



# The Galle Medical Journal

Journal of the Galle Medical Association

---

September 2023    Volume 28    Suppl 1    ISSN 1391-7072

## ABSTRACTS

### Oral and Poster Presentations

*at the*

**82<sup>nd</sup> Annual Academic Sessions**

*of the*

**GALLE MEDICAL ASSOCIATION**

**21<sup>st</sup> & 22<sup>nd</sup> September 2023**

*at the*

**Faculty of Medicine  
University of Ruhuna  
Galle, Sri Lanka**



# The Galle Medical Journal

Journal of the Galle Medical Association

September 2023 Volume 28 Suppl 1 ISSN 1391-7072

## CONTENTS

### i. Message from the editors

### ORAL PRESENTATIONS

01. **Knowledge and associated factors on Basic Life support Skills among the first responders of the critically ill patients admitted to Emergency Treatment Unit at Teaching Hospital Karapitiya**  
Wijayaratahna WMCJB, Senaratne G
02. **Factors influencing the outcome of thrombolysis in patients with ST elevation myocardial infarction attending Teaching Hospital Karapitiya**  
Gamage RSP, Indrakumar J, Jayasekara K,
03. **Randomized prospective trial of BiPAP vs CPAP in acute pulmonary oedema following acute heart failure in the emergency department**  
Fernando SSS, Epasinghe D, Fernando A, Jayasekera K
04. **Anxiety and its risk factors among pregnant women attending antenatal clinics at a tertiary care hospital, Galle**  
De Silva BVS, Kulathunga PARI, Punchihewa GD, Yapa SR, Dilshan DGM
05. **Enteric fever; time series analysis for a common food and water borne disease in Sri Lanka**  
Darshana ILAN, Kulathunga P A R I
06. **A real-time PCR for quantification of parasite burden and its clinical and immunological correlations in cutaneous leishmaniasis**  
De Silva NL, De Silva VNH, Weerasooriya MV, Takagi H, Itoh M, Kato H, Yahathugoda TC
07. **Current challenges to implementation of dengue vaccination programme; a systematic review**  
Sachindra JLAA, Gunasekara WWM, Madhushika MT, Liyanage PLGC, Lekamwasam S
08. **Prognostic value of tumour budding in invasive breast cancer; a cohort study**  
Dilrukshi AWK, Peiris H, Perera A, Mudduwa LKB
09. **Patterns of perioperative arrhythmias in adult cardiac surgery: A single center study from Sri Lanka**  
Harischandra DVT, Jayaweera JMRG, Kannangoda KANS, Dilanka GVA, Hettigoda KBP, Amarasinghe S, Firmin RK
10. **Aetiology, antibiotic sensitivity and nature of the secondary infections in critically ill patients with COVID-19 in a tertiary care hospital, Southern Province, Sri Lanka**  
Jayasundera MCT, Piyasiri DLB, Jayasekera PK, Liyanage N, Ranatunga K

11. **An evaluation of safe practice on procedural sedation in Emergency Treatment Unit, Teaching Hospital Karapitiya**  
Ganegoda PN
12. **Types of chronic wounds, their complications and the factors associated with complications among patients attending to medical and surgical units in Teaching Hospital Karapitiya**  
Tilakaratne SR, Thathsarani YKGP, Thennakoon TMS, Udugama UGPN, Umar SA, Kulathunga PARI

## POSTER PRESENTATIONS

01. **The level of satisfaction and perceptions of the parents on the care offered at paediatric intensive care unit (medical) at Lady Ridgeway Hospital for Children, Colombo, Sri Lanka**  
Imbulana NS, Kitulwatte NC, Mahesh PKB, Kankanararachchi I, Igalagamage LR, Liyanarachchi MS
02. **Clinical profile of children presenting with seizures associated with febrile illnesses at a single Paediatric Unit, Teaching Hospital Karapitiya**  
Kaushalya PGCG, Liyanarachchi ND, Jayasinghe LP, Samarakoon YH, Madhushanka T, Kankanararachchi I
03. **Awareness and perceptions about weight gain during pregnancy among pregnant women admitted to a tertiary care facility in Southern Sri Lanka**  
Kulathunga PARI, De Silva BVS<sup>1</sup>, Wijesinghe CJ, Mendis WPM, Amaradasa WPH, Rathnayake MK, Weliwita DD, Priyadarshana PNSL
04. **Short-term outcomes of patients admitted to the Paediatric Intensive Care Unit at Teaching Hospital, Karapitiya**  
Kaushalya PGCG, Deshapriya S, Gamage P, Kankanararachchi I, Lakpriya S, Liyanarachchi
05. **Extend of exposure to different types of peripheral intravenous catheters by Sri Lankan Nurses: A cross-sectional study in Galle district**  
Evin SLP, Samarawickrama MB
06. **Characteristics of adverse drug reactions reported among inward patients: An active surveillance done at Teaching Hospital Karapitiya**  
Gunasekara WWM, Sachindra JLAA, Liyanage PLGC, Madhushika MT
07. **Indoor air pollution: awareness, practices and associated health conditions among the general public in the Bope-Poddala MOH area**  
Korala PKDT, Kavindu RWGN, Kavindya HMS, Kiringoda KGKC, Kulasekara DWTM, Kulathunga PARI
08. **Development and implementation of a mobile application-based self-monitoring tool for healthy dietary intake among government office workers in Galle district**  
Godevithana J, Wijesinghe CJ, Wijesinghe SD
09. **Impact of different time management techniques on examination results of Medical Students of the University of Ruhuna**  
Senanayake SMTN, Senanayake TADCY, Sewwandi DLCR, Senerath SM, Senevirathne RMAST, Jayawardene AJPM.
10. **Psychological health of nursing officers at Teaching Hospital Karapitiya**  
Hansika Wijesekara, Janaka Ruben



# The Galle Medical Journal

Journal of the Galle Medical Association

Volume 28: Suppl 1, September 2023

## President; Galle Medical Association

Aruna de Silva

## Editors; Galle Medical Association

Eisha Waidyarathne

Gayani Liyanage

## Editors in Chief; Galle Medical Journal

Satish K Goonesinghe

Eisha I Waidyarathne

## Editorial Assistant

S Sureka Samanmalie

© The Galle Medical Journal, 2023 September

The Galle Medical Association

GMA Office

Teaching Hospital Karapitiya

Galle

SRI LANKA

ISSN 1391-7072

Tel/Fax : +94 91 2232560

E-mail : gmj@gma.lk

gmjgalle@gmail.com

office@gma.lk / gmathk@gmail.com

Website : www.gma.lk

## Message from the Editors

It is with great pleasure that we forward this message to this year's supplement to *The Galle Medical Journal (GMJ)* published online in concordance 82<sup>nd</sup> Annual Academic Sessions of the Galle Medical Association (GMA) scheduled to be held from 20<sup>th</sup> to 22<sup>nd</sup> September 2023, at the T W Wikramanayake Auditorium, Faculty of, University of Ruhuna.

We appreciate the contributions of authors who have submitted their tireless research work to GMA. Your dedication and efforts in providing valuable scientific content for the free paper sessions certainly enhance the overall quality and appeal of the Sessions. The abstracts that will be presenting at the 82nd Annual Academic Sessions of GMA cover a wide array of topics from several disciplines ranging from basic to applied research, which would undoubtedly stimulate the interest and enhance the understanding among the wider scientific community.

