



PeMSARC '25

PERADENIYA MEDICAL SCHOOL
ANNUAL RESEARCH CONFERENCE



20th MAY 2025
FACULTY OF MEDICINE
UNIVERSITY OF PERADENIYA

**BOOK OF
ABSTRACTS**

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PREFACE

It is with immense pleasure that we welcome you to the Peradeniya Medical School Research Conference, fondly known as PeMSARC, proudly organized by the Faculty of Medicine, University of Peradeniya. This annual event has become a cornerstone in our academic calendar, offering a dynamic platform for students, academics, and professionals to unite in the spirit of inquiry, discovery, and collaboration. The conference is dedicated to fostering a culture of research, critical thinking, and academic excellence by providing an invaluable forum for the presentation and discussion of novel ideas, original investigations, and thought-provoking perspectives across the diverse and ever-evolving field of Medical Science.

The 2025 conference, held on the 20th of May at the Faculty of Medicine, University of Peradeniya, brings together a vibrant and enthusiastic community of researchers who have demonstrated passion, perseverance, and innovation in their respective fields. Through a rich program of keynote addresses, oral presentations, poster sessions, and thematic discussions, PeMSARC 2025 aspires to inspire dialogue, stimulate intellectual exchange, and nurture a supportive environment for inquisitive minds striving to explore new frontiers in medical research.

The Book of Abstracts you now hold is a reflection of this intellectual spirit and academic dedication. Each abstract within these pages represents not only the diligent efforts of its authors but also the invaluable mentorship, collaboration, and institutional support that form the foundation of every meaningful research journey. It is our sincere hope that the knowledge, ideas, and insights shared here will spark curiosity, encourage meaningful conversations, and pave the way for future discoveries and collaborations within our academic community and beyond.

As we embark on this celebration of knowledge and inquiry, we extend our deepest gratitude to all participants, mentors, reviewers, and organizers whose unwavering commitment has brought this conference to life. May this gathering serve not only as a showcase of research excellence but also as a lasting reminder of the power of curiosity, collaboration, and shared purpose in advancing the future of medical science.

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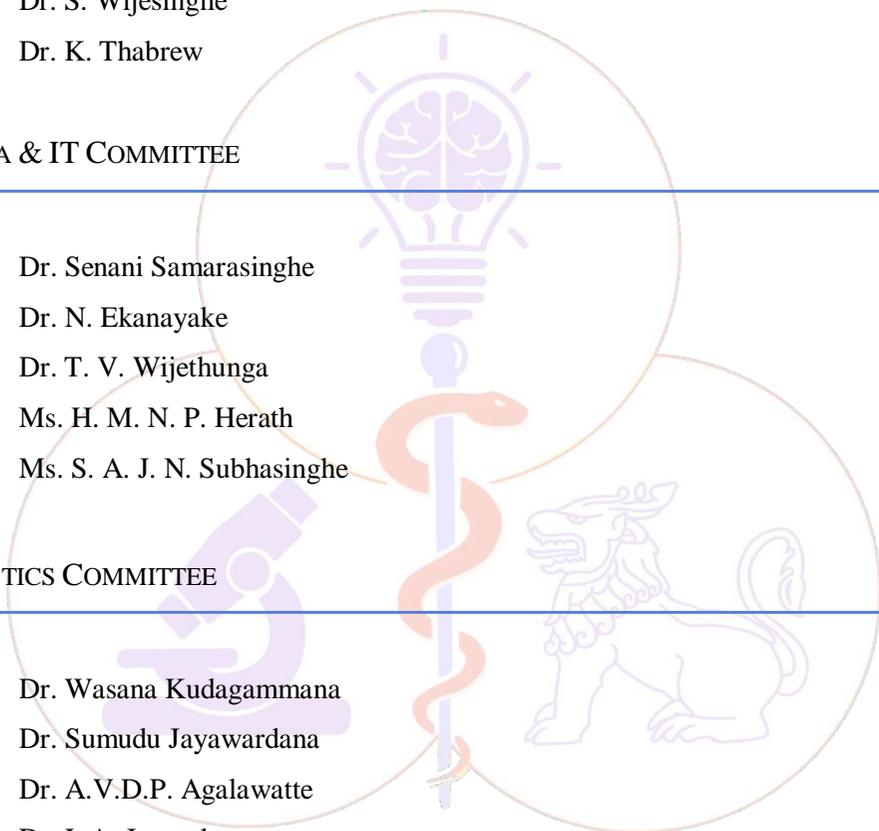
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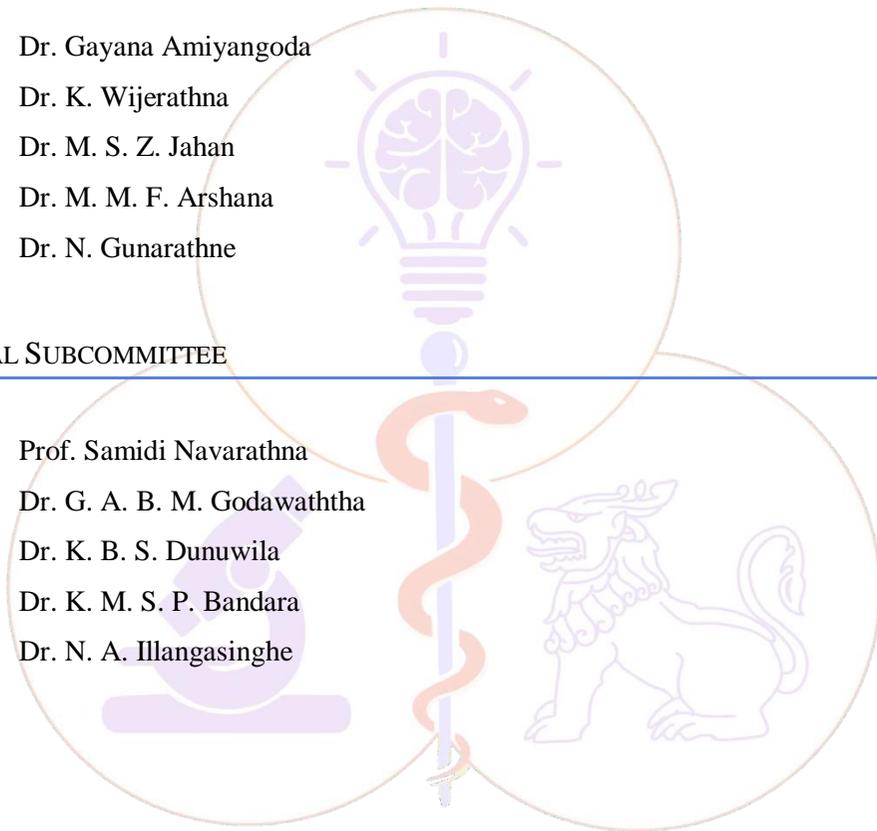
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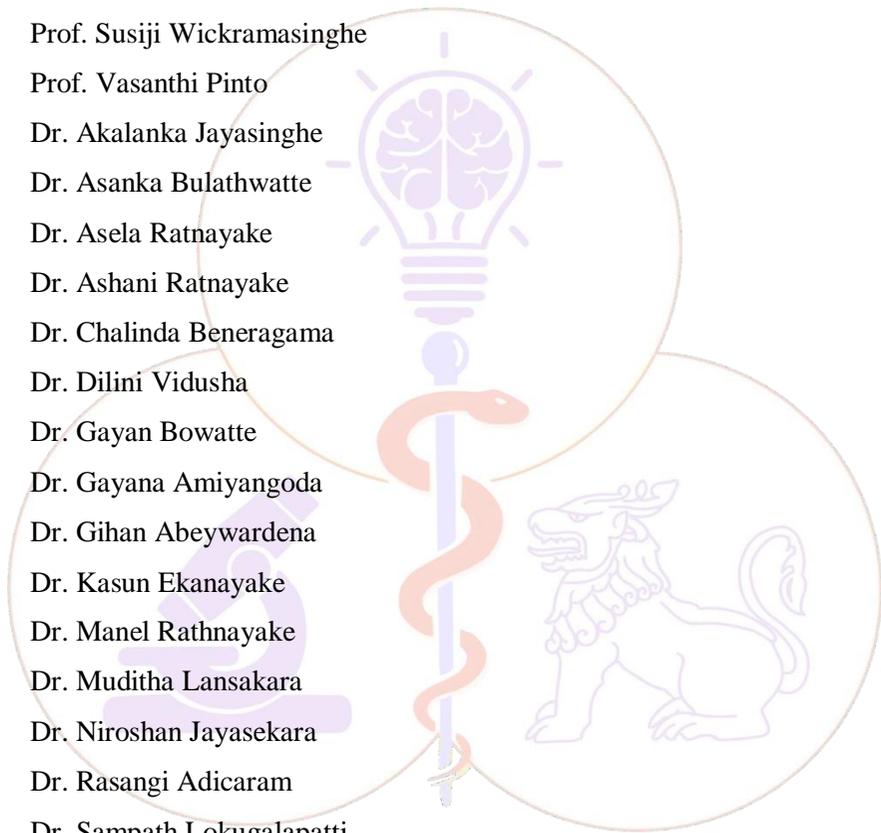
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Main Conference

