BMI less than 15 Kg/M² (P< 0.05) current or past smoking (P< 0.05) and current or past consuming alcohol (P< 0.05). No associations were found between the age (P> 0.05), sex (P> 0.05), treatment category (P> 0.05), and type of disease (P> 0.05).

Conclusion: The adverse reactions associated with anti-TB drugs were encountered with different frequencies and special emphasis should give to patients who have the low BMI and who are current or previous smokers or Alcohol consumers.

Email of the Corresponding author: aipsamarasinghe@gmail.com

PP 83

POLYCYSTIC OVARY SYNDROME IN PATIENTS WITH SCHIZOPHRENIA TREATED WITH ATYPICAL ANTIPSYCHOTICS: A COMPARATIVE GROUP STUDY

de Silva, V.A¹, Senanayake, W.H. A.P², Ratnatunga, S.S¹, Dissanayake, S¹, Gamage, S¹, de Silva, S¹, Hanwella, R¹, Wijeyaratne, C.N³

1. Department of Psychiatry, Faculty of Medicine, University of Colombo
2. De Soysa Hospital for Women, Colombo
3. Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Colombo.

Background: Atypical antipsychotics cause weight gain, metabolic syndrome and menstrual abnormalities. Polycystic ovary syndrome (PCOS) is a condition which is associated with weight gain.

Aims: Aims were to compare the prevalence of PCOS and polycystic ovary morphology in females treated with atypical antipsychotics with normal controls.

Method: Cases consisted of reproductive age females; age between 18-45 years with schizophrenia treated with atypical antipsychotics for ≥ 6 months and had gained $\geq 10\%$ body weight. Control group consisted of age and BMI matched females. Menstrual history, physical examination anthropometric measures, ultrasound abdomen and hormone analysis were done.

Results: There were 156 females in the antipsychotic treated group and 129 controls. Mean age cases= 33.6 years (SD 8.63) and controls= 32.9 years (SD 5.6). Mean BMI cases=25.41 (SD 4.81) and controls=25.16 (SD 4.64). Polycystic ovarian morphology US scan was significantly more in cases 69 (44.2%) than controls 17 (13.2 %) [OR =5.23 95% CI 2.87-9.52] (P< 0.001). Hormone profile was available in 135 cases. Of these and 56 (41.4%) had PCOS. Mean testosterone was 43.95ng/dl (SD=21.4) and mean LH was 9.99 (SD=12.66) IU/L. Ten had elevated testosterone. Prevalence of PCO was 36.7% in patients treated with olanzapine, 52.4% with clozapine and 42.2% with risperidone.

Conclusion: According to the study shows reproductive age females; age between 18-45 years with atypical antipsychotics treatment for more than 6 months is associated with higher prevalence of polycystic ovarian morphology and PCOS than the normal reproductive age females.

[Email;senanayakeanoma@yahoo.com](mailto:senanayakeanoma@yahoo.com)

DRY POWDER INHALER TECHNIQUE OF PATIENTS ATTENDING AN OUTPATIENT CLINIC OF A SUBURBAN HOSPITAL, AND ITS RELEVANCE TO ASTHMA STABILITY.

Sathislal L.R.C.¹, de Silva M.K.², Siriwardene W.I.³, Samaranayake W.M.S.⁴

1. Rheumatology Unit, National Hospital of Sri Lanka, Colombo 10.
2. Cardiology Unit, National Hospital of Sri Lanka, Colombo 10.
3. Port Health Office, New Jetty, Colombo 01.
4. Out-Patients' Department, Kalubowila Teaching. Hospital, Kalubowila.

Background: Dry Powder Inhalers (DPI) are widely used to deliver medication to the lower airways in asthma patients. The 'DP haler' brand of DPI is dispensed free to patients in the government health sector, together with Beclamethasone DP (Dry Powder) capsules. Unfortunately, in many instances, patients' inhaler technique is inadequate, their compliance is poor, and education on inhaler use is not good enough.

Aims: To assess the inhaler technique, compliance for treatment and other selected aspects of asthma patients attending Colombo South Teaching Hospital

Methods: This was an observational descriptive study, involving 150 consecutive asthma patients who attended the outpatient medical clinic at the Teaching Hospital, Kalubowila in 2013. Inhaler technique was assessed by observation. A medical officer observed each patient use his/her DPI and allocated points for each step. Compliance was assessed by a questionnaire. Patients were also asked who educated them to use the inhaler. Asthma instability was assessed by questioning each patient about the frequency of symptoms in the last month and assigning a score. Inhaler technique score and asthma instability score were plotted graphically against each other. The Pearson's correlation coefficient (r) was calculated between Inhaler Technique Score (ITS) and Asthma Instability Score (AIS)

Results: 30% of the patients had good inhaler technique and 49% had adequate technique. 21% had inadequate technique. The commonest error was inadequate breath holding after inhalation (66%). The overwhelming (83%) majority of patients said that a doctor had educated them in inhaler use. 38% of patients (roughly one third) said that they did not use the inhaler when they felt well. The rest of the patients said they had not missed any doses. Inhaler technique score and Asthma instability score showed a weak negative relationship (r = -0.2565)

Conclusions: Inhaler Technique and Asthma Instability are negatively related.

Email of the corresponding author: sathislal@gmail.com

PP 85

ANALYSIS OF STOCK VS NON-STOCK ITEMS PURCHASED LOCALLY DURING 2012 AND 2016 PERIOD IN TEACHING HOSPITAL KURUNEGALA

Hettiarachchi, H.A.L.P.K.¹, Kariyapperuma, K.A.S.¹, Kendangamuwa, C., Wasana, A.V.G.T.², Warnasooriya, W.M.S.N.², Liyanaarachchie, L.C.P.T.²

1. Teaching Hospital, Kurunegala, Sri Lanka
2. Department of Pharmacy, Faculty of Allied Health Sciences, University of Peradeniya

Background: The medical supplies required to the government health institutions in Sri Lanka are supplied by Medical Supplies Division (MSD) of Ministry of Health based on institutional estimates. However non-availability of medical supplies may allow for local purchase of drugs for indoor patients using the funds allocated for that purpose. An economic benefit could be gained if some of the non-stock items are purchased in large quantities by the MSD.

Aim/s: To analyse the stock and non-stock medical supplies purchased by TH Kurunegala during 2012 and 2016.

Methods: The study was a retrospective data collection from the local purchase records of pharmacy department of the hospital. The name of the medical supply, dose and strength (when necessary), unit price, quantity purchased were noted down. The medical supplies purchased locally were categorized as stock and non-stock items and the number of items in each category were counted, purchase values were calculated and compared in each quarter of each year.

Results: According to the results the local purchase was showed an increasing trend and in the year 2016 the local purchase value for medical supplies was nearly LKR 10 million. The number of stock and non-stock items vary from year to year and no any consistency or any trend was observed. However, the local purchase values for stock items were greater than that of non-stock items in each year except 2016. In 2016 the non-stock item local purchase value was nearly LKR 8 million and it was 80.3% from the total medical supplies local purchase value.

Conclusion: The analysis results impart the necessity of smooth supply of stock items as it increases the total cost for medical supplies unnecessarily. Also non-stock items purchased locally could be employed to determine the stock items in future. Analysis of local purchase of medical supplies throughout the country will be an important source in such determinations. Finally, it will help in reducing the total cost of medical supplies in government health sector.

Email of the Corresponding Author: chamilaliya@yahoo.co.uk

PP86

ANALYZE INCIDENTS OF MORTALITY AND PERMANENT DISABILITIES AMONG IN SERVICE NAVAL POPULATION 1995-2015

Samarawickrama, H.D.I.¹

1. Navy Hospital, Kankasanthurai

Background: Service persons are important human resource of any nation considering national security. Chronic morbidity and mortality is increasingly being regarded as a key indicator of occupational health, social, physical and mental health. Nevertheless, methodologies for assessing mortality are seldom point directly to areas of risks and solutions.

Aim/s: To classify cases of deaths of in service naval personnel in last 20 years and to understand the shift of mortality and disability prevalence in post conflict era of Sri Lanka navy.

Methods: The secondary data of mortality and permanent debilities of in service naval personnel during 1995 to 2015 was analyzed in this study.

Results: The study sample [age 18-55 years] consisted 1401 death incidents and 303 permanent disability cases. There were 71.1% death rate and 28.9% permanent disability rate in armed conflict era. High death rates compared to disability rate was due to the nature of sea confrontation and surveillance with severe casualties. Accidental traumatic injury rate of 12.9% with a high incident proportion [65.7%] reported during armed conflict may be due to poor concern on occupational safety. Natural death rate was 11.9% and no significant variation with time periods. 10.2% suicidal rates and high incident proportion [76.9%] during period of conflict may be due to war related adverse psychological conditions. 66.4% of suicide incidents in unmarried group may have resulted from less family responsibility and poor family bond. 7.9% rate of road traffic crashes and majority of cases [55.8%] in post war period was parallel to national figures. Only 3.7% deaths resulted by incidents of missed fire which showed good standard training and occupational safety and only 23.1% was reported in post war period.

Conclusions: Addressing the potential modifiable risk factors through enhancing occupational health, psychological counseling, training, health awareness and road safety may have a good effect on mortality and chronic disability among in-service naval community.

Email of the Corresponding Author: indunilduminda1974@gmail.com

PP 87

EFFECTIVE USE OF MOBILE TECHNOLOGY FOR NUTRITION SURVEILLANCE¹Hettiarachchi R, ¹Amarakoon P.M, ²Hewapathirana R.H

1. Ministry of Health, Nutrition & Indigenous Medicine
2. Health Informatics Society of Sri Lanka

Background

Malnutrition is a major public health issue with sluggish improvement over last two decades. It has been understood that the lack of interventions to address causative factors of malnutrition spreading over multiple domains have adversely affected the problem of malnutrition in Sri Lanka. Engagement of multisector stakeholders in addressing the issue of malnutrition is the novel approach of Sri Lanka as opposed to the traditional health centred interventions for childhood malnutrition. Availability and sharing of timely, high quality data amongst the field level stakeholders is crucial for non-health multisector collaboration, monitoring of nutrition status and interventions.

Aims

The aim of this intervention was to develop and implement an efficient information system to facilitate collection and dissemination of high quality nutrition related data across multi sector stakeholders.

Methods

A field mobile based project was implemented in all MOH areas in Matale, Nuwara Eliya and Polonnaruwa districts. An Android based mobile application along with a mobile device was provided to public health midwives to register children with malnutrition under age of 5 years and routinely monitor their nutritional parameters and household risk factors contributing to malnutrition. The mobile app supported data entry as well as visualization tools to facilitate monitoring and evaluation activities at field level. The mobile application was optimized for offline data collection at field level, data validation tools and obtaining geographic locations of households. Collected data was made available real time for multi sector stakeholders and health administrators at regional and national level through a web application supporting report generation and rich analytics. The system was implemented following a brief in-service training to field level health care workers.

Results

Following one year of implementation, the system has a coverage of 70% of malnourished children in all piloted districts compared to routine maternal and child health reporting statistics of ministry of health. Availability of real time data on prevalence of nutritional problems and contributing risk factors have facilitated nutrition surveillance. Sharing of data has enhanced multi sector engagement which leads to nutrition related interventions.

Conclusions

Mobile technology can be effectively used for field level nutrition surveillance in developing countries.

PP 88

DESIGN AND DEVELOPMENT OF LOW COST TELEMEDICINE SYSTEM FOR REFERRAL OF ORTHOPEDICS PATIENTS

Wickramasinghe S.¹, Ranwala R.A.D.L.M.K.², Suraweera H.J.¹, Weerasinghe J.³, Samarasinghe A.S.¹, Piyarathna C.¹, Thennegedara A.¹, Jayasinghe J.A.L.A.⁴, Wijesinghe W.M.N.C.¹, Marasinghe R.B.⁵

1. Teaching Hospital Peradeniya
2. Office of the Regional Department of Health Services – Colombo District
3. Faculty of Dental, University of Peradeniya
4. Teaching Hospital Anuradhapura
5. Medical education unit, Faculty of Medicine, University of Sri Jayewardenepura

Background: Management of patients often involved multidisciplinary teams. These experts present in different geographical locations. Everyday patients transferred from primary or secondary care centers to tertiary care centers for expert opinion or advanced care and back transferred to lower level health institutions for follow up care.

Existing referral system of Sri Lanka needs to send patient physically between healthcare institutions either in an ambulance or by patient themselves leading to significant burden on health budget and many hardships to the patient and their family.

Telemedicine, use of information and communication technology to provide healthcare at a distant, can be used effectively to reduce unnecessary transfers thus reducing delays and cost of care.

Aim/s: This telemedicine application, Teleortho system, aimed to explore an effective alternative referral system between Orthopaedic unit of TH Peradeniya and peripheral referral centres.

Methods: Series of focus group discussion with consultant Orthopedic surgeons, Registrars and Medical Officers working at Orthopedic unit were held to elicit user requirements. In these discussion issues related to current referral system and methods of improving the said issues were the main focus. The identified requirements were models with inputs from relevant literature to design the system. Agile software development methodology was adopted in development process enabling accommodating dynamic user requirements and to produce a system prototype. System is built using open source technologies. System security and data protection was optimized using user authentication, data encryption, user access levels and creation of facility to take frequent backups.

Results: Main output of this project is the teleortho system prototype, which is a web based telemedicine application. It is hosted at <http://healthlabcrew.com/teleortho/>. Multimedia electronic health record (MEHR) system with feedback mechanism is the main feature of the Teleortho system. In both end, Internet enable device, desktop computer or smart phone, is adequate to access the system. End users of the system are physicians, nurses and physiotherapist. Application supports asynchronous and synchronous data transfer.

Conclusions: This telemedicine system is a low-cost solution because it utilizes open source solutions to build the system and internet enable devices to access the system. The system currently at the laboratory testing level and it will be piloted to do the effectiveness and the feasibility in the next phase.

Email of the Corresponding Author: lasantha13@gmail.com

OP 89

IDENTIFYING AND OVERCOMING BARRIERS TO UTILIZATION OF THE MEDICAL RECORD SYSTEM AT THE HUMAN GENETICS UNIT FACULTY OF MEDICINE COLOMBO

Kulasiri, K.H.S.¹

1. Ministry of Health Nutrition and Indigenous Medicine

Background: An OpenMRS based medical record system was introduced to the Human Genetics Unit in 2012. It was implemented at the Human Genetics Unit 2014. Even though all the necessary functions were incorporated in to the system, it was not used in many occasions.

Objectives: To identify reason/s for underutilization of the system in OpenMRS at the Human Genetics Unit (HGU) Faculty of Medicine Colombo and to identify avenues for further customization of the system to overcome the barriers which the users encountered and to introduce evaluation cycle to the system.

Methodology: A qualitative research with a study design of a participatory action research was done at the HGU. The sampling method was purposive where all the users of the system were observed, interviewed until saturation and trained.

Results: Most of the users needed the system to be more attractive and forms to be simpler. System was not user-friendly to most of the users. Family tree drawer should be customized more to fulfill the requirements. System has given errors while working which has made negative impression on the system by the users. OpenMRS system has not fulfilled some of the user requirements like appointment generator. System environment factors like failure of network connectivity has acted as barrier to use the system at required time.

Discussion: Identified barriers were factors related to the OpenMRS based system and its function, systems' environment which is directly bound to OpenMRS and users and their attitudes towards the system. The researcher has edited and customized the system to overcome the barriers. Some of the issues needed support from the OpenMRS forum.

Conclusion: User satisfaction should be kept at a maximum level to keep the sustainability of a working medical record system. Attractive and simple user interface will satisfy the users of the system and user interface should be considered as a major part of developing a medical record system.

Email of the Corresponding Author: hashsami@gmail.com

PP 90

SRI LANKAN TWIN REGISTRY BIOBANK: A RESOURCE FOR HUMAN GENETIC RESEARCH IN SRI LANKA

Warnakula, L.¹, Skandhakumar, R.¹, Madanayake, R.¹, Jayaweera, K.¹, Abeysinghe, M.R.N.¹, Zunszain, P.A.², Zavos, H.M.S.³, Rijdsdijk, F.⁴, Siribaddana, S.⁵, Pariante, C.M.², Sumathipala, A.^{1,6}, Hotopf, M.⁷

1. Institute for Research & Development, Sri Lanka
2. Stress, Psychiatry and Immunology Laboratory, Institute of Psychiatry, Psychology & Neuroscience, King's College London, UK
3. Department of Psychology, Institute of Psychiatry, Psychology & Neuroscience, King's College London, UK
4. Social Genetic and Developmental Research Centre, Institute of Psychiatry, Psychology & Neuroscience, King's College London, UK
5. Department of Medicine, University of Rajarata, Sri Lanka
6. Research Institute for Primary Care & Health Sciences, Faculty of Medicine & Health Sciences, Keele University, UK
7. Psychological Medicine Department, Institute of Psychiatry, Psychology, and Neuroscience, King's College London, UK

Background: Bio banking is an innovative concept of storing and sharing biological samples for current and future research. Even though it is well established in the western world, it is still in its infancy stage in many parts of the developing world. Sri Lankan Twin Registry Bio bank (SLTR-B) is a unique repository consisting of DNA and serum samples of twins and a matching comparative sample of singletons from Colombo, Sri Lanka.

Aims/s: To establish the infrastructure within the country to carry out biomedical and future genetics studies such as genome wide association studies and epigenetics

Methods: SLTR-B was established in 2012 as a component of the Colombo Twin and Singleton follow-up study (COTASS-2) conducted by the Institute for Research and Development, Sri Lanka in collaboration with Kings College London. Ethical clearance for this project was obtained from University of Sri Jayewardenepura and Kings College London, UK. Informed written consent was obtained from participants to store their DNA and serum in the bio bank. Whole blood for DNA extraction and serum separation were collected in separate vacutainers. Serum (separated within four hours of collection) and extracted DNA was stored at -80°C freezer conditions. Quality and integrity analysis were done for all extracted DNA samples.

Results: 2488 and 872 DNA samples and 2583 and 900 serum samples are available from twins and singletons respectively.

Conclusion: SLTR-B is the first of its kind in the region and aims to address gaps in health and genetics research in a low and middle income country. Stored serum and DNA will be used for inflammatory marker research and future genetic studies (genome wide association studies and epigenetics) respectively after obtaining fresh consent from participants for each study. This repository is a valuable resource for future research on complex diseases in the region.

Email of the Corresponding Author: lakshanwarnakula@gmail.com

PP91

USE OF DIGITAL DEVICES AMONG SCHOOL GOING ADOLESCENTS IN KURUNEGALA MUNICIPAL COUNCIL AREA AND ITS ASSOCIATION WITH THEIR ACADEMIC PERFORMANCE AND SLEEP

¹ Ranasinghe R.A.S.U² Danansuriya M.

1. Postgraduate Institute of Medicine, University of Colombo
2. Anti-Malaria Campaign

Background: Digital devices (D/D) are devices that have been produced containing a computer or a microcontroller. Desktop computers, smart phones etc. are some examples. Digital Devices have become essential part in the modern world. Adolescents tend to use digital devices (D/D) more, due to their exploratory nature.

Aim: The aim of this study was to identify the patterns and factors for using D/D and to assess the association between D/D use with academic performance and sleep, among 13-14 year olds in Type 1AB schools in Kurunegala Municipal Council (MC) area.

Methods: A cross sectional descriptive study was done among 671, 13-14 years old students, using a self-administered questionnaire. Sample was selected using multi stage stratified cluster sampling probability proportionate to size, from Type 1AB schools in Kurunegala MC Area. Chi-square test was used for the analysis of associations.

Results: Highest use of digital devices was among males and for ≤ 2 hours/day and preferred time was between 2 pm to 6pm. Most popular device was computer. Common purposes for D/D use among who use ≤ 2 hours/day and among > 2 hours/day were for education and video games respectively. Male sex (OR=2.1, 95%CI=1.5-3.0) and extracurricular activities (OR=1.6, 95%CI=1.1-2.2) were significantly associated with D/D use. Among those who used D/D for ≤ 2 hrs/day, D/D use was significantly associated with high academic performance (OR=2.6, 95% CI=1.69-4.03). In overall sample, there was no association between the D/D use and academic performance. Use of digital devices was neither associated with duration of sleep nor daytime tiredness.

Conclusions: Use of D/D can be recommended for ≤ 2 hours per day to minimize harmful effects. Efforts to reduce overuse of D/D by adolescents should be developed after in depth research.

Email of Corresponding author: rasu.ranasinghe@gmail.com

PP 92

MINIMUM SOFTWARE DOCUMENTATION REQUIREMENTS TO ENSURE MAINTAINABILITY AND EXTENSIBILITY IN LOW RESOURCE SETTINGS**Hapudeniya, H.W.M.M.**¹, Attapatu, A.M.A.¹

1. Post Graduate Institute of Medicine, Sri Lanka

Background: More and more healthcare institutions develop software to support their work. However, many institutions do not have sufficient funds to develop high quality software through reputed developers. Therefore, they tend to get the services from university students, freelancers or small companies for very low cost. Although this method can fulfill the functional requirements, it has many issues related to non-functional aspects of a software such as performance, documentation, maintainability, scalability, and extensibility. Effect of these aspects may not be obvious initially but can have drastic effects on the software in long run.

Aim/s: To develop a guidelines and tools to support maintainability and extensibility of software

Methods: Software source codes, user manuals and system manuals of few software implemented by the Epidemiology unit were reviewed in order to identify issues related to maintainability and extensibility aspects of software. Literature review was done to identify the best practices, guidelines and tools related to non-functional aspects of software. Based on the findings, tools and guideline were developed and revised with the inputs from the subject experts, developers and stakeholders.

Results: It was noted that the developers have not practiced industry standard software development methodologies or use common development frameworks. Source code commenting and system manuals were very unsatisfactory. As a solution, following guidelines and tools were developed; 1) Best practice guideline for PHP developers – describes coding practices which make the source code readable and understandable. 2) Requirement document – describes user and system requirements in details 3) File/Folder organization diagram – shows how the files and folders are arranged. 4) Database diagram – shows the data tables, attributes and relationships 5) Requirement implementation matrix-description of which requirement is implemented in which files and file dependencies and 6) System hand over check list.

Conclusion: The guidelines and tools developed will ensure the minimum acceptable software quality especially supporting maintainability and extendibility in resource poor settings.

Email of the Corresponding Author: mmhapudeniya@gmail.com

PP93

AN AUDIT ON PRACTICES OF GRADE MEDICAL OFFICERS ON MANAGEMENT OF BED HEAD TICKETS IN BASE HOSPITAL, WATHUPITIWELA AND DISTRICT GENERAL HOSPITAL, GAMPAHA, SRI LANKA

Mallawarachchi, S.M.N.S.M.¹, Mallawarachchi, C.H.¹, Chandradasa, D.H.N.S.², Dilrukshi, D.A.R.K.¹, Samarakoon, D.S.¹

1. Post Graduate Institute of Medicine, University of Colombo
2. Base Hospital, Beruwala

Background: In the scope of in-ward care in Sri Lanka Bed Head Ticket (BHT) is the paper based medical record. In Sri Lanka, morbidity and mortality data obtained from BHT is the only source of information for inpatient data to be transferred to the IMMR (Indoor Morbidity and Mortality Return) at the end of each quarter.

Aim/s: The objective of this audit was to assess the practices of grade medical officers on management of bed head tickets in Base Hospital, Wathupitiwela and District General Hospital, Gampaha, Sri Lanka.

Methods: BHTs of last quarter of year 2013 were selected retrospectively from randomly selected hospitals (District General Hospital, Gampaha and Base Hospital, Wathupitiwela) from the last BHT of the third quarter in 2013 to backwards in numbers proportionate to the total admissions in each hospital, in the given quarter. Equal proportions of BHTs from Medicine, Surgery, Paediatrics, Obstetrics and Gynaecology units were obtained. Total of 500 BHTs were surveyed. Data were analyzed using SPSS 16 software. Descriptive statistics was used to present data. A checklist based on the guidelines for management of bed head tickets given by the general circular 01-05/99 by Ministry of Health, Sri Lanka, was used.

Results: Sixty five percent of BHTs did not have the final diagnosis written according to ICD 10. Only 10.6% BHTs had the final diagnosis written in block capitals. Thirty eight percent of BHTs were found to have the final diagnosis written using abbreviations. The entries were legible in 63.8% of BHTs. None of the BHTs had reached the record room in less than one day following the discharge of the patient and for 68.4% BHTs it was three days or more.

Conclusion: The practices of management of BHTs were poor in quality in with regard to timeliness, legibility and completeness.

PP 94

LOW COST, LOW POWER E-SOLUTION FOR PATIENT MANAGEMENT SYSTEM USING MICRO CONTROLS AND EMBEDDED TECHNOLOGY**Piyasena, M. G. Y.**¹, Karunarathna P. G. P. S.², Priyanatha K. U. G.³

1. Health Information unit, Ministry of health
2. Anti-Leprosy Campaign Ministry of health
3. Ktronics (PVT) Ltd

Background: Patient management system is a vital component of any clinical care setting to deliver patient centered care. Currently majority of patient management systems are paper based. Compared to other fields such as banking, marketing etc., incorporation of electronic information systems in local healthcare industry lags due to various factors including the changing dynamics, complexity of the health services and cost of acquiring optimum services.

Aim/s: Innovate miniature, low powered and low-cost workstation and embed existing Patient Management Software (PMS) for Central Leprosy Clinic at National Hospital of Sri Lanka.

Methods: Assemble miniature fully functional, online self-operable workstation equipped with low cost and low power consumed monitors capable of processing data as a high end bulky workstation form micro controller hardware and embed the digitalized existing paper based health records in to it. Commonly use Open source software will be customizing to digitalized patient management system which can be interoperable with other existing electronic health systems. The process involves gathering observations, encounters, notes, and other data from the healthcare system and presentation of those in summaries, reports, and data views that is accessible to users connected to the system.

Results: Miniature workstations and digitalized patient management system which is fully functional online self-operable, low power consumed monitors which capable of processing data. These workstations save space needs, low initial capital, low maintenance cost and virtually no virus attacks

Conclusion: Low cost, low energy, highly secure, centrally control digitalized patient management system which is embedded to workstation that can be scale up other health care system with minimal cost.

Email of the corresponding author: gayanyp@gmail.com

PP95

UTILIZATION AND FACTORS ASSOCIATED WITH THE USE OF INFORMATION TECHNOLOGY IN A HEALTH ADMINISTRATIVE OFFICE

Hettiarachchi J.¹, Subasinghe S.K.D.S.², Wicramaratna, R.³, Abeyratna B.A.I.D.⁴, Dharmakeethi W.N.⁵

1. Teaching Hospital, Karapitiya
2. GH Hambanthota
3. GH Hambanthota
4. TH Mahamodara
5. DH Unawatuna

Background

Use of Information Technology (IT) in service provision in government sector becomes an essential practice in order to cater the public better. In health administration, utilization of information technology becomes a vital tool.