As Co-editors we strived to ensure a fair, unbiased and judicious peer review for the abstracts submitted to the academic sessions of GMA. Ethical values such as honesty, excellence in research practice, confidentiality, and respect are crucial in ensuring the integrity and credibility of the research process. Authors are expected to adhere to these ethical principles to uphold the trust and reliability of their work.

We congratulate and thank all authors and researchers once again for selecting GMA Annual Academic Sessions as the forum to disseminate their scientific knowledge wish you good luck in your presentations at the forthcoming sessions.

**Gayani Liyanage**

**Eisha I Waidyarathne**

*Co-Editors / GMA*

## Oral Presentation - 01

### Knowledge and associated factors on Basic Life Support Skills among the first responders of the critically ill patients admitted to Emergency Treatment Unit at Teaching Hospital Karapitiya

**Wijayarathna WMCJB, Senaratne G**

*Emergency Treatment Unit, Teaching Hospital Karapitiya, Galle, Sri Lanka.*

#### Introduction

Basic Life Support (BLS) is the recognition of cardiac arrest, immediate cardiopulmonary resuscitation (CPR), and rapid defibrillation. In this modern world, cardiovascular diseases are contributing to high mortality and morbidity, thus it is always beneficial to know BLS. This study aimed to assess knowledge and practice on BLS skills among the first responders of critically ill patients admitted to Emergency Treatment Unit at Teaching Hospital Karapitiya.

#### Methods

A hospital-based cross-sectional descriptive study was conducted among a sample of 438 first responders accompanying critically ill patients to the Emergency Treatment Unit at Teaching Hospital Karapitiya. A systematic sampling method was used, and the data were collected using an interviewer-administered questionnaire. Descriptive analysis was done, and the Chi-square test was used to identify associated factors.

#### Results

Among first responders 42% accompanied triage category 2 patients. The majority of first responders were females (55.3%).

Out of them, 44.1% were middle-aged, 34.9% were educated up to A/Ls, 54.6% were employed and 56.0% had previous experience of accompanying critically ill patients. The mean knowledge score on BLS was  $6.5 \pm 3.39$  out of 15. The majority of first responders ( $n=222$ , 51%), had a poor knowledge. Knowledge score had a significant association with the age ( $p=0.001$ ), occupation ( $p=0.042$ ), and level of education ( $p<0.001$ ). Multivariate analysis showed that better knowledge is associated with younger participants. Among first responders, 62.33% had concerns about starting CPR and 359 (83.1%) was not aware about the automated external defibrillator. Only 11 (1.61%) had proper BLS training.

#### Conclusions

Knowledge on BLS is not satisfactory among first responders of critically ill patients. Therefore, the implementation of proper training programs for the community and frequent assessments would enhance the acute care received by critically ill patients.

**Oral Presentation - 02****Factors influencing the outcome of thrombolysis in patients with ST elevation myocardial infarction attending Teaching Hospital Karapitiya****Gamage RSP<sup>1</sup>, Indrakumar J<sup>2</sup>, Jayasekara K<sup>3</sup>**<sup>1</sup>*Accident and Emergency Unit, Teaching Hospital Ragama, Sri Lanka,*<sup>2</sup>*Department of Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura, Nugegoda, Sri Lanka,*<sup>3</sup>*Teaching Hospital Karapitiya Galle, Sri Lanka.***Introduction**

Ischemic heart disease (IHD) is the leading cause of morbidity and mortality globally. Thrombolysis and percutaneous coronary intervention (PCI) are the two main treatment strategies in acute myocardial infarction management. The resolution of ST segment elevation following thrombolysis is an important indicator of the prognosis of the patient with ST elevation myocardial infarction. The study was conducted to assess the factors influencing the outcome of thrombolysis in patients with ST elevation myocardial infarction (STEMI) attending Teaching Hospital Karapitiya.

**Methods**

This is an observational prospective cohort study conducted at the emergency treatment unit at the Teaching Hospital Karapitiya among patients presented with chest pain and electrocardiographic changes of myocardial infarction (MI). The outcomes analysed were resolution of ST elevation, bleeding episodes and death. Data was collected using an interviewer-administered questionnaire.

**Results**

The mean age ( $\pm$ SD) of 123 participants was 58 ( $\pm$ 12) years with a male predominance (80%).

Comorbidities reported were hypertension (70.23%), diabetes (46.42%) ischemic heart disease (35.52%) and dyslipidemia (43.9%). Among them, 54.50% and 41.30% were smokers and alcohol consumers respectively. More than half of them had an inferior ST elevation MI and 45.2% had an anterior and lateral ST elevation MI. Thrombolysis was done in 95.1% and the rest were treated with PCI. Majority (73.2%) of them had achieved the resolution of ST elevation when thrombolysis is done within the first four hours. All the thrombosed patients were given same thrombolytic agent and 2.5% of them had bleeding episodes within first 4 hours. Resolution of ST elevation  $>50\%$  following management was observed in 68% and 4% of the sample died. A significant association was found between the resolution of ST segment and smoking ( $p=0.017$ ) and alcohol consumption ( $p=0.043$ ). Presence of an anterior MI was a risk factor for non-resolving ST elevations.

**Conclusions**

The resolution of ST segment elevation has a statistically significant association with smoking and alcohol consumption. Poor improvement in ECG was observed in anterior STEMIs.

## Oral Presentation - 03

**Randomized prospective trial of BiPAP vs CPAP in acute pulmonary oedema following acute heart failure in the emergency department****Fernando SSS<sup>1</sup>, Epasinghe D<sup>2</sup>, Fernando A<sup>3</sup>, Jayasekera K<sup>1</sup>**<sup>1</sup>*Emergency Treatment Unit, Teaching Hospital, Karapitiya, Sri Lanka.*<sup>2</sup>*Emergency Treatment Unit of National Hospital of Sri Lanka,*<sup>3</sup>*Emergency Treatment Unit, Base Hospital Panadura, Sri Lanka.***Introduction**

Acute pulmonary oedema is a life-threatening condition, and some patients require non-invasive ventilation such as continuous positive airway pressure (CPAP) ventilation and bi-level positive airway pressure (BiPAP) ventilation for improving alveolar ventilation and haemodynamic stability, thus, improving pulmonary oedema. The aim of the study was to assess the efficacy and suitability of the CPAP and BiPAP ventilation in patients with acute pulmonary oedema following acute heart failure.

**Methods**

The study was conducted as a randomized prospective clinical trial at the emergency treatment unit of National Hospital of Sri Lanka and Base Hospital, Panadura. Randomization is carried out by the principal investigator at the ETU. A computer-generated random number software was used and even numbers were considered as group A and odd numbers belong to group B.

Group A - (BiPAP) (n=48) patients received pressure limits of IPAP- 8 - 20 cm H<sub>2</sub>O, EPAP - 4-10 cm H<sub>2</sub>O and Group B (CPAP) (n=39) received CPAP 10 cm -

15 cm H<sub>2</sub>O and Orinasal mask is used. Patients who do not tolerate CPAP was changed to BiPAP and excluded from the study.

**Results**

After 2 hours of treatment, PaCO<sub>2</sub> level with BiPAP group was reduced from  $62 \pm 14.354$  to  $45 \pm 9.241$  mmHg and from  $42 \pm 20.8$  to  $40 \pm 7.412$  mmHg in CPAP therapy. PaO<sub>2</sub>, at the end of treatment, was  $48 \pm 21.703$  mmHg and  $43 \pm 6.046$  in BiPAP and CPAP respectively. Furthermore, Patients receiving BiPAP demonstrated higher heart rate ( $102 \pm 92.819$ ) than the CPAP group  $84 \pm 13.326$  at the end of treatment.