PeMSARC '25

TIME	EVENT
08.00 AM	Inauguration Ceremony
08.20 AM	Welcome Speech by Chairperson PeMSARC '25 <i>Prof. Samidi Navaratna</i>
08.30 AM	Address by the Dean Faculty of Medicine, University of Peradeniya <i>Prof. Saman Nanayakkara</i>
08.40 AM	Address by the Vice Chancellor University of Peradeniya <i>Prof. Terrence Madhujith</i>
08.50 AM	Address by the Chief Guest <i>Emeritus Prof. Vasanti Thevanesam</i>
09.05 AM	Faculty & Academic Staff Research Excellence Awards
09.25 AM	Keynote Speech <i>Prof. Anuja Premawardhena</i>
10.05 AM	Address by the Student Chairperson PeMSARC '25 <i>Mr. Jude Melaka</i>
10.10 AM	Vote of Thanks by Secretary PeMSARC '25 <i>Dr. Sayuri Perera</i>
10.15 AM	MORNING TEA
10.45 AM	Thematic Research Presentations
11.45 AM	LUNCH
12.45 PM	Oral Research Presentations Session 01
01.45 PM	Oral Research Presentations Session 02
02.45 PM	AFTERNOON TEA
03.15 PM	Oral Research Presentations Session 03
04.00 PM	End of Programme

Message from the Vice Chancellor

Prof. Terrence Madhujith

It gives me great pleasure to extend my warmest congratulations to the Faculty of Medicine on the occasion of the Peradeniya Medical School Annual Research Conference 2025 (PeMSARC '25).



Undergraduate research plays a pivotal role in medical education, equipping students with a wide array of essential skills. From project planning and resource management to literature review, data analysis, scientific writing, and public presentation. Undoubtedly, these competencies are foundational to both academic and professional success. PeMSARC has, over the years, grown into a well-developed platform that not only celebrates scientific inquiry and interdisciplinary collaboration but also fosters academic excellence in the Faculty of Medicine at Peradeniya. It continues to play a vital role in advancing medical knowledge and nurturing a spirit of innovation and discovery in medical sciences.

This year's conference reflects not only the research strength of the Faculty of Medicine but also the University of Peradeniya's broader commitment to generating and disseminating impactful knowledge. Despite the economic downturn the country experienced, the university kept increasing the funds allocated to research over the last few years. I am positive that the contributions presented through PeMSARC '25 have a wide-reaching impact enhancing health outcomes and shaping the future of medical education and practice in Sri Lanka and beyond.

I am confident that the skills you have gained through your research projects will serve you well in your future endeavors. I also take this opportunity to commend Prof. Saman Nanayakkara, the Dean of the Faculty of Medicine and the organizing committee headed by Prof. Samidi Navaratna and Dr. Sayuri Perera for their dedication and vision in sustaining this invaluable academic tradition.

I wish all participants a rewarding and inspiring conference.

Professor Terrence Madhujith

Vice Chancellor

University of Peradeniya

Message from the Dean

Prof. Saman Nanayakkara

It gives me great pleasure to extend my warmest congratulations to the Faculty of Medicine on the pleasure to send this message to the 4th Research Conference of the Peradeniya Medical School Annual Research Congress (PeMSARC) 2025. Over the years, this conference has grown into a hallmark event in the faculty calendar, fostering a vibrant culture of research, critical thinking, and academic excellence among our students and staff.