Aims

To assess the utilization of Information Technology and factors associated with its use among staff in Regional Director of Health Services office Galle.

Methodology

A descriptive cross sectional study was conducted involving the office staff of RDHS office, Galle, using a structured pre-tested self-administered questionnaire. Items in the questionnaire covered basic professional and socio-demographic characteristics and information related to personal use of computer (information technology).

Results

Seventy six members participated. The response rate was 73.1%. Most of them were females (84.2%) and mean age was 36.1 (SD 8.9) years. A percentage of 26.3 had personal computers. Almost all of them used computers for typing reports and letters. Though 94.7% of them were given internet facility, 61.8% mentioned that the connection get interrupted at least 1-2 times per week. Commonest uses of internet were sending official reports and letters and entering data to online databases. Among participants 65.8% had personal e-mail accounts, but 10.5% have only checked it once a day. Staff members below 30 years reported frequent e mail checking practices ($p < 0.01$). Only 38.2% acknowledged that they are can use MS Word well and only 21.7% knew how to use MS Excel. Males showed better performance in using MS Word ($p < 0.02$).

Conclusion

Utilization of IT for planning and monitoring purposes other than mere typing letters and sending reports should be promoted.

Email of the corresponding author: jhettiarachchi34@gmail.com

PP 96

PERCEPTIONS AMONG PRE INTERN DOCTORS IN SRI LANKA ON WRITING DIAGNOSIS CARDS

Ranasinghe D¹, Rathnayake D.R.D², Padeniya A³, Epitakaduwa C⁴

1. Secretary SHRI, Medical SHO BH Panadura
2. Medical officer Blood bank BH Panadura
3. Consultant Paediatric Neurologist LRH, Founder SHRI
4. Acting Consultant Histopathologist TH Batticaloa, CEO SHRI

Background: Discharge summary is important to the patient as well as to the doctor in a subsequent visit of the patient. Considerable deficiencies of efficacy and completeness of diagnosis card writing has been recorded in many countries. Worldwide Studies showed discharge summary skills programmes improve the quality of the discharge summary. There is lack of evidence in Sri Lanka of the training needs and perceptions of the pre-intern doctors on writing the diagnosis cards.

Objective: To find out the perceptions of pre interns on writing diagnosis cards

Method: A Google based online administered questionnaire was sent to 2016 internship doctors 2 months prior to their internship.

Results: Out of 1100 pre interns 552 (50.1%) responded the questionnaire. For the sole diagnosis of simple viral fever 83% (456) believe that they have to give a diagnosis card. Around 3% of pre intern doctors believe that during busy days they can escape by not giving a diagnosis card to a patient. Another 3% of pre intern doctors feel, from patient point of view, there is no value of giving a diagnosis card to the patient. Only 8.6% had undergone some training on how to write diagnosis cards from a consultant or from a Senior Registrar. Seven percent never had any training on how to write a diagnosis card. 3% learnt it only by reading an article. A large number (240) have not undergone any training or a lecture on how to write a diagnosis card during the last year of filling the questionnaire. Twenty three percent believed that they are not competent enough to write a diagnosis card. Eighty four of doctors believe they should have a diagnosis card writing training programme prior to internship.

Conclusion: This study highlights that medical undergraduate curricula needs to address this issue and should ensure adequate training on writing diagnosis during undergraduate training.

Email of the Corresponding Author: dineshanrana2000@yahoo.com

PP97

ASSESSMENT OF KNOWLEDGE AND ATTITUDE OF NURSING STAFF REGARDING CRITICAL PHASE CHART MONITORING OF DENGUE HEMORRHAGIC FEVER (DHF) PATIENTS; SRI JAYEWARDENEPURA GENERAL HOSPITAL (SJGH), SRI LANKA.

Edirimanna, R.S.¹, Edirisinghe, K.²

1. International Institute of Health Science, Welisara Sri Lanka
2. TTA Cert IV (Australia)

Background: DHF is a life-threatening condition and also one of the major health issues in Sri Lanka. The diagnosis and continuous active monitoring during the critical phase is of utmost importance as most patients are susceptible to rapid deterioration. Thus their management should always be prompt and continuous. Nurses play a major role in these setting; therefore they should possess a comprehensive knowledge and attitude regarding DHF, the critical phase and its management.

Aim/s: To assess the knowledge and attitude of the nursing staff working at General Intensive Care Unit (GICU), all medical wards and pediatric ward at SJGH, along with critical phase chart monitoring at above mention units DHF patients at SJGH.

Method: A descriptive, cross sectional study was conducted using a self-administered questionnaire among 100 nurses at SJGH, who were selected by simple randomized sampling. Data was analyzed using SPSS version 16 software and Microsoft excels 2007.

Results: The response rate was 96%. Participants had a good knowledge regarding the entry in to the critical phase (64%), signs and symptoms 78%, investigation changes 79%, and fluids requirement of the critical phase 64%. Further, 96% of the nurses had good attitude levels, but 40% of them were not able to maintain chart properly due to heavy workload and insufficient knowledge regarding the critical phase and DHF.

Conclusion: Most nurses had a comprehensive knowledge regarding the critical phase of DHF and positive attitudes towards maintaining critical phase charts. Further education, awareness programs coupled with upgraded critical care facilities could improve the care for dengue patients.

Email of the Corresponding Author: ranjaleesammani@yahoo.com

PP 98

Knowledge and practices of ventilator care bundles among the intensive care nurses of the National hospital Sri Lanka, (2015).

Senanayaka, S.M.T.P.¹ Edirishinghe, K.²

1. A graduate; bachelor of nursing- open university of Malaysia

2. Supervisor: Deputy Chairman of IIHS, MD

Introduction: Ventilator care Bundle is a series of interventions related to ventilator care and it will achieve significant better outcomes when implement together. Nurses should adhere to practice this bundle. Without having proper knowledge on protocols and practices nurses cannot proceed this well and it influence quality of patient care and safety.

Objective: To describe the Knowledge and practices of ventilator associated pneumonia care bundles among the intensive care nurses of The National hospital Sri Lanka.

Methods: A descriptive cross sectional study was done on conveniently selected 240 intensive care nurses of the National Hospital of Sri Lanka (NHSL).

Results: Out 240 intensive care nurses (n=182) 75.8% have studied about ventilator care bundle. The definition of the ventilator associated pneumonia was known only (n= 115) 47.9%. 75.8% (n= 182) had knowledge regarding elevation of the head. Regarding daily sedation vacations and assessment of readiness to extubate (n=94) 39.1% were known. (n=47) 19.6% had Knowledge regarding Peptic ulcer disease prophylaxis. (n=54) 22.5% had knowledge regarding Deep vein thrombosis (DVT) prophylaxis. Knowledge regarding daily oral care with chlorhexidine were (n=165) 68.7%. In study group generally 90% of the nurses follow aseptic methods while performing suction care.

Conclusions: Majority of the nurses demonstrated unsatisfactory awareness on care bundles but in practices they follow aseptic methods and equipment while performing suction care in high percentage.

Email of the Corresponding Author: pathumdacyclone@gmail.com

PP 99

ATTITUDE AND AWARENESS ABOUT BREAKING BAD NEWS (BBN) AMONG THE SURGICAL NURSES AT NATIONAL HOSPITAL, SRI LANKA

Senevirathna, T.M.U.A.B¹, Silva, S.N.²

1. National hospital of Sri Lanka
2. International Institute of Health Sciences

Background: Breaking bad news is a very stressful experience to the receiver. Most of time nurses have to intervene in this situation. Without having proper knowledge on the protocols and method and without the right attitude, nurses cannot complete this activity with the expected outcome.

Aim/s: To describe level of attitude and awareness about breaking bad news (BBN) among the surgical nurses at National hospital, Sri Lanka

Methods: A descriptive cross sectional quantitative study was done on 186 nursing officers from surgical section of the National Hospital Sri Lanka using a self-administered questionnaire. It included three parts. First part focused on demographic data, second part focused on attitude towards BBN and third part focused on awareness about steps of SPIKES protocol.

Results: Out of 186 nurses 87% (n=162) was ever been involved in delivering breaking bad news (BBN). 6% (n=12) of Nurses had been studied a protocol regarding BBN and 17% (n=28) of Nurses always have done all steps according to the SPIKES protocol. Correct first step of the protocol is setting up the interview and 13% (n=21) identified the correct first step and experience of less than 5 years had better awareness of the first step (p=0.01). 79% (n= 146) was said they are uncomfortable when BBN, but they have done it. 17% (n=32) said they are very comfortable. But only 2 persons have identified correct first step among them. Only 4% (n= 8) nurse had get a training before and 96% (n=178) nurses who thought that they need a training.

Conclusion: The general awareness among nurses on breaking bad news seemed poor; but it was somewhat better among graduates or current part time undergraduates.

Email of the Corresponding Author: asela.senevirathna@yahoo.com

KNOWLEDGE, ATTITUDES AND LEVEL OF ENGAGEMENT OF MEDICAL OFFICERS IN HEALTH RESEARCH IN GENERAL HOSPITALS, BADULLA AND GAMPAHA

Wijetunga, W. M. T. S.¹, Kumarapeli, V.²

1. District Base Hospital, Dickoya
2. Education, Training & Research Unit, Ministry of Health, Sri Lanka

Background: Health research is vital for the development of health services and for professional development. Though many efforts were taken by the Ministry of Health to improve research conduction, the involvement of Medical Officers (MOO) is low particularly from the peripheral parts of the country. MOOs in larger institutions such as General Hospitals (GH) in Western province e.g. GH Gampaha may have a conducive environment for conducting health research than in the peripheral parts of the country such as GH Badulla.

Aim: To compare the knowledge, attitudes and level of engagement of Medical Officers in health research in General Hospitals (GHH) Badulla and Gampaha.

Methodology: Descriptive cross sectional study, conducted at GHH, Badulla and Gampaha. The required 133 Medical Officers were selected from each population by simple random sampling method. Self-administered questionnaire collected data on knowledge, attitudes and research engagement.

Results: Response rates were 83.4% (n=111) and 76.6% (n=102) in GH Badulla and Gampaha respectively. Significantly higher proportion ($p<0.05$) of MOO of GH-Badulla had good knowledge (n=69, 62.2% vs. n=49, 48%). Knowledge on research correlated negatively with the age of MOO in both hospitals ($p<0.01$). Significantly higher proportion ($p<0.01$) of first appointees were in GH-Badulla compared to GH-Gampaha (n=63, 56.8% vs. n=10, 9.8%).

Majority of MOO of GH-Gampaha (n=69, 67.6%) and GH-Badulla (n=84, 75.7%) had overall favorable attitudes towards research. Research experience was less in both GH-Gampaha (n=36, 35.3%) and GH-Badulla (n=35, 31.5%).

Among MOO with Post Intern research experience, around half of GH Gampaha (n=17, 47.2%) and Badulla (n=19, 54.3%) had presented in conferences whereas around quarter had published in journals: GH-Gampaha (n=9, 25.0 %) Badulla (n=10, 28.6%). However Post-Intern research presentation and publications of MOO working in GH Gampaha have led to more National and International presentations (n=14, 82.3%) and publications (n=8, 88.8%) whereas GH Badulla it was confined mostly to institutional/local level conferences (n=15, 78.9%) and journals (n=7, 70%).

Commonest perceived barriers: inadequate knowledge at Gampaha (n=74, 72.5%), Badulla (n=82, 73.9%), inadequate guidance from the institution: Gampaha (n=71, 69.6%), Badulla (n=79, 71.2%) lack of time: n=61, 59.8% and n=68, 61.3%, respectively.

Conclusions: Despite moderate percentage of MOO with good knowledge and higher percentage with favorable attitudes, Post Intern research engagement of MOO was low in both settings.

Email of the corresponding author: thilina Wijetunga@yahoo.com

National Health Research Symposium – 2017 | Page 310

PP 101

KNOWLEDGE, ATTITUDE, AND PRACTICES OF MEDICAL OFFICERS IN NATIONAL HOSPITAL OF SRI LANKA ON PSYCHOLOGICAL FIRST AID DURING DISASTER RESPONSE

Perera, W.D.S.C¹, Vallipuranathan, M.², Rajapaksha, R.M.N.U.³

1. Postgraduate Institute of Medicine, University of Colombo
2. Ministry of Health Colombo
3. Postgraduate Institute of Medicine, University of Colombo

Background: Psychological first aid is humane, supportive and practical assistance to fellow human beings who is suffering and who may need support (WHO, 2011). Medical officers play a key role as a leader and a member of a disaster response team.

Aim/s: To describe the knowledge, attitude, and practices of medical officers in National Hospital of Sri Lanka (NHSL) on psychological first aid during a disaster response.

Methods: Institution based descriptive cross sectional study was carried out among 172 Medical officers worked during August to October 2014 in NHSL using a simple random sample. A pretested self-administered validated questionnaire was used to collect data by the principal investigator. Ethical clearance was obtained from ERC, NHSL.

Results: Response rate was 96% (n=165). Out of them, 55.2% (n=91) were females and 33.4% (n=55) were from the service category of three to six years. Out of the study population, 56.4% (n=93) had good knowledge on psychological first aid. There was statistically significant ($p<0.05$) higher knowledge among the service category of less than nine years (61.7%; n=71). Among them 57% (n=94) had good attitude and 62% (n=101) reported good practices. Those with good attitude had good knowledge and it was statistically significant ($p<0.05$). The study showed that respondents with good attitude had a good practice and it was statistically significant ($p<0.001$).

Conclusion: There was good knowledge, attitude and practices on psychological first aid among medical officers work in NHSL on psychological first aid during a disaster response. Service experience was negatively associated with the knowledge on psychological first aid. The attitude of the respondents reflects the importance in providing psychological first aid to victims and implementation of psychological first aid training among medical officers.

Email of the Corresponding Author: rmnur2014@gmail.com

AN EVALUATION OF RESEARCH SKILLS AND ATTITUDES ABOUT RESEARCH SKILLS TRAINING, AMONGST MEDICAL STUDENTS OF FACULTY MEDICINE, UNIVERSITY OF KELANIYA

Jayalal M.D.S.¹, Sandanayake A.P.², Hewageegana U W³, Chandrakumara U.P.M⁴

1. Base Hospital, Homagama
2. Post Graduate Institute of Medicine, Colombo
3. Former MOH, Borelasgamuwa
4. Base Hospital, Hambanthota

Background: Undergraduate research (UGR) has been an integral part of the medical curricula for many years, globally. Sri Lankan medical schools have had UGR programs for many years. However, only a very few of these UGRs are published. On the contrary UGRs of the other countries are published much more frequently. Therefore there is a need to understand the issues pertaining to the skills and the attitudes of medical undergraduates regarding UGR, in order to rectify these shortcomings.

Aim: To evaluate research skills and attitudes about research skills training, amongst medical students of Faculty of Medicine, University of Kelaniya.

Methodology: A descriptive cross sectional study was carried out using an interviewer administered questionnaire amongst first and second year medical undergraduates of the faculty of medicine, University of Kelaniya. A simple random sampling was done and a total of 127 students were interviewed. The study period was between 01.07.2013 to 31.03 2014.

Results: Out of the 127 undergraduates interviewed 81/127 (64%) stated that their skill level on research idea generation was average. On the skill level for literature review 99/127(78%) stated that they have average or poor ability and on the skill level on research methodology 100/127(79%) stated that their skill level was poor. Similarly, 86/127(68%) stated that their skill level on data management was average. On the skill level of discussion writing, 57/127(45%) stated that they had poor skill levels and 90/127(71%) stated that they have average ability in writing the conclusion. Similarly, only 11/127(9%) stated that they have good or very good skills to publish their research.

Conclusion: Results showed that most of the students perceive their skills to do research as average or poor. Further studies on larger samples of students and faculties are needed to understand the exact need of the students in order to adjust curricula.

ARE THE INTENSIVE CARE NURSES KNOWLEDGABLE IN CARING FOR PATIENTS WITH ENDORACHEAL TUBE? RESULT FROM NATIONAL HOSPITAL COLOMBO

Colombage, T.D.¹, Goonewardena, C.S.E.²

1. National Hospital of Sri Lanka.
2. Department of Community Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka.

Background : Endotracheal intubation and mechanical ventilation are essential lifesaving treatment for many critically ill patients. Artificial air ways are utilized to facilitate mechanical ventilation. Endotracheal suctioning (ETS) is one of the most common procedures performed in patients with artificial airways. It is a component of bronchial hygiene therapy and mechanical ventilation that involves the mechanical aspiration of pulmonary secretions from a patient's artificial airway to prevent its obstruction.

Aim :To describe the intensive care unit (ICU) nurses' knowledge in caring for patients with Endotracheal Tube (ETT) in National Hospital of Sri Lanka (NHSL).

Methods: A cross sectional hospital based study was done among nurses in all ICUs of NHSL. Self-administered questionnaire was developed by using American Association of Respiratory Care (AARC) clinical Practice guideline 2010. Ethical approval was obtained from Ethics Review Committee, Faculty of Medical Sciences, University of Sri Jayewardenepura. Data was analyzed by using SPSS 16 version.

Results: Total sample size was 334. Response rate was 55.4%. Majority of nurses were females (N= 170, 91.9%) and mean age was 31.74 ± 5.69 SD years. Majority had less than 5 years of ICU experience (56.2%). Mean knowledge was 69.7 ± 12.66 SD. Only half had good knowledge (N = 94, 50.8%) on endotracheal tube care. Majority had good knowledge on statements on ventilated patients oral care (N= 183, 98.9%), humidification ((N= 176, 95.1%) and optimal cuff pressure (N= 155, 83.1%). Knowledge was poor for statement "oral secretions may pool above the cuff leading to ventilator associated pneumonia" (VAP) (N= 22, 11.1%), Selecting suitable suction catheter (44%) and colonization in vaporized water (18%).

Conclusions: Most nurses were not aware of the current protocol or guidelines related to ET tube care. Significant deficiencies were observed with tracheal complications and tracheal traumatize activities which may can lead to serious and harmful effect to the patients.

Email of the Corresponding Author: tdcolombage@gmail.com

CAPACITY BUILDING NEEDS OF THE PUBLIC HEALTH STAFF IN RELATION TO ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND FOOD SAFETY IN NORTHERN AND EASTERN PROVINCES OF SRI LANKA

Wickramasinghe S. C.², Suraweera S.A.I.K.¹, Herath H. D. B.³, Wijesekara N², Senanayake SJ⁴

1. Environmental and Occupational Health Directorate, Ministry of Health
2. Ministry of Health
3. Anti-Malaria Campaign, Ministry of Health
4. Faculty of Medicine, University of Colombo

Background: Northern and Eastern provinces of Sri Lanka are expected to undergo rapid development during the next decade. The Environmental and Occupational Health (EOH) service delivery in the above provinces needs to cater to the above changes. Medical Officers of Health (MOOH) and Public Health Inspectors (PHII) are the first line workers in the field and it is important that their training needs are assessed in order to ensure the quality of service provision.

Aim: To identify the capacity building needs of the public health staff in relation to EOH and food safety service delivery

Methods: A descriptive cross sectional study was carried out among randomly selected MOOH and PHII working in Northern and Eastern Provinces in 2015. Trained data collectors administered a pretested interviewer administered questionnaire.

Results: Twenty seven MOOH and 119 PHII participated in the capacity building needs assessment.

The mean age of the MOOH was 40.6 (SD 8.3) years. Among MOOH, 22 (81.5%) preferred the training programmes to be conducted in English. According the MOOH, except for the emphasis given to food safety during the basic MOOH training, the emphasis given to other areas of EOH were low. A majority of the MOOH have not got the opportunity to participate in the main EOH training programmes conducted in the country and most of them were of the view that they need further opportunity to participate in training programmes in these areas.

The mean age of the PHII was 39.6 years (SD 8.2). Ninety six (80.7%) of PHII preferred the training programmes to be conducted in Tamil. PHII too agreed that except the emphasis given to food safety during the basic training, the emphasis given to other areas were low according the study participants. Most of the PHII too have not got the opportunity to participate in the main EOH training programmes conducted in the country.

Conclusion: Gaps were evident in environmental, occupational health and food safety capacity building programmes in Northern and Eastern provinces. It is important that public health staff are offered with trainings in these areas in a systematic and frequent manner in languages that they can easily comprehend.

Email of the Corresponding Author: sam197902@gmail.com

CORE COMPETENCIES OF PRIMARY HEALTH CARE WORKERS IN DEVELOPING HEALTH PROMOTION SETTINGS IN KALUTARA RDHS DIVISION

Ranga, S.D.U.M.¹, Hewageegana, N.S.R.², Dilrukshi, D.A.R.K.¹

1. Post Graduate Institute of Medicine, University of Colombo.
2. University of Peradeniya.

Background: A healthy setting is defined as a place where people engage in daily activities in which environmental, organizational and personal factors interact to affect health. The national health promotion policy of Sri Lanka recognized health promotion as an effective approach to improve health. The Public health midwives and Public health inspectors are the primary health care workers (PHCW) who work with communities to promote health.

Objectives: To assess the core competencies of primary health care workers in developing health promotion settings in Kalutara RDHS division.

Methods: This cross sectional descriptive study conducted in Kalutara RDHS division. All eligible PHCW who have been working in Kalutara RDHS division, were included in the study (n=307). A structured, pre-tested and self-administered questionnaire which had been developed by consulting the experts and referring the international literature was used to collect data. The knowledge, attitude and skills of PHCW on developing health promotional settings were assessed by using questionnaire. The data were analyzed v by using statistical tests and Chi-square value.

Results: A majority (215, 70.0%) of PHCW had a 'poor' knowledge on developing health promotion settings. The knowledge was significantly associated with educational level GCE A/L or higher ($P \pm 0.012$), ability to read English ($P \pm 0.021$) and experience less than 5years ($P \pm 0.002$). The level of attitudes was good (204, 69.4%). The level of knowledge on health promotional settings was significantly associated with level of attitudes of participants ($P \pm 0.004$). A majority (206, 67.5%) of study participants declared that they hadn't have health promotional settings in their field. Only 25.1% (77) participants had adequate skills in developing health promotional settings. The level of skills was significantly associated with existence of health promotional settings in their fields ($P \pm 0.000$). Most of the participants stated that limited time, inadequate training and lack of community interest as barriers. (< 0.05 consider as significant level for the study).

Conclusions: PHCW in Kalutara RDHS division had 'poor' knowledge and skills on health promotional setting though their attitudes found to be 'good'. Lack of time, and inadequate training were identified as commonest barriers. The study recommends improving the quality of basic training, improving the English language proficiency and motivation of primary health care workers.

Email of the Corresponding Author: rangasabhpathige@gmail.com

KNOWLEDGE ATTITUDES AND PRACTICES OF MEDICAL OFFICERS AT THE LADY RIDGEWAY HOSPITAL COLOMBO ON PREPAREDNESS FOR SELECTED DISEASES WITH PANDEMIC POTENTIAL

Lakmali, A.K.S^{1*}, Kumarapeli, V²

1. National Cancer Institute Maharagama
2. Education Training and Research Unit, Ministry of Health

Background: Pandemics are unpredictable but recurring events with devastating consequences. Medical Officers (MO) are at the forefront of managing a pandemic response. and they are at increased risk of getting exposed to such infections.

Aim: To assess knowledge, attitudes, and practices of Medical Officers at the Lady Ridgeway Hospital Colombo on preparedness for selected diseases - Highly Pathogenic Avian Influenza (HPAI) and Ebola Virus Disease (EVD)

Methods: Descriptive cross-sectional study was carried out at the Lady Ridgeway Hospital, Colombo from August to October 2016 inviting all (119) the Medical Officers working in OPD, PCU, MICU, Medical wards, and Isolation unit. A pre-tested self-administered questionnaire was used to assess knowledge on causative organism, transmission, clinical manifestations, laboratory diagnosis, treatment, notification, surveillance procedure, attitudes towards working during such pandemics, learning more about the disease, willingness to participate in simulation exercises, awareness of practices – standard and isolation precautions. Data collected and analyzed by the principal investigator. Data analyzed using SPSS version 21 software

Results: Response rate was 93.27% (n=111). Of them, 31.5% (n=35) had a good level of knowledge on HPAI while 43.2% (n=48) had average level of knowledge with 60.3% (n=78) correctly stating notification of cases to relevant Medical Officer of Health; 39.6% (n=44) had 'good' and 49.5% (n=55) 'average' knowledge on EVD.

Of respondents, 64.0% (n=71) and 59.5% (n=66) had favourable attitude towards working during a pandemic of HPAI and EVD respectively. Also 36.9% (n=41) and 46.8% (n=52) were afraid of contacting HPAI and EVD respectively, (5.4%; n=6) consider resigning due to the risk; , but 73.9% (n=82) wanted to participate in simulation exercises.

Majority 46.8% (n=52) scored average score for knowledge. Although 20.7% (n=23) had undergone training on Personal Protective Equipment (PPE), only 14.4% (n=16) reported the correct sequence of donning PPE, only 45% (n=50) reported correctly the minimum distance that the beds should keep to prevent airborne transmission.

Conclusions: Overall knowledge and awareness on practices was average, but elicited favourable attitude towards working in pandemic situations, and participating in simulation exercises. Regular training programmes should be conducted on specific infection control measures for pandemic situations with simulation exercises at least once a year.

Correspondence: aksachlakamali@gmail.com

National Health Research Symposium – 2017 | Page 316

PP 107

THE EFFECTIVENESS OF A HOMEMADE SUPPLEMENTARY FOOD, IN IMPROVING THE WEIGHT GAIN OF MODERATELY ACUTE MALNOURISHED CHILDREN, BETWEEN 02 TO 05 YEARS IN KOPAY MEDICAL OFFICER OF HEALTH AREA

SivashankarJ.T.¹, Thalagala N.²

1. Registrar, Community medicine, Faculty of Medicine, University of Jaffna
2. Consultant Community Physician, Child health unit, Family Health Bureau

Introduction:

Improving wasting among under 5 children is a challenge even with food supplementation and cash transfer programmes for the marginalized populations.

Objectives: To assess the feasibility, acceptability and effectiveness of a home-made supplementary food (HMSF) in the weight gain of moderately acute malnourished children (MAM) between the ages 2 to 5 years.

Methods:

This was a quasi-experimental study carried out in Kopay MOH area in Jaffna district during October to December 2014. The acceptability and feasibility was assessed by Focus group discussion with the Public health staff and the mothers. The intervention population was children with MAM ($\geq -3SD$ to $\leq -2SD$ for Weight for Height) between 3-5 years, in Kopay MOH (n=275= Total number of MAM children), and the control group was MAM children of similar age in Uduvil, Nallur MOHs (n=285= by Simple random sampling).

Amount of HMSF to be given was decided after a test study (mean 90 g). Fifty grams HMSF was given to the children daily as a snack with added sugar and scraped coconut (total=90gm= 500 kcal) to the intervention group for 3 months. Monthly weight gain was measured in both groups and was analyzed using independent sample t-test.