**Conclusions**

At the end of the treatment, both CPAP and BiPAP treatment modalities are capable of ameliorating respiratory distress even though BiPAP group demonstrated higher heart rate at the end of treatment. However, the study does not demonstrate any significant difference of clinical benefit of BiPAP vs CPAP.



**Oral Presentation - 04****Anxiety and its risk factors among pregnant women attending antenatal clinics at a tertiary care hospital, Galle****De Silva BVS<sup>1</sup>, Kulathunga PARI<sup>1</sup>, Punchihewa GD<sup>2</sup>, Yapa SR<sup>3</sup>, Dilshan DGM**<sup>1</sup>Department of Community Medicine, <sup>2</sup>Department of Psychiatry, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka.<sup>3</sup>Asiri Hospital, Matara, Sri Lanka.**Introduction**

Anxiety disorders are common during pregnancy and are caused by women's worries about maternal role, well-being of the baby and health concerns. Detection of antenatal anxiety is beneficial to ensure optimal maternal mental health. The aim of the study was to assess antenatal anxiety and associated risk factors during pregnancy.

**Methods**

A descriptive cross-sectional study was conducted among 224 pregnant women attending antenatal clinics at Teaching Hospital, Mahamodara in January 2023. The anxiety levels were measured using the validated Sinhala version of the Perinatal Anxiety Screening Scale (PASS-S) with permission from the developers and questions were directed to determine associated risk factors.

**Results**

The mean age (SD) of women was 30 (5.87) years, 42.4% were primiparous, 46.4% were in the second trimester and 62.5% had uncomplicated pregnancies.

Clinical anxiety was detected among 17.9% and is less than the prevalence in other regions in Sri Lanka (17.9% vs. 37%). A majority (63.4%), were asymptomatic and 3.1% of pregnant women had severe anxiety. Multiple linear regression was employed to predict antenatal anxiety from parity, age, gestation, presence of complications, and employment, which resulted in a significant model ( $R^2=0.278$ ,  $F=1.483$ ,  $p=0.037$ ). The maternal age category (Category 1 =  $\leq 20$  years, Category 2 = 21-30 years, Category 3 =  $\geq 31$  years) significantly predicted antenatal anxiety ( $\beta_{\text{AgeCat1}} = -13.571$ ,  $\beta_{\text{AgeCat2}} = 10.00$ ,  $p = 0.039$ ), and other individual predictors were not statistically significant.

**Conclusions**

Antenatal anxiety is less prevalent in Galle compared to recorded prevalence in other regions of Sri Lanka. Maternal age has a significant influence on antenatal anxiety and pregnant women between 21-30 years are more affected by antenatal anxiety than other age categories.



---

**Oral Presentation - 05****Enteric fever; time series analysis for a common food and water borne disease in Sri Lanka****Darshana ILAN, Kulathunga PARI***<sup>1</sup>Department of Community Medicine, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka..***Introduction**

Enteric fever (EF) is a life-threatening infection caused by the bacterium *Salmonella Typhi*. It is usually spread through contaminated food or water. This study was conducted to assess trends and to develop a model in order to forecast monthly notified incidence cases of EF in Sri Lanka.

**Methods**

A retrospective time series study was conducted using monthly notified incidence cases of EF for sixteen years (January 2007 to December 2022). Data were extracted from publicly available Weekly Epidemiological Reports (WER) which were collected through the disease surveillance system from the website of the Epidemiology Unit. Time series analyses were performed using Minitab statistical software (19<sup>th</sup> version). Akaike Information Criteria (AIC) was used to select the best-fitted model.

**Results**

A total of 15,897 cases were reported during a period of 16 years. The highest number of cases were reported from Jaffna followed by Colombo, Nuwara Eliya, and Vavuniya districts.

The highest number of cases were reported in 2009 (n=2311) while the lowest number of cases were reported in 2021 (n=88). Monthly notified incident cases of EF were not stationary with respect to mean and variance while no seasonality was observed. A significant reduction in monthly notified incident cases of EF was observed after 2017. Auto-Regressive Integrated Moving Average (ARIMA) (0, 1, 1) model was identified as the best-predicted model for EF.

**Conclusion**

The identified model can be used to forecast incident cases EF. As the time-series plot did not identify seasonality, there will be no seasonal changes in EF. Thus, will be helpful for the healthcare planners of the country for implementing preventive and curative measures for EF, especially for high-risk districts.

## Oral Presentation - 06

**A real-time PCR for quantification of parasite burden and its clinical and immunological correlations in cutaneous leishmaniasis****De Silva NL<sup>1</sup>, De Silva VNH<sup>2</sup>, Weerasooriya MV<sup>3</sup>, Takagi H<sup>4</sup>, Itoh M<sup>4</sup>, Kato H<sup>5</sup>, Yahathugoda TC<sup>1</sup>**<sup>1</sup>*Department of Parasitology, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka.*<sup>2</sup>*District General Hospital Matara, Sri Lanka.*<sup>3</sup>*Department of Parasitology, General Sir John Kotelawala Defence University, Ratmalana, Sri Lanka.*<sup>4</sup>*Department of Microbiology and Immunology, Aichi Medical University School of Medicine, Aichi, Japan.*<sup>5</sup>*Division of Medical Zoology, Department of Infection and Immunity, Jichi Medical University, Tochigi, Japan***Introduction**

In various forms of leishmaniasis, serum IgG aids diagnosis and could reflect disease severity and parasite burden. This study assessed the parasite burden using a quantitative real time PCR (qPCR) and explored its correlations with clinical parameters and host IgG response.

**Methods**

A cohort of 190 suspected cutaneous leishmaniasis (CL) patients was assessed clinically, microscopically (slit skin smear -SSS), with serum IgG and parasite DNA. qPCR using novel primers (5'- CCTTTCCCACATACACAGC3 and 5'- ATCGCGACACGTTATGTGAG3) amplified DNA from skin lesion punch biopsy specimens. Standard dissociation curves were constructed using serially diluted DNA from *Leishmania donovani* DD8 strain. Relative quantity (RQ) of parasite DNA determined against human-specific glyceraldehyde 3-phosphate dehydrogenase - GAPDH internal control. Diagnostic utility of novel primers was compared to reference standard - RS (nested Internal Transcribed Spacer 1- ITS1-PCR). SSS parasite burden was assigned a score (0-4, 0=negative to 4 = >100 parasites per high power field). Serum IgG against rKRP42 antigen was detected with ELISA.

**Results**

qPCR successfully amplified and quantified 165/190 (86.8%) of the samples, while 180/190 (94.7%) and 148/190 (77.9%) cases were detected by the RS and SSS, respectively. A fair and significant agreement was observed between the tests (qPCR vs RS - Kappa = 0.29;  $p < 0.001$ , qPCR vs SSS-Kappa = 0.34;  $p < 0.001$ ). Parasite burden by qPCR and SSS were highly correlated ( $r = 0.76$ ;  $p = 0.01$ ) but didn't show an association with the IgG response ( $r = 0.056$ ;  $p = 0.48$ ). IgG titres were grouped (4) according to percentiles (25<sup>th</sup>, 50<sup>th</sup> and 75<sup>th</sup>). The mean RQ did not differ significantly between these groups ( $p = 0.93$ ). Mean RQ was significantly higher among early lesions (<12 weeks;  $p = 0.04$ ), decreased with increasing size of the lesion ( $p = 0.12$ ) and was slightly higher among papules, nodules and wet ulcers than other clinical forms ( $p = 0.72$ ).