Research is an integral pillar of our faculty, and I am delighted to see the increasing enthusiasm and commitment of our undergraduate and postgraduate students and staff in this domain. The formal recognition of student research within our curriculum has further encouraged scholarly activities, nurturing a generation of inquisitive minds ready to explore, innovate, and contribute meaningfully to science and society.

PeMSARC provides an invaluable platform that brings together students, academics, and researchers, creating opportunities to showcase their findings, share knowledge, and ignite new ideas. I am particularly pleased that, once again this year, selected student research will be published in the Book of Proceedings, and outstanding research contributions will be recognized with awards, an incentive that continues to uplift the standard of research and academic inquiry at our faculty.

We are truly honoured to have Professor Vasanthi Thevanesam, Professor Emeritus in Microbiology and Consultant Microbiologist, former Head of the Department of Microbiology, Faculty of Medicine, University of Peradeniya, as our Chief Guest. A distinguished academic and clinician, Prof. Thevanesam's contributions to the fields of infectious diseases, medical microbiology, and antimicrobial research have been immense. With her extensive work on leptospirosis, rickettsia, mycobacteria and melioidosis etc she continues to guide postgraduate research and national-level scientific advancements. Her presence as the chief guest will undoubtedly inspire our young researchers to pursue excellence and innovation.

We are truly honoured to have Professor Anuja Premawardhena gracing this year's congress as our Keynote Speaker, Cadre Chair and Senior Professor in the Department of Medicine, University of Kelaniya, Professor Premawardhena is a distinguished alumnus of Faculty of Medicine Peradeniya, an excellent clinician and an academic, whose illustrious career spans both undergraduate and postgraduate medical education. With his extensive contributions to general medicine and his role as an examiner for the MD (Medicine) and MRCP (UK) examinations, Professor Premawardhena has been instrumental in shaping the future of medical education and training in Sri Lanka. His presence today will undoubtedly inspire our students to achieve higher goals in their research and clinical careers.

We are also privileged to have the guidance and support of our Vice Chancellor, Prof. W.M.T. Madujith in all our academic activities. His unwavering support for research and academic innovation has been a continuous source of inspiration for our faculty community.

I firmly believe that platforms such as PeMSARC not only celebrate academic achievements but also lay the foundation for the future — empowering students to embrace a research-oriented mindset, build resilience in scientific pursuit, and contribute solutions to real-world challenges. I wish the Peradeniya Medical School Annual Research Congress 2025 every success and extend my heartfelt gratitude to the organizers and congratulations to all participants and supporters.

Prof. P.S.K. Nanayakkara

(MD, MBBS, MA, B.Ac., MAcF)

Dean

Professor in Anaesthesiology

Faculty of Medicine

University of Peradeniya

Message from the Chief Guest

Emeritus Professor Vasanthi Thevanesam

PeMSARC '25, the celebration of the culmination of 4th year research projects is your day, medical students, as you approach the end of your student days and the beginning of your medical career. For many of you, your desire to be a doctor is that you want to care for patients and contribute towards the health needs of individual patients and society. As you took part in your introduction to research, I wonder how many thoughts to yourself – why am I doing this? What is its connection with being a doctor? A good and useful question to ask.



What is research? It is often explained as a way of looking for new information, obtaining a fresh understanding of what we encounter, seeking answers to gaps in our knowledge, and solving problems. As you have experienced during your research activity, you gathered current information (which we call data!), analyzed and interpreted your findings in a systematic way to move forward towards answering a specific question.

I would like to share 3 connections we have with cats which could help us to see research in its widest perspective. For research to become a part of our life, we must be open to asking questions – the who, why, where, how, and when of what we encounter in our day to day lives. Cats are inherently curious, and we too need to be curious. Unfortunately, we often stifle curiosity from childhood – initially perhaps from adults in our lives who are irritated at the constant questions asked by naturally inquisitive children – and later on, by ourselves, because it makes life easier when we don't ask questions! Asking questions lead us and patients recognize uncertainties. We find it hard to deal with uncertainties and fail to acknowledge gaps in our knowledge/ understanding which need exploration – essential to the beginning a 'research lifestyle'

Cats are great explorers they get everywhere, and often cross territorial boundaries to the annoyance of their and other households who are very protective of their 'turf', it belongs to me, my work, my ideas, my ingenuity ... whatever. However, when we explore, we need to move beyond territorial boundaries and learn to work across these boundaries.

There are 2 sayings about cats – ‘curiosity killed the cat’ and ‘a cat has nine lives’ – both referring to the cats curiosity and desire for exploration which can result in dire consequences. As is seen clearly in medical history, when curiosity and exploration led to the overturning of existing theories and practices, there was disbelief, and many obstacles before the findings became the familiar common practice of today. However, like the cat, we too must continue to be curious and to explore so that we remain re-searchers – those who continue to search for answers – which is the fundamental feature of research.

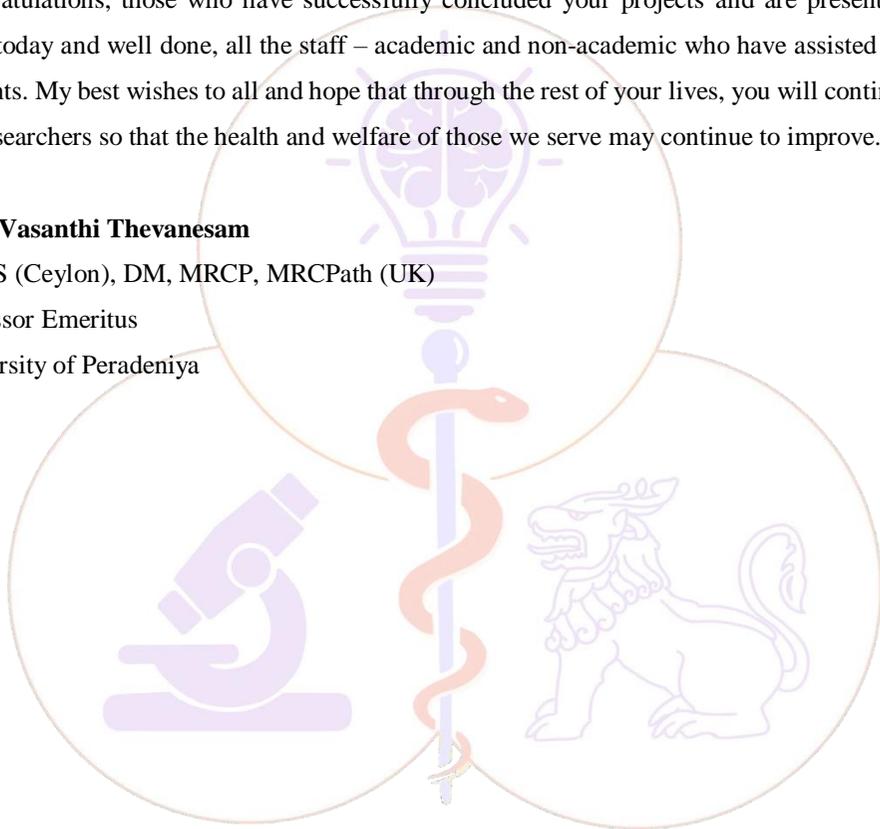
Congratulations, those who have successfully concluded your projects and are presenting them today and well done, all the staff – academic and non-academic who have assisted the students. My best wishes to all and hope that through the rest of your lives, you will continue as re-searchers so that the health and welfare of those we serve may continue to improve.