Results: Mean age of the test group was 42.6months and control was 43.1 months. There were no base line differences between the groups before the intervention (95% CI - 0.059-0.416: p=0.14). The mean weight gain difference is 105 g and it is statistically significant (95% CI 0.03-0.18, p=0.006). The mean height gain difference is -0.11 cm and it is statistically not significant (95%CI -0.30 -+0.07, p=0.234). Acceptability and feasibility of the intervention was proved by the focus group discussions.

Conclusions and Recommendations: This HMSF is easy to prepare at home by mothers, and could be recommended for MAM children under five years for the improvement of weight.

Email of the corresponding author: thirumagalsiva1966@gmail.com

PREVALENCE ASSOCIATED FACTORS AND MANAGEMENT OF LONG STANDING GROWTH FALTERING AMONG CHILDREN OF 15-60 MONTHS ATTENDING PRIMARY HEALTH SERVICES IN MORATUWA MEDICAL OFFICER OF HEALTH AREA

Nilaweera,W.R.L¹, Arnold,S.M²,

1. Ministry of Health, Nutrition and Indigenous Medicine
2. Office of the Regional Director of Health Services, Colombo

Background: Long standing growth faltering (LGF) is inadequate weight gain lasting for minimum of three months. The growth monitoring and promotion (GMP) program has clearly laid management guidelines to follow when children with growth faltering is met.

Aim/s: Study aimed to assess the prevalence of long standing growth faltering, among children aged 15-60 months, attending primary health services in the Moratuwa Medical Officer of Health area, and to describe associated factors, the adherence to management guidelines by primary healthcare service providers and the care giver awareness of growth of the child.

Methods: 260 children, attending Child Welfare Clinics or field weighing posts in the Moratuwa Medical Officer of Health area were selected for the cross sectional study. Data on socio demographic factors, dietary and feeding practices, care giver awareness of the growth problem and the records on management of the growth faltering were collected. Associations were analyzed with chi square and Odds ratio.

Results: 48.8% (95% CI: 43.5-54.4) had growth faltering lasting more than three months, and 85% (n=108) had onset before the age of twelve months.

Majority (98.4%; n=125) had normal age specific weight at onset, but 71.6% (n=91) of them had a weight drop, growth curve crossing at least one standard deviate line toward underweight. Nearly 30% (n=38) of them were underweight at the time of study, despite any interventions that are expected to be done by the health care services and the care givers.

Inadequate quantity per main meal and frequent intake without maintaining 2.5 hours between main meals were associated with OR of 3.154 (1.875-5.304) and 1.983 (1.162-3.384) respectively. Marked reduction in food intake during illness according to the care giver, was also associated (OR 2.3, 95% CI 1.4-3.9; p=0.001).

Only 21.3% (n=27) of children with long standing growth faltering were correctly coded in Child Health and Development Record, and 49.6% (n=63) were coded wrongly stating no growth faltering. Growth status was not marked in 29.1% (n=37) by Medical officers.

Conclusion:

Considerable proportion of the children attending the primary health care services continued to have growth faltering, associated with some dietary practices, and low parental education level. Early detection and adherence to the management guidelines needs to be improved.

Email of the Corresponding Author: nilaweeralakshima@gmail.com

PP 109

ASSOCIATION OF LOW BIRTH WEIGHT WITH GROWTH PROBLEMS, DEVELOPMENTAL DELAY AND SELECTED ILLNESSES DURING 2ND YEAR OF LIFE AMONG CHILDREN IN MORATUWA MOH AREA

Alagiyawanna, A.M.A.D.K.¹, Thalagala, N.²

1. Anti-Malaria Campaign, Ministry of Health
2. Family Health Bureau, Ministry of Health

Background: Low birth weight (LBW) is a priority public health problem in Sri Lanka. Contribution of low birth weight in Sri Lankan context is yet to be assessed.

Aim: Present study aimed to determine presence and strength of association of LBW with growth problems, developmental delay and frequency of illnesses among children in 2nd year of life in Moratuwa MOH area.

Methods: Retrospective cohort study was carried between 147 LBW (exposed group) children and 137 normal birth weight (non - exposed) among children in 2nd year of life using random cluster sampling. Caregivers were interviewed. Birth weight was obtained from CHDR. Anthropometric measurements were obtained by Public Health Midwives. Medical history was extracted from medical records. Developmental status was determined using Parents Evaluation of Developmental Status (PEDS) screening tool.

Results: Children with LBW were at a higher risk of all types of growth faltering. Underweight (RR = 3.6, 95% CI 2.0 - 6.8), wasting (RR = 3.6, 95% CI 1.6 - 8.0) and stunting (RR = 1.8, 95% CI 1.3 - 2.5) were higher among the LBW children. Developmental delay also was higher among LBW children (RR = 1.3, 95% CI 1.02 - 1.53). Association between LBW and frequency of illnesses was not observed. Further, 72.6% of underweight, 72.25% of wasting and 44.9% of stunting burden among LBW children could be attributed to LBW. In addition, 20.1% of developmental delay among LBW children was attributed to LBW. Population attributable risk percents showed that around 30 % of underweight and wasting, nearly 12% and 5% of stunting, and 5% of developmental delays among children in the population could be attributed to LBW.

Conclusions: LBW children need to be identified as a high-risk target group for more focused nutrition interventions and developmental screening. Reduce incidence of LBW will significantly reduce growth faltering and developmental problems.

Email of the corresponding author: adushyanthi@yahoo.com

PP 110

A STUDY TO IDENTIFY ASSOCIATED FACTORS OF ANAEMIA UNDER FIVE YEARS CHILDREN FROM MOTHERS PERSPECTIVE

De Silva B.S.S.¹, Dissanayaka D.M.T.M², Amaradasa .Y.S.²

1. Department of Health Science, Open University Sri Lanka
2. District General Hospital Monaragala

Background: Anemia is defined as low level of hemoglobin in the blood. In the Monaragala district this value was 25.6%, making it the district with the second highest level. Children are one of the common groups at risk for anemia. Causes of anemia can be multifactorial and the different factors associated. According to those factors want to identify what are the factors affect to the Monaragala Children

Aim: To identify associated factors of anemia in under five year children from mothers' perspective

Methods: A population based descriptive, cross-sectional study was carried out. Study sample consisted of 150 mothers of children with anemia between the ages of six month to five years. Convenient sampling was done. An interviewer administered questionnaire was used to collect data. Data was analyzed using (SPSS) version 16.0.

Result: Majority of the mothers had studied up to O/L or below (84.7%, n=127), had a total family income of less than 15000 /= per month (82.7%, n=124) and were housewives (85.3%, n=128)

Sixty seven percent of the mothers had poor knowledge about anemia. Similarly the majority had poor knowledge regarding management of balance diet (63.3%, n=95), complimentary feeding (65.3%, n=98) and iron rich foods (67.3%, n=101)

Conclusion: Mothers knowledge about Anemia, management of balance diet, complimentary feeding, and iron rich food sources was found to be inadequate. Hence, an educational programs aimed at educating the mothers should be conducted. More extensive studies needed to be carried out to explore the causes in details.

Email of the Corresponding Author: tharaa222@gmail.com

COMPARATIVE ANALYSIS OF THE NUTRITIONAL QUALITIES OF EDIBLE NUTS IN SRI LANKA WITH SPECIAL REFERENCE TO TROPICAL ALMOND

Rizniya, M.N.F.¹, Rifaee, M.M.M.¹, Arawwawala, L. D. A. M.², Mawjood, A.H.M.¹, Nasmeeer M.S.M.¹

1. Institute of Indigenous Medicine, University of Colombo. Sri Lanka
2. Industrial Technology Institute, Baudhaloka Mawatha, Colombo 7, Sri Lanka

Background: Nuts are nutrient dense foods. Among the constituents of nuts there are significant amounts of essential micronutrients and bioactive compounds that are associated with an improved health status. Consumption of nuts in Sri Lanka is comparatively less, because of the more expensive in price as well as lack of knowledge. Cashew nuts (*Anacardium occidentale*), Ground nuts (*Arachis hypogaea*) and Almond (*Prunus amygdalus*) are some commonly consumed nuts in Sri Lanka. Tropical Almond (In Sinhala: Kottang) (*Terminalia catappa* L.) is an unconventional and less commonly consumed nut though it is richly available in Sri Lanka.

Aims: This study was designed to compare the Nutritional qualities of above mentioned commonly used edible nuts with special reference to Tropical Almond (Kottang).

Method: Dried Tropical Almond Seeds were collected from the premises of University of Colombo during the period of May – July 2016, dried and preserved; Almond seeds were purchased from local market in Sri Lanka. Association of Analytical Communities methods were used to investigate the carbohydrates, protein, fat, calcium (921.01:2000) and iron (AOAC, 999.11:2000) contents of nuts.

Result: The result reveals that carbohydrate contents of Cashew nuts, Ground nuts, Almond and Kottang were 30.19%, 16.30%, 21.55%, and 20.24% respectively, protein contents of above mentioned nuts were 18.22%, 27.04%, 35.0%, and 27.4% respectively, the fat contents of above mentioned nuts were 43.85%, 51.24%, 41.5%, and 52.3% respectively. In micronutrients Calcium contents of Cashew nuts, Ground nuts, Almond and Kottang were 37 mg/100g, 54 mg/100g, 209 mg/100g, and 264 mg/100g respectively, Iron contents of above mentioned nuts were 6.68 mg/100g, 1.65 mg/100g, 2.99 mg/100g, and 3.72 mg/100g respectively. Among them Fat (52.3g/100g), Calcium (264 mg/100g) and iron (3.72 mg/100g) contents were comparatively high in Kottang which was less commonly consumed in Sri Lanka.

Conclusion: This study showed that Tropical Almond (Kottang) is a good source of nutrients as same as other edible nuts in Sri Lanka, therefore it could be encourage to consume Kottang in the place of above motioned nuts conveniently.

Email of the Corresponding Author: rizniyanazeem@hotmail.com

PP 112

IMPROVEMENT OF MULTISECTORAL NUTRITION PROMOTION ACTIVITIES IN KOTHMALE MEDICAL OFFICER OF HEALTH AREA IN NUWARAELIYA DISTRICT

Senevirathna, W.R.M.M.¹, Gunawardana, S.R.H.P.²

1. Base Hospital, Gampola
2. Non-Communicable Disease Unit, Ministry of Health, Colombo

Background: Malnutrition is a multisectoral problem with multisectoral solutions. The determinants of malnutrition are multisectoral. Multisectoral Nutrition Promotion Activities (MNPAs) are the activities from other sectors including private sector other than health which aimed at improving nutrition in the community. The government has identified importance of multisectoral involvement in nutrition promotion activities and has appointed National Nutrition Council to augment the nutrition interventions through inter-sectoral co-ordination.

Aims: To strengthen grass root level MNPAs in Kothmale Medical Officer of Health (MOH) area in Nuwaraeliya district.

Methods: An intervention project was carried out targeting Public Health Inspectors (PHIs) and Public Health Midwives (PHMs) for a period of six months. The study consisted of three components. First component was a descriptive cross-sectional study to identify the present situation of MNPAs. Data about MNPAs were collected using interviewer administrated questionnaire to the PHIs and PHMs and a check list. Second component was to improve MNPAs based on study findings. Which was carried out through advocacy to middle level managers of selected Government and non-Government organizations in Kothmale MOH area, development and introduction of forms for record keeping and reporting, capacity building of PHIs and PHMs on MNPAs and reviewing the progress in the monthly MOH conference was an agenda item. The third one was a descriptive study to assess the effectiveness of the intervention. Post intervention study was conducted three months after the intervention by using same study instruments as in first step. The pre-and post-intervention findings were compared.

Results: Response rate was 100% for the pre-test and for the post-test. The total number of MNPAs conducted in the area during last three months and one month in the post implementation study had been increased from 18 to 132 and 4 to 44 respectively. The significance of the increase of MNPAs was tested using paired 't' test. Significant post-test values were observed compared to pre-test values for MNPAs conducted in the area during last three months and ($P < 0.001$) and one month ($P < 0.001$) in the post implementation study.

Conclusions: Multiple interventions targeting key stakeholders and introducing a monitoring system were effective increasing number of multi-sectoral nutrition promotion activities in Kothmale Medical Officer of Health area in Nuwaraeliya District.

Email of the Corresponding Author: dr.mahendra.068@gmail.com

PP 113

CONTRACEPTIVE USE BY 15-24 YEAR OLD SRI LANKAN YOUTH: NATIONAL YOUTH HEALTH SURVEY, SRI LANKA (2012/13)

Danansuriya, M.N.¹, Thalagala, N.¹, Lokubalasooriya, A.¹, Godakandage, S.S.P.¹, Dhanapala, S.¹, De Silva, C.¹

1. Family Health Bureau, Ministry of Health, Sri Lanka

Background: Youth can have positive sexual behaviors like abstinence and condom use, or they can have practices leading to negative outcomes such as unplanned pregnancy. Contraceptive use is an important indicator of youth sexual health. Present abstract describes evidence from National Youth Health Survey (2012/13)

Aim: To assess the modern contraceptive use among 15-24 year old Sri Lankan youth in Sri Lanka

Methods: Cross sectional study was conducted island wide using stratified multistage cluster sampling method to obtain a nationally representative sample of 15-24 year old youth from Urban, Rural, Estate & North East strata. Information on contraceptive use was included in the self-administered part of the questionnaire. Questionnaire was administered at the households of study participants with the support of trained youth volunteers. Weighted analysis was carried out to account for differential selection probabilities.

Results: Total responded was 8118 (92%) 50.8% females, 15.4% married, 14.7% of total were currently sexually active (had sexual intercourse in the preceding year). Nearly 4% of total sample reported ever use of Emergency contraceptive pills (ECP) and 9% of sexually active youth (CSA) had taken ECP during preceding month. 5% of the total, 31.8% of the married and 40.7% of CSA youth reported on current use of modern contraceptive methods. Contraceptive use among married youth was significantly low in estate sector. Most popular method was oral contraceptives (OCP). CSA youth had reported of using condoms with their regular partners (49%), boy/girlfriend (32.1%) and with commercial sex workers (13.7%).

Conclusion:

Contraceptive use among married as well as among currently sexually active youth is low. Health services should focus more on enhancing contraceptive awareness and service availability targeting both married and unmarried youth. Extra efforts need to be employed in estate and N-E sectors to address the unmet needs of family planning among the youth.

Email of the Corresponding Author: manju114c@yahoo.com

PP 114

PREPAREDNESS AMONG MALE PARTNERS OF PREGNANT WOMEN FOR BIRTH AND RELATED COMPLICATIONS IN A MEDICAL OFFICER OF HEALTH (MOH) AREA IN SRI LANKA

Rodrigo, U.C.H.¹, Kumarapeli, V.²

1. National Institute of Health Sciences, Kalutara
2. Ministry of Healthcare, Nutrition and Indigenous Medicine

Background: Delay in seeking care results in adverse outcomes during child birth. Birth Preparedness and Complication Readiness (BPCR) promotes making arrangements to face unexpected events. Participation of male partner is important in this process.

Aims: The objective was to assess BPCR and associated factors among male partners of pregnant women attending antenatal clinics in MOH Padukka.

Methods: This descriptive cross sectional study involved 269 male partners of pregnant women in third trimester. Study sample was divided among the Public Health Midwife (PHM) areas using probability proportionate to size and the desired number selected by simple random sampling from each PHM area of MOH Padukka using the 'expected date of deliveries register' as the sampling frame. Satisfactory BPCR was considered as accomplishing six out of eight birth preparedness components outlined by World Health Organization birth preparedness plan. Data was collected using a pre-tested, interviewer administered questionnaire and analyzed using SPSS software. Chi-square test was used to assess associations. Ethical clearance was obtained from ethical review committee, Faculty of Medicine, Colombo.

Results: Participants were aged 20 to 49 years. Of them 99.3% were Sinhalese, 99.3% were Buddhists (99.3%), 54.2% had completed secondary education, 98.9% were employed and 83.9% (n=226) had monthly income over Rs. 10,000.00.

Among participants 90.3% had satisfactory BPCR; decided on a facility to give birth (95.5%), planned transport (97.4%), saved money for child birth (88.8%), identified the facility to go in an emergency (97%), arranged transport for emergencies (95.5%), saved money for emergencies (94.1%), arranged a companion for pregnant woman (94.1%) and made arrangements to look after other children (90.1%]. Only 76.7% had favourable attitudes towards BPCR while 66.2%, 56.9% and 48.2% had satisfactory knowledge on danger signs during pregnancy, labour and post-partum periods respectively.

Satisfactory BPCR was associated with age >32 years, vehicle ownership, staying home >3 nights/week, knowledge on danger signs during pregnancy, favourable attitudes, attending antenatal classes and discussing BPCR plan with pregnant woman and healthcare provider (p<0.05).

Conclusions: Male partners of pregnant women in MOH Padukka had a high level of BPCR. However knowledge on danger signs and attitudes towards BPCR need improvement.

Email of the Corresponding Author: mal_has@yahoo.com

PP 115

BIRTH AND EMERGENCY PREPAREDNESS AND ITS ASSOCIATION WITH MATERNAL AND NEONATAL OUTCOMES AMONG POSTNATAL MOTHERS AT BASE HOSPITAL, BALANGODA

Perera WND¹, Goonewardena CSE¹

1. Department of Community Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura

Background: Birth and emergency preparedness had been identified as a behaviour change intervention in Safe Motherhood Initiative, which will contribute to reduce the three delays in deciding to seek care, reaching the health facility and receiving care during pregnancy and child birth which will contribute to save lives of mothers and new born babies.

Aim/s: To describe the birth and emergency preparedness and its association with maternal and neonatal outcomes

Methods: A descriptive cross sectional study was conducted among 427 postnatal mothers, delivered after completion of 37 weeks of period of amenorrhoea. Data was collected using a pre tested interviewer administered questionnaire. Chi square test was used to test the significant associations and a probability of less than 0.05 was selected as the level of significance.

Results: Response rate was 93.9% (n=401). Majority (84.3%, n=338) had utilized antenatal care services, and were registered before 12 weeks. Majority had vaginal delivery (65.3%; n=262) and postpartum complications were experienced by 6.2% (n=25) mothers. 99.5% (n=399) were live births, 21.4% were low birth weight babies and 4.8% (n=19) were resuscitated after birth. Breast feeding was initiated in 95.5% of babies (n=381) within one hour.

Majority of the mothers (59.4%, n=238) were well prepared for birth and emergencies. Less well prepared mothers were more likely to experience postpartum complications compared to well-prepared mothers (p<0.05). There was no statistically significant association between BAEP and mode of delivery. Babies of well-prepared mothers were more likely to have a favourable Apgar score at ten minutes and not needed resuscitation at birth (p<0.05). There was no significant association with BAEP with birth weight or early initiation of breast feeding.

Conclusions: Preparedness for birth and emergencies was satisfactory among study participants. The association between well preparedness and the better maternal and neonatal outcomes suggests the need for further strengthening of this intervention.

Email of the Corresponding Author: dnadeekaperera@yahoo.com

PP 116

OUTCOME OF MISCARRIAGES, AMONG PATIENTS ADMITTED FOR POST ABORTION CARE TO BASE HOSPITAL WATHUPITIWALA, SRI LANKA

Amarasiri, A.¹, Ganepola, G.A.M.P.¹, BhagyaLochana, R.P.S.S.¹, Wickramarathna W.A.I.¹, Herath, H.M.L.P.¹, Jayasinghe P.P.²

1. Base Hospital Wathupitiwala
2. Faculty of Medicine Peradeniya

Background: Miscarriage is the spontaneous or unplanned expulsion of a fetus from the uterus before it is able to survive independently. 25-30% of pregnancies in Sri Lanka end up with miscarriages. Increased risk of developing an infection following a miscarriage is a serious pathological event which can lead to maternal death. Miscarriages also create a huge economical and sociocultural burden which should be addressed in a rational manner.

Aims: To describe the pattern and incidence of outcome events following miscarriages among patients who were admitted for post abortion care.

Methods: A descriptive cross sectional study was conducted for one year duration among 240 patients admitted to Base Hospital Wathupitiwala following miscarriages. Systematic random sampling technique was applied. Miscarriages due to trauma and patients who had interventional abortions were excluded. Data were collected by using an interviewer administered structured questionnaire and analyzed by using statistical software for social sciences version 22.0.

Results: Age of the participants varied from 19 years to 43 years (Mean 30.94: SD 5.53). 35.5 % of the participants had ended up their second pregnancy as a miscarriage. Mean gestational age at the time of miscarriage was 72.6 days (SD=19.58) and majority was between 10-15 weeks of gestation (N=109:48.4%). 30% had previous miscarriages. 81% presented with PV Bleeding and 54% had abdominal pain. Only 3.1% of participants (N=7) presented with signs of infection. Mean Haemoglobin level of participants was 11.89 (SD=1.07) 61% of participants were given Misoprostol to evacuate the retaining products and only 14% underwent surgical ERPC. All participants were cured completely.

Conclusion: Considerable number of participants had experiences of recurrent miscarriages and it was common before completing the first trimester. Satisfactory awareness among pregnant mothers was observed with regard to post abortion care. Both medical and surgical interventions had a similar outcome for retaining products. Cost effectiveness of medical and surgical interventions should be further analyzed in a hypothetical manner. Safety and efficacy of Misoprostol as a drug which can be used to evacuate retaining products of conception should be analyzed by using strictly rational and scientific methodology in local settings.

E mail of the Corresponding Author: samanala79@gmail.com

PP 117

PROPORTION, KNOWLEDGE, ATTITUDES AND CORRELATED OF ADVANCED MATERNAL AGE AMONG PREGNANT WOMEN, ATTENDING ANTENATAL CLINICS IN COLOMBO MUNICIPAL COUNCIL.

Nawaratne, S. D.¹, Vidanapathirana, J. M. J. P.²

1. Postgraduate Institute of Medicine, University of Colombo;
2. National STD/ AIDS Control Programme, Ministry of Health.

Background: Advanced maternal age shows an increasing trend at present. In many literature it has known to significantly increase the risk of maternal and foetal morbidity and mortality. Reasons for childbearing in later part of the reproductive years can be diverse and influenced by various factors.

Aim: To estimate the proportion and to assess the knowledge, attitudes and correlates of advanced maternal age among pregnant women, attending antenatal clinics in Colombo Municipal Council.

Methods: A descriptive cross sectional study was conducted among pregnant women attending antenatal clinics conducted by the Colombo Municipal Council. A sample of 427 women from 14 antenatal clinics was included in the study using multistage systematic sampling. A pretested interviewer administered questionnaire was used. The knowledge score was calculated on a 0-10 scale. Marks obtained for each question was added, and the total was converted into a percentage. Responses to the statements on attitudes were on a 5-point Likert scale. Statistical association of correlates was evaluated using χ^2 test and a p value of 0.05 was used to assess the significance.

Results: The proportion of women in advanced maternal age (35 years and older) was 14.4% (n=61). Only 20.3% (n=86) of the participants were having a 'good' level of knowledge regarding risk associated with advanced maternal age, while 49.0% (n=207) had 'poor' to 'very poor' knowledge. Positive attitude regarding pregnancy at an advanced age was observed among 67.1% (n=207) of the despondence while only 22.5% (n=95) had negative attitude. Pre-existing medical conditions ($X^2=18.84$; $p<0.001$), antenatal morbidities ($X^2=14.93$; $p<0.001$), failure of family planning methods ($X^2=12.36$; $p<0.001$) and history of caesarean sections ($X^2=16.62$; $p<0.001$) were significantly associated with women in advanced age compared to younger women.

Conclusions: The overall level of knowledge on the risks associated with advanced maternal age, among the participants was inadequate. Moreover a positive attitude regarding advanced maternal age seemed to prevail in the sample, where the participants didn't perceive being pregnant at an advanced age as a problem.

Email of the Corresponding Author: sdnawaratne@gmail.com

PP 118

DISEASE PATTERNS OF MATURE BABIES ADMITTED TO NEONATAL INTENSIVE CARE UNIT (NICU) OF SRI JAYEWARDENEPURA GENERAL HOSPITAL.

Suwarnaseeli, E.D.D.¹

1. Sri Jayewardenepura General Hospital

Objective: To describe disease patterns of mature babies admitted to Neonatal intensive Care Unit (NICU) of Sri Jayewardenepura General Hospital.

Methods: An analytical cross sectional design. Information collected using data sheets from Bed Head Tickets of mature babies admitted to NICU from 01/07/2012-31/12/2012.

Results: There were 179 admissions. Most were less than 3 days of age (85.5%). Caesarian and normal delivery were 53.3% and 41.3% respectively. Apgar was ten in the first minute in 82.1% of the admissions. Admissions due to feeding problems were seen in 35.5%. Others were GDM (10.1%), PIH (91.6%), Asphyxia (1.1%), small for gestational age (3.4%), low birth weight (5.6%), large baby (2.8%), aspiration 1.7%, pneumonia 1.1%, congenital diseases (2.3%). Among these 6.7% ventilated, 19.6% incubated, 35.8% received antibiotics and 98.9% received cot care. Nine transferred out for surgical care.

Conclusion: Most admissions were due to feeding problems. The requirement for ventilation and incubation were less. Admissions due to complicated diseases were minimal.

Email of the corresponding author: deepika.suwarnaseeli@hotmail.com

PP 119

A PROSPECTIVE STUDY TO EVALUATE ACCESS TO ELECTIVE SURGICAL SERVICES IN A UROLOGICAL UNIT OF SRI LANKA

Jayawardene, M. D.¹, Balagobi, B.¹, Weligamage, W. A. S.¹, Ishak, M. C. M.¹, Gobi, U.¹, Suvendiran, S.¹, Mahadeva, S.¹, Abeygunasekera, A. M.¹

1. Urology unit, Colombo South Teaching Hospital, Sri Lanka

Background: One of the core indicators of monitoring universal access to safe, affordable surgical care is access to timely, essential surgery. Analyzing the waiting time (WT) for elective operations is one way to determine access to surgical services in a country.

Aim/s: Aims of this study were to determine the access to surgical services in a urology unit of Sri Lanka by calculating the average WT and to determine whether WT is related to income categories and social classes

Methods: Patients undergoing elective surgery (excluding minor surgery) at a Urology unit between 1.1.2016 to 31.3.2017 were included in the study. The income groups and social classes were categorized using the data available in Household Income and Expenditure Survey 2012/2013 conducted by the Department of Census and Statistics.

Results: 883 patients had complete data. 687 were men. Average WT for surgery was 59.2 days (range 2-330). In 175 (19.8%), it was more than 100 days. Seventy eight (8.8%) were Samurdhi beneficiaries and their WT was 61.6 days, while that of those who didn't receive Samurdhi was 57.4 days ($p>0.05$). 27% of patients had a monthly income of less than SLR 15K, 42% had 16-30K, 22% had 31-50K and 9% had more than 50K, and the WT for each category were 57.1, 69.8, 51.5 and 48.3 respectively. 161 (15.8%) operations were done for malignancies and the average WT was 22.1 days. WT for TURP was 77.5 days. 132 (14.9%) patients had their operations postponed at least once.