**Conclusions**

Novel primers are introduced for successful quantification of parasite burden. The magnitude of the host IgG response did not correlate with the parasite burden among this cohort of CL patients.

## Oral Presentation - 07

**Current challenges to implementation of dengue vaccination programme; a systematic review****Sachindra JLAA<sup>1</sup>, Gunasekara WWM<sup>1</sup>, Madhushika MT<sup>1</sup>, Liyanage PLGC<sup>1</sup>, Lekamwasam S<sup>2</sup>**<sup>1</sup>Department of Pharmacology, <sup>2</sup>Department of Medicine, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka.**Introduction**

Implementation of the only licensed dengue vaccine; Chimeric Yellow Fever Tetravalent Dengue Vaccine in the public health sector has become challenging owing to issues unanticipated in clinical trials. This review explores challenges associated with the dengue vaccination programme and proposed solutions to overcome these shortcomings.

**Methods**

Review was conducted adhering to extended guidelines of Preferred Reporting Items for Systematic Reviews and Meta-Analyses. The reviewed articles were published between 1993 and 2023. Medline and Cochrane databases were searched using predetermined keywords. Out of the 664 studies retrieved, four eligible studies reported on challenges of implementing the licensed dengue vaccine and possible remedies to these challenges. With regard to quality assessment tools, all four studies were of good quality. After abstraction of data, a qualitative synthesis was done.

**Results**

Economic challenges were reported in three of the four studies, which included, less cost-effectiveness of efficient vaccine strategies, low socio-economic status of communities and lack of financing for government immunization programme.

Two studies identified immunological challenges, comprising of need for an easy dosing regimen fitting into the routine childhood immunization program and seronegative individuals showing less efficacy and risk of vaccine-enhanced disease. Lack of knowledge and attitude towards vaccination practice, doubts among policy makers regarding safety and efficacy and the need for additional disease burden data for decision-making were reported in two studies as logistic challenges. The proposed solutions to these challenges were providing financial aids, reducing vaccine cost, promoting cost-effective strategies, serological screening, encouraging vaccine promotion and expanding research surveillance.

**Conclusions**

The main themes of challenges identified were immunological, economical and logistics. Among them, the main concern would be the risk of vaccine enhanced disease among seronegative individuals. Effective implementation of the current dengue vaccine programme requires pre-vaccination serological screening, providing financial aids to low-income countries, and expansion of vaccine surveillance. Lessons learned from these challenges can be integrated to develop more effective vaccines in future.

**Oral Presentation - 08****Prognostic value of tumour budding in invasive breast cancer; a cohort study****Dilrukshi AWK<sup>1</sup>, Peiris H<sup>2</sup>, Perera A<sup>1</sup>, Mudduwa LKB<sup>3</sup>**<sup>1</sup>*Teaching Hospital Karapitiya, Galle, Sri Lanka.*<sup>2</sup>*Department of Medical Laboratory Science, Faculty of Allied Health Sciences, University of Ruhuna, Galle, Sri Lanka.*<sup>3</sup>*Department of Pathology, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka.***Introduction**

Breast carcinoma (BC) is the commonest cancer in Sri Lanka. It is a heterogenous disease with a wide variation in prognosis. Prognostic factors play a key role in selecting the most appropriate treatment. Tumour budding (TB) has emerged as a new prognostic marker in some cancers. TB is defined as isolated single cancer cells or clusters of up to four cancer cells located at the invasive tumour-front. TB still has no recommended grading system for BC and yet to find its place in BC management guidelines. The aim of this study was to determine the prognostic value of TB in invasive BC in a cohort of patients.

**Methods**

All patients fulfilling the inclusion criteria of the current study were selected from the BC data base of the Department of Pathology, Faculty of Medicine, University of Ruhuna which included all BC patients who sought the services of the immunohistochemistry laboratory from 2006 - 2015. TBs in hotspots were counted in histology slides and graded according to the recommended grading for TB in colorectal cancers. Kaplan Meier model and log rank test were used for recurrence free and BC specific survival (RFS, BCSS) analysis.

**Results**

A total of 231 BC patients (205 mastectomies and 26 wide local excisions) were studied. Majority were 36-60 years of age (63.9%) and had lymph node metastasis (61.3%). Most tumours were 2-5cm (77.2%) in size and in Nottingham grade 2 (n=227, 50.6%) without lympho-vascular invasion (n=221, 64.3%). Most were hormone receptor negative (estrogen receptor-57.1%, progesterone receptor-56.7%) and Her2 negative (n=230, 80.9%). Low-grade (0-4TBs), intermediate-grade (5-9TBs) and high-grade TB(≥ 10TBs) were present in 40.3%, 22.5% and 37.2% BCs respectively. TB grade had an independent effect on the RFS and BCSS ( $p=0.027$ ) imparting a poor survival when the tumour had high grade TB.

**Conclusions**

TB has a significant negative effect on the RFS and BCSS of invasive BC patients independent of established prognostic factors.

## Oral Presentation - 09

**Patterns of perioperative arrhythmias in adult cardiac surgery: A single center study from Sri Lanka**

**Harischandra DVT<sup>1</sup>, Jayaweera JMRG<sup>2</sup>, Kannangoda KANS<sup>1</sup>, Dilanka GVA<sup>3</sup>, Hettigoda KBP<sup>1</sup>, Amarasinghe S<sup>1</sup>, Firmin RK<sup>4</sup>**

<sup>1</sup>Teaching Hospital Karapitiya, Galle, Sri Lanka.

<sup>2</sup>General Hospital Matara, Sri Lanka.

<sup>3</sup>Colombo North Teaching Hospital, Ragama, Sri Lanka.

<sup>4</sup>University Hospitals of Leicester, UK.

**Introduction**

There is no published data in Sri Lanka, on perioperative arrhythmias in adults undergoing cardiac surgery. The objective of the study was to assess the patterns of perioperative arrhythmias in cardiac surgical patients.

**Methods**

This is a prospective descriptive study of 100 patients in a single cardiothoracic unit in a tertiary care hospital in Sri Lanka from November 2018 to May 2020. Demographic data and clinical data were assessed in all. Furthermore, 24-hour Mobile Cardiac Outpatient Telemetry (MCOT) was assessed in a subset of patients.

**Results**

The mean age was 60 (37-76) years and the majority were males (n=72). The majority (n=76) had undergone isolated coronary artery bypass grafting (CABG). The mortality was 3.5% in routine and 15% in urgent and emergency operations.

Arrhythmias were lowest preoperatively (11%). Atrial fibrillation (AF) (6%) and sinus bradycardia (4%) were the commonest. Arrhythmias were higher during surgery (29%) and ventricular

fibrillation (VF) (25%) was the commonest. Arrhythmias were highest postoperatively (34%) and AF (12%) was the commonest followed by sinus tachycardia (9%). The higher incidence of arrhythmias in the in-hospital postoperative period as compared to the preoperative period was significant ( $p<0.001$ ).

A limited in-depth study using MCOT device showed a higher incidence of AF preoperatively (11%) and postoperatively (16%) but these differences were not significant when compared with that of routine investigations ( $p=0.18$  and  $p=0.35$  respectively). However, the MCOT detected some arrhythmias completely missed by routine ECG recordings, notably supraventricular tachycardia both pre operatively (22 %) and post operatively (33%).

**Conclusions**

This study has established baseline values of perioperative arrhythmias in the adult cardiac surgical patients in Sri Lanka. The MCOT methodology shows the potential for a more detailed study of arrhythmias and could inform decision-making in arrhythmia prophylaxis.