Prof. Vasanthi Thevanesam

MBBS (Ceylon), DM, MRCP, MRCPATH (UK)

Professor Emeritus

University of Peradeniya



MESSAGE FROM THE KEYNOTE SPEAKER

Prof. Anuja Premawardhana

Research and clinical medicine require fundamentally different skill sets. Many who enter medical practice often find themselves overwhelmed by demanding schedules—whether in clinical, academic, or other settings—relegating research to an afterthought.

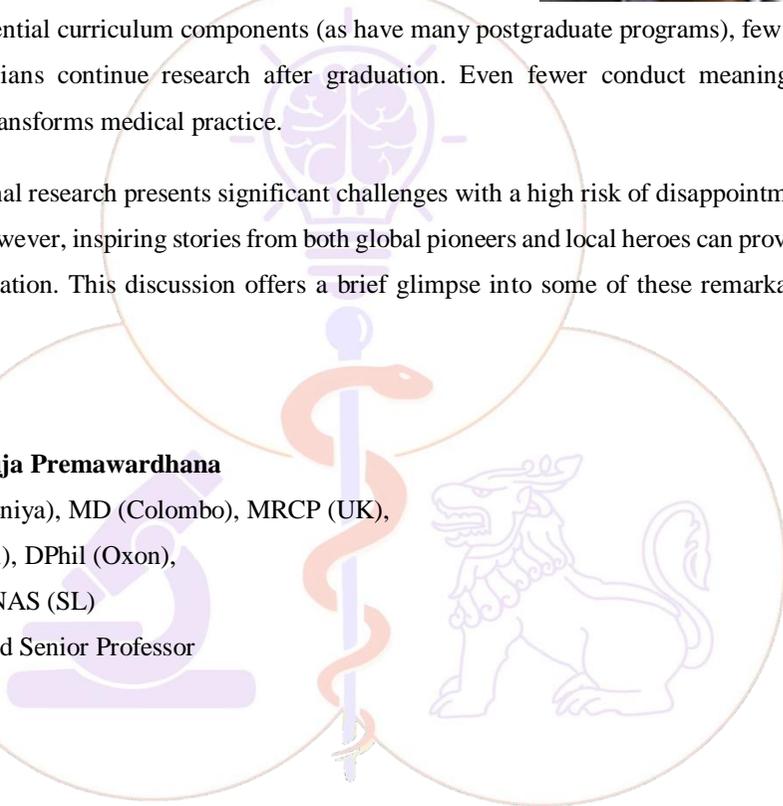


While Sri Lankan medical schools have incorporated research projects as essential curriculum components (as have many postgraduate programs), few Sri Lankan physicians continue research after graduation. Even fewer conduct meaningful research that transforms medical practice.

Pursuing original research presents significant challenges with a high risk of disappointment and failure. However, inspiring stories from both global pioneers and local heroes can provide valuable motivation. This discussion offers a brief glimpse into some of these remarkable journeys.

Professor Anuja Premawardhana

MBBS (Peradeniya), MD (Colombo), MRCP (UK),
FRCP (London), DPhil (Oxon),
FCCP (SL), FNAS (SL)
Cadre Chair and Senior Professor



Message from the Conference Chair

Prof. Samidi Navaratna

It is with great pride and enthusiasm that I extend my warmest greetings to all participants, contributors, and delegates of the 4th Peradeniya Medical School Annual Research Congress (PeMSARC'25). This congress serves as a vital platform for advancing research and innovation in the field of medicine, providing opportunities for both emerging and established researchers to showcase their work, exchange ideas, and foster collaborations that will shape the future of healthcare.



We are privileged to have Professor Vasanthi Thevanesam as our Chief Guest and Professor Anuja Premawardhena as our Keynote Speaker at PeMSARC '25. Their presence and the expertise they bring to this esteemed gathering are invaluable, and we deeply appreciate their commitment to medical research and education.

This year's congress is a testament to the dedication and perseverance of our students and faculty members in strengthening the research culture within the Faculty of Medicine, University of Peradeniya. The collaborative efforts between students and academic staff in organising PeMSARC '25 highlight the spirit of inquiry and teamwork, reinforcing the foundation for impactful medical research. As the Head of the Department of Community Medicine, I take immense pride in our department's pivotal role in shaping the research landscape within the Faculty of Medicine. Through the meticulous coordination of undergraduate research projects and other research-related modules, we strive to instil a passion for scientific inquiry among our students. Furthermore, the department has embraced the responsibility of leading PeMSARC as an integral initiative, nurturing a research-oriented mindset among future medical professionals.

I am deeply grateful to Dean, Professor Saman Nanayakkara, and all members of the Executive Committee of PeMSARC'25 for their tireless dedication and contributions, which have been instrumental in the success of this congress. It is truly inspiring to witness the enthusiasm and perseverance of our students and faculty in driving forward research excellence. I extend my sincere appreciation to all research supervisors, reviewers, examiners, and judges for their invaluable efforts in guiding and evaluating the scholarly works presented today.