Conclusion: WT for elective urological surgery is too long though WT for malignancies is satisfactory in the unit. Socioeconomic status of the patient has no influence on the WT indicating equity in the unit policy.

Email of the Corresponding Author: djmalaka@gmail.com

SELECTED COMPONENTS OF EMERGENCY PREPAREDNESS TO MANAGE ACCIDENTS IN SELECTED HEALTH CARE INSTITUTIONS**Chandradasa, DHNS¹**

1. Emergency Preparedness to manage accidents in selected health care institutions

Introduction: During the last decade, medical organizations in many countries have instituted programs to maintain emergency preparedness in order to cope with threats of accidents. Meeting the challenges of preparedness necessitates defining the components of readiness for casualty incidents. This includes planning and policies, equipment and infrastructure, knowledge and capabilities of staff, training and drills as the major components of maintaining a high level of preparedness. Preparedness among the health care personnel becomes a key factor in deciding the overall preparedness of the healthcare institution.

Objective: This study assessed the emergency preparedness among health professionals to manage accidents in selected health care institutions.

Methodology: This is a Cross sectional descriptive study. Data were collected from consultants and medical officers in selected health care institutions including Base Hospital Elpitiya (BHE), Base Hospital Horana (BHH), District General Hospital Kalutara (DGHK) and Teaching Hospital Karapitiya (THK). A simple random sampling technique was used for selection of consultants and medical officers & the proportionate numbers of officers selected from above institutions was 40 from BHE, 54 from BHH, 90 from DGHK and 150 from THK. Pre-tested self-administered questionnaire was used to gather information regarding awareness of rapid response teams, participation in activities related to 'response', experience of programmes on preparedness, understanding role and responsibilities in preparedness. The analysis of the data was done using the SPSS software and chi square test was applied when appropriate, to assess the significance of relationships.

Results: Sixty five percent (n=91) of THK, 45.6 % (n=41) of DGHK, 3.7 % (n=2) of BBH and 2.5 % (n=1) of BHE study population were aware of rapid response teams. This study revealed that majority of 85.5% (n=277) of respondents had participated in response activities and 66.7 % (n=216) had programmes on emergency preparedness. 88.9 % (n=288) officers understand their role and responsibilities for emergency preparedness. Among the institutions, officers in BHE shows 95.0 % (n=38) had the highest. There was a statistically significant association between understanding the roles and responsibilities and current position in preparedness. ($X^2=7.921$, $df=2$, $p=0.019$).

Recommendations: Training programmes on emergency preparedness should be implemented at regular intervals on a continuing basis. Emergency Preparedness and related modules should be included to the basic curriculum of Medical Officers.

Email of the corresponding author: chandradasanayana@yahoo.com

COST ANALYSIS OF MEDICAL SPECIALTY TRAINING PROGRAMMES IN SRI LANKA

Jeevanie B. H. B.¹

1.Planning and Programing Officer, Post Graduate Institute of Medicine

Background:

Costing studies provide important insights into the economic aspects of training. They are useful to understand the resources incurred by health systems, other payers and the trainees too.

Aims: This study's objective is to analyze the programme cost of the postgraduate medical specialty and the cost for the Medical Microbiology training in Sri Lanka.

Methodology: Total programme cost and the Programme cost for Medical Microbiology training were analyzed. The data for the analysis were collected from the information available at the Postgraduate Institute of Medicine (PGIM). Some of the data were available from the reports published by the PGIM, while others were collected through interviews with responsible officers. The data collection forms were used as tools to collect the data in 2007. The information was compiled as labour cost, material cost and capital cost. Direct allocation method was applied to allocate all costs in 28 cost centres with using the allocation criteria.

Results: Total cost of Postgraduate Institute of Medicine is SLR 53,873,222.57 for the year 2007. The total programme cost comprises of SLR 30,338,036.04 as labour cost and SLR 18,071,521.57 and SLR 5,453,653.90 as material cost and capital cost respectively. The programme cost for the Medical Microbiology training was SLR 5,436,914.90. It was consisted of three stages in the field of Medical Microbiology. The cost for the Diploma in Medical Microbiology was SLR 472,870.00. In second stage of MD in Microbiology, cost was SLR 445,337.00. Cost for the Board Certification as a Specialist in Microbiology was SLR 2,791,750.00, this mainly involves overseas training component of the postgraduate programme.

Conclusions: The study found that the largest portion (more than 50%) was utilized for the overseas training when compared with other stages in the training programme. It is recommended to explore means of further assessing the costs for overseas training.

Email of the corresponding author: jeevanie_bhb@yahoo.com

KNOWLEDGE AND PRACTICES OF GRAMANILADHARI OF KALUTARA DISTRICT ON CAMP MANAGEMENT DURING DISASTER SITUATIONS

Rupasinghe, M.C.S.¹, De Silva, S.²

1. Postgraduate Institute of Medicine, University of Colombo;
2. Faculty of Medicine, University of Colombo.

Background: Camp management during disasters must ensure equitable access to protection, services and assistance throughout the displacement cycle. It needs multidisciplinary team approach where multiple stakeholders lead by the government will collaborate to provide effective and quality humanitarian assistance. In Sri Lanka Gramaniladhari is the grass root level government official who bears the responsibility of camp management at ground level during disaster situations.

Aim/s: To assess knowledge and practices regarding camp management in disaster situations among Gramaniladhari in Kalutara district.

Methods: A descriptive cross sectional study was conducted in Kalutara district from April to December 2015, including Gramaniladhari who has working experience of more than six months. There were 418 Gramaniladhari in six divisional secretary areas which were selected randomly from the 14 Divisional Secretary areas of Kalutara district. Self-administered questionnaire was used for data collection. There were four sections of questions on knowledge on water supply, sanitation, and food supply and shelter arrangement; whereas ten practices on camp management were included. The total score was categorized into "Good" and "Poor" taking the 25th percentile value as the cut off. Chi-square test was performed to compare variables.

Results: Response rate was 97.12% [n=406] and the sample consisted of more females [58.6%] than males [41.6%]. Among the participants 84% had not received any training on camp management. Only 30.5% had been engaged in camp management during their working years and 57.6% were not familiar with the computer based reporting formats. More than 35% of Gramaniladhari had poor overall knowledge in camp management and more than 25% of the Gramaniladhari had poor practices in camp management. Knowledge on camp management had statistically significant positive association with years of working [p=0.001] whereas Sex [p=0.002], level of education [p<0.001], Grade [p=0.001] and involvement in camp management [p=0.013] had a significant positive relationship with good practices.

Conclusion: The level of knowledge on camp management in disaster situations was poor among >35% of Gramaniladhari whereas >25% had poor practices on camp management. The knowledge on camp management significantly varied positively with the years of working so that inclusion of experienced Gramaniladhari to share their knowledge with the younger generation will be beneficial to reduce pitfalls in camp management during disaster situations. Sex, level of education, Grade and involvement in camp management had a significant positive relationship with good practices. Encouraging the Gramaniladhari on higher education will be beneficial in improving their practices.

Email of the Corresponding Author: rupasinghe.mcs2017@pgim.com

PP 123

FACTORS INFLUENCED FOR SELECTION OF PRIVATE VERSES PUBLIC ORAL HEALTH CARE SERVICE PROVIDER IN AGRICULTURE BASED AREA

Yapa, Y.M.S.S.¹, Kanthi, R.D.F.C.², Krishanth, M.D.A.¹

1. Postgraduate Institute of Medicine, University of Colombo, Sri Lanka

2. Health Education Bureau, Colombo, Sri Lanka

Background: Factors affecting the selection of oral health care service provider are highly complex. Detailed investigations on selection of service providers by public or private sectors are rare, especially in agro-based areas in Sri Lanka.

Objective: This study was aim to determine the factors affecting the selection of private or public sector oral health care services in the divisional secretariat area Mahiyanganaya.

Methods: A cross sectional descriptive study was carried out in randomly selected patients, who were visited to public and private dental clinics in the study area. Data from total of 422 participants were obtained from interviewer administered questionnaire. Statistical Package for Social Services version 21 was used to analyze the data.

Results: Age, gender, economic and education background of the patients have significant influence in selection of oral health care services provider. Females predominantly used services provided by both private (55.4 %; n = 117; p = 0.000) and public (73 %; n = 154; p = 0.000) sector. Younger population (21-30 y) obtained facility provided by private sector (25.1 %; n = 53) while middle age group (31-40 y) preferred public sector (29.4 %; n = 62). Patients with higher education background (43 %; n = 90, p = 0.00) and higher family income (> Rs. 20001.00) (35.3 %; n = 72; p = 0.005) obtained services from private sector. Patients were more satisfied with the Doctor's consultation and treatment (82.6 %; n = 166; p = 0.000) and high attention and respects paid on their health by staff (83.8 %; n = 165; p = 0.000) in the private sector. Moreover, patients were satisfied with the availability of equipment (92.5 %; n = 184, p = 0.000) and consultation, examination and treatment by the dentist (86.1%; n = 173, p = 0.000). In addition, 42.36 % of patients were satisfied with cost of the private sector oral health care service.

Conclusion: Perceived patient care, quality, responsiveness and cost of treatment are important factors when selecting either private or public sector. Patients were more selection with the functional quality of the private sector, even though cost of treatment was the most discouraging factor.

Email of the Corresponding Author: ymssyapa@gmail.com

ADEQUACY OF EQUIPMENT AVAILABLE FOR THE INSERTION OF CHEST DRAINS IN TERTIARY CARE UNITS IN SRI LANKA: A MULTICENTER STUDY

Harischandra, D.V.T.¹, Hewage, H.V.G.², Amarashriyan, L³, Indrapala K⁴, Perera, N¹, Jayaweera, J.M.R.G.⁶.

1. Cardiothoracic Unit II, Teaching Hospital Karapitiya, Galle
2. Chest medicine unit, Teaching Hospital Karapitiya, Galle
3. Gynecology and Obstetric Unit, Teaching Hospital Mahamodara
4. Eye surgical unit, Teaching Hospital
5. ENT Unit, General Hospital Avissawella

Background: Insertion of a chest drain is a common, potentially life-saving procedure. Non-availability of the required equipment has been highlighted as an important cause of iatrogenic complications.

Aims: Our objectives were to formulate a check list of items required for the safe insertion of chest tubes and to assess the adequacy of the equipment available for the procedure within the tertiary care settings of Sri Lanka.

Methods: A check list was compiled based on the British Thoracic Society guidelines and modified according to the Sri Lankan setting, and further modified after a consensus from an expert panel. This list was used to perform a descriptive cross-sectional study on selected tertiary care units in five provinces in Sri Lanka, using a multi-staged sampling technique.

Results: Nine surgical instruments were identified as being needed within a sterilized chest drain pack while another 10 items were required to be easily available. Twenty nine units were assessed from five tertiary hospitals of Sri Lanka: Although 75.9% units had designated "chest drain insertion packs", the mean availability of instruments inside them was 52.5%. Only 7% of units had more than one pack. The availability of equipment required to be easily available within the unit was 94.8%. However, only 24% units used the safer non trocar chest drain exclusively. Furthermore, 27% of units did not have curved instruments to facilitate safe insertion of a drain.

Conclusions: There is a deficiency of pre-packed organized instruments even in the tertiary care setting with staff having a tendency to supply the instruments on demand. However, no list exists to streamline this procedure. This study has created a list of instruments that could be used to guide units to organize their equipment for efficient chest drain insertion. The majority of hospitals use the trocar chest drains which are likely to make chest drain insertion unsafe in such units. We should promote the safer and cheaper non-trocar chest drain and ensure the availability of a cured instrument to do so.

Corresponding author: tolushah@gmail.com

PP 125

COMPARISON OF ANTI HAEMOPHILLIC FACTOR CONSUMPTION AND FREQUENCY OF HOSPITALIZATION BETWEEN ON DEMAND THERAPY AND HOME TREATMENT IN ADULT HAEMOPHILLIA PATIENTS

Rathnayake, R.M.P.M.1, Nanayakkara, S.N.N.K1, Vindupani, D.G.C1, Dissanayake, A2

1. Haematology Unit, Teaching Hospital, Peradeniya
2. Teaching Hospital Peradeniya.

Background: Haemophilia is one of the major inherited bleeding disorders which drain significant amount from the annual health budget. Prophylaxis with anti haemophilia factors is the main stay of treatment to prevent bleeding episodes. However, due to high cost of anti-haemophilia factors, home treatment is one way of managing with limited number of vials given to these patients to be used at home immediately to arrest bleeding.

Aim/s: Aim of this study is to compare the results of audits done on two occasions to decide the factor consumption and number of hospitalization between on demand therapy and home treatment, in adults haemophilia patients treated at Teaching hospital Peradeniya.

Method: The total number of patients and factor utilization were taken from the pharmacy records and patient admission registry. The results were analysed over a six months period of February to July 2016 during which treated as on demand therapy and from February to July 2017 treated as home treatment.

Results: The total number of patients on demand therapy were 17 and had 51 hospitalizations, requiring 141 040 units in 2016. Factor consumption per patient was 1386 units per month. In 2017 when home treatment was started total number of patients were 21. However hospitalizations were reduced to 24 and 51451 units were issued resulting 952 units per patient per month. By changing the mode of treatment, out of 21 patients, 10 patients had no hospitalizations, while only 11 patients were hospitalized. Out of all hospitalised patients in 2017, frequency of admissions of 9 patients were reduced by 50% compared to 2016 and 2 patients showed no change in frequency of admissions. Total number of antihaemophilia factor used for home treatment and number of units used per patient per month were 111450 and 884 respectively.

Conclusion: This study showed home treatment has led to reduction in hospitalization significantly as well as reduction in factor consumption in non-hospitalized patients compared to on demand therapy.

PP 126

ARE THE HEALTH CARE WORKERS A BARRIER FOR EXCLUSIVE BREASTFEEDING IN SRI LANKA?

Ratnayake, R.M.H.E.¹, Rowel, D.²

1. Epidemiology unit, Ministry of Health, Sri Lanka
2. Family Health Bureau, Ministry of Health, Sri Lanka

Background: Sri Lanka reports high breastfeeding rates when compared to most of the countries in the world. However, there are instances that health care workers (HCWs) do not provide the expected support.

Aims: To assess the prevalence of exclusive breastfeeding (EBF) up to 6 months and barriers for continuation of EBF up to 6 months, in selected Medical Officer of Health (MOH) areas in Kandy District.

Methods: A descriptive cross-sectional study was conducted from August to November 2016, in 6 randomly selected MOH areas in Kandy. A total number of 354 mothers with infants aged six months, attending child welfare clinics were selected proportionate to the population of each MOH area (proportionate stratified sampling). Data were collected by an interviewer administered questionnaire and through a focus group discussion (FGD). FGD was conducted to complement the quantitative study.

Results: Prevalence of EBF at six months was 50.8% and the mean duration of EBF was 5.2 months (SD=0.9). Most mothers (90.1%, n=319) revealed that public health staff discussed and advised on breastfeeding throughout pregnancy. Majority of babies (94.6%, n=335) initiated breastfeeding within one hour of birth. However, only 22.3% (n= 79) were allowed a complete feed. Most of the babies (77.7%, n=275) were taken away from the mother before completion of the first feed. Almost all mothers (98.3%, n=348) had not read the breastfeeding education booklets published by Family Health Bureau. HCW has been the prescriber for most of the mothers who started a formula 20/29; 69%. HCW's influence on discontinuation of EBF ($p<0.001$) and difficulty in getting HCW's help when mothers needed help ($p=0.02$) were significant associations with early cessation of EBF. FGD revealed that mothers were misled by the inconsistency of health messages on breastfeeding provided at different health care delivery points.

Conclusions: Rate of EBF up to six months was not satisfactory. HCWs need to be more supportive to enable all mothers to breastfeed exclusively up to 6 months.

Email of the Corresponding Author: himerand@yahoo.com

PP 127

DIRECT AND INDIRECT COST BURDEN TO PATIENTS UNDERGOING CORONARY ARTERY BYPASS GRAFTING (CABG) IN TEACHING HOSPITAL KARAPITIYA

Sanjeewa G.G.C¹

1. Post Graduate Institute of Medicine, Colombo

Background: The chronic nature of coronary heart disease (CHD) and high out of pocket health spending add a substantial cost burden to the economy of the households. The economic burden of Coronary Artery Bypass Grafting (CABG) care to patients and their families is, large. A greater understanding of the financial household cost resulting from CABG care has therefore become necessary to better inform policy.

Aim/s: To determine the demographic and socioeconomic characteristics of patients seeking in-patient services for CABG in Cardiothoracic unit of Teaching Hospital Karapitiya, and to estimate the direct and indirect costs incurred by patients, and coping mechanisms to meet CABG related health costs.

Methods: This is a descriptive cross sectional hospital based study. The study was carried out at Cardiothoracic Unit of Teaching hospital Karapitiya. The study was carried out from 01st of April to 30th of June. The study population consisted of all the patients of the Cardiothoracic Unit who underwent the surgery during the study period. Sample size was 146 eligible patients with 5% added to minimize the possible drop outs.

Results: In our sample 69.9% were male patients. Median age of males ranged from 52 years to 67 years, whereas the median age of females ranged from 51 years to 59 years. The mean number of hospitalized days was 31. The mean total monthly income of a patient's family was Sri Lankan Rupees (LKR). 26,585. Median household cost of the total hospital stay period was LKR 50 700.00. Of which 75% were direct costs. The median direct cost was LKR 39350.00 of which majority were cost for food (16.26%). Median indirect cost was LKR 20000.00. It was 25% of total household cost. (1 US dollar = RS 146.00)

Conclusion: We found that the burden of OOP spending could be significant on households that have a member undergo CABG, and that this burden arises primarily due to direct (OOP) cost, including spending on medicines, travelling, food, and accommodation. Our analysis also suggests that patients may increase the risk of not working due to illness, although this effect appears to be small, hence, there is a need to established and insurance scheme to reduce the cost burden on households.

E mail of corresponding authors: chamalsanjeewa@gmail.com

REASONS INFLUENCING IRREGULAR ATTENDANCE OF CLINIC APPOINTMENTS AMONG DIABETIC PATIENTS

Ranasinghe, R.A.D.M.N.¹, Akarawita, A.S.K.¹, Fernando, W.B.N.P.1, De Silva B.S.S,², Kumari, E.A.R.D.²

1. National Hospital of Sri Lanka
2. Department of Nursing, Faculty of Health Sciences, The Open University of Sri Lanka

Background: Diabetes Mellitus (DM) is the fourth leading cause of non-violent death globally. Moreover DM is an incurable disease and it requires regular and structured follow-up. Irregular attendance for clinic is one of the major contributing factors for failure to early detection of complications.

Aim/s: This study is to determine the reasons influencing irregular attendance of clinic appointment at the diabetic clinic in National Hospital Sri Lanka (NHSL).

Methods: A quantitative, descriptive research design was utilized. The client who missed more than two appointments in diabetic clinic in NHSL was selected by purposively. Self-administered questionnaire were used to assess 291 irregular clinic attendees. Ethical approval was obtained from the Ethics Review Committee of NHSL. Data were analyzed by using Microsoft Excel 2010.

Results: From the sample 53.33 % (n=155) female and 48%, (n=140) belongs to the age group of 51 to 60 years and only 30.7% (n=87) had educated up to Ordinary Level. Considerable numbers of participants 62 % (n=180) did not get fear of disease and more than half of the participants 52% (n=151) believed that they can take drugs without attending to the clinic on the due date. Unable to neglect the family commitments such as looking after the child or elderly person 3.67 % (n=11), busy life style during the festival season 15.4 % (n=43) were identified as social and cultural factors. In relation to personal factors, forgetting the clinic date 11.7% (n=34), cannot take leave from the workplace 3.17% (n=9) were identified. Long queue for getting medication 7.67% (n=22), and not receiving verbal information regarding next clinic date 2.67% (n=8) were identified as organizational factors for irregular attendance of clinic appointments.

Conclusion: According to the findings, poor knowledge and attitudes were greatly influence for their poor clinic visits, while organizational and socio-cultural factors were less affected. It is recommended to conduct health education sessions for irregular attendees to emphasize the importance of clinic attendance.

Email of the Corresponding Author: kumari.ramani47@yahoo.com

PP 129

AWARENESS AND ATTITUDES OF BLOOD DONATION AMONG UNDERGRADUATE STUDENTS IN UNIVERSITY OF PERADENIYA

Sumali, G.A.K.¹, Illeperuma, R.P.²

1. Department of Nursing, International Institute of Health Sciences Pvt. Ltd., Welisara, Sri Lanka
2. Department of Nursing, Faculty of Allied Health Sciences, University of Peradeniya, Sri Lanka

Background: Blood donation (BD) is a self-directed volunteer service which provides safe blood and it requires optimal fulfillment of strict selection criteria. Sri Lanka has nearly established 100% voluntary blood donation system. The registry data of the sole supplier of blood, National Blood Transfusion Service (NBTS) reveals there is a noticeable variation on regular donations in every year. The data also revealed that majority of the donors were youngsters.

Aim/s: To assess the present awareness and attitudes related to blood donation among the students of University of Peradeniya

Methods: A descriptive Cross-sectional study was conducted among 375 bachelor level students in university of Peradeniya which was selected through stratified random sampling. The sample is categorized into two broad strata i.e. health related and non-health related background faculties. Pre-tested, Semi-structured, Self-administered questionnaire was used for data collection.

Results: Majority of respondent were Buddhist (79%, N=297), mean age of respondent was 23.45 ± 2.3 years and maximum respondents were female (52.54%, N=197). Overall knowledge on blood donation among respondents was 59.48% (N=229), relatively higher in health related category (84.44%, N=76) compared to Non-Health related category (59.77%, N=153) but only 20.53% of the participants have ever donated blood (Health related – 15.5%, Non-Health related – 22.1%). Majority of the participants (75.8%, N=284) agreed and had positive attitudes regarding the statement of BD helps in blood purification. 84.9%, N=318 respondents agreed that after BD up to 3hours smoking, consuming alcohol and to take any kind of drug should be restricted. Similarly majority of the respondents (52.4%, N=197) disagreed and had negative attitudes regarding the statements of BD is extremely safe and BD doesn't prevent chronic diseases (73.9%, N=277). There was a significant correlation between demographic data (gender, religion, faculty background i.e. health related and non-health related) of the students and the level of knowledge and level of attitude regarding blood donation ($P < 0.05$). Among respondents, fear (N=198) was the most common deterrent for donation. Other reasons were transmission of infections (N=61), physical weakness (N=22) and weight loss (N=15).

Conclusion: The present study recommends that even university student community needs to be educated about the importance and health benefits; awareness and motivation of blood donation on regular basis and addressing the problems faced during blood donation

will strengthen the recruitment and retention of blood donors to donate blood on regular basis.

Email of the Corresponding Author: kalani1989@gmail.com

PERSONNEL HYGIENE AMONG ADOLESCENTS; KNOWLEDGE, ATTITUDES AND PRACTICES

Zoysa, H.N.D.¹, Lokubalasureya, A.²,

1. Post Graduate Institute of Medicine, University of Colombo
2. Ministry of Health

Background: Communicable diseases, mainly respiratory and intestinal infections, cause suffering, lifelong disability or untimely death of millions predominantly in developing regions of the world. Children remain particularly vulnerable to these preventable diseases. The main causes for them are inadequate sanitary conditions and poor hygiene practices. However knowledge, attitudes and practice of hygiene among young school children in Sri Lanka are poorly understood though it is critical for prevention and sustainable control of communicable diseases.

Aim: The aim of the research was to assess the knowledge, attitudes and practices of personal hygiene among school children in grade 7 in Kaluthara Medical Officer of Health area.

Methods: A cross sectional descriptive study was conducted among students of Grade 7 (aged 12years), in 12 out of 36 schools in in Kaluthara Medical Officer of Health area. Study population consisted of 574 respondents (55.1% males, 44.9% females). The response rate was 92.58% (574/620). Data was gathered under three main sectors of personal hygiene, knowledge, attitudes and practices. Two checklists and a self-administered questionnaire were used. The completed questionnaires were collected within 2 days of distribution. Relationships between hygiene practices with sex the student, parents' level of education and knowledge of the students were evaluated in the study.

Results: A cross sectional descriptive study was conducted among students of Grade 7 (aged 12years), in 12 out of 36 schools in in Kaluthara Medical Officer of Health area. Study population consisted of 574 respondents (55.1% males, 44.9% females). The response rate was 92.58% (574/620). Data was gathered under three main sectors of personal hygiene, knowledge, attitudes and practices. Two checklists and a self-administered questionnaire were used. The completed questionnaires were collected within 2 days of distribution. Relationships between hygiene practices with sex the student, parents' level of education and knowledge of the students were evaluated in the study.

Conclusion: Majority of students were aware of personal hygiene and practiced it routinely. Most of the students had positive attitudes towards key aspects of personal hygiene like hand hygiene, oral hygiene, cleanliness of clothes etc. Most students also recognized that personal hygiene as an integral part of a good personality, education and interpersonal relationships. However, a large proportion of the students also believed that parents are responsible for children's' hygiene. There is an alarming disparity between awareness on hygiene and its implementation especially on drinking boiled water. Mothers level of education has a prominent influence children's' hygiene fathers' play a less significant role.

Email of the Corresponding Author: naveendesoyasa@gmail.com

KNOWLEDGE ON RISK FACTORS FOR SUBFERTILITY AMONG ELIGIBLE FAMILIES IN KAHATHUDUWA MEDICAL OFFICER OF HEALTH AREA AND ITS ASSOCIATIONS WITH SELECTED FACTORS

Nanayakkara, I.O.K.K.¹, Nanayakkara, M.E.², Chandradasa, A.D.P.P.³, Thalagala, H.E.³, De Silva, A.S.⁴, Mahesh, P.K.B.⁵

1. Family Health Bureau
2. Army Hospital, Colombo
3. MOH Office, Kahathuduwa
4. Base Hospital, Homagama
5. RDHS Office, Colombo

Background: More than 10% of eligible couples are assumed to be suffering from subfertility. This remains under-reported in Sri Lanka with many prevalent myths about the risk factors within the community.

Aims: To describe the knowledge on risk factors for subfertility and its associations with selected factors among eligible families in Kahathuduwa Medical Officer of Health area

Methods: A descriptive cross sectional study was conducted in 12 Public Health Midwife areas of the Kahathuduwa MOH area. A calculated sample of 258 eligible couples was recruited with convenient sampling. A pre-tested interviewer-administered questionnaire which included questions on risk factors for subfertility was utilized at the community level. A knowledge score out of 100 was calculated. The associations of the knowledge score with selected factors were assessed with Spearman correlation coefficient and Mann Whitney U test.