**Oral Presentation - 10****Aetiology, antibiotic sensitivity and nature of the secondary infections in critically ill patients with COVID-19 in a tertiary care hospital, Southern Province, Sri Lanka****Jayasundera MCT, Piyasiri DLB, Jayasekera PK, Liyanage N, Ranatunga K**<sup>1</sup>*Teaching Hospital Karapitiya, Galle, Sri Lanka.*<sup>2</sup>*Department of Medical Laboratory Science, Faculty of Allied Health Sciences, University of Ruhuna, Galle, Sri Lanka.***Introduction**

Secondary or nosocomial infections are common in critically ill patients with COVID-19. Identification of the aetiology and sensitivity patterns of secondary infections will help to optimize the empirical therapy and infection control measures.

**Methods**

Retrospective descriptive cross-sectional study was carried out from May to October 2021. Critically ill patients with COVID-19, tested with cultures were included. Critically ill was defined as the presence of organ dysfunction requiring intensive care monitoring. Blood stream infections (BSI), pneumonia and urinary tract infections (UTI) were defined according to the CDC/NHSN criteria (2021).

**Results**

From total 162, there were 118 (72.8%) patients with secondary infections and were treated in ICU (n=81) or high dependency unit (HDU, n=37). Majority had evidence of pneumonia (61%) followed by UTI and BSI. Out of 41 cases of BSI, 20 (49%) had identifiable causes like line sepsis (n=11, 26.8%) and pneumonia (n=9, 21.9%).

Gram-negative organisms were the predominant (67.4%) followed by *Candida* (20.3%) and Gram-positives (12.3%). *Acinetobacter* was the commonest among Gram-negatives (44.7%) followed by *Klebsiella* (32.1%). Majority of the Gram-positives were Enterococci (79.3%). *Acinetobacter* was predominant in both respiratory (41.8%) and blood culture (33.9%) isolates followed by *Klebsiella*. Predominant urine culture isolate was *Candida* (60%) followed by Enterococci (24.6%).

Majority of the *Acinetobacter* (84.5%) and *Klebsiella* (84.3%) were multi-drug resistant being sensitive only to doxycycline (60.3%) and amikacin (54.7%) while 62.3% were carbapenem resistant. Colistin sensitivity not tested. Vancomycin resistance among Enterococci was 39.1%.

Significant association was observed between the occurrence of secondary infections and being in the ICU ( $p=0.014$ ).

**Conclusions**

Being in the ICU might be associated with the development of secondary infections but needs to evaluate with the length of ICU stay and underlying comorbidities. Majority of secondary infections in COVID-19 were pneumoniae with multi-drug resistant organisms, challenging against optimum patient management.



## Oral Presentation - 11

### **An evaluation of safe practice on procedural sedation in Emergency Treatment Unit, Teaching Hospital Karapitiya**

**Ganegoda PN**

*Senior Registrar in Emergency Medicine, Teaching Hospital Karapitiya, Galle, Sri Lanka.*

#### **Introduction**

Procedural sedation is the administration of sedatives or dissociative anesthetics to induce a depressed level of consciousness while maintaining cardiorespiratory function. It is commonly practiced by non-anesthetists and is an accepted technique in emergency medicine. Drugs used for sedation can sometimes result in under or over sedation, irrespective of the intention and experience of the practitioner. Therefore, safety in its practice is paramount and the provider must be equipped with necessary skills, support, monitoring, and resources to manage this continuum and any possible complications resulting from it.

#### **Methods**

The study was conducted among 46 patients who underwent procedural sedation in the Emergency Treatment Unit (ETU) at Teaching Hospital Karapitiya. Data was collected using standard questionnaire and results were compared with standard guidelines published by Royal College of Emergency Medicine 2020 for Procedural sedation in Emergency.

#### **Results**

Majority of patients were between the age of 35 to 50 years (61%) and were equally distributed as male and female. Most of them belong to American Society of Anaesthesiology (ASA) 1 or 2 and majority had undergone moderate sedation (60.8%). The commonly used drug was intravenous fentanyl (39%). Among 46 patients, pre-procedure assessment of ASA grade was assessed in 35 patients (76%) and checking for allergies were done in 38 patients (82%). A considerable group of patients had not been assessed for pre-procedural fasting status and airway assessment. Informed written consent had been obtained in most of the cases (61%). Majority were discharged after returning to baseline conscious level (76%) satisfactorily. But none of them were advised about postprocedural care by providing an information sheet.

#### **Conclusions**

There are major deficiencies in current practice in procedural sedation at the ETU with regards to preprocedural assessment and postprocedural care which could be overcome by introducing a standard check list endorsed by Royal College of Emergency Physicians.



**Oral Presentation - 12****Types of chronic wounds, their complications and the factors associated with complications among patients attending to medical and surgical units in Teaching Hospital Karapitiya**

**Tilakaratne SR<sup>1</sup>, Thathsarani YKGP<sup>1</sup>, Thennakoon TMS<sup>1</sup>, Udugama UGPN<sup>1</sup>, Umar SA<sup>1</sup>, Kulathunga PARI<sup>2</sup>**

<sup>1</sup>*Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka.*

<sup>2</sup>*Department of Community Medicine, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka.*

**Introduction**

Chronic wounds (>4 weeks) impose a significant burden on the healthcare system. This study was aimed to assess types of chronic wounds, their complications and the factors associated with complications among the patients of surgical and medical units in Teaching Hospital Karapitiya (THK).

**Methods**

descriptive cross-sectional study was conducted among 350 patients at medical and surgical units in THK using self- developed, pre-tested, interviewer administered questionnaires. Some of the data were extracted from the medical records of the patients.

**Results**

Mean (SD) age of the patients was 58 (5.86) years. Majority (56%) were males.

Commonest type of wounds was diabetic ulcers (39.1%). Majority (93.1%) of the wounds were complicated. Cellulitis was the commonest complication (47.1%). Pain was the commonest problem encountered by most patients (82.3%).

A logistic regression was performed to ascertain the effects of gender, presence of diabetes mellitus, duration of wound and having pain on likelihood of having wound complications. The logistic regression model was statistically significant,  $\chi^2(4) = 27.402$ ,  $p < 0.0005$ . The model explained 9.4% (Nagelkerke  $R^2$ ) of the variance in having wound complications and correctly classified 93.1% of cases. Patients with wounds >6 weeks were 4.163 times more likely to have wound complications. Gender, presence of diabetes and having pain had no significance on likelihood of having wound complications.

**Conclusions & recommendations**

Commonest type of wounds are diabetic ulcers and early detection of diabetes and proper management is needed to prevent diabetic ulcers. Cellulitis is a common complication of chronic wounds and proper wound care and foot care is encouraged to prevent wound infections. Duration of the wound can have a significant impact on developing complications. Introduction of effective treatment strategies and having a multidisciplinary approach to optimize chronic wound management is essential in order to minimize the duration of wounds.