We also gratefully acknowledge the generous support of the Kandy Society of Medicine (KSM) for awarding an Undergraduate Research Prize annually – an initiative that celebrates academic excellence and inspires young scholars to push the frontiers of scientific discovery. Special appreciation goes to PeMSAA-UK, whose generous sponsorship facilitated the successful pre-congress workshop, empowering our students with essential research skills. A heartfelt thank you goes to all those who submitted abstracts, enriching the academic dialogue of this congress. Your contributions continue to inspire and drive scientific progress.

As we embark on this journey of knowledge exchange and collaboration, I wish all participants a successful completion of PeMSARC '25, filled with meaningful discussions, discovery, and fellowship. May this congress ignite future research endeavours and strengthen the spirit of scientific inquiry among all. I warmly welcome you all to PeMSARC '25 and wish you an intellectually enriching and rewarding experience.

Professor Samidi Navaratna

MBBS, DCH, MSc, MD

Chairperson, PeMSARC '25

Head, Department of Community Medicine

Faculty of Medicine

University of Peradeniya

MESSAGE FROM THE SECRETARY

Dr. Sayuri Perera

As secretary, I am pleased to welcome you to this year's PeMSARC, a valuable repository of undergraduate research. This collection showcases the dedication, expertise and untiring efforts of our students who compiled this successful event amidst their ongoing undergraduate work.

Higher education institutions worldwide highly value research as a measure of success. To foster research competence among future professionals, universities are restructuring their curricula to enhance undergraduate research, which involves mentored undergraduate investigation or creative inquiry.

Research symposia based on undergraduate research provides a platform for students to showcase their research, receive feedback, and network with peers and academics within the university. Furthermore, events of this nature offer valuable experience for students, help them hone their research skills, and contribute to a broader understanding of their field of study.

Many congratulations to the young researchers who contributed towards making this conference rich with innovative scientific research.

We are also deeply grateful to the chief guest, Prof Vasanthi Thevanesam, Professor Emeritus, University of Peradeniya, our keynote speaker for the event, Prof Anuja Premawardhena, Senior Professor, University of Kelaniya as well as our Vice Chancellor, Prof Terrence Madhujith and other dignitaries for their invaluable presence here today.

My sincere and heartfelt wishes for a successful conference!

Conference Secretary

Dr. Sayuri Perera

Department of Psychiatry.

University of Peradeniya



MESSAGE FROM THE TREASURER

Dr. Thilanka Seneviratne

It is with great pleasure and a deep sense of pride that I extend my warmest congratulations to all contributors and participants of PeMSARC '25. Each research contribution reflects a journey of inquiry, perseverance, and a commitment to advancing knowledge across disciplines.



As Senior Treasurer, I have had the privilege of witnessing the extraordinary dedication and collaborative spirit that have brought this conference to life. The success of this event is a reflection not only of the quality of student research, but also of the strength of our academic community and the supportive environment in which it thrives.

I would like to express my sincere gratitude to our valued funders, without whose generosity this event would not have been possible. In particular, we extend our heartfelt thanks to PeMSAA UK for their generous financial support, which significantly contributed to the realization of this conference. We are equally grateful to the Dean and the Vice Chancellor for their timely facilitation and release of university funds, ensuring the smooth execution of all necessary preparations.

To our student researchers, faculty mentors, reviewers, and organizing team—thank you for your exceptional work and dedication. May this conference serve not only as a celebration of academic achievement, but also as a foundation for continued exploration, collaboration, and scholarly growth.

With sincere appreciation,

Conference Treasurer

Dr. Thilanka Seneviratne
Department of Pharmacology,
University of Peradeniya

MESSAGE FROM THE STUDENT CHAIR

Mr. Jude Melaka

It is with great humility and gratefulness that I pen my thoughts on PeMSARC 25', as the Student Chair for this conference. PeMSARC is an event that has become an indispensable part of the legacy of the Faculty of Medicine, University of Peradeniya, with its primary focus on enabling and encouraging the future of medical research and discovery.



With three conferences having been completed, it is quite important for me to state that a central reason for the success of this conference is the unimaginable foundation that has been built for us by the years before. It reminds me of Dwight D. Eisenhower saying that "Each generation stands on the shoulders of the one before it", in the same way we hope to build for those who will come once we are gone.

PeMSARC is a conference that brings together a variety of moving parts. From the undergraduates who form the bulk of the organising process, to the academic staff without whose guidance and wisdom this conference would not attain the standard that it has, to the rest of the working personnel of our faculty, whose contribution is vital to the success of this event, our community truly comes together to ensure the best possible experience for all those involved. And dare I say, that makes this conference one of the finest of its kind. We, those who call this faculty home, in the spirit of unity and curiosity are proud to present the 4th edition of Peradeniya Medical School Annual Research Conference 2025.

PeMSARC has become a beacon for the curious. And I hope it continues to light the way for those who wish to make their mark in the sphere of medical sciences. It is my belief that efforts of this kind will continue to stimulate the minds of those who witness it, paving the way for a future of discovery, innovation and breakthroughs, and ever climbing standards of our Faculty. In the end, as William Butler Yeats one said, "Education is not the filling of the pail, but the lighting of a fire". A fire that I hope will burn long and bright, in all of us, for years to come.

Mr. Jude Melaka

President of the Peradeniya Medical Undergraduates' Research Committee (PeMURC)
Student Chairperson, PeMSARC '25

PRE-CONGRESS WORKSHOP

PeMSARC '25

PeMSARC '25 Pre-Congress Workshop was held at the Faculty of Medicine, University of Peradeniya as a hybrid event on May 15, 2025, with the participation of more than 400 students. The session was aimed towards expanding the knowledge of students on scientific writing and research publication.