Results: The response rate was 94.2%. Just above a half (n=126, 51.9%) knew about the duration of menstrual cycle. Only 70 (28.8%) knew when to seek treatment for subfertility. The mean (SD) knowledge score of risk factors for subfertility was 51.03 (29.84). Having a higher score was associated with a higher education level (p<0.001), higher income (p<0.001), knowing when to seek treatment for subfertility (p<0.001), better knowledge on menstrual cycle (p<0.001). It was not significantly associated with duration of marriage (p=0.303) or age (p=0.537).

Conclusion: Deficient knowledge on risk factors for subfertility is common irrespective of age and marriage duration. Higher knowledge is associated with favorable social determinants and with favourable knowledge on other essential aspects in relation to subfertility.

KNOWLEDGE ATTITUDES AND REPORTED PRACTICES ON RESPONSIBLE DOG OWNERSHIP AMONG PERSONS AGED 20-59 YEARS IN A MOH AREA IN COLOMBO DISTRICT

De Silva, L.S.D.¹, Kumarapeli, V.²

1. Postgraduate Institute of Medicine, University of Colombo, Colombo, Sri Lanka
2. Education, Training and Research Unit, Ministry of Health, Colombo, Sri Lanka

Background: The main transmitter of Rabies is dog in Sri Lanka. One of the main strategies of prevention of rabies in Sri Lanka is promotion of Responsible Dog Ownership (RDO). RDO includes provision of food and water, shelter, immunization against common diseases, regulation of breeding, de worming, veterinary care and safe environment to live.

Aims: To describe knowledge, attitude and reported practices on Responsible Dog Ownership among persons aged 20-59 years in a Medical Officer of Health area in Colombo

Methods: A community based cross-sectional study was conducted among a sample of 340 participants, aged 20-59 years in Medical Officer of Health area, Maharagama of Colombo District who were selected by using probability proportionate to population size cluster sampling technique. Data were collected by using a pre-tested interviewer administered questionnaire. Knowledge and attitudes were assessed by predetermined marking scheme and a five-point Likert scale respectively. Reported practices were noted. Data were analyzed by using descriptive statistics and Chi square test and Fisher's exact test were used to determine associations.

Results: Response rate was 94.7% (n=322). Among respondents 51.0% (n=165) were females; 94.1% (n=303) Sinhalese; 74.2% (n=239) married; 64.6% (n=208) employed; 11.5% (n=37) dog owners; mean age 38.1 years (SD=11.2 years) and median income Rs. 38,000.00 (IQR Rs.31, 000.00) .Of the respondents :69.3% (n=223) had good overall knowledge; 99.1%(n=319) aware of rabies vaccination; 78.0%(n=251) knew frequency of rabies immunization, 73.3%(n=236) had overall favorable attitudes. Among dog owners: 94.6% (n=35) had immunized dogs against rabies and 32.4% (n=12) had adapted breeding control measures.

Significant associations were established between: good knowledge on RDO with young age (p=0.02), high education level (p<0.001), being employed (p<0.001), owning a dog (p<0.001); Favourable attitudes on RDO with younger age (p<0.001) and higher level of education (p<0.001); practice of putting a collar with higher level of education (p<0.01)

Conclusions: There are gaps in practice of regulation of breeding and targeted health education should be done to promote it.

Email of the Corresponding Author: sinha.dhanushka@gmail.com

KNOWLEDGE, ATTITUDES, PRACTISES AND CORRELATES OF KNOWLEDGE OF MOTHERS WITH CHILDREN LESS THAN FIVE YEARS REGARDING THE SAFETY OF DRINKING WATER IN KALUTARA MEDICAL OFFICER OF HEALTH AREA

Fernando, W.B.S.P.¹

1. Medical Officer of Health office, Beruwala

Background: Safe drinking water is essential in preventing childhood water related diseases. Water source contamination by micro-organisms or chemicals, unsatisfactory purification including filtering and storage methods introducing chemicals and contaminants are obstacles in providing safe drinking water. Mothers' ability to identify and overcome these barriers is important.

Aims: To assess the knowledge, attitudes, practices on source, purification and storage of drinking water in mothers with children less than five years of age

Methods: A community based cross sectional descriptive study was conducted, utilizing a pre-tested interviewer administered questionnaire on 271 mothers with children less than 5 years of age in Kalutara MOH area selected by multi-stage sampling. Results were analyzed with chi square.

Results: Knowledge on water safety was poor (44.3%). Taste (36.8%), odour (35.2%), and colour (22.5%) were erroneously used to assess water quality. Only 22.9% identified faeces as a contaminant. Majority knew that tap water (57.3%) and bottled water (89.7%) are not entirely reliable water sources. Most identified filtering isn't a reliable purification method (51%). Higher proportion had favorable attitudes (56.1%). Majority (78.7%) consumed what they believed as safe water. However 31.6% of those who consumed unsafe water believed their water was safe. Access to improved water sources was 62.8%, mostly from tap (52.2%) or well (7.1%). Purifying drinking water was practiced by 71.7% and of them 55.3% employed boiling. More than 85% of children of the mothers selected drank boiled cooled water. Earthenware (31.2%), metal (28.5%) and PET (5.9 %) were popular storage utensils. Poor knowledge was significantly associated with education below O/Ls ($p < 0.001$), average monthly income less than Rs.30,000 ($p < 0.001$) and the practice of boiling water ($p = 0.005$).

Conclusions: Mothers' attitudes and practices on drinking water safety were above average. Knowledge on safe water was poor which was significantly associated with low educational level, poor income and unhygienic practices.

Email of the corresponding author: shirnshishirmshirm@yahoo.com

KNOWLEDGE, ATTITUDES AND PRACTICES ON FIRE SAFETY AMONGST OFFICE WORKERS AT GOVERNMENT OFFICES IN THAMANKADUWA DIVISIONAL SECRETARIAT

Kithalawa arachchige, T.K.¹, Ferdinando, R.²

1. General Hospital Polonnaruwa.
2. National Institute of Health Science Kaluthara.

Background: Fire is one of the most destructive and costly causes of damage to personnel and property; where knowledge, attitude and practices on fire safety at the working place, play a major role in minimization and/or prevention of such damage. Minimal fire prevention facilities and lack of water resources prevalent in the Polonnaruwa District can worsen any fire hazard. This study aims to find the current level of knowledge, attitude and practices on fire safety at the working place amongst government officers in the Thamankaduwa Divisional Secretariat (DS) in the Polonnaruwa district

Aim/s: To find the current level Knowledge, attitude and practices on fire safety amongst government officers in the Thamankaduwa Divisional Secretariat area

Methods: A descriptive cross sectional study was carried out from September 2013 to January 2014 in government offices in the Thamankaduwa DS in Polonnaruwa district. Permanent workers who worked for more than 1 year at the present working place were included while school, field workers and officers who worked where staff was less than 10 were excluded from this study. 462 government workers were selected using the random sampling method and data was gathered by an interviewer administered questionnaire and checklist.

Results: The study population included personnel ranging from 21 to 60 years of age, with 258 (56%) below 40 years of age. There were 257 (55.8%) females included in the study. Result analysis via SPSS showed that, 427 (92.4%) have poor knowledge on fire safety, without statistical correlation to age, education level or rank/grade of officer. 435 (94.2%) officers agreed that their office should have a fire safety plan. 446 (96.5%) officers were eager to learn about fire safety and 442 (95.7%) requested for a revision of the current fire safety plan. 300 (64.9%) officers worked in an office without a fire safety plan. 357 (77.3%) officers worked in an office without a fire exit. Only a limited number of officers (56/12.1%) had practical experience on fire safety.

Conclusion: Therefore, it is an immediate necessity to develop a fire prevention plan and establish a fire safety drill for government offices in Thamankaduwa DS in the Polonnaruwa district. Comprehensive and contemporary educational seminars should be launched at the above government offices with routine fire safety drills for reinforcement of knowledge, attitude and practices.

Email of the Corresponding Author: thisaramch@gmail.com

KNOWLEDGE AND ATTITUDES ON INFERTILITY AMONG COUPLES ATTENDING TO INFERTILITY CLINIC AT CASTLE STREET HOSPITAL FOR WOMEN, COLOMBO

Dahanayake, S.D¹, Hunukumbure, R.M.C.B², Illeperuma, R.P³

1. Department of Nursing, Faculty of Allied Health Sciences, University of Peradeniya
2. Obstetrician and Gynaecologist, Acting Consultant in Infertility, Teaching Hospital, Kandy
3. Department of Medical Laboratory Sciences, Faculty of Allied Health Sciences, University of Peradeniya

Background: Infertility affects approximately one in every six couples, amounting to a total of 60-180 million individuals worldwide. It's a classic example of a condition with both medical and social implications.

Aim: To assess the level of knowledge, and attitudes on infertility among couples attending to the infertility clinic.

Methods: A clinic based descriptive cross sectional study was conducted among 246 infertile couples attending Castle Street Hospital, Colombo. A pre-tested self-administered questionnaire was used to collect data. Knowledge and attitudes were described in frequencies and percentages. Overall knowledge score was calculated and attitudes were categorized as positive and negative. These were compared with selected socio-demographic factors using chi-square test.

Results: Approximately 46.7 %of the participants had an overall average knowledge regarding infertility. However, only 37.8% of the subjects knew the correct definition of infertility. Majority of the subjects were aware of the risk factors for infertility. Nearly two fifths (41.1%, n=101) identified infertility as a medical condition, while 38.6% (n=95) did not considered it as a disease. Over 50% (n=165) accepted that they feel very sad when they see a relative's or neighbours' children. Nearly 50% didn't like social gatherings as they feared encountering questions about their kids. Overall knowledge was significantly associated with the level of education (p=0.000). The age and the level of education were not statistically associated for the most of the positive attitudes /negative attitudes. However, the majority of the study participants in the older age group (> 35 years) were willing to adopt a baby (p=0.000).

Conclusion: Although overall knowledge of the majority in this study population regarding infertility was average, most of them had negative attitudes. Hence, it is clearly indicated the necessity of establishing a dedicated counselling program in the hospital as well as make awareness programs by trained medical professionals.

Email of the corresponding author: rmcbhunu@yahoo.com

PP 136

AWARENESS AND PRACTICES RELATED TO RABIES AMONG GRADE 12 ADVANCED LEVEL (A/L) STUDENTS IN SELECTED SCHOOLS OF COLOMBO DISTRICT

Sooreakumar, A.¹, Somarathna, H.P.S.H.¹, Sivarasa, K.¹, Sithara, J.S.¹, Mambulage, U.²

1. Faculty of Medicine, University of Colombo
2. Ministry of Health

Background: Human rabies, a deadly yet preventable zoonotic disease is one of the public health concerns in Sri Lanka despite a very conducive environment to eliminate the disease. Creating awareness among the public, especially the vulnerable younger population, practicing proper preventive measures and timely access to post exposure prophylaxis are essential in combatting this disease.

Aims: To describe the knowledge, attitudes and practices related to rabies among grade 12 Advanced Level students in selected schools of Colombo district.

Methods: A descriptive cross sectional study was carried out among 176 grade 12 Advanced Level students sampled using stratified cluster sampling. Structured pre-tested questionnaire was used for data collection and data entry and analysis was carried out using SPSS software. Based on percentage of marks obtained in the knowledge assessment with the median value taken as the cut off, students were categorized into groups having good knowledge and poor knowledge. Individual attitudes and practices were analysed and presented as frequency distributions. Associated factors of knowledge, attitudes and practices were assessed using chi-square and a p value of 0.05 was used to determine the significance.

Results: A majority (57%) had poor knowledge regarding human rabies. However, the science stream students were found to have a better knowledge compared to the Commerce and Arts stream students. ($p=0.001$) A majority were found to have favourable attitudes towards the attitudinal statements regarding rabies. 23.3% of students were found to fondle with stray dogs or cats. Among those who had experienced harm by an animal ($n=41$), 68.3 % ($n=28$) had washed the site with soap and water while 92.7 % ($n=38$) had obtained medical treatment following the exposure.

Conclusions: A majority of students had favourable attitudes and correct practices but poor knowledge regarding rabies and its prevention. Science students showed a better knowledge compared to Arts and Commerce students.

Email of the Corresponding Author: arabisooreakumar@gmail.com

PARENTS' KNOWLEDGE ATTITUDES AND PRACTICES ON MANAGING ASTHMA OF THEIR CHILDREN AT HOME ENVIRONMENT.

Rajapaksha, N.M.D.¹, Rathnayake, R. M.P.S.², Dissanayake, D.M.H.S.³ Pramuditha Madhavi, A.V⁴

1. High Dependency Unit, Base Hospital, Dambadeniya
2. General Theatre, Teaching Hospital, Peradeniya
3. Cardio Thoracic Intensive Care Unit, Sri Jayewardenepura General Hospital
4. Department of Nursing, Faculty of Health Sciences, The Open University of Sri Lanka.

Background: The knowledge, attitudes and practices of parents are important components in asthma management.

Aim: To examine the parents' knowledge attitudes and practices on managing asthma condition at home environment among children who were admitted to teaching hospital, Peradeniya and Sri Jayewardenepura.

Methods: This was a cross sectional descriptive design, conducted among 150 randomly selected parents of children aged less than 5 years, who were admitted to the pediatric ward in Sri Jayewardenepura General Hospital and Peradeniya Teaching Hospital. Data collected using a pre-tested self-administered questionnaire and the response rate was 87.27%. Descriptive statistics used to analyze the data.

Results: most of parents had satisfactory knowledge on risk factors (54%) and also majority (60%)-were aware on identified signs and symptoms. Majority of parents (53%) had not idea about drugs addiction for a long time. 45% (65/144) of the sample the knowledge regarding identifying the symptoms was poor, 21 % (30/144) had an average knowledge and 34 % (49/144) had a satisfactory level regarding the asthma symptoms. In addition to that most of parents had an attitude about sports and exercise may increase asthma (74%). The attitudes of the study group (82%) of parents avoid children from cold weather and (95%) avoid children from dusty environment. A larger proportion (92%) use dump dusting in the house and (86%) avoid children from exposing to passive smoking. In addition, parents had chosen lifestyle modification such as restrict exercises and sports (51%), restrict certain food items (cold, icy foods), avoid daily bath so on. Regarding the available resources (by health teams, health education programs and the media) the doctors were the commonest resource for parents to gain knowledge on managing asthma. The practice of the study group 51% of them used the inhalers, (28%) consulting the doctor to manage the condition, (11%) of them hospitalization and (7%) gave the prescribed drugs to manage the asthma situation in home environment.

Conclusion: The study highlighted that majority of the parents had poor knowledge on asthma and they stated that the asthma is an allergic disease but only a minority had satisfactory knowledge on identify symptoms of asthma. When this study sample was concerning most of the parents were knew that asthma was an allergen disease so that the parents had a satisfactory avoiding attitudes regarding passive smoking , cold weather and

icy foods, dust and allergen and daily bath. With regards to practice of parents were knew that inhaler was the best practice for manage the acute attacks. Although the majority of parent had a lack of awareness regarding types and usage of inhalers. The study highlighted that majority of the parents had satisfactory practice on avoid asthma triggers (such as avoid cold weather, icy foods, daily bath). There is a need to educate parents regarding correct home care practices while giving more emperies on drugs therapy in order to prevent recurrent asthma attacks among the children.

Email of the Corresponding Author: ddharshaninm@gmail.com

ATTITUDES AND WILLINGNESS TO UNDERGO A PAP SMEAR TEST AMONG MARRIED WOMEN IN INGIRIYA MOH AREA, SRI LANKA

Dodangoda, T.C.¹, Meegoda, M.K.D.L.¹

1. Department of Allied Health Sciences, Faculty of Medical Sciences, University of Sri Jayawardenepura, Sri Lanka

Background: Cancer of the cervix is rated as the second cause of morbidity and mortality among cancer patients in Sri Lanka. Cervical cancer morbidity and mortality can be reduced by primary prevention and early detection strategies. The Pap smear test is a safe and effective screening test which is offered free of charge through well-woman clinics in Sri Lanka, but previous studies have demonstrated poor uptake of Pap smear test.

Aim: To describe attitudes and willingness to undergo a Pap smear test among married women in Ingiriya MOH area.

Methods: An interviewer-administered questionnaire was used to conduct a cross-sectional descriptive survey among 35-60 married women in Ingiriya MOH area. Cluster sampling was used to select participants from the gramasewa divisions of the selected MOH area. Frequency distribution with percentages and chi square statistics were calculated using SPSS.

Results: Mean age of the sample was 46±8.4 years. Of the 456 participants only 41.3% has had a Pap smear test (PST) done at least once and most of them (22.6%) were tested at well women clinics. However most of the participants (73.1%) believed that cervical cancer is preventable if it is detected early through a PST. Findings of the attitudinal dispositions for PST revealed that there was negligence (58.7%) shy (63%) and fear (52.7%) for vaginal examination among those who had or did not have the PST.

Having at least one PST was significantly related to age, OR=1.7 (95% CI: 1.2-2.4); education level, OR=1.2 (95% CI: 1.0-1.4) and current employment status, OR=1.2 (95% CI: 1.0-1.4). Willingness to participate in a screening programme was associated with age, OR=5.9 (95% CI: 2.3-15.2); marital status, OR=4.6 (95% CI: 1.8-11.6) and education level OR=2.1 (95% CI: 1.0-4.1) of the participants.

Conclusion: Despite significant proportion of women believed, cervical cancer is preventable if it is detected early through the Pap smear screening test; there was an unacceptably low level of practice. Negligence, shy and fear were the main obstacles to participate. Having at least one Pap smear and willingness to participate in a screening program were significantly associated to age and education level of the participants.

Email of the Corresponding Author: thilankadodangoda@gmail.com

KNOWLEDGE, ATTITUDE AND PRACTICES RELATED TO EXCLUSIVE BREAST FEEDING AMONG MOTHERS ATTENDING THE WELL-BABY CLINICS AT MOH AREA JA-ELA.

De Silva, G.R.S.¹, Silva, L.L.L.², Rathnasekera, N.P.³, Silva, S.C.R.S.⁴, Nandasoma, A.W.C.J⁵

1. Divisional Hospital, Ja-ela
2. Medical Officer of Health office, Ja-ela
3. Anti -Leprosy campaign
4. District General Hospital, Negombo
5. District General Hospital, Gampaha

Background: Breast milk is the gold-standard of all the milk available globally for the newborn for six months of age. Exclusive breast feeding for six months is the ideal way to give the maximum nutrition and energy for the optimum physical, mental and psychological development of the baby, giving protection for common illnesses during childhood and systemic illnesses in adulthood (diarrhea and respiratory tract infections etc.). There are proven health benefits for the mother (lactation amenorrhea, reduction of breast and ovarian carcinoma etc.) Breast milk is the most cost effective as it is natural, not contaminated, easily available and convenient to feed the baby at any time even at any place.

Aim: To assess the knowledge, attitudes and practices related to exclusive breast feeding among mothers attending well-baby clinics at MOH area Ja-ela.

Method: It was a descriptive cross sectional study, among 403 mothers attending the well-baby clinics. Simple random sampling method was used to select 10 mothers at every clinic according to the seated position. (Using a Random number generator-computer software).A self-administered questionnaire was given to all the selected mothers to collect data.

Results: Mean age of the population was 25yrs. Overall education level of the population was fairly good (68%) including O/L, A/L & above. The correct knowledge on duration of exclusive breast feeding was 91% (n=367) and correct knowledge on disease prevention by breast feeding was 89% (n=361). Most mothers (92% n=373) knew that breast milk is the best and 83% (n=335) knew breast feeding was easier than formula. Initiation of breast feeding within 1st hour was 87.6% (n=353). Expressed breast milk was given by 9% (n=37) mothers.

Conclusion: The study participants had good knowledge of exclusive breast feeding, and attitudes and practices related to exclusive breast feeding were satisfactory except expressed breast milk usage. Therefore we suggest more behavior change communication programmes in order to improve expressing breast milk when necessary. Though the knowledge is good further educational programmes with feedback would improve 100%. Further study in different populations (ex-urban and rural) would reveal different aspects of the matter under study.

Email of the Corresponding Author: sarojinijaya.desilva@gmail.com

KNOWLEDGE AND ATTITUDES RELATED TO STD AND HIV/AIDS IN ADVANCED LEVEL SCHOOL CHILDREN IN MALIMBADA MOH AREA

Meegoda, D.G.D.W.¹, Dileka, W.S.C², De Silva, D.G.D.I³, Sugathadasa, M.R.D.L⁴, Jayaweera, N⁵

¹MOH office, Malimbada, ²National STD/AIDS Control Programme, ³Medical Unit, Teaching Hospital, Kandy, ⁴Microbiology Department, Teaching Hospital, Karapitiya, ⁵MOH office, Malimbada

Introduction: Sexually Transmitted Diseases (STD) remain a major public health problem worldwide. Prevention is the key in addressing STIs and HIV/AIDS, which starts with education and information. The amount of educational input required will depend on a person's current knowledge on STDs.

Aim/s: To assess the knowledge and attitudes related to STD and HIV/AIDS in advanced level school children in Malimbada MOH area.

Methods: A descriptive cross-sectional study using self-administered questionnaire was conducted in 2015 among 270 advanced level students selected by multistage random sampling.

Results: The mean age of the students was 17.5 years with a higher percentage of males (62%, n=165). Vast majority (93%, n=250) were aware of the existence of sexually transmitted diseases. Nearly, 88% were aware of HIV/AIDS but only 11% were aware of Hepatitis B&C as STDs. Only 30% knew that STDs can be asymptomatic. More than 60% of respondents knew the modes of transmission of STDs while more than 50% of them equally had misconceptions regarding transmissions. Regarding complications, 73% knew that STDs can lead to subfertility but 70% were not aware that still births and miscarriages as complications. Knowledge on high risk groups was poor. Only 42% were aware that there is effective treatment available for STDs. In general, 48% of the students had a good knowledge while 39% having a fair and 13% having poor level of knowledge on STD and HIV/AIDS. The main source of information was school education (60%), electronic media (27%) and peers (31%). With regard to attitudes only 34% thought it is a stigma to suffer from STD/HIV/AIDS. Majority (86%) thought information on STD should be included to the curriculum. If they acquire a STD, the majority preferred to divulge it to a medical practitioner while 20% preferred to do so with peers.

Conclusion: Many adolescent school children in Malimbada MOH area did not possess a good knowledge on STDs and HIV/AIDS. Strengthening of life skill based school health education programmes on STD and HIV/AIDS with more emphasis on identified deficient areas will benefit school children in this MOH area.

Email of the Corresponding Author: dr_wijayani@yahoo.com

PP 141

KNOWLEDGE, ATTITUDES, PRACTICES AND CONTRIBUTORY FACTORS ON DISASTER PREPAREDNESS AMONG FISHERMEN AT DEVINUWARA FISHING HARBOR

Ravindra K.A.¹

1. General Hospital, Matara

Background: Natural disasters are unpreventable entities that affect human lives making disaster situations. Fishermen and their livelihoods were specifically vulnerable to coastal hazards. Disaster mitigation among them, hence, becomes a critical requirement.

Aims: To describe knowledge, attitudes, practices and contributory factors on disaster preparedness among fishermen at Devinuwara fishing harbour.

Method: Descriptive cross sectional study was carried out with the participation of 388 fishermen at Devinuwara fishing harbour. Data were collected using a self-administered questionnaire. The knowledge, attitudes, practises and contributory factors on disaster preparedness within the various socio demographic categories of sample were identified in this study.

Results: Response rate was 97% (n=388). Among them, 88.7% (n=344) were males, 54.7 % (n=212) belonged to the age between 25 to 44 years and 67% (n= 260) earned below Rs.10 000 monthly income. Out of the study population, 60% (n=223) studied up to grade 10 and worked more than 10 years. Among them, 97.2 % (n=377) had good knowledge on disaster preparedness and males had statistically significant good knowledge than female ($p < .05$). 89.4 % (n=347) had good attitudes on disaster preparedness and females' attitudes were better than males. It was not statistically significant ($p > .05$). A proportion of 46.6% had satisfactory level of practices on disaster preparedness and 57.9% (n=66) fishermen with good practices were between 25- 44 years. And, 58.4% (n=220) with good knowledge, 57.9% (n=201) with good attitudes and 66.7% with good practices had more than 10 years working experience. Among the study population 68.3% (n=265) had experiences natural disasters, 61.6% (n=239) participated to disaster preparedness programmes and 61.3% (n=238) had participated in simulation programmes/drills. From this study, exposure to natural disasters, participation to disaster preparedness programme and drills were identified as contributory factors affecting to knowledge attitudes and practices on disaster preparedness.

Conclusion: According to the study majority of fishermen had well in knowledge, attitudes and had satisfactory level in practices on disaster preparedness. Arrangement of simulation programme and drills were recommended to raise their disaster preparedness level to keep fishing society on more alert for disaster situation.

KNOWLEDGE, ATTITUDES AND PRACTICES OF MOTHERS OF PRESCHOOL CHILDREN IN PREVENTION AND CONTROL OF WATER-BORNE DISEASES DURING FLOODS, IN MEDICAL OFFICER OF HEALTH AREA, PANADURA

Fernando, P.S.N¹

1. Army Hospital, Colombo 5

Background: Water-borne diseases were a major cause of morbidity and mortality in disaster situations where water safety was affected. Panadura MOH area was frequently subjected to floods. Mothers were often the primary care givers of children under five and they took critical health related decisions with regard to the whole family.

Aims: To describe knowledge, attitudes and practices of mothers of preschool children in prevention and control of water-borne disease during floods in the Medical Officer of Health area, Panadura.

Methods: Descriptive cross sectional study carried out with the participation of 404 mothers of preschool children from flood prone areas of MOH. Data was collected using an interviewer administered questionnaire. Main flood prone area from MOH Panadura identified, List of preschools and list of numbers of children was prepared. Number of mothers was obtained from each school calculated using probability proportionate to size method. Simple random sampling method used to select the necessary number of children from each preschool.

Result: According to the study 20% of families had inadequate water for drinking during Floods, and 40% had inadequate water for maintaining personal hygiene. Most of them suffered from flood more than 4 times a year. Main water supply of the families of the study population was from dug wells. Majority of them had a satisfactory knowledge regarding spread of water borne diseases and 41% of mothers thought they can use infant formulas during disasters. Mothers 75% of who took part in study had a good knowledge about unclean food and water can causes diarrhoea. But 79% had low knowledge about hepatitis's A & E transmission route and 24 % had low knowledge regarding increase risk of spared waterborne disease based on the answers given by them.

Conclusions: Supply of water is a problem during the floods. Faulty unhygienic practise were evident in the population during floods. It is needed to intensify by heath education though public health midwives.