**Poster Presentation - 01****The level of satisfaction and perceptions of the parents on the care offered at paediatric intensive care unit (medical) at Lady Ridgeway Hospital for Children, Colombo, Sri Lanka**

**Imbulana NS<sup>1</sup>, Kitulwatte NC<sup>1</sup>, Mahesh PKB<sup>2</sup>, Kankanararachchi I<sup>3</sup>, Igalagamage LR<sup>1</sup>, Liyanarachchi MS<sup>1</sup>**

<sup>1</sup>*Lady Ridgeway Hospital for Children, Colombo, Sri Lanka*

<sup>2</sup>*Ministry of Health, Sri Lanka*

<sup>3</sup>*Faculty of Medicine University of Ruhuna, Galle, Sri Lanka*

**Introduction**

Parental satisfaction is an essential aspect of a pediatric patient's holistic care that enables the exploration of the attitude of parents toward the services they are provided. The pediatric intensive care unit (PICU) is an extremely mentally challenging environment to most parents. Therefore, it is crucial to assess parental satisfaction in such an environment to uplift child care standards. The aim of this study was to describe parental satisfaction and perception with the care provided at the PICU, Lady Ridgeway Hospital for children, Colombo, Sri Lanka.

**Methods**

A descriptive cross-sectional study was carried out using an interviewer-administered questionnaire on discharge based on communication, effective cooperation, information, and respect. The study period was from January 2021 to May 2022. Descriptive analysis was done using the Statistical Package for Social Sciences.

**Results**

A total of 235 parents responded; of them, 92% were mothers. The majority (71.9%) were satisfied with updating their children's health status and daily investigation results.

However, 60.8% were not happy with the access they get to communicate over the phone.

More than half of respondents (58.2%) were satisfied with their children's pain management and comfort; 68.1% and 73.6% claimed that they were unhappy about their involvement in decision-making and the time allowed to stay with the child at the bedside, respectively. More than 90% of respondents believed that the medical staff showed due respect for them. Almost all respondents had confidence in doctors (98.2%) and nurses (96.7%) working in the PICU. Further, 92.3% and 92.8% were satisfied with the empathy received from doctors and nurses, respectively. In contrast, 66.8% were not satisfied with the measures adopted to maintain the privacy of children.

**Conclusions**

There is a high level of parental satisfaction on communication, effective cooperation and respect. However, involving parents into decision making, telephone communications and maintaining privacy need to be improved.

## Poster Presentation - 02

### Clinical profile of children presenting with seizures associated with febrile illnesses at a single Paediatric Unit, Teaching Hospital Karapitiya

**Kaushalya PGCG<sup>1</sup>, Liyanarachchi ND<sup>1,2</sup>, Jayasinghe LP<sup>1</sup>, Samarakoon YH<sup>1</sup>, Madhushanka T<sup>1,2</sup>, Kankanarachchi I<sup>1,2</sup>**

<sup>1</sup>University Paediatric Unit, Teaching Hospital Karapitiya, Galle, Sri Lanka.

<sup>2</sup>Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka.

#### Introduction

A child presenting with a fever and a seizure is a common scenario in Paediatrics practice. Though fever associated with seizures or epilepsy (FASE) remained the most common cause, infections of central nervous system and metabolic abnormalities are also possible etiologies. The aim of the study was to describe the clinical profile of children admitted with seizures with febrile illnesses and to identify factors associated with FASE and other pathologies.

#### Methods

A prospective study was carried out and included the children admitted with fever with seizure/s during the period from December 2022 to July 2023. The patients previously diagnosed with epilepsy were excluded from the study. Data was obtained from medical records and direct interviewing of parents or guardians.

#### Results

A total of 200 children enrolled in the study; 59% were males. The mean ( $\pm$ SD) age was 30 months ( $\pm$ 22). The mean ( $\pm$ SD) temperature was 101.5 ( $\pm$ 1.0).

In 86.5% of cases, the first seizure occurred within 24 hours of fever, and 23.5% had multiple seizures during the same illness. In 13.5%, rescue medicines were required. The most common (91.5%) diagnosis was FASE, followed by central nervous system infections (6.5%). Among those with FASE, 60.6% and 29.5% had simple and complex febrile seizures respectively. Viral fever remained the most common aetiology (56.5%), followed by respiratory tract infections (22.5%). Self-termination of seizures ( $p<0.001$ ) and family history of febrile seizures ( $p=0.04$ ) were associated with FASE. Underlying neurodevelopmental abnormalities ( $p<0.001$ ) were associated with seizures due to other pathologies. However, gender, height of the temperature, multiple seizures, and high CRP have no significant association with either FASE or seizures due to other pathologies.

#### Conclusions

Though febrile seizures remained the most common cause of fever-associated seizures, it is important to consider other pathologies when there are neurodevelopmental abnormalities, absence of family history of febrile seizures, and longer duration of seizures.

## Poster Presentation - 03

**Awareness and perceptions about weight gain during pregnancy among pregnant women admitted to a tertiary care facility in Southern Sri Lanka**

**Kulathunga PARI<sup>1</sup>, De Silva BVS<sup>1</sup>, Wijesinghe CJ<sup>1</sup>, Mendis WPM<sup>2</sup>, Amaradasa WPH<sup>2</sup>, Rathnayake MK<sup>2</sup>, Weliwita Dd<sup>3</sup>, Priyadarshana PNSL<sup>3</sup>**

<sup>1</sup>*Department of Community Medicine, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka.*

<sup>2</sup>*Teaching Hospital Karapitiya, Galle, Sri Lanka.*

<sup>3</sup>*National Hospital Sri Lanka, Colombo, Sri Lanka.*

**Introduction**

Weight gain during pregnancy is an important indicator in the prediction of morbidity and mortality in infants and mothers. This study aimed to assess the awareness and perceptions about weight gain during pregnancy among pregnant women attending a tertiary care facility in Southern Sri Lanka.

**Methods**

A cross-sectional study was carried out in a consecutive sample of 300 pregnant mothers admitted to Teaching Hospital, Mahamodara for delivery, whose period of gestation was 37 - 40 weeks. An interviewer-administered questionnaire was used for data collection. A scoring system was used to assess the level of awareness.

**Results**

Mean age (SD) of the mothers was 29.0 (5.1) years. Majority (81.7%) were Sinhalese and 57.4% were primi mothers. Over 70% of the sample had received secondary education or beyond. A majority (69.7%) had a satisfactory awareness on weight gain during pregnancy. Nearly 92% of the pregnant women knew that their weight should increase in pregnancy, however, over 60% stated that optimum weight gain should be 10kg, irrespective of pre-pregnancy weight.

The mothers stated that adequate weight gain in pregnancy was important to ensure optimum birthweight (43.8%) and growth (40.3%) as well as the overall health (8.6%) of the baby. Increasing the amount of food consumed during pregnancy (73.8%), increasing rest (15.1%), reducing physical activities (0.9%) and increasing sleep (0.6%) were suggested as the methods to achieve optimum weight gain. Participants perceived that increasing the intake of starchy food, cereals, fish and meat, decreasing the intake of oily and sugary foods and refraining from snacks, tea and coffee during pregnancy can achieve an optimum weight gain. A satisfactory level of awareness was not associated with maternal age, parity or education level of the mother.

**Conclusions**

Although majority of the mothers were aware about the importance and methods of proper weight gain during pregnancy, interventions are needed to improve maternal awareness on recommended weight gain. Maternal awareness on weight gain during pregnancy was not associated with maternal age, parity or education level of the mother.

## Poster Presentation - 04

**Short-term outcomes of patients admitted to the Paediatric Intensive Care Unit at Teaching Hospital, Karapitiya****Kaushalya PGCG<sup>1</sup>, Deshapriya S<sup>1</sup>, Gamage P<sup>1</sup>, Kankanararachchi I<sup>1,2</sup>, Lakpriya S<sup>1</sup>, Liyanarachchi N<sup>1,2</sup>**<sup>1</sup>*Teaching Hospital Karapitiya, Galle, Sri Lanka.*<sup>2</sup>*Department of Paediatrics, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka.***Introduction**

Understanding the clinical profile of critically ill children plays a significant role in planning and policy making in health care system. The aim of this study was to describe the clinical profile and short-term outcomes of patients admitted to the Paediatric Intensive Care Unit (PICU) at Teaching Hospital Karapitiya.