TIME	EVENT
13.30 PM	Welcome Address by Chairperson PeMSARC '25 <i>Prof. Samidi Navaratna</i>
13.32 PM	Address by the Dean Faculty of Medicine, University of Peradeniya <i>Prof. Saman Nanayakkara</i>
13.35 PM	Introduction for Session 1
13.40 PM	Session 1 Your Research, Your Journey <i>Prof. A. S. Abeyagunawardena</i>
14.10 PM	Introduction for Session 2
14.15 PM	Session 2 Low Cost, High Efficiency Research: A Practical Approach to Our Setting <i>Prof. S. A. M. Kularatne</i>
14.45 PM	Question and Answer Session
03.00 PM	Evening Tea
03.15 PM	Panel Discussions
	Use of Artificial Intelligence in Research <i>Prof. Roshan Ragel</i>
	Funding and Publishing in Research <i>Prof. Pradeepa Bandaranayake</i>
	Socioeconomic Inequality in Research <i>Prof. Dileep De Silva</i>
04.30 PM	Vote of Thanks by Student Chairperson PeMSARC '25 <i>Mr. Jude Melaka</i>

THEMATIC RESEARCH PRESENTATIONS

THE BURDEN OF RECURRENT WHEEZING AND ALLERGIC DISORDERS IN CHILDREN IN SRI LANKA

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Childhood allergic disorders are a very common group of clinical entities. This presentation is an attempt to highlight my contributions towards a concerted effort in trying to understand wheezing disorders in children and in a quest towards improving the management of those affected. Why some children develop allergies while others do not, is thought to be that a child, who is genetically predisposed, when exposed to the triggering environmental factors, could go on to develop allergic diseases. Exposure to chemicals and pollutants has been debated over the years as a causative factor in these conditions. In order to explore this, we conducted a study on preschool children in two estates; one using traditional methods of tea cultivation using agrochemicals as well as chemical fertilizer and the other using organic methods of farming. We concluded from the data that allergic conditions were more common in pre-school children with environmental exposure to agro-chemicals and chemical fertilizers when compared to that of organic cultivation systems. The findings were published in the journal of Allergy Asthma and Clinical Immunology in the year 2018. Being a country with an agriculture-based economy, a significant proportion of the families of Sri Lanka are closely involved with agriculture. We studied the incidence of asthma and allergic diseases in a group of preschool children growing in standard home gardens (SHG) and the others in improved home gardens (IHG) in a multi-disciplinary study which included three specialities, studying plant diversity, the nutritional intake of the children and the preschool diseases including allergic diseases. The results showed that the incidence of allergic diseases among the preschool children was not different in families with SHG compared to IHG, over the study period. The overall findings of the study were published in the journal *Frontiers in Sustainable Food Systems - Nutrition & Sustainable Diets* in 2019.

Epidemiology of allergic diseases

As country collaborators of The Global Asthma Network GAN, we conducted a study among school children in Kandy and in Anuradhapura. A total of 3673 children of 6–7 years and 4658 children of 13–14 years were recruited. When comparing these prevalence rates, there is a significant difference ($p < 0.05$) in the prevalence of childhood allergic diseases in the Kandy district. The findings were published in the journal of *Allergy asthma and clinical immunology* in 2022. With this study, we were able to bring our country into the world map of the prevalence of allergic diseases in the world for the first time.

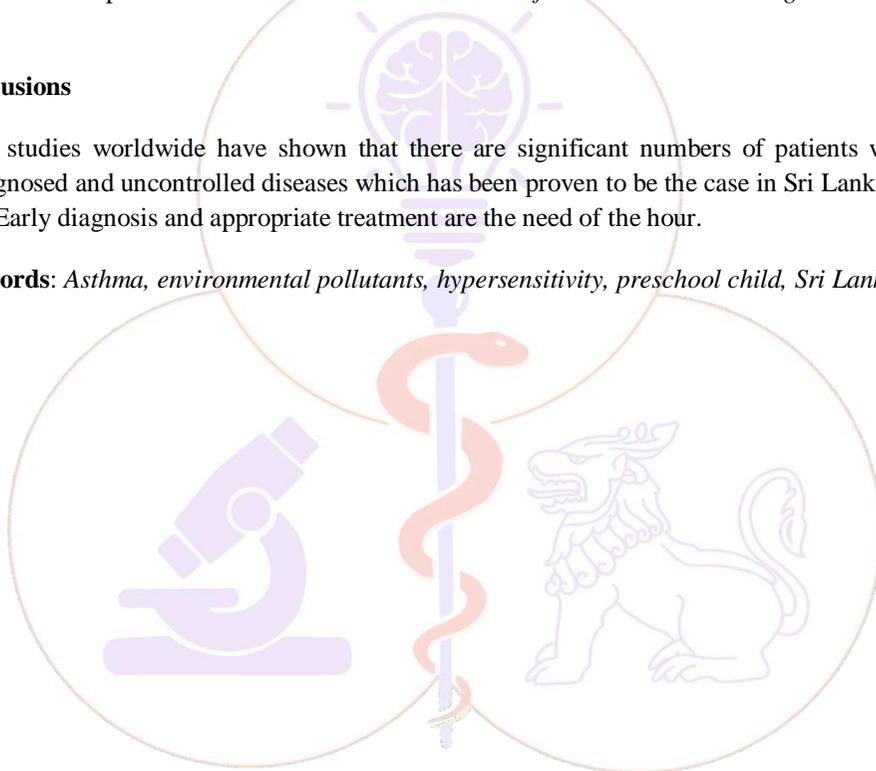
Management of allergic diseases

Due to various reasons, asthma control can vary from one region to another, and this was tested by an international study. Overall, 453 473 individuals from 63 centres in 25 countries were included. The findings of the study highlighted the fact that asthma management and control is frequently inadequate, particularly in low-resource settings like Sri Lanka. The findings were published in the journal *Lancet Global Health* in 2023. The study highlighted the fact that affordable and practical clinical standards are needed in the management of asthma in lower- and middle-income countries like Sri Lanka. In order to achieve this objective, a panel of experts in the field of asthma in LMICs were identified from the Global Asthma Network. Initial document prepared, underwent multiple rounds of revisions, and the final version was approved by consensus (100% agreement). Finally, 18 standards were laid down and were published in the *International Journal of Tuberculosis and Lung Disease* in 2023.

Conclusions

Many studies worldwide have shown that there are significant numbers of patients with undiagnosed and uncontrolled diseases which has been proven to be the case in Sri Lanka as well. Early diagnosis and appropriate treatment are the need of the hour.

Keywords: *Asthma, environmental pollutants, hypersensitivity, preschool child, Sri Lanka*



ANATOMICAL VARIATIONS IN A SRI LANKAN POPULATION - CLINICAL, FORENSIC, AND EVOLUTIONARY INSIGHTS

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Anatomical variations, deviations from standard anatomical descriptions, are critical for enhancing clinical practice, forensic science, and medical education, particularly in underrepresented populations. This abstract presents findings from cadaver-based studies in a Sri Lankan population, focusing on neurovascular, musculoskeletal, skeletal, and visceral variations, as documented in a series of publications from 2016 to 2024. These studies, primarily conducted at the University of Peradeniya, employed meticulous dissection and morphometric analysis to establish population-specific anatomical data, addressing a gap in South Asian anatomical references.