Email of the Corresponding Author: sriyanfernando@yahoo.com

KNOWLEDGE AND ATTITUDE REGARDING TUBERCULOSIS IN ADVANCED LEVEL SCHOOL CHILDREN AT TWO MAJOR SCHOOLS IN GAMPAHA DISTRICT

Senarathne, R.M.C¹, Senarathna, S.A.M.A.S.R.K², Mangalika, K.I,¹ Weerasuriya, K.D.G.C.K, Liyanawidane, L.W.S¹

1. Out Patient Department, District General Hospital- Gampaha
2. Out Patient Department, National Hospital for Respiratory Diseases- Welisara

Background: Tuberculosis (TB) is a communicable disease with high mortality. There is a high rate of undetected TB cases living in the community. To eliminate the TB burden, the community should be knowledgeable to identify the risk of the disease. The attitudes are important in prevention of disease transmission.

Aims: To assess the knowledge and attitudes, related to Tuberculosis in advanced level school children in Gampaha District.

Methods: A descriptive cross sectional study was conducted at the Bandaranayake Boys School and Rathnawali Girls School in Gampaha. Self-administered multiple choice questionnaire was given to obtain data.

Results: Of 469 students, 56% were males. Mean (SD) age was 17.3 years. 75%, 64% and 52% got to know TB from the television, school and newspapers respectively. 5% had not heard about TB. 89% believed TB is a dangerous disease. 5% believed it is not dangerous diseases. 6% did not have an idea. 87% knew TB is caused by a bacterium. 63% knew the causative agent. 89% mentioned TB is spread through air. 53% stated the organism can live long time in the environment. 75% knew patients with HIV have higher chance of getting TB. Percentage of students who correctly identified the symptoms of TB; cough 93%, loss of appetite 68%, weight loss 67%, evening fever 57%, night sweats 38%. 24% correctly identified all the symptoms. 76% were aware of free sputum check at government hospitals. 86% knew TB treatment should continue for 6 months. 76% knew good ventilation and sunlight in households is an important preventive factor of TB. 95% believed using a handkerchief when coughing can reduce TB spread. Treatment preference if they have TB ; medical doctor 87%, traditional healer 3%, pharmacy 2% and wait and see 2%. 64% were afraid to be infected with TB. 7% would be embarrassed. 12% were sad if they have TB.

Conclusions: Majority of students have a good knowledge on TB including symptoms, disease spread, diagnosis, prevention and the treatment. Their main information sources were television and school. Majority believed TB is a dangerous disease and only 7% embarrassed having TB.

Email of the Corresponding Author: rmchandrani@yahoo.com

PP 144

CARDIOTOXIC MANIFESTATIONS FOLLOWING 'NIYAGALA' (*GLORIOSA SUPERBA*) POISONING

Namal Rathnayaka, R.M.M.K.^{1, 2, 3}, Ranathunga, P.E.A.N.⁴, Fernando, R.⁵

1. Intensive care unit, Provincial General Hospital, Ratnapura
2. Postgraduate Institute of Medicine, Colombo – Clinical Pharmacology and Therapeutics
3. Department of Veterinary Pathobiology, Faculty of Veterinary Medicine & Animal Science, University of Peradeniya
4. Medical unit, Provincial General Hospital, Ratnapura
5. Department of Forensic Medicine and Toxicology, Faculty of Medicine, University of Colombo

Background: Niyagala / Glori lily (*Gloriosa superba*) grows wild in every region of Sri Lanka and it is becoming a common plant poisoning in the country. The poisonous substance of the plant is colchicines which has multi-organ involvement and deadly poisonous. ST-T wave abnormalities (ST elevation) have previously been described following its poisoning.

Aims: To describe cardiotoxic effects of Niyagala poisoning

Methods: A descriptive observational study involving a series of 33 patients with *Gloriosa superba* poisoning was conducted for one-year duration commencing from July 2015. Cardiotoxicity was assessed using serial electrocardiograms (ECG).

Results: Twenty nine (87.9%) cases were deliberate self-poisonings and four (12.1%) were accidental poisonings. Females were outnumbered males; females-21 (63.6%), males-12 (36.4%). Their age ranged from 13 years to 72 in which female age range was 15-60 and male age range was 13-72. Thirty (90.9%) had ingested *Gloriosa* tubers; one each (3%) ingested leaves, flowers and Niyagala seeds. Five patients (15.2%) died due to Niyagala poisoning. Cardiotoxic manifestations were found in 7 patients (21.21%) of which 2 (6%) had chest pain; one each (3%) had palpitations and heart failure. Seven (21.2%) developed changes in ECG from which 3 (9%) had ischemic changes, 2 (6%)-sinus bradycardia, 1 (3%)-sinus tachycardia and 1 (3%)-arrhythmia.

Conclusions: ECG changes such as tachycardia, bradycardia, arrhythmias and ischemic changes may occur following *Niyagala* poisoning. In addition, *Gloriosa superba* poisoning may result heart failure. But we had only one patient with heart failure. Therefore, there should be future studies on Niyagala poisoning in order to confirm this.

Email of the Corresponding Author: namalrath10@yahoo.com

PP 145

CRITICAL APPRAISAL OF CONSUMER HEALTH LITERATURE IN TAMIL PRINT NEWS MEDIA IN SRI LANKA**Sri Ranganathan, S.¹ Balasubramaniam, R.², Thayaharan, M.³ Thiruvarangan, S.⁴**

1. Department of Pharmacology, Faculty of Medicine, University of Colombo
2. Medical Research Institute, Ministry of Healthcare and Nutrition
3. Adolescent Dental clinic, Colombo 4, Ministry of Healthcare and Nutrition
4. Allied Health Science Unit, Faculty of Medicine, University of Colombo

Background: Content or effectiveness of consumer health literature (CHL) appearing in print news media is subjected to little or no evaluation though it is a major source of public health information. Access to reliable health information is often limited to people who are illiterate in the main language of a country.

Aim: To critically appraise the CHL appearing in Tamil print news media in Sri Lanka

Methods: It is a cross-sectional descriptive study. A market survey was conducted in North, East, Western, Central and Uva provinces to identify Tamil newspapers published in Sri Lanka. The identified newspapers published over a period of 12 weeks were bought from two popular newspaper shops, one in Jaffna and the other in Colombo. These newspapers were reviewed independently by 2 investigators firstly to discern the CHL and secondly to appraise them in term of content, source, scientific merit, social value and effectiveness of message using a custom-made appraisal form. In case of major disagreement between the two reviewers, decision by consensus will be taken. CHL was defined as “materials intended/aimed to provide/improve health literacy of public”. Advertisements and cosmetic news were excluded. Data were analysed using descriptive statistics.

Results: Of the 609 CHL appeared in the collected 600 newspapers (50/ week X 12 weeks), analysis of 231 is presented here. Common topics were minor illnesses/symptoms, skin-problems, diet, childcare, diabetes, infertility, female-diseases, pregnancy, stroke, heart attack and renal diseases. National public health campaigns, official health education messages and communicable diseases were poorly represented. About 40% were just information with no indication about the source. Another 40% were articles mostly authored by doctors. Content lacked scientific merit in 50%, but majority (65%) were of socially relevant. Almost half appear to be authored by South Indian doctors giving photos, qualification, designation and contact details. Though, 90% had pictures, only about 15% were appropriate for the content. Reliability was poor in 40%.

Conclusion: Public health education materials relevant to Sri Lanka was under-represented in consumer health literature in Tamil print news media and focus appears to be on attracting readers, filling paper space and giving publicity to doctors.

Email of the Corresponding Author: yobala27@gmail.com

PP 146

EVALUATION OF HEALTH POLICIES ON PREVENTION AND CONTROL OF ISCHEMIC HEART DISEASE IN SRI LANKA: A DESK REVIEW

Thubellage, D.S.¹, Dharmasiri, A.S.², Senarath, J. U.³

1. Medical Officer, health information, Medical Research Institute, Colombo 08
2. Director of the Postgraduate Institute of Management, University of Sri Jayewardenepura
3. Professor in community medicine, Faculty of Medicine, University of Colombo

BACKGROUND: The need for research informed policy making is increasingly recognized. Many gaps have been identified in research relevant to policy. Researches related to policies on Ischemic Heart Disease (IHD) attain a greater significance since IHD is the leading cause of death in Sri Lanka.

AIM: To evaluate the current health policies related to prevention and control of IHD with respect to the format and use of research evidence in their back ground and in their plan for outcome evaluation.

METHOD: A desk review of related existing policies in the Policy Repository of Ministry of Health was carried out. Twenty six policies published from year 2000 to 2016 were considered. The identified core indicators were number of policies with any evidence based reasons, number which have stated desired outcomes, number in which its outcome evaluation plan was mentioned.

RESULTS: Out of 26 policies, 11 were directly related to either prevention or control of IHD. A standard policy format was not followed in most cases. Any evidence based reasons for initiation of the policy were given in 81.82%. 45.5% were based on survey results and 18.2% on empirical studies and 9% were based on previous experience and in 27.3% it was not mentioned. The level of justification for the recommended course of action was adequate or average in 73%. In 45.45% due citations were given in the context whereas only in 9.09% references given. Some were based on guidelines and findings of international bodies which were based on the findings of other countries. In a few policies, though the evidences are given, the local relevance is not clearly defined. Only in 36.4%, an outcome evaluation plan has been included.

CONCLUSIONS: Policies based on locally done research has to be encouraged since the research done in other parts of the globe may not be fitting to the Sri Lankan population well given its unique socio-cultural context. It is recommended to initiate a dialogue about the need to have standard formats and procedures in policy formulation.

PP 147

A RETROSPECTIVE STUDY OF LEPROSY REACTION PATTERN IN A TERTIARY CARE HOSPITAL**Ranasinghe, A.C¹, Warnasooriya, W², Mendis, W.J.S³**

1. Department of Dermatology, Colombo North Teaching Hospital, Sri Lanka
2. Department of Dermatology, Colombo North Teaching Hospital, Sri Lanka
3. Department of Dermatology, Colombo North Teaching Hospital, Sri Lanka

Background: Leprosy reactions are immune mediated episodes often occurring in borderline disease. They are acute or sub-acute inflammatory responses affecting the skin nerves and mucous membrane. Patients could develop reactions at any stage of the disease, either at the onset of the disease, during the treatment or over even after completing treatment for the disease. Unless promptly identified and treated, they can lead to deformity and disability and some neurological deficits may not be reversible. Occurrence, clinical pattern and response to treatment vary among patients.

Aims: To assess the leprosy reaction pattern among leprosy patients.

Method: A retrospective study was carried out at Dermatology unit, CNTH, from 2006 to 2016. All the patients who have been diagnosed and treated for lepra reactions were included in the study. Clinical and demographic data were collected using clinic records and analysed.

Results: During this 11 years period total of 1082 patients have been treated as Leprosy and among them 123 (11.4%) patients had leprosy reactions. This includes 67.4% males and 32.5% females. Their age ranged between 3 years to 77 years. 3.25% were below 10 years of age. 56.9% presented with reactions. The majority 76 (61.78%) had type 1 reaction and they were young males (45.5%) between 20-40 year age ranges. Respective figures for type two reactions and mixed type of reaction were 29.26% and 8.94%. Most (68.3%) of them received Multi Drug Therapy (MDT) Multibacillary Therapy (MB), 9.75% received Paucibacillary therapy (PB), 1.62% had ROM treatment and 20.32% were treated with MB treatment without Dapsone. There were 38.2% borderline tuberculoid patients while 30% had borderline lepromatous leprosy. However, 19.5% suffered from repeated episodes of lepra reactions. Systemic steroids alone were used to treat 66.7% patients successfully while, 13% had severe reactions which required second line drugs. 18.69% were treated with systemic steroids combined with extra Clofazamine and only 2.4% were treated with Thalidomide. 12.19% had mild type one reaction which required only oral Non steroid anti-inflammatory drugs (NSAIDS). 24.3% had grade 1 disability and 13% had grade 2 disability.

Conclusion: Leprosy reactions cause significant impact on patients with leprosy and they were more common among young male patients. Therapeutic response varied among patients and it needs further evaluation.

Email of the Corresponding Author: chandimar123@yahoo.com

PP 148

COMPARISON OF THE EFFECT OF PROGRESSIVE MUSCLE RELAXATION AND MUSIC ASSISTED PROGRESSIVE MUSCLE RELAXATION ON RELIEVING STRESS AMONG RESIDENT IN SELECTED ELDERLY HOMES COLOMBO DISTRICT.

Faries, M. R. M.¹, Alwis, B. H. P. P.¹, Weerasinghe, S. A. P. T.¹, Jayawardana, S. M.¹, Pathiraja, S. P. H. S.¹, Dabare, H. P. M.¹, Fernando, N.²

1. Department of Physiotherapy, Faculty of Allied Health Sciences, Kotelawala Defense University, Werahara
2. Faculty of Medicine, Kotelawala Defense University, Ratmalana

Background: Stress is a multidimensional common disadvantage among the elderly population in the world. Among a variety of stress-relieving techniques, Progressive Muscle Relaxation (PMR) is one of the leading non-pharmacological methods. Music assisted PMR (M+PMR) is a variation of PMR which is also used in wellness programs to induce relaxation.

Aim: To compare the effect of PMR and M+PMR on relieving stress among residents in selected elderly homes in Colombo district.

Methods: An experimental study was conducted recruiting 134 elders of 60-89 years, in three randomly selected elderly homes in Colombo. These elderly homes were randomly assigned to PMR (group A, n=82) and M+PMR (group B, n=52). A pre-tested, interviewer administered 10-item Perceived Stress Scale (PSS) and a general questionnaire were used to collect baseline data and three months post intervention outcomes in both groups.

Results: Majority of the study population were female females (70.1%) with a mean age of mean age of 73.88 (SD=6.836) years. Baseline mean stress level in group A was 29.69 (SD=4.493) while in group B it was 28.23 (SD=5.012). Following a 3-month intervention the mean stress level was reduced to 26.13 (SD=3.848) and 22.69 (SD=2.429) in group A and B respectively. In both groups, this reduction was statistically significant ($P < 0.00001$). Socio-economic factors including age, gender, marital status and occupation were not significantly associated with the stress level among this population.

Conclusion: Both PMR and M+PMR training are effective in reducing stress among the elderly and more of these types of relaxation techniques should be promoted among the elderly population to promote healthy aging.

Email of the Corresponding Author: faries89pst@gmail.com

THE EFFECT OF OBESITY ON CARDIAC REHABILITATION IN PATIENTS WHO HAVE UNDERGONE CORONARY ARTERY BYPASS GRAFT SURGERY AT THE NATIONAL HOSPITAL OF SRI LANKA.

Dharmapriya MKJKB¹, Bandara DMAK¹, Ranasinghe RAMC¹, Weerathunge MPM¹, Silva MCD¹, Wijesinghe R.A.N.K.², Mendis S.A.E.S.³

1. Department of Physiotherapy, Faculty of Allied Health Sciences, General Sir John Kotelawala Defence University.
2. Department of Clinical Sciences, Faculty of Medicine, General Sir John Kotelawala Defence University.
3. National Cardiology Institute, National Hospital of Sri Lanka.

Background: Coronary artery disease (CAD) is one of the most important non-communicable diseases in Sri Lanka. Coronary Artery Bypass Graft Surgery (CABG) is considered as the main revascularization procedure in patients with CAD. Cardiac rehabilitation is a multiphasic and multi-disciplinary program and is considered as a significant component of post-operative management after CABG.

Aim: To study the effect of obesity on Cardiac Rehabilitation Program II (CRPII), a 3-month period of cardiac rehabilitation following discharge from the hospital, in patients who have undergone CABG.

Method: This was prospective analytical study involving a convenient sample of 100 patients after CABG surgery. The patients (age: 40-70 years, both males and females) were selected from the cardiac rehabilitation program of the Cardiology Unit at the National Hospital of Sri Lanka. Data collection was done using five interviewer based questionnaires - socio-demographic characteristics using socio-demographic questionnaire, cardio-vascular endurance and fatigue levels using six minute-walk test (6MWT) and Borg Scale (BS), anxiety and depression levels using Hospital Anxiety and Depression Scale (HADS) and overall quality of life using Quality of Life Index cardiac version (QLI)). Data collection 1 was done on the first day of CRPII and data collection 2 was done on the final day of the program.

Results: There were 33% obese and 67% non-obese patients in the study population. Both groups showed a statistically significant improvement ($P < 0.05$) of 6MWT, BS, HADS and QLI after CRPII. There was a significant difference ($P < 0.05$) in the improvement of 6MWT in the non-obese group compared to the obese group and there was no difference in BS, HADS and QLI between obese and non-obese groups.

Conclusions: CRPII led to improvement in cardiovascular endurance, anxiety/depression and overall quality of life in patients who underwent CABG. Non-obese patients showed a better improvement in cardiovascular endurance compared to the obese patients after CRPII.

Email of the Corresponding Author: namalw@gmail.com

PP 150

EFFECTIVENESS OF SPINAL MANIPULATION OVER SHORT WAVE DIATHERMY ON PATIENTS WITH CHRONIC POSTURAL LOW BACK PAIN, DEPARTMENT OF PHYSICAL MEDICINE AT TEACHING HOSPITAL, KANDY, SRI LANKA

Aluthge, I.N.¹, Illukkumbura, K.N.B.², Nisansala, W.A.T.³, Shashikala, H.H.T.³.

1. School of Physiotherapy and Occupational Therapy, National Hospital of Sri Lanka.
2. Teaching Hospital, Kandy
3. Allied Health Sciences Faculty, General Sir John Kothelawala Defence University, Werahera.

Background: Chronic postural low back pain {CPLBP} is one of the common health problems worldwide and a major cause of disability among the elderly population. Short wave diathermy (SWD) is a conventional physiotherapy treatment on patients with CPLBP while spinal manipulation (SM) is performed by specially trained manual therapists.

Aim: To find out the effectiveness of SM over SWD on patients with CPLBP attending the Department of Physical Medicine, Teaching Hospital, Kandy, Sri Lanka.

Method: A prospective observational study was conducted one month (4 visits) on patients diagnosed as CPLBP at Department of Physical Medicine, TH Kandy. The study recruited 70 patients to each group SWD (Group 1) and SM (Group 2). Outcomes of the two treatments (SWD and SM) were measured using numerical pain scale.

Results: Group 1 {SWD} consisted of 40 females and 30 males and group 2 (SM) comprised of, 39 females and 31 males. After 4 sessions, the mean value of pain reduction from initial to final was significantly high in the SM group than the SWD group for both genders- (SM:- 6.410, 6.710 for females and males respectively:-SWD:- 4.625 and 4.625 for females and males respectively). Further it was revealed that there was a significant pain reduction in pain scale ($p < 0.001$) after the 1st treatment session than 2nd, 3rd or 4th sessions in both treatment groups- (SM female: 4.103.2.436.2.077.1.538. males:4.419. 2.516. 2.065, 1,161 and SWD, (females):- 3.350, 2.211, 1.650, 1.725, males: 2.767, 2.300, 2.000, and 1.767).

Conclusion: The study revealed that SM was more effective than SWD on patients with CPLBP in this study population. Further significant pain reduction was noted after the first treatment session in both treatment groups.

Corresponding email: irangaaluthge@gmail.com

PP 151

A DESCRIPTIVE STUDY ON QUALITY OF LIFE AFTER SPINAL CORD INJURY PATIENTS IN A GOVERNMENT HOSPITAL IN SRI LANKA

Rajapaksha, D.G.O.¹, Iresha, E.G.A.², Bandara, S.G.D.C.³

1. Apeksha Hospital, Maharagama, Sri Lanka.
2. National Hospital of Sri Lanka, Colombo, Sri Lanka.
3. Rheumatology and Rehabilitation Hospital, Ragama, Sri Lanka.

Background: Spinal Cord Injury (SCI) which is one of the common health problems in Sri Lanka. The Sri Lankan Spinal Cord Network (SLSCoN) conservatively estimates SCI to affect 2000 Sri Lankans annually it is significantly greater than the World Health Organization's estimate for the global population, (WHO, 2013). Patients with SCI have permanent and devastating neurologic deficits, disability and impact on the physical emotional and social changes of person and the family.

Aims: To identify the impact of the Spinal cord injury on the quality of life of affected person.

Method: This Quantitative Descriptive cross sectional study was conducted at the Rheumatology and Rehabilitation Hospital in Ragama, which is the largest, well-functioning rehabilitation hospital in Sri Lanka. The research involved 100 patients of both sexes in ageing between 20 - 65 years. The sample was selected by convenience sampling method who attended to follow-up clinics after SCI. The research tool was WHOQOL-BREF instrument.

Results: Data revealed that 70% of SCI patients were satisfied on their health and 80% of SCI patients were satisfied on their QOL. 15% of SCI patients unsatisfied on their health and 9% were unsatisfied on their QOL. 25% unsatisfied with transport, 19% unsatisfied their QOL because of pain. 29% unsatisfied with their body appearance, 20% worried about negative feelings, 26% unsatisfied with their sex life, 25% of them unsatisfied with the amount of money they receive for needs, 16% satisfied about mobility, 13% patients satisfied with their working capacity. 19% satisfied with the condition of their living place, and 18% of patients have self-satisfaction. 28% satisfied for their access to health services, and 18% satisfied with their personal relationships and support from friends.

Conclusion: SCI effects on physical wellbeing, emotional wellbeing and socio economic wellbeing of affected persons.

Email of the Corresponding Author: dgor1989@gmail.com

PP 152

FACTORS INFLUENCING PRE-STROKE AND POST-STROKE QUALITY OF LIFE AMONG STROKE SURVIVORS IN SRI LANKA

Maresh, P.K.B.¹, Gunathunga, M.W.², Jayasinghe, S.², Arnold, S.M¹, Croos, J.S.V.¹, Liyanage, S.N.³, Jayasinghe, D.S.A.⁴

1. Office of RDHS, Colombo
2. Faculty of Medicine, University of Colombo
3. Colombo East Base Hospital
4. Office of RDHS, Polonnaruwa

Background: Quality of Life (QOL) reflects the individual's perception of the position within living contexts. Published literature is not commonly found on stroke patients in relation to Sri Lanka

Aim: This study was done to describe pre-stroke and post-stroke QOL of stroke survivors.

Methods: A prospective-longitudinal study was done among stroke survivors admitted to 13 hospitals in the Western Province of Sri Lanka. The calculated sample size was 260. The pre-stroke and post-discharge one-month QOL were gathered using Short Form-36 (SF-36) QOL tool. SF-36 include questions on eight domains; general-health, physical-functioning, pain, role-limitation-due-to-physical-problems, social-functioning, vitality, role-limitations-due-to-emotional-problems and mental-health. Univariate analysis was followed by determining the independent risk factors through multivariate analysis.

Results: The response rate was 81%. The disability was measured by modified-Rankin scale with range from 0 (no symptoms) to 6 (fatal-outcome). The median (IQR) disability score was 4 (3 to 5). The post-discharge QOL scores were significantly lower than pre-stroke values ($p < 0.05$). With a higher pre-stroke QOL, lower-age was significantly associated in six domains, higher-income and better health-infrastructure in two domains ($p < 0.05$). Six factors were determined to be independent risk factors for post-discharge QOL scores of SF-36; Younger-age (for two domains), female-gender (for two domains), higher health-infrastructure (for three domains), higher education (for one domain), lower disability (for five domains) and hypercholesterolemia (for one domain).

Conclusion: Stroke survivors have not regained their pre-stroke QOL at one month following the hospital discharge irrespective of income level and pre-stroke QOL. Pre- and post-stroke QOL are associated with better statuses of social-determinants-of-health. Predictors of lower QOL could be considered in prioritizing follow-up care of stroke survivors.

Email of the Corresponding Author: buddhikamaheshpk@gmail.com

PP 153

PATIENTS' VISITORS SATISFACTION OF SERVICE AT THE MEDICAL INTENSIVE CARE UNIT (MICU) IN COLOMBO NORTH TEACHING HOSPITAL, SRI LANKA.

Chandrasena, P.K.G.S¹

1. Colombo North Teaching Hospital

Background: The concept of satisfaction overlaps with similar themes such as happiness, contentment, and quality of life. Consumers' satisfaction is increasing being measured as an indication of the effectiveness of the nursing care.

Aims: To study of patients' visitors satisfaction of critically ill patients at the North Colombo Teaching Hospital with a view improving the outcome of care.

Methods: A descriptive cross sectional study was performed. The response rate was 96.6%. All visitors of the ICU patients were taken as the study population and a sample of 100 selected through systematic random sampling. The data obtained from the questionnaires and interviews were analyzed quantitatively and qualitatively.

Results & discussion: There were female visitors & 45% male visitors. Sixty eight percent strongly agree, 31% agree and 1% fairly regarding the level of patient care. However, 100% visitors recommended this hospital for their treatments and 44% visitors mentioned friendly services as the best facility in this unit. Factors affecting the satisfaction were as follows: listening 73%, take enough time to talk 54%, explaining what they want to know 62%, give good information regarding patient condition and treatment 65%, nursing/medical officers friendly and helpful 68%, answer visitors' questions 60%. Consumers mentioned that establishing waiting area / lobby 21%, notice board (including patients' name/notification disease conditions) 7% and enlarge visitor's windows 11% (to see patient from outside) as suggestions for improvement.

Conclusion: Patients' visitors strongly agree regarding patient care and results mention that visitors highly admire and hope good care, friendly service and treatments too.

Email of the corresponding author: gnanika.chandrasena84@gmail.com

MATERNAL SATISFACTION REGARDING CARE RECEIVED FROM GOVERNMENT HEALTH SERVICES TO MOTHERS AND THEIR NEONATES DURING HOSPITAL STAY IN DISTRICT OF GAMPAHA

Jayasinghe, D.U.C.J.¹, Abeyseena, C.², Jayasinghe, D.S.A.³

1. Office of Regional Director of Health Services, Gampaha, Sri Lanka.
2. Department of Public Health, Faculty of Medicine, University of Kelaniya, Sri Lanka.
3. Office of Regional Director of Health Services, Polonnaruwa, Sri Lanka.

Background: Patient satisfaction is an accepted indicator of quality care. There is an increased use of patient satisfaction surveys to gather information which can be used to influence policy and service development.

Aim/s: To describe maternal satisfaction on care received by mothers and neonates during stay in secondary and tertiary care hospitals in Gampaha District.

Methods: A cross sectional descriptive study was carried out by recruiting 240 mothers whose neonates had been diagnosed of having neonatal sepsis. Data collection was done by using an Interviewer Administered Questionnaire with a 20-items scale and a few open questions inviting suggestions to improve satisfaction

Results: Overall satisfaction of mothers regarding neonatal care was 90% whereas maternal care was 84.6%. Maternal satisfaction regarding services provided to the neonates on 05 domains namely, information, skills and time spent, communication, courtesy of staff and respect to the patients were 86.5%,91.4%, 92.4%,89.3% and 93.6% respectively. Overall maternal satisfaction regarding the services received by mothers during their hospital stay to deliver the baby and the services provided while their neonates were being treated in the Neonates Intensive Care Units were assessed. According to the scale the main 05 domains concerned were sanitation and physical facilities, diet and drinking water, breast feeding counseling and promotion, information and communication and courtesy of staff. Out of 240 mothers, 219 (91.2%) did not utilize the diet provided by the hospital and 214 (89.1%) refrained from drinking water provided by the hospital. Therefore satisfaction on other four domains was 76.2%, 93.3%, 91.2% and 89.2% respectively.