**Methods**

A retrospective study was conducted to determine the demography, clinical profile, and short-term outcomes of patients admitted to PICU from the 1<sup>st</sup> of January 2021 to the 31<sup>st</sup> of December 2022 (2 years). Data were analysed using the SPSS version 25.

**Results**

There were 632 admissions during the given period and 619 (97.9%) were analysed. Of them, 61.9% were males. The age ranged from 26 days to 17 years, and the mean age ( $\pm$ SD) was 52.6 ( $\pm$ 51.4) months.

The highest number of admissions was in March 2022. Out of all admissions, 32.6% were hospital transfers. Surgical interventions (23.3%), complications of respiratory (23.7%) and neurological (17.3%) diseases were the three main reasons for admissions contributing 64% of total entries. The median duration (IQR) of hospital stay was 3 (2-6) nights. The maximum PICU stay was 91 days. Only 43.8% of admissions required invasive ventilation. The overall mortality rate was 10.2%. The requirement of invasive ventilation ( $p<0.001$ ), and the age of less than one year ( $p=0.002$ ) were statistically significant predictors of the mortality. Out of 61 patients with sepsis, 26.6% ( $n=16$ ) died, the highest mortality among all causes. However, the mode of admission outside or in-hospital transfers ( $p=0.2$ ) and ward category ( $p=0.4$ ) did not show a significant association of higher mortality.

**Conclusions**

Surgical care, respiratory, and nervous system complications were the major causes of the admissions, and the overall mortality rate was 10.2%. Age less than one year, requirement of invasive ventilation, and presence of sepsis/septic shock were associated with higher mortality.

## Poster Presentation - 05

**Extend of exposure to different types of peripheral intravenous catheters by Sri Lankan Nurses: A cross-sectional study in Galle district****Evin SLP<sup>1</sup>, Samarawickrama MB<sup>2</sup>**<sup>1</sup>*Department of Nursing, Faculty of Allied Health Sciences, University of Ruhuna, Galle, Sri Lanka.*<sup>2</sup>*Department of Anatomy Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka.***Introduction**

Peripheral intravenous catheters (PIVC) are the most used method to get intravenous access. PIVC are inserted and utilized mainly by nurses in the ward setting. There are different types of PIVCs in the world. But in Sri Lankan context only a few types are available. The data regarding the nurse's exposure to different types of PIVCs become important in developing guidelines related to insertion and management of cannulas.

**Methods**

A descriptive cross-sectional study was conducted among a selected group of registered nurses working in different wards of the Teaching Hospital Karapitiya using simple random sampling. An interviewer based questionnaire was given in their preferred language. Mostly used PIVC pictures were shown and questioned on their usage and experience.

**Results**

There were 324 participants [female: male 93.8% (304): 6.2% (20)]. Their age ranged from 25 years to 59 years [Mean age 37.23 with SD of  $\pm 7.759$ ]. Their working experience ranged from 2 months to 34 years [Mean 11.36 years with SD of  $\pm 7.731$ ]. The majority of them were in medical [1.6% (70)] and surgical wards [20.4% (66)]. All nurses in the sample had used at least one cannula with an injection port. Scalp vein set or the Butterfly cannula was used by 72.80% (236). Cannula without a port has been used only by 63.90% (207) of participants. whereas Arteriovenous Fistula needle is the least used one [3.4% (n=11)].

**Conclusions**

The participants have been exposed to only a few types of PIVCs. This is most probably due to the limited availability of different types of cannulas. All nurses have used cannula with injection port which is the one mostly used in Sri Lankan settings. Moreover, it is the only ported-peripheral intravenous catheter used by Sri Lankan nurses.



**Poster Presentation - 06****Characteristics of adverse drug reactions reported among inward patients: An active surveillance done at Teaching Hospital Karapitiya****Gunasekara WWM, Sachindra JLAA, Liyanage PLGC, Madhushika MT***Department of Pharmacology, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka. a***Introduction**

Adverse drug reactions (ADRs) are a major cause of morbidity and mortality and a significant economic burden to the developing countries. The aim of the study was to identify the severity of ADRs reported among inward patients of Teaching Hospital Karapitiya (THK).

**Methods**

Department of Pharmacology, Faculty of Medicine, University of Ruhuna, a regional center of ADR collection is conducting an active surveillance to report ADRs from THK. This audit was based on ADRs reported among patients admitted to Medicine, Surgery, Paediatrics and Dermatology wards of THK from June 2022 to June 2023. The ADRs were classified according to the severity by Modified Hartwig and Siegel scale. Descriptive statistics were obtained using *SPSS* statistical software.

**Results**

A total of 82 ADRs were collected. The majority (51.2%) of victims were males. Among the total, 81.7% were adults and 18.3% were paediatric patients. Of the total ADRs, majority were due to drugs (81.7%) and blood products (7.3%).

Among the drugs most cases were reported from antibiotics (34.1%). Out of the antibiotics ciprofloxacin (17.9%) and ceftriaxone (17.9%) were responsible for majority of ADRs, followed by co-amoxiclav (14.3%).

Out of ADRs collected 22 (26.8%), 53 (64.6%), 7 (8.5%) were categorized as mild, moderate, severe and fatal reactions respectively. Among 7 of severe ADRs, 3 (42.9%) were anaphylactic reactions and 2 (28.6%) were Steven-Johnson syndrome. Other two were seizure and toxic epidermal necrolysis. The severe reactions were due to cephalixin, sulphasalazine, carbamazepine, diclofenac sodium, IV Immunoglobulin, blood and vaccine.

Age is negatively correlated with the severity of the ADR ( $r=-0.020$ ) but the correlation is not statistically significant ( $p=0.857$ ). There is no statistically significant association between the gender and severity of the ADRs (chi-square = 1.257,  $p=0.534$ ).

**Conclusions**

Antibiotics are the most common causative agent for ADRs. Further, they are more frequently associated with anaphylactic reactions than other drugs.



## Poster Presentation - 07

**Indoor air pollution: awareness, practices and associated health conditions among the general public in the Bope-Poddala MOH area**

**Korala PKDT<sup>1</sup>, Kavindu RWGN<sup>1</sup>, Kavindya HMS<sup>1</sup>, Kiringoda KGKC<sup>1</sup>, Kulasekara DWTM<sup>1</sup>, Kulathunga PARI<sup>2</sup>**

<sup>1</sup>*Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka*

<sup>2</sup>*Department of Community Medicine, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka.*

**Introduction**

Indoor air pollution (IAP) is known to cause significant health burden in many countries worldwide including Sri Lanka. It has been identified as a major risk factor for most non communicable diseases related to cardio-respiratory system, low birth weight and cancer. Studies conducted regarding IAP is limited in Sri Lanka. The aim of this study was to describe the knowledge and practices related to IAP and its health impacts among general public in Bope-Poddala MOH area.

**Methods**

This was conducted as a descriptive cross-sectional study with an analytical component. A convenient sample of 383 participants took part in the study. Study was conducted as an interview-based survey after obtaining participants' consent using an electronic questionnaire. Only one person from each house was interviewed. The questionnaire assessed the knowledge and practices related to indoor air pollution and associated health impacts which were analyzed using descriptive statistics.