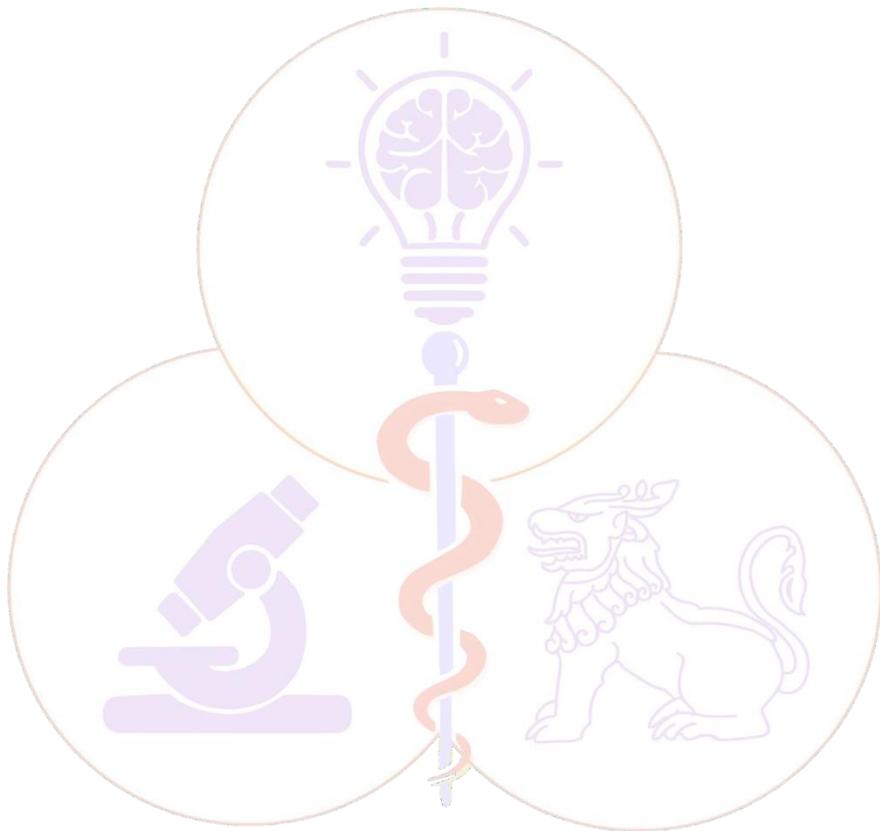
Neurovascular variations include diverse branching patterns of the brachial artery and radial artery origins, as reported in studies like Abeywardhana et al. (2019), which inform vascular surgical approaches. Similarly, the superficial ulnar artery's unusual course (Wickramarathna et al., 2016) and left vertebral artery arising from the aortic arch (Amaratunga et al., 2017) highlight critical considerations for endovascular procedures. Musculoskeletal variations, such as the absence of palmaris longus (Herath et al., 2016) and morphological diversity of peroneus tertius (Kosgallana et al., 2021), impact reconstructive surgery and biomechanical assessments. The high division of extensor digitorum longus (Eshwara et al., 2019) further underscores implications for lower limb surgeries.

Skeletal variations, notably humerus and femur morphometrics, are pivotal for forensic sex determination. Dissanayake et al. (2019) demonstrated humerus morphology's utility in identifying sex in Sri Lankan populations, while an unpublished study on femoral morphometrics (Dissanayake et al.) integrates quantitative and qualitative analyses for enhanced forensic accuracy. Cranial variations, including pterion morphology (Disanayake et al., 2020) and mental foramen positioning (Nanayakkara et al., 2018), are vital for neurosurgical planning and dental procedures, respectively.

Thoracic and visceral anomalies, such as abnormally positioned brachiocephalic arteries (Herath et al., 2016) and sub-hepatic appendix (Ekanayaka et al., 2016), pose diagnostic and surgical challenges, emphasizing the need for preoperative imaging. Pulmonary fissure variations (Ekanayaka et al., 2019) and inferior mesenteric artery dominance (Kosgallana et al., unpublished) further inform thoracic and colorectal surgical strategies. The suprascapular neurovascular bundle's relationship to its ligament (Nasim et al., 2016) has implications for managing entrapment syndromes.

These findings enhance surgical precision, diagnostic accuracy, and forensic identification while enriching medical curricula with population-specific data. They contribute to safer clinical interventions by providing baseline anatomical references for Sri Lankans, reducing complications in procedures like neurosurgery and vascular grafting. Future research should expand sample sizes, incorporate digital 3D modelling, and develop virtual reality training modules to translate these insights into clinical practice and education. By addressing global anatomical database gaps, these studies underscore the importance of regional anatomical research for advancing healthcare and forensic science in South Asia.

Keywords: *Anatomical variations, cadaveric dissection, forensic anthropology, population-specific anatomy, surgical planning*