Conclusion: None of the socio-demographic factors or selected maternal/neonatal factors significantly associated with maternal satisfaction on care received.

Email of the Corresponding Author: chinthaj@yahoo.com

IN- PATIENT SATISFACTION WITH THE NURSING CARE IN MEDICAL WARD OF DISTRICT GENERAL HOSPITAL, MONARAGALA

Upul Priyantha Ratnayaka, N.A.¹

1. Department of Nursing, District General Hospital, Monaragala, Sri Lanka

Background: Patient satisfaction with nursing care is one of the most important predictors of patients' overall satisfaction with their hospital care. Moreover, nursing service is one of the most important components of hospital service. The patient satisfaction surveys are valuable data sources to improve patient health and service quality.

Aim/s: To assess of in- patient satisfaction with the nursing care in medical wards of District General Hospital, Monaragala and to make recommendations to enhance the patient satisfaction on nursing service.

Methods: Hundred patients' participated in the study. They were recruited voluntarily. Study was a cross sectional survey done at the medical wards of District General Hospital, Monaragala. A self - administered questionnaire translated to Sinhala language based on Ronald M. Anderson's behavioral model of Health Services was used as conceptual frame work. Demographic factors need factors (explaining, trusting, respecting, courtesy and happy with nurses' care) and enabling factors (physical environment and comfort) were used as independent variables. There were 18 questions which assessed different aspects of patient satisfaction with nursing care. SPSS, version 16 was used for all statistical tests, which was set at the 0.05 significance level.

Results: Fifty percent were males. Majority of the patients were above 50 years. Seventy percent were married. There were 39% who have educated only up to grade five. A proportion of 48% were unemployed. Majority had less than LKR 10,000/= income per month. Majority of the patients have travelled more than 10 km. According to collected data, the total mean for need factors is 4.0800, which indicates the patients are highly satisfied (97.1%) The total mean for enabling factors is 3.3710. It also indicates that the patients are satisfied (80.5 %). The analysis results show that there is a high positive linear relationship between patient satisfaction and independent variables. The analysis demonstrated that both variables are significantly positively related to patient satisfaction. According to regression analysis, both variables are positively related to patient satisfaction.

Conclusion: A vast majority of patients are satisfied with nursing care in medical wards of District General Hospital, Monaragala, Sri Lanka. Therefore, improvement of enabling and need factors can improve the level of patient satisfaction. The findings of this study could be replicated in similar types of patient care settings.

Email of the Corresponding Author: upulpriyarath@gmail.com

PERCEIVED LEVEL OF SATISFACTION ON CLINIC CARE AND ASSOCIATED FACTORS AMONG CAREGIVERS OF CHILDREN WITH CEREBRAL PALSY ATTENDING THE RHEUMATOLOGY AND REHABILITATION CLINIC AT LADY RIDGEWAY HOSPITAL, COLOMBO.

Herath M.D.¹, De Silva S.H.M.², Ginige,S.³

1. Postgraduate Institute of Medicine, Colombo
2. Department of Rheumatology and Rehabilitation, Lady Ridgeway Hospital, Colombo
3. Epidemiology unit, Ministry of Health, Colombo

Background: Cerebral palsy is the commonest childhood physical disability and requires life-long care, which is multidisciplinary and is an ongoing process that has to be continued at home.

Objectives: To describe the perceived level of satisfaction on clinic care and associated factors among caregivers of children with cerebral palsy attending the Rheumatology and Rehabilitation Clinic.

Methodology: An Institution-based descriptive cross-sectional study was conducted over a period of one month. The calculated sample size was 246. All the caregivers of children with cerebral palsy attending the clinic fulfilling the inclusion/exclusion criteria were included. An interviewer administered questionnaire and data extraction form was used to collect data. Chi squared test was used in analyzing associations.

Results: The response rate was 96.4%. Most of the caregivers (95.6%, n=235) were a parent; and 92.3% (n=227) were mothers. Most were in the 30 to 34 years age category (n= 63, 25.6%; mean= 36.09 years); 59.3% (n=146) had an education level above GCE O/L. The children attending the clinic were mostly boys (57.7%, n=142), first born (52%, n=128) with at least one other living siblings (58.9%, n=145); and belonged to nuclear families (51.2%, n=126). Most children (79.7%, n=196) had associated conditions and 36.6% (n=90) had minimum disability level of Gross Motor Function Classification Scale (GMFCS) level I. Most caregivers (76.4%, n=188) were satisfied with the overall clinic care, the process component was satisfactory among 91.8% (n=226) caregivers but the structural component was found to be unsatisfactory among 53.3% (n=131) of caregivers. Unavailability of special facilities for disabled children, lack of comfort in the waiting area and lack of good toilet facilities accounted for this outcome. Among the factors assessed only caregivers' age (p=0.038) and child's family type (p=0.005) showed significant associations with overall satisfaction on clinic care.

Conclusions: Caregivers were satisfied with overall clinic care, but specifically unsatisfied with the structure component of clinic care. Caregivers' age (p=0.038) and child's family type (p=0.005) showed significant associations with overall satisfaction on clinic care. Improving Facilities in the hospital and improving access to disabled children are recommended.

PP 157

PRIMI-MOTHERS' EXPERIENCES ON NORMAL VAGINAL DELIVERY AT LABOR ROOM

Abeyasinghe, R.U.S.L.¹, Kaluthanthri, K.D.N.D.¹, Nanayakkara, J.A.G.D.S.C.¹, Senadheera, A.S.P.L.¹, and De Silva, B.S.S.¹

1. Department of Nursing, Faculty of Health Sciences, The Open University of Sri Lanka

Background: A primi-mother who delivered a baby in the first time has to face many experiences including labor pain, fear, anxiety and loneliness which surprisingly transferred into love with birth of the baby. Understanding of these experiences is paramount important to provide better care for pregnant mothers.

Aim: To explore the primi-mothers' experiences in normal vaginal delivery at labor room.

Method: A qualitative phenomenological approach was used to assess 15 primi-mothers selected purposefully at Sri Jayewardenepura General Hospital, Sri Lanka and, were interviewed to get an in-depth understanding of the experiences on normal vaginal delivery. Data was analyzed using thematic analysis method.

Results: Mothers were aged between 18 and 35 years, with low risk and full term pregnancy (>37 weeks) and the majority were educated up to (GCE) Ordinary Level. Three themes were derived from the data as physical, emotional and environmental suffering. As physical suffering, unbearable labor pain and pain due to episiotomy, suturing, and positioning with holding legs were identified. Breathing and antenatal exercises were less helpful to reduce pain. Mothers preferred doing suturing immediate after birth. Furthermore, participants suffered emotionally with thinking of getting an abnormal baby, death of baby, herself or both and need of surgical intervention. **Mothers believed religious activities were helpful.** Under environmental suffering, getting afraid with screaming with labor pain, seeing performing episiotomy and suturing, and labor illustrated diagrams at labor room.

Conclusion: Primi-mothers suffered physically, emotionally and environmentally in the labor room and used pain relieving techniques were less useful, while religious activities were helpful. It is highly recommended to introduce new effective pain relieving methods, enhancing mothers' awareness on labor process, and improving nurses' awareness regarding mothers' experiences to provide better care.

Email of the Corresponding Author: bssil@ou.ac.lk

PP 158

APPLICATION OF LEAN MANAGEMENT TO MINIMIZE WASTAGES OF PHARMACEUTICALS IN STORES

Ariyaratne, D.R.C.K.¹

¹District Hospital, Bandaragama

Background: According to SLHA reports in 2013 Total Health Expenditure on medicines was Rs.285 billion. Allocation for pharmaceuticals is 58% out of that. It was noticed that the significant percentage of pharmaceuticals were disposed annually due to expiration. Most of the time some essential pharmaceuticals are out of stock within the institution. Therefore it is high time to seek every possible ways to minimize this wastage and maximize utilization of pharmaceuticals to develop the country.

Aim/s: To minimize wastages while maximize the utilization of pharmaceuticals.

Methods: Following arrangements were introduced to eliminate several inaccuracies at drug stores. Provided new racks with white board border in front where easily update expiry dates. Arranged Pharmaceuticals in alphabetical order as well as the Pharmacological classification. Placed each item on the correct place and exhibited their expiry date in front. Introduced different colours to show year of expire. Indicated motility pattern using colored stars in display board to enhance visual control. Prepared a list of non-moving and short expiry dated items and distribute it among surrounding hospitals and RMSD monthly. Introduced computerized inventory control system and improved the utility.

Results: Proper maintenance of inventory control system reduced over estimation and unnecessary movements of stocks. Searching time of expiry date was reduced from **180sec to 3sec**. Time taken to calculate stock due outstanding was reduced from **400sec to 5sec**. Time taken to calculate balance in hand was reduced from **300sec to 5sec**. Reduced cost due to expiry from **Rs.214,326.00 to Rs.9850.00** within 5 years. Errors and mistakes were minimized using visual controls. Wastages due to expiry of Pharmaceuticals were reduced up to 0.02% of the annual estimation. Utilization of Pharmaceuticals in the institute was 99.5 % throughout the last year.

Conclusion: By introducing lean management for stores we can achieve maximum utilization of pharmaceuticals while minimizing cost of expiry items.

Email of the Corresponding Author: kanchanadissanayake16@gmail.com

PP 159

IMPACT OF THE QUALITY OF NON-CLINICAL SERVICES ON PATIENTS' SATISFACTION: A STUDY OF COLOMBO SOUTH TEACHING HOSPITAL, SRI LANKA.

Priyadarshanie, R.A.D.R.¹, Sudasinghe, S.R.S.N.², Wedage, D,³

1. Colombo South Teaching Hospital, Kalubowila.
2. Sri Lanka Institute of Development of administration, Colombo7.
3. University of Sri Jayewardenepura. Nugegoda

Background: Colombo South Teaching Hospital (CSTH) is one of the largest hospitals in Sri Lanka. There is a doubt about the patients' satisfaction regarding the non-clinical services of the CSTH. This study tries to identify the significant issues in non-clinical services of the CSTH.

Aim/s: The main objective of this study is to measure the impact of the quality of the non-clinical services on the satisfaction of in-ward patients' in the Colombo South Teaching Hospital.

Methods: A cross-sectional survey was used to collect data and the data collection was completed within one week. The validated data collection tool was constructed by using existing literature. The sample was fixed as to the size of 100 patients from medical, surgical, gynecological and obstetric, orthopedic and cardiology and ENT wards. A stratified random sampling technique was used to select the in-ward patients and the data collection was done at the time of their discharged.

A self-administrative questionnaire collected the data. The items of the questionnaire consist of 5- point Likert scale measurement as strongly agree, agree, neutral, disagree, and strongly disagree. Weights allocated for the answers are as 1 for "Strongly Disagree" and 5 for "Strongly Agree". The questionnaire consists of 47 questions with four biographical information, six open ended questions and the balance 37 questions are as Likert scale.

Results: Other than the waiting time which shows negative relationship, all the variables show significant positive relationships with patients' satisfaction. Response rate was 98.(n=98). The overall satisfaction of the patients was at an excellent level and half of them were ready to recommend CSTH to others as well.

Considering the responsiveness of the staff, most of the patients (60.2%) are happy with the response they received from the staff at the admission. 66% of the patients claimed that the medical staff had listened to them very carefully, but nearly 29% of the patients were not happy with the attention paid by the staff. Considering the physical facilities of the hospital, nearly 63% of the patients were happy about hygiene standards and cleanliness of the wards.

Conclusion: Patients' satisfaction regarding the services of the CSTH can be enhanced by increasing the level of responsiveness of the hospital staff, physical facilities of the hospital, the information provided by the information system of the hospital, and the cleanness of the environment.

Email of the Corresponding Author: rasikarad@gmail.com

PATIENT PERCEPTION ON RESPONSIVENESS OF BASE HOSPITAL, NIKAWERATIYA

S.S.A.B.M.S.K.Attanayake¹, P.A.D.D.S.Ponweera¹

1. Post Graduate Institute of Medicine, Colombo

Introduction; Health systems' responsiveness is a measure of the performance of a health system of a country in relation to meeting the non- medical expectation of its service seeker. The World Health Organization's framework for health system performance assessment has health, responsiveness and fairness of financing as three goals of a health system. The concept of responsiveness has been defined to encompass the non-health and non-financial aspects of the health system. The assessment of responsiveness should be done by the service seeker who is in best position to assess it.

Objective; To assess the level of responsiveness in relation to inward care and to compare the level of responsiveness with socio demographic characteristic of the inward patients.

Methodology; The descriptive cross sectional study was conducted with systematic sampling method. The study was carried out at Base Hospital Nikeweratiya in four specialized units with participation of 422 respondents. An interviewer administered questionnaire was used to measure the level of responsiveness and its domains and a check list was used to assess the responsiveness in relation to selected characteristics of the service delivery system of the hospital.

Results; The rating of responsiveness as 'very good and good' was 86.6% in relation to being treated with dignity, 81.6% for autonomy, 79% for confidentiality, 74.3% for communication, 80.9% for prompt attention, 76.2% for basic amenities, 86.8% for social support and 77.8% in relation to choice of care provider. The overall level of responsiveness was rated as 'very good' or 'good' by 82.5%.

Conclusion; Though the health systems' responsiveness was rated by the majority of the participants as 'good or 'very good', some aspects of responsiveness including the communication and basic amenities for the clients need to be improved in delivering the inpatient health care.

PP 161

A NOVEL INTEGRATED INTERVENTION TO IMPROVE INTRAPARTUM CARE SATISFACTION AMONG PREGNANT WOMEN OF TEA ESTATES

Madugalle T.M.S.S.B.¹, Panadare C.M.A.B.C¹, **Jiffry M.N¹**, Rathnayake R.M.H.M¹, Rajapakshe R.N¹

1. Teaching Hospital, Gampola

Background: Busy clinics, wards and under-staffed units contribute towards an iatrogenic knowledge gap that leads to poor treatment compliance, poor patient satisfaction and poor overall obstetric well-being.

Aim: To determine the effectiveness of integrated intervention using Knowledge Management and Innovation (KMI) System in improving patient satisfaction in intrapartum care.

Methodology: In 2014, we established, integrated and applied the KMI system to the empirical obstetric health care system using existing resources, leveraging it beyond its previous norms. To change and improve **Policies, Processes, Partnerships, Programs and People (5Ps)** by bridging the identified knowledge gaps, KMI program targeted the pregnant women of 7 randomly selected tea estates in the catchment area of Teaching Hospital Gampola. A pre-validated interviewer administered questionnaire was used to interview 117 women each as the pre-test in 2013 and as the post-test in 2016.

Results: The questionnaire assessed patient satisfaction of intrapartum care and scored out of 10. A score above 6 was considered as satisfactory. Nine (8.7%) scored above 6 in 2013. After implementation of KMI program 116 (99.1%) scored above 6 in 2016. The improvement in patient satisfaction in intrapartum care was statistically highly significant ($p < 0.001$).

Conclusions: The integration of the KMI system to the existing empirical obstetric health care framework significantly improved patient satisfaction of intrapartum obstetric care.

PP 162

IMPLEMENTATION OF STANDARD CRITERIA FOR EFFECTIVE MEDICAL EQUIPMENT PREVENTIVE MAINTENANCE PRACTICE IN RELATION TO SERVICE AGREEMENTS OF DISTRICT GENERAL HOSPITAL – NAWALAPITIYA

Somaratne, C.J.K.¹, Dharmaratne, G.S.K²

1. Sirimavo Bandaranayake Specialized Children's Hospital, Peradeniya
2. De Soyza Maternity Hospital, Colombo.

Background: Maintenance management of medical equipment is one of the key requirements of modern hospitals. Hospitals must ensure that their critical items of medical equipment are safe, accurate, reliable and operating at the required level of performances. Scarcity of financial resources has resulted limited Inspection and preventive maintenance activities for the items of medical equipment in the hospitals of Sri Lanka. There is no standard criteria method applied for selecting items of medical equipment for maintenance strategies such as annual service agreements in public sector hospital in Sri Lanka.

Aim: This study aims to establish a medical equipment priority list to a secondary care hospital in Sri Lanka applying the accepted standard criteria of mission criticality, maintenance requirement, utilization rate and risk on failure as proposed by the Wang – Levenson algorithm.

Methods: The study was carried out in year 2016 and a comprehensive data base for the medical equipment was developed initially. The new method was applied to prioritize the items of medical equipment of District General Hospital Nawalapitiya in order to select the items of medical equipment for annual service agreements.

Results: Total of 642 items of medical equipment were identified in the hospital and 430 (66.9%) items and 212 (33.1%) items were found to be functional and non-functional respectively. According to the Wang - Levenson criteria adjusted equipment management ratings (AEMR) were calculated and the functional items of medical equipment were prioritized in a descending order. AEMR values were varying from maximum value of 30 to minimum value of 2. The priority list was utilized for the annual service agreements of the hospital for year 2017 / 2018 and 80 % of the items were selected according to the list. During the perception evaluation, all the participated stakeholders valued the new method as scientific criteria based method for effective utilization of scare financial resources.

Conclusions: The new method was accepted by the Central Provincial Health Department. The Provincial Health Department has already taken initiatives to implement the new method at DGH Nawalapitiya and planning to implement it in the other health care institutions of the province.

Email of the Corresponding Author: janaka.somaratne@yahoo.com

PP 163

EFFECTIVENESS OF DRUG INFORMATION SHEETS ON THE MEDICATION COMPLIANCE AMONG PATIENTS ON LONG-TERM TREATMENT FOR HYPERTENSION IN THE NATIONAL HOSPITAL SRI LANKA

Karunaratne, A.S¹, Kumarapeli, V.², Samarage, S.³

1. National Hospital of Sri Lanka, Colombo
2. Ministry of Health, Colombo
3. Institute of Health Policy, Colombo

Background: Non-compliance to prescribed medication is a barrier to achieve positive health outcomes among patients with chronic health conditions including hypertension. With the epidemiological and demographic transition in Sri Lanka prevalence of hypertension is expected to rise in next decade.

Aim: To assess the medication compliance (MC) among hypertensive patients attending medical clinics in National hospital of Sri Lanka (NHSL), and to assess the effectiveness of drug information sheet (DIS) on the MC.

Methods: Quasi-experimental study was carried out in the NHSL; a group of patients followed up in the medical clinic for hypertension was assessed for medication compliance using MMA-8 scale. Patients followed up in Monday clinics were given a DIS, while the patients on Wednesday's clinic were kept as Control. One month later both groups were assessed for compliance using the same tool.

Results: Of all the participants (n=70), 85.7% (n=60) had a Low (scores 4-8) MC. There was no significant difference in the MC between the two groups on the pre assessment (p>0.05) and no significant difference in mean age, sex distribution

SERVICE EVALUATION OF NEW PATIENTS' CARE PATHWAY INCLUDING REFERRALS TO CHILDREN'S HOSPITAL

Gajanayake, C.¹, Zaitoun, H.²

1. National Dental Hospital (Teaching), Ministry of Health, Sri Lanka, and Charles Clifford Dental Hospital, Sheffield, UK
2. Department of paediatric dentistry, Charles Clifford Dental Hospital, Sheffield Teaching Hospitals Foundation Trust, Sheffield, UK

Background: The Paediatric Dentistry Department within Charles Clifford Dental Hospital (CCDH), part of Sheffield Teaching Hospitals NHS Foundation Trust (STH) is a secondary and tertiary referral centre for Yorkshire and Humber. Approximately 4500 referrals are received per annum and some of these patients are subsequently referred to Sheffield Children's Hospital (SCH) for dental treatment under general anaesthesia on a joint care pathway (CCDH and SCH). It is important that the conversion rate is established so that CCDH and SCH can plan for the capacity required.

Aim: To describe the factors related to patient care pathway in Paediatric Dentistry Department of CCDH.

Methodology: Retrospective case note review of 100 patients seen between April 2015 and April 2016, randomly selected from a list provided by the IT (Information Technology) department of the business planning team. A form of check list was prepared and the approval was taken from the Director.

Results: Majority of patients were referred by the General Dental Practitioners (77%) and from the Sheffield town council area (72%). 17 % were regarded as urgent, while 83% were routine. 50% were at 3a complexity level and 16% were at 3b (Highly complex according to NHS guideline). 59% of referrals were for caries and 20% of patients had a medical problem, 16% of patients had anxiety, 18% no reported secondary problem. 55% of the new patient referrals required GA treatment.

Conclusion: There were cases which could have been treated by the General Dental Practitioners. Close monitoring is needed to ensure the quality of referrals (secondary and tertiary). Referrals should be scrutinised against the region to see whether there are appropriate services nearer to the patients' home.

Email of the Corresponding Author: drchandaganajanayake@gmail.com

PP 165

AN AUDIT OF DIABETES MELLITUS MANAGEMENT IN GENERAL MEDICAL CLINIC AND THE DIABETIC CLINIC AT NORTH COLOMBO TEACHING HOSPITAL.

Hemachandra, K.A.S.¹, Premaratna, R.²

1. District General Hospital, Polonnaruwa
2. Faculty of Medicine, University of Kelaniya

Background: Diabetes mellitus (**DM**) is one of the major causes of morbidity and mortality. In 2006, prevalence of DM in Sri Lankans aged ≥ 20 years was 10.3% and it is continuing to rise. Though the health ministry has developed national guidelines, there is a high chance for deviation from the best practice in busy clinic environments.

Aim/s: To compare the current management of DM in general medical clinic (**MC**) and the diabetic clinic (**DC**) with the national guidelines. To compare the difference in the level of care between MC and DC.

Methods: This is a clinical audit, which was conducted in one of the four randomly selected MCs and in the DC of North Colombo Teaching Hospital. The study population was type2 DM patients attending the MC and the DC. National Guidelines was considered as standards of DM management. Sources of data were patients' records and an interviewer administered questionnaire, which used to collect data from 200 patients, 100 from each clinic.

Results: Monthly blood sugar checks were conducted for 98% of the patients attending DC and 57% patients MC, showing a significant difference ($p < 0.05$). Blood cholesterol was done on 26% of DC patients and 13 % of MC patients within 6 months, which shows significant difference ($p = 0.003$). Urine microalbumin was checked in 76% of DC attendees and 6 % of MC attendees, showing a significant difference ($p < 0.05$). Creatinine level within a year was available for 19% of DC attendees and 30% of MC attendees, showing no significant difference ($p > 0.05$). Eye referral was done in 62% patients of DC and 31% patients of MC within last year, showing significant difference ($p < 0.05$).

Conclusion: Many aspects of the management of DM in both DC and MC are not up to the standards of national guide lines. There were disparities in management practice of two clinics as well.

Email of the Corresponding Author: kashemachandra@gmail.com

PP 166

LEARNING STYLES AMONG MEDICAL UNDERGRADUATES AND PRE-INTERN DOCTORS OF UNIVERSITY OF SRI JAYEWARDENEPURA

Indunil, L.A.¹, Madushika, P.K.K.¹, Deegodagamage, Y.S.¹, Niluka, D.H.M.¹, Wijesundara, W.M.C.S.¹, Edirisinghe, E.A.S.T.¹, Dissanayake, P.H.¹, Yasawardene, S.G.¹

1. Department of Anatomy, Faculty of Medical Sciences, University of Sri Jayewardenepura.

Background: Medical education is an ever evolving process. Gaining required knowledge, attitudes and skills within a stipulated period of time to become a competent doctor is a challenge. The shift from teacher-centred and subject-based teaching to the interactive, problem-based, student-centred learning is an important concept in the medical education. This study evaluates the learning styles (visual, auditory, read/write and kinaesthetic-VARK) among medical undergraduates and pre-intern doctors.

Aims: To determine Learning styles among medical undergraduates and pre-intern doctors of University of Sri Jayewardenepura using VARK questionnaire

Methods: A validated self-administered VARK questionnaire was used to assess the learning styles among 238 Medical Undergraduates and Pre-intern doctors of University of Sri Jayewardenepura. Data was analysed using SPSS v-16 and Brown-Forsythe t test.

Results: The study sample consisted of 67.2 % (160/238) pre-clinical undergraduates and 32.8 % (78/238) pre-interns. The total male (72/238) to female (166/238) ratio was 1: 2.3. Among participants, the majority 59.8 % (142/238) had multimodal learning styles. Majority of the pre-clinical undergraduates [62.2 % (100/160)] and pre-interns [57.4 % (48/78)] were multimodal learners. Similarly, majority of males 81.9 % (59/72) and females 80.1 % (133/166) were multimodal learners.

Multimodal learners had a combination of auditory-kinaesthetic 28 % (40/142) and verbal-kinaesthetic 26 % (37/142) learning styles. Among unimodal learners, majority had visual [30.2 % (29/96)] and auditory [28.6 % (27/96)] learning styles.

A statistically significant difference ($p=0.02$) was observed in reading/writing style among pre-clinical and pre-intern groups whereas other learning styles did not.

Conclusions: Multimodal learning is the popular learning style among medical undergraduates and pre-intern doctors of University of Sri Jayewardenepura. Comparable results were observed in local and international studies. Encouraging multimodal learning styles would help to develop a better undergraduate medical curriculum. The results suggest that, learning preferences of medical students need be verified prior to the start of their academic tasks.

Email of the Corresponding Author: laindunil@gmail.com

PP 167

THE EFFECTIVENESS OF IN-SERVICE TRAINING WORKSHOPS FOR NURSES TO IMPROVE MICROBIOLOGICAL DIAGNOSIS

Wickramasinghe D¹, Ransimali L.G.H.N.¹, Vijayapabu V.¹, Piyadasa U.P.L.A.¹, Kumari E.H.N.N.¹

1. District General hospital Ampara, Ampara.

Background: Microbiological culture testing is an integral part of day-to-day primary care practice. However, method of sample collection, storage and transport will affect culture results, patient diagnosis and patient management directly. Proper collection of a sample is also very important in order to avoid contamination of urine.

Objective: To evaluate the effectiveness of in-service training workshops for nurses on specimen collection and transport to improve microbiological diagnosis.

Method: All the nurses in district general hospital Ampara were trained by microbiology staff for microbiological specimen collection and transport from March 2017 onwards and the laboratory results (urine culture positivity results) were analyzed for pre and post workshop period.

Results: In the extremities of the age (< 12 years and >65 years) urine culture positivity and ESBL detection is significantly high ($p > 0.01$) in males compared to Females. But in middle age group (13 – 65 years) urine culture positivity and ESBL detection is significantly high ($p > 0.01$) in females compared to males.

Mean percentage of culture positivity of November 2016 to 2017 March is 70 and 2017 April to August is 93.6. Mean percentage of culture positivity of November 2016 to 2017 March is significantly lower than that of 2017 April to August at 0.005 ($p > 0.01$) probability level.

Mean percentage of ESBL positivity of November 2016 to 2017 March is 9.6 and 2017 April to August is 20.4. Mean percentage of ESBL positivity of November 2016 to 2017 March is significantly lower than that of 2017 April to August at 0.005 ($p > 0.01$) probability level.