**Results**

Only 68.1% of the participants had a “Good” overall knowledge about the IAP and its health impacts. Mean (SD) knowledge score was 38.55 (7.92).

Overall percentage of participants scoring satisfactory level of practices was 71.2% with a positive association between the knowledge on IAP among the participants and their practices that affect the IAP; satisfactory level of practices was more prevalent among those who were with a good knowledge ( $p=0.001$ ).

There was no association between the knowledge on IAP with occurrence of asthma ( $p=0.237$ ) and ischemic heart disease (IHD) ( $p=0.190$ ).

There was no association between practices that affected the IAP with the occurrences of asthma ( $p=0.288$ , Chi square) and IHD ( $p=0.471$ ).

**Conclusions**

Overall knowledge as well as the practices on IAP among the study participants are satisfactory. Those with a good knowledge tended to have more satisfactory practices. Creating awareness on IAP among people will be even more beneficial in order to eliminate unhealthy practices.

## Poster Presentation - 08

### Development and implementation of a mobile application-based self-monitoring tool for healthy dietary intake among government office workers in Galle district

**Godevithana J<sup>1</sup>, Wijesinghe CJ<sup>1</sup>, Wijesinghe SD<sup>2</sup>**

<sup>1</sup>*Department of Community Medicine, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka.*

<sup>2</sup>*Consultant Community Physician, Health Promotion Bureau, Ministry of Health, Nutrition and Indigenous Medicine, Colombo, Sri Lanka.*

#### Introduction

Unhealthy diet is a key risk factor for Non-Communicable Diseases (NCD) that contribute to increased morbidity and premature mortality. With increased computer literacy and mobile phone penetration, there is a high opportunity for mobile application-based interventions. Therefore, the study was conducted to develop a mobile application for self-monitoring of dietary intake and assess its acceptability and effectiveness in diet control.

#### Methods

Mobile application was developed based on research evidence and the opinions of local experts. A non-randomized comparison study was conducted among a selected group of government office workers (who were in the preparation, action, and maintenance stages of the trans-theoretical model). The mobile application and paper-based diet monitoring intervention were offered according to the participant's preference. Data were collected through a self-administered questionnaire and 24-hour dietary recall. Participants were followed up monthly for three months for adherence. The effectiveness of interventions was assessed at the end, comparing

progressive change in the stage of change and change to healthy dietary intake between two groups as primary and secondary outcomes respectively.

#### Results

Among 123 office workers who participated in the study 19.5% (n=24) preferred the mobile intervention over the paper-based intervention (80.5%, n=99). Younger, unmarried office workers with no child had higher acceptance of the mobile intervention ( $p<0.05$ ). There was no statistically significant difference in adherence (in all three months) and achieving primary and secondary outcomes between the two groups of intervention.

#### Conclusions

Mobile application-based interventions are not well accepted among government office workers compared to paper-based interventions. However, acceptance was higher in young age groups and adherence and effectiveness were similar for both types of interventions. Further studies are recommended to explore the applicability of intervention in other communities.

## Poster Presentation - 09

## Impact of different time Management Techniques on Examination Results of Medical Students of the University of Ruhuna

Senanayake SMTN<sup>1</sup>, Senanayake TADCY<sup>1</sup>, Sewwandi DLCR<sup>1</sup>, Senerath SM<sup>1</sup>, Senevirathne RMAST<sup>1</sup>, Jayawardene AJPM<sup>2</sup>

<sup>1</sup>Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka.

<sup>2</sup>Medical Education and Staff Development Unit, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka.

### Introduction

Medical students face a significant constraint in managing their time due to various commitments such as Hospital based training, lectures, tutorials and practicals. It has been observed that effective time management can lead to better academic performance.

### Methods

The study was conducted as a descriptive cross-sectional survey among the students who have faced and received their results for their 3<sup>rd</sup> MBBS Part II examination at the Faculty of Medicine, University of Ruhuna. Data was collected via a google form using closed ended questions, including 8-time management techniques such as planning ahead by creating a to do list, tackling small things to start and joining a study group and other related factors regarding time management such as extracurricular activities, part time jobs and other time-consuming day-to-day activities along with the results the participants received for their proper examination. The questionnaire was formulated following literature search with the guidance of the experts in the Medical Education and Staff Development Unit, Faculty of Medicine, University of Ruhuna. SPSS software was used to analyze results. Descriptive analysis was done, and the Chi-square test was used to determine the association between different time management techniques and examination results.

### Results

Out of 204 students who received their results, 169 students participated in the study with a response rate of 82.8%. Most of them were able to identify time wasters and were able to revise the lessons somehow before the examination. Every participant has used, at least one time management technique studied. Additionally, usage of time tables was not a popular method among this study group and nearly half of them reduce their sleep to complete targeted work of the day. Nearly half (58%) of the participants had stated that they have missed extracurricular activities due to lack of time management. Out of the people who had engaged in extracurricular activities, 67.75% had found that using a time management technique have positively affected on engaging in those activities.

This study revealed that specific employing time management strategies such as 1) Tackling only small things initially ( $p < 0.001$ ), 2) Joining a study group ( $p < 0.001$ ) 3) Using a calendar to plan ahead ( $p = 0.021$ ) and 4) setting deadlines and goals ( $p < 0.001$ ) contributed significantly to their success in examinations.

### Conclusions

Out of 8 techniques that we have assessed in our research, only four were shown to have a significant positive impact on the relevant student's result. Poor time management has decreased the participation of the students in available extracurricular activities which is important to a healthy university life.

## Poster Presentation - 10

### Psychological health of nursing officers at Teaching Hospital Karapitiya

Hansika Wijesekara<sup>1</sup>, Janaka Ruben<sup>2</sup>

<sup>1</sup>Faculty of Allied Health Sciences, University of Ruhuna, Galle, Sri Lanka.

<sup>2</sup>Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka.

#### Introduction

Nursing profession is associated with a high risk of psychological problems due to circumstances such as work overload, night shifts, and inadequate rest. In Sri Lanka, it remains understudied. This study focuses on the assessment of the psychological health of nurses in Sri Lanka using an internationally validated questionnaire with exploratory and confirmatory factor analysis. The findings of this study provide valuable information on the prevalence of psychological problems among nurses and, the circumstances that contribute to them. Moreover, this information will be essential for future using GHQ-12 and developing interventions to improve the psychological health of nurses.

#### Methods

A descriptive cross-sectional study was conducted among nursing officers (n=421) at Teaching Hospital Karapitiya. Data were collected using translated and validated Sinhala version of the GHQ-12 questionnaire, along with additional demographic information. The data were analysed using several statistical software for factor analysis, Structural Equation Modelling (SEM) and text analysis.

#### Results

The majority were female (93%) 16.2% had a high burden, 72.4% had a moderate burden, and 11.4% had a low burden. Significant associations were found between test scores and daily travelling distance ( $p=0.011$ ), monthly income satisfaction ( $p=0.007$ ), marital status, ( $p=0.040$ ) and the presence of acute disease condition ( $p=0.020$ ). The exploratory factor analysis (KMO=0.809,  $p<0.001$  and confirmatory factor analysis identified eight questions of GHQ-12 is fitted well into the SEM over 12 questions ( $p=0.36$ , CIMN/DF=1.1, AGFI=0.98, GIF=>99)

#### Conclusions

Nursing officers at THK experience a considerable level of psychological problems. The ongoing economic crisis seems to contribute to this situation. Further research on this matter is recommended. Additionally, conducting studies on the reliability of the eight-item GHQ for evaluating nursing officers should be considered.