Conclusion: Urine culture positivity and ESBL detection is significantly higher in males in the extremities of the age.

The present study suggested that providing training workshops for nurses is a useful strategy to increasing microbiological diagnosis and should be conducted periodically to keep up with the advance in medical microbiology technology.

Email of the Corresponding Author: dwickw2@yahoo.co.uk

EVALUATING THE EFFICACY OF A PRE-INTERN TRAINING PROGRAMME ON ESSENTIAL CLINICAL SKILLS

Padeniya P. S. M.A. B.¹, Heenatigala C. S. N.², Ratnayaka D.R.D⁴. Pieris K. V. M.², Epitakaduwa D. C.³, Ranasinghe D.³

1. Founder of the Society for Health Research and Innovation (SHRI), Paediatric neurologist, Lady Ridgeway Hospital for children, Sri Lanka
2. Faculty of Medicine, University of Colombo, Sri Lanka
3. Society for Health Research and Innovation (SHRI)
4. Base Hospital Panadura

Background: Internship is the bridging stone for medical graduates to become medical professionals. In Sri Lanka, there's a delay of nearly one year from the date of completion of the medical degree to the commencement of internship.

Aims: To ascertain the effectiveness of a capstone programme that would serve as a culminating academic and intellectual experience for students awaiting internship in Sri Lanka.

Method: A 5 day clinical skills training programme was conducted for 1089 pre intern doctors at 30 different hospitals from or above base hospitals where consultant physicians and consultant anaesthetists are present during the programme. This programme was conducted for 3 months period their self-perceived level of competency for several procedures was accessed via an online Google based data form, before and after the training program. Prior to introducing the Google form to pre intern doctors it was validated by sending 20 pre-intern doctors who were selected randomly from 8 faculties.

Results: Out of 1089 pre-intern doctors 789 participated the 5 day workshop. And 600 filled the Google based data sheet. Out of 600 participants who filled the form there was a statistically significant improvement ($p < 0.05$) in the self-perceived competency in many procedures including suturing, nasogastric tube insertion, catheterization, monitoring with Glasgow coma scale, cannulation, infusion pump setup, blood and blood products transfusion, removal of intercostal tube, giving injections, lumbar puncture, airway manoeuvres, intubation, cardio-pulmonary resuscitation, defibrillation, arterial puncture, wound dressing, suture removal, bandaging, nebulization and connecting to an ECG monitor. There was no significant difference ($p > 0.05$) in self-perceived competency on few procedures including venepuncture, glucometer use, pleural and peritoneal tap.

Conclusion: The training program was effective in improving the pre intern doctors self confidence in performing many procedures. Training programmes during the pre-intern period are imperative in order to ensure that these doctors remain confident in managing patients.

Email of the Corresponding Author: dineshanrana2000@yahoo.com

PP 169

DEPTH OF INVASION AS A PREDICTIVE FACTOR FOR CERVICAL LYMPH NODE METASTASIS IN ORAL SQUAMOUS CELL CARCINOMA

Abeyasinghe, W.A.M.U.L.¹, De Silva, R.K.², Siriwardena, B.S.M.S.¹, Samaranayaka, A³,
Tilakaratne, W.M.¹

1. Department of Oral Pathology, Faculty of Dental Sciences, University of Peradeniya, Sri Lanka.
2. Department of Oral Diagnostic and Surgical Sciences, Faculty of Dentistry, University of Otago, New Zealand.
3. Department of Preventive and Social Medicine, Faculty of Medicine, University of Otago, New Zealand.

Background: Many histopathological parameters in oral squamous cell carcinoma (SCC) have been identified as predictive factors for regional lymph node metastasis. Several studies noted that tumour size and depth of invasion have a relationship to the occurrence of cervical metastasis.

Aim/s: To evaluate the relationship between tumour thickness, pattern of invasion and tumour size with cervical nodal metastasis.

Methods: Patients with buccal mucosal (BM) and tongue (T) SCC with neck dissection from 1999 to 2015 were retrieved from archives of the Department of Oral Pathology, Faculty of Dental Sciences, and University of Peradeniya. Demographic data, clinical information, nodal status and pattern of invasion (POI) were recorded. The tumour thickness was measured from the surface of the healthy oral mucosa to the deepest point of tumour invasion using an optical micrometer with a graticule. Data was analyzed using SPSS for windows.

Results: There were 313 SCCs from BM and 310 from tongue in 473 males and 150 females (3.2:1). A metastatic rate of 1.56 times was found in tongue SCC ($P<0.001$) compared with BM. POI and size of the tumour were statistically correlated with metastasis ($P<0.001$ and $P<0.001$ respectively). Metastatic rate was 1.58 times and 2.78 times for POI types III and IV respectively compared to type II. Similarly, T3 and T4 tumours have a probability of 5.58 and 6.37 times to metastasize compared to T1. Tumour depth (>5mm) was significantly associated with nodal involvement ($P<0.001$) for both sites.

Conclusion: Tumour thickness is a strong predictor for metastasis together with POI. Elective neck dissection of clinically negative neck can be avoided when the tumour thickness is less than 5mm with POI I or II.

Email of the Corresponding Author: udari2005@gmail.com

PP 170

ANALYSIS OF HUMAN EPIDERMAL FACTOR RECEPTOR 2 (HER2) EXPRESSION BY IMMUNOHISTOCHEMISTRY (ICH) METHOD IN BREAST CANCER AT THE NATIONAL CANCER INSTITUTE OF SRI LANKA

Ganewatte, W.D.A.K.¹, Polgampala, B.A.², Dahanaka, D.M.N.P.K.¹, Abeywardana, R.M.W.¹, Wijeratna, T.D.³, Rajaguru H.M.S.P.¹.

1. Apeksha Hospital Maharagama
2. Lady Ridgeway Hospital Colombo
3. National Hospital of Sri Lanka

Background: In recent decades, medical science has uncovered some important reasons why breast cancers do not all behave alike. One of those reasons has to do with HER2, the human epidermal growth factor receptor -2.

Aim: To analyse HER2 receptor expression in breast tumors in Sri Lanka.

Method: A retrospective analysis was carried out using data extracted from bed head tickets. Sampling was taken over a period of period of 5 years (2011/01/01to 2015/12/31) in one unit.

Results: A total of 612 patients were admitted. IHC for HER2 were positive in 134(21.8%), equivocal in 174 and negative in 304 cases. All equivocal cases were further analyzed by FISH. Out of which 66 were positive, 107 were negative and one was equivocal. Altogether HER2 was positive in 200 patients (32.6%). ER was positive in 394 and PR was positive in 349 cases. Both were positive in 321 cases. There were 78 triple positive cases (12.7%). 197 HER2 positive patients were treated with Trastuzumab (Herceptin) and three patients refused. HER2 was mostly positive in stage 3c (51%) followed by 3a (36%), 2a & 3b (32%), 2b (30%), 1a (26%) and 0,1b & 4(25%). According to the age groups HER2 was mostly positive in 20-40 age group (38%) followed by 40-60(36%) and >60(27%). Majority of CA breast patients were from 40-60 age group (298) followed by >60(243), 20-40(71) and <20(0). Most of the patients were in stage 2a-(192) followed by 2b-(153), 3a-(85), 1a-(69), 3b-(62), 3c-(37), 1b-(8), 0-(4) and 4-(2).

Conclusion: Percentage of positive cases of HER2 was a bit higher than that reported in Western countries. Therefore accuracy of positive results should be tested regularly. Mechanisms targeting early detection of CA breast should be improved.

Email:asokakanthi@yahoo.com

PP 171

CHANGES OF HEALTH-RELATED QUALITY OF LIFE IN HEAD AND NECK CANCER PATIENTS TREATED WITH CHEMORADIATION

Sumith Gunawardane¹, Priyantha Madawala ², Manjula Attygalla ¹, Ruwan Jayasinghe ³, Nadeena Jayasooriya ¹

1. Department of Oral and Maxillofacial Surgery, Faculty of Dental Sciences, University of Peradeniya
2. Ministry of Health
3. Department of Oral Medicine, Faculty of Dental Sciences, University of Peradeniya

Aim: To evaluate the changes of health-related quality of life (HRQOL) and level of depression (De) in patients with head and neck cancer undergoing chemoradiation (CR).

Methods: A prospective analytical study was conducted at a tertiary care center. Consecutive patients having histopathologically confirmed squamous cell carcinoma of head and neck region prescribed for chemoradiation were included. Socio-demographic and clinical data were recorded. European organization for research and treatment of cancer quality of life questionnaire (EORTC QLQ C30), head and neck specific questionnaire (EORTC H&N 35) and Center for Epidemiological Studies Depression scale (CES-D) were administered on three occasions: before the commencement of CR, at the end of CR cycle (at six weeks from baseline) and three months from baseline.

Results: Total of 47 patients were recruited in the study (mean age of 58.68± 10.88 years). A significant reduction of both overall HRQOL (P=0.04) and depression scale (P=0.001) were observed within the first six weeks from commencing CR. The drop in the values was more significant for depression score than the overall HRQOL score. A steady improvement was noted in both parameters from six to 3 months following CR. Though the overall mean HRQOL value, (627.50±62.85) remained below baseline scores (672.61±91.92), mean score depression scale (32.61±4.87) showed a significant increase within the first three months compared to the baseline value (19.14±8.38 p=0.001).

Conclusion: The positive attitudes towards a hope in a cure may have improved the overall HRQOL. Significant reduction of functional domains and significant worsening of symptom domains suggested that further care has to be given with respect to the possible side effects of CR, especially in the first six months from commencing treatment. Further studies are necessary to assess the long term changes of HRQOL status and level of depression. Results of the study warrant further attention for complications due to treatment and need for psychological evaluation.

Email of the Corresponding Author: sumithgunawaddane7@gmail.com

PP 172

TECHNOLOGICAL ADVANCES IN RADIOTHERAPY FOR THE TREATMENT OF LOCALIZED PROSTATE CANCER - A SYSTEMATIC REVIEW

Jayatissa R.M.G.C.S.B.¹, Cottrell J.², Hewavithana, P.B.³

1. Department of Radiotherapy, National Cancer Institute Maharagama, Sri Lanka
2. University of South Australia, Australia
3. Department of Radiology, University of Peradeniya, Sri Lanka

Background: Prostate cancer is one of the most common cancers among males and is the second leading cause of cancer-related death in males in western societies. The advances of technology can lead to identify the best treatment modality with fewer side effects for localized prostate cancers.

Aims: The aim of this study is to find out the technological advances in the treatment of localized prostate cancer, to find out the side effects for each of the researched technological changes and to determine the outcomes of each change in technology.

Method: A systematic review was undertaken with 225 English language articles to provide evidence relevant to the above objectives using the PubMed and Medline databases.

Results: It has been recognized that the most widely (>70%) used treatment modality as new Intensity modulated radiotherapy (IMRT); the RapidArc has also being used in current radiotherapy, delivering the treatment using the cyber knife since 2008. The side effects observed were different for each change in technology. Some side effects were common to more than one treatment option such as urinary incontinence has presented with cryotherapy, surgery, conventional radiotherapy, brachytherapy, and HIFU. Urethral sloughing has reported only with the cryotherapy method. The best five-year outcome was observed with IMRT (100%) and worst five year outcome identified was with cryotherapy (36%) for low risk cancers. For intermediate risk cancers the best was with Brachytherapy (100%) and worst with conventional radiotherapy (26%).

Conclusions: Side effects are varying in each change in technology and there was no common side effect to all treatment method on the published data studies. IMRT appears to be the most favorable treatment method for localized prostate cancers. However, establishing an optimal mode of radiotherapy for prostate cancer remains controversial.

Email of the Corresponding Author: sameerarmg@gmail.com

PP 173

EXPRESSION OF VASCULAR ENDOTHELIAL GROWTH FACTOR (VEGF) IN ORAL CANCER PATIENTS ATTENDING NATIONAL CANCER INSTITUTE MAHARAGAMA- SRI LANKA

Edirisinghe, EAST¹, Weerasekera, MM², Rich, A³, de Silva, H³, Hussaini, M³ de Silva K⁴, Goonasinghe, R⁴ Yasawardene, SG¹

1. Department of Anatomy, Faculty of Medical Sciences (FMS), University of Sri Jayewardenepura(USJP)
2. Department of Microbiology , Faculty of Medical Sciences (FMS), University of Sri Jayewardenepura(USJP)
3. Department of oral pathology, Oral Diagnostic and Surgical Sciences, Dental School, Health Sciences, University of Otago, New Zealand
4. National Cancer Institute Maharagama

Background: Oral squamous cell carcinoma (OSCC) represents an important pathology of the upper digestive tract, being the sixth common cancer diagnosed around the world. Angiogenesis is involved in carcinogenesis and metastasis. Vascular endothelial growth factor (VEGF) is considered as a prime mediator of angiogenesis. Various studies examined the relationship between VEGF proteins over expression with the clinical outcome in patients with oral cancer

Aim: To analyze the VEGFA gene expression in oral squamous cell carcinoma patients attending National Cancer Institute Maharagama- Sri Lanka

Methods: This is a part of an ongoing study. The gene expression was evaluated using venous blood samples of histologically confirmed primary OSCCs (n = 10), and compared with healthy controls (n =10). The blood samples collection and RNA extraction was on the same day to maintain the quality and the quantity of the RNA. Standard precautions were taken to prevent the contamination. The RNA was extracted using purelink RNA mini kit. The RNA was immediately converted to cDNA and Quantitative PCRs were performed using the TaqMan system for the VEGFA gene and GAPDH as the housekeeping gene. Gene expression was determined using the 2- $\Delta\Delta$ CQ method.

Results: The relative quantification (RQ) of controls ranged from 0.66-1.48. Mean relative quantification (RQ) value of VEGFA in OSCC patents was 4.85(1.59-11.10). VEGFA mRNA was overexpressed in primary samples compared to controls (5.12-fold).VEGFA transcript level was overexpressed (4/10) which ranged from 5.2 – 11.1 in T3–T4 tumors. Tumors (5/10) belong to TNM classification T1 – T2 had a comparatively low RQ value range from 1.59 -4.1. Poorly differentiated (RQ-11.10) and invasive oral squamous cell carcinoma (RQ- 8.03), high-level of VEGFA was observed

Conclusions: VEGFA was over expressed in aggressive OSCCs and that VEGFA expression may be an important prognostic factor in oral cancer. However advanced studies are needed to develop the pattern of expression

Email of the Corresponding Author: edirisinghe@sjp.ac.lk

PP 174

IMPROVING DISEASE NOTIFICATION IN MEDICAL UNITS AT A BASE HOSPITAL: AN EXPERIENCE FROM SOUTHERN SRI LANKA

Mohotti I.R.¹, Fernando B.D.A.², Kumara L.H.A.S.³, Dharmadasa O.A.⁴, Wanigathunga S.G.⁵

1. Teaching Hospital, Karapitiya
2. BH Balapitiya
3. AMOH Ambalangoda
4. Benthara Hospital
5. DH Weligama

Background

Disease notification is the main component of communicable disease surveillance system in Sri Lanka. Therefore a high priority should be paid on disease notification in hospitals and training programs which focused on deficient areas of knowledge will be important.

Aims

To assess the current status of disease notification in medical units in Base Hospital and to plan, implement and evaluate a training program to improve the system.

Methodology

As first step a baseline descriptive study was done to understand the current status of disease notification in BH Balapitiya. Then a training program was designed and conducted. Quasi experimental study design was used to evaluate the training program.

Results

During the baseline descriptive study commonest notifiable disease reported was Dengue (n =332, 82.8 %) followed by Leptospirosis (n=33, 8.1 %). Among all the patients presented with notifiable diseases only 153(37.7%) were notified. Out of 332 Dengue patients reported only 133 (40.1%) were notified while the percentage for Leptospirosis notified was 24.2 % (8 out of 33). Notification among above 25 old patients was seems to be poor ($p < 0.001$). Based on the findings of descriptive study lecture discussion sessions were conducted for all the Medical Officers and Nursing Officers in all Medical Units. Notifications of Leptospirosis and adult patients were specifically stressed while the paying not less attention to all other diseases. Notification rates were assessed again following the intervention. Overall rate was increased up to 66.1% (41 out of 62). Increase was noted in all the disease as notification rates for Dengue was 64.1% (34 out of 53) and for Leptospirosis 57.1% (4 out of 7).

Conclusion

An evidence based training programs targeted on deficient areas, can improve disease notification process in government hospitals.

Email of the corresponding author: mohotti112@gmail.com

PP 175

PERIPHERAL NEUROPATHY IN LEPROSY AMONG PATIENTS ATTENDING THE DERMATOLOGY CLINIC IN A TERTIARY CARE HOSPITAL IN SRI-LANKA: CLINICAL, ULTRASOUND MEASURES AND ELECTROPHYSIOLOGICAL CORRELATIONS

Prasangika T.G.C.¹

1. Colombo North Teaching Hospital,

Background

Leprosy primarily affects peripheral nerves and then spreads to the skin and its appendages. Initial nerve damage is clinically undetectable. However, ultrasonography (USG) is an accepted method of visualizing peripheral nerves. Similarly, Nerve conduction studies (NCS) are used to assess nerve functions and can detect earliest changes in leprosy neuropathy.

Aims

The aim of this study was to correlate clinical patterns of nerve abnormalities of ulnar and common peroneal nerves of leprosy patients with USG and NCS findings.

Methods

A descriptive cross sectional study was carried out at Colombo North Teaching Hospital for 6 month period. 180 ulnar nerves (UN) 180 common peroneal nerves (CPN) of 90 leprosy patients (tuberculoid 14.6%, borderline-tuberculoid 53.9%, borderline-lepromatous 15.7%, lepromatous 11.2%, pure-neural 4.5%) were assessed clinically for neuropathic pain, tenderness, thickening, motor weakness and sensory loss. Cross sectional area (CSA) of nerves was measured by USG using 4-11MHz linear transducer. Motor nerve conduction velocity (MNCV) and sensory nerve conduction velocity (SNCV) were measured in NCS.

Results

The proportions of patients having pain, nerve tenderness, nerve thickening, motor weakness, sensory loss were respectively as follows: 13.5%, 22.5%, 93.3%, 29.2%, 28.1%. CSA of UN at cubital groove was $6.91 \pm 3.06 \text{ mm}^2$ and CSA of CPN at fibula neck was $3.72 \pm 1.44 \text{ mm}^2$. The mean MNCV were $56.31 \pm 6.88 \text{ m/s}$ and $45.30 \pm 7.26 \text{ m/s}$ in UNs and CPNs respectively. The mean SNCV of UNs was $61.83 \pm 8.66 \text{ m/s}$. The correlation of clinical palpation and ultrasound measures were significant; $r=0.378(p<0.01)$ in UN and $r=0.158(p<0.01)$ in CPN. There was a significant correlation between clinical findings and MNCV of UN $r=-0.44(p<0.01)$, SMNV of UN $r=-0.575(p<0.01)$ and MNCV of CPN $r=-0.254(p<0.01)$. The correlation of maximum CSA and MNCV $r=-0.276(p<0.01)$ and SNCV $r=-0.412(p<0.01)$ was significant in UN.

Conclusions

In leprosy patients, a significant positive correlation exists between clinical detection, ultrasound measures of nerve enlargement and slowing of MNCV and SNCV of ulnar and common peroneal nerves. Majority of previous studies have been done using high resolution USG. In our study, USG was done using 4-11MHz linear transducer, which is available at any low recourse setting. Therefore, ultrasonography without high resolution can be used to detect nerve enlargement in leprosy.

Email of the corresponding author: charuni.gamage@yahoo.com

National Health Research Symposium – 2017 | Page 388

KNOWLEDGE ON TREATMENT FOLLOWING DOG BITES & RABIES AND ASSOCIATED FACTORS AMONG ADULTS AGED 20-59 YEARS IN A MEDICAL OFFICER OF HEALTH AREA IN COLOMBO DISTRICT

De Silva, L.S.D.¹, Kumarapeli, V.²

1. Postgraduate Institute of Medicine, University of Colombo, Colombo, Sri Lanka

2. Education, Training and Research Unit, Ministry of Health, Colombo, Sri Lanka

Background: Rabies is a 100% fatal condition if acquired. The dog bite is considered as a medical emergency due to the risk of getting Rabies. Rabies is endemic in Sri Lanka and the main transmitter is the dog. Post Exposure Therapy (PET) is the main stay of prevention of Rabies following dog bites.

Aims: To describe the knowledge on treatment following dog bites and rabies and to determine associated factors with knowledge among adults aged 20-59 years in a Medical Officer of Health (MOH) area in Colombo district

Methods: A community based cross sectional study was conducted among a sample of 340 participants, aged 20-59 years in MOH area, Maharagama of Colombo District. The sample was selected by probability proportionate cluster sampling technique. Data were collected using a pre tested interviewer administered questionnaire. Chi square test and Fisher's exact test were used to determine associations.

Results: The response rate was 94.7% (n=322). Among respondents 51.0% (n=165) were females while 49.1% (n=157) were Sinhalese. A majority of 74.2% (n=239) were married and 64.6% (n=208) were employed. There were 37 (11.5%) dog owners in the sample. The mean age was 38.1 years (SD=11.2 years). The median monthly income was Rs. 38,000.00 (IQR Rs.31, 000.00). No history of dog bites was reported from the participants. A majority of 64.9% (n=209) of the participants had a good overall knowledge on rabies (63.0%,n=203:incurable if acquired; 68.6%,n=221:preventable before acquisition; 99%,n=319:spread by dog;29.2%,n=94:spread by bat).

Out of the participants, 61.2 % (n=197) had good knowledge on Treatment Following Dog Bites and 89.4% (n=288) on first aid, 99.7% (n=321) would get medical care following stray dog bites and 91.0% (n=293) identified the importance of going through the offending dog's vaccine card.

The good knowledge on rabies was associated with Sinhalese ethnicity (p=0.01), being employed (p<0.001) and owning a dog (p<0.001). Good knowledge on TFDB was associated with being married (p=0.02), having higher level of education (p<0.001), having higher income (p<0.001), being employed (p<0.001) and owning a dog (p<0.001).

Conclusions: There are gaps in knowledge on rabies and Treatment Following Dog Bites with regard to source of infection and post exposure care. Targeted health education should be done to increase awareness to identified groups. Email of the Corresponding

Author: sinha.dhanushka@gmail.com

PP 177

EFFECTS OF CASSIA AURICULATA LEAF EXTRACT ON DIGESTIVE ENZYMES, ALPHA AMYLASE AND PEPSIN

Salam, S.A¹ and Rupert, S¹

1. BMS, School of Science, Colombo 06

Background: Cassia auriculata also known as Tanner's senna (Sinhala: "ranawara" and Tamil: "avaram") is a shrub grown in arid regions, most commonly in Asia. The dry flowers and leaves of Tanner's senna are used as traditional medicine for rheumatism, conjunctivitis, type II diabetes mellitus and liver diseases. Studies indicate consumption of the naturally occurring inhibitors and enhancers of digestive enzymes in plants are beneficial to prevent certain diseases and are effective alternatives to synthetic drugs. Bioactive constituents such as phenols, flavonoids, tannins, anthracene derivatives, saponins and alkane-nonaco-sane-6-one can be the possible reason for its acquired properties.

Aims: To determine the effects of Cassia auriculata leaf extract on digestive enzymes: alpha amylase and pepsin.

Methods: Cassia auriculata leaves were obtained from shrubs in Sri Lanka. Five different concentrations of the methanolic leaf extract (0.25 to 4.0mg/ml) were used in the enzyme assay for alpha amylase and pepsin. To determine the thermal stability of the proteins in the plant extract, 4.00mg/ml extracts were incubated at various temperatures and used in the enzyme assays. Further, 15% and 30% of the plant extracts were treated with varying concentrations of ammonium sulfate, the precipitated proteins were then used in the enzyme assay to check for the activity. All the data were statistically analysed using one way analysis of variance (ANOVA). The $p < 0.05$ was considered as significant which was followed by Pearson correlation.

Results: At the highest concentration (4.00mg/ml) the maximum percentage inhibition (54.08 ± 3.90) and enhancement (43.65 ± 8.01) was obtained for the amylase and pepsin respectively and statistical analysis showed significance ($p < 0.05$) and positive Pearson correlation for both. Thermal stability resulted in the highest activity at 40°C for the enzymes and analysis showed significance ($p < 0.05$) and negative correlation. Enhancing effect of pepsin was obtained with an increase in ammonium sulfate concentration and noted a significance difference ($p < 0.05$) and a positive correlation, no significant effect was seen on the amylase activity.

Conclusion: Inhibitory effect on alpha amylase and enhancing effect on pepsin was observed. Obtained results suggest that leaf extract of Cassia auriculata has potential therapeutic values and therefore can be of importance to health.

Email of the corresponding author: abdulsalam.sumaiya@gmail.com

PP 178

BIRTH AND EMERGENCY PREPAREDNESS AMONG POSTNATAL MOTHERS AT BASE HOSPITAL, BALANGODA

Perera, W.N.D.¹, Goonawardena, C.S.E.¹

1. Department of Community Medicine, Faculty of Medical Sciences, University of Sri Jayawardenapura, Nugegoda.

Introduction: Birth and emergency preparedness (BAEP) is a cost effective and evidence based intervention, recommended by the current World Health Organization maternal care model and used in Sri Lankan maternal care package since 2011.

Aim/s: To describe the birth and emergency preparedness among postnatal mothers at Base Hospital, Balangoda.

Methods: A descriptive cross sectional study was conducted among postnatal mothers, delivered after completion of 37 weeks of period of amenorrhoea. The computed sample size was 427. Data collection was done using a pre tested interviewer administered questionnaire. BAEP was measured using a composite scale with fifteen items; transport, saving money, obstetric danger signs, etc.

Results: Response rate was 93.9% (n=401). Majority of mothers (59.4%,n=238) were well prepared for birth and emergencies being ready for all the components.. Only 81.8% (n=328) had saved money which they will have quick access in an emergency and 12.7% (n=51) had not considered a method to borrow money in an emergency. Approximately 77% of mothers had known at least three obstetric danger signs and 2% (n= 8) had not mentioned any danger sign.

A Three wheeler has been identified by majority (50.1%) as the mode of transport to hospital in an emergency and 96.7% of mothers had used the planned mode of transport to attend to hospital for delivery. More than 90% of mothers had discussed the BAEP plan with their husbands and mothers. Majority of mothers (86%) had identified that the pregnancy record is needed in hospitalization, yet 74% did not carry the prepared bag with the items when going on a long journey. BAEP plan was completely entered in pregnancy record in 50.6%(n=203) of mothers and it was not written in 19% (n= 76) of participants.

Conclusions :

The findings show that BAEP was satisfactory among the study participants; nevertheless the written plan in pregnancy record was inadequate, needing closer program monitoring.

Email of the corresponding author: dnadeekaperera@yahoo.com