MULTIMODAL APPROACH TO IMPROVING THE OUTCOME OF PATIENTS WITH PREECLAMPSIA

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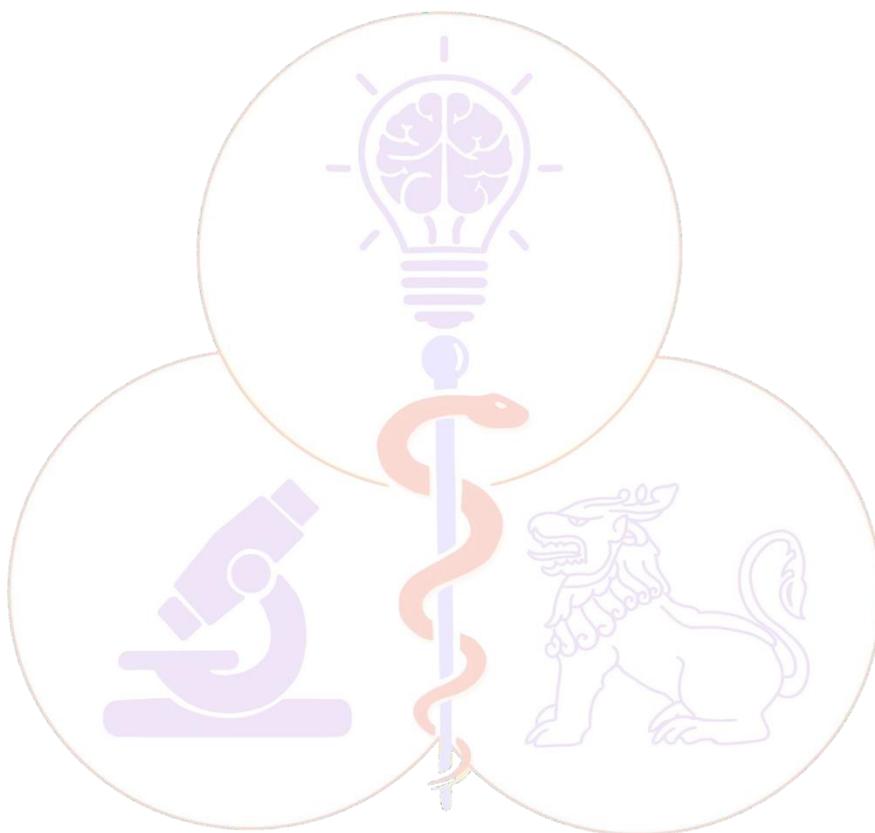
Hypertensive disorders of pregnancy (HDP), including preeclampsia are among the top five causes of maternal deaths worldwide. Importantly, early detection and timely interventions are the key mechanisms to prevent adverse complications from preeclampsia. The overall goal of this project is to establish patient related factors and clinical biomarkers that may enable early identification of pregnant women at risk of developing preeclampsia, with the ultimate intention of paving the way for implementing management strategies that would improve the outcome. There are two broad aims to this project. A descriptive cross-sectional study to assess the knowledge, attitude, and practices (KAP) of pregnant women on HDP and a prospective longitudinal study to evaluate markers of endothelial function, brachial artery flow-mediated dilation (FMD) and serum soluble endoglin (sEng) as potential bio-physiological markers of risk of developing preeclampsia.

A total of 384 pregnant women with a mean age of 31 ± 5 years and median period of amenorrhea of 25 weeks (IQR:15-32) completed an interviewer administered questionnaire that assessed the knowledge, attitude and practices on HDP. In the study population, 78% were educated above GCE A/Ls, however, only 42% were employed. The mean knowledge score was 85%, however, only 46% had knowledge on all red flag symptoms of preeclampsia. Although 100% had a positive attitude, only 22% adhered to good practices. The proportion of women with good knowledge was greater in those who were educated up to or above A/Ls (78% vs 60%; $p=0.001$), and in those with a monthly income above Rs.60,000 (79% vs 63%; $p=0.001$). Demographic variables showed no statistically significant correlation with practices or attitudes. This study identified a considerable gap between knowledge and practices despite positive attitudes among pregnant women regarding HDP. Developing targeted health education programs to improve knowledge and addressing factors for not adhering to good practices may help improve the outcome of HDP.

As the next step, pregnant women diagnosed with gestational hypertension will be recruited during early third trimester to evaluate brachial artery FMD and serum sEng values as early bio-physiological markers of preeclampsia, which will be carried out for the first time in Sri Lanka. All patients will be followed up until delivery for preeclampsia. Comparisons in FMD and sEng will be made between women who progress to preeclampsia and those who do not, and the utility of these parameters in predicting preeclampsia will be explored. The correlation between FMD and serum sEng will also be assessed with the intention of assessing the possibility of using FMD as a potential non-invasive predictive measure of preeclampsia since serum tests like sEng are costly and invasive. FMD test would be helpful in low- and middle-income countries to predict preeclampsia early where expensive invasive biomarker assays are not routinely available. Early, objective identification of those likely to progress

to preeclampsia would allow the healthcare team and the patient herself to be prepared; the morbidity/mortality associated with the condition could be minimized by taking early management steps. All these findings will guide obstetric policy making and improving clinical practice in Sri Lanka.

Keywords: *Endoglin, maternal death, pre-eclampsia, pregnancy induced hypertension, Sri Lanka*



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OP – 04	<p>KNOWLEDGE AND ATTITUDES ON CHILDHOOD IMMUNIZATION AMONG MOTHERS AT A SPECIALIZED CHILDREN'S HOSPITAL IN SRI LANKA: A CROSS-SECTIONAL STUDY</p> <p><u>Ranasinghe RAPGS*</u>, Liyanage SCM, Wijerathna MGKK, Gangulani APCN, Senarathna HMNC, Jayaweera AHM</p>
OP – 05	<p>PSYCHOLOGICAL WELL-BEING OF CHILDREN WITH TRANSFUSION-DEPENDENT BETA THALASSAEMIA AND THEIR CAREGIVERS FOLLOWED UP AT TEACHING HOSPITAL, PERADENIYA, SRI LANKA</p> <p><u>Dhananjana DLS*</u>, Charuka MM, Gunathilake MDPH, Rinchen, Senthura S, Krishnapradeep S</p>

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OP – 05	<p>THE ASSOCIATION BETWEEN ANTHROPOMETRIC MEASUREMENTS AND NON-ALCOHOLIC FATTY LIVER DISEASE IN PATIENTS ATTENDING NATIONAL HOSPITAL KANDY AND TEACHING HOSPITAL PERADENIYA FOR ABDOMINAL ULTRASOUND SCAN</p> <p><u>Rashard MNM</u>, Dissanayake HS*, Nissanka NASPP, Dilanjali WA, Dilhan SK, Gawarammana IB</p>

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OP – 05	<p>ASSESSING POST- MENOPAUSAL OSTEOPOROSIS RELATED KNOWLEDGE AMONG FEMALE NON-ACADEMIC STAFF OF FACULTY OF MEDICINE, UNIVERSITY OF PERADENIYA</p> <p><u>Kumbalathara KAD*</u>, Bandara WMALW, Wangmo C, Dhananjaya WTR, Denipitiya DLSD, Peiris SPM</p>

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OP – 02	<p>KNOWLEDGE, ATTITUDES, PRACTICES ON RABIES AND ITS POST-EXPOSURE MANAGEMENT AMONG ATTENDEES OF OUTPATIENT DEPARTMENT, NATIONAL HOSPITAL KANDY</p> <p><u>Sewwandi IDS*</u>, Alahakoon SI, Arafath AJM, De Silva HVM, Dharmasena DGGI, Navarathna S</p>
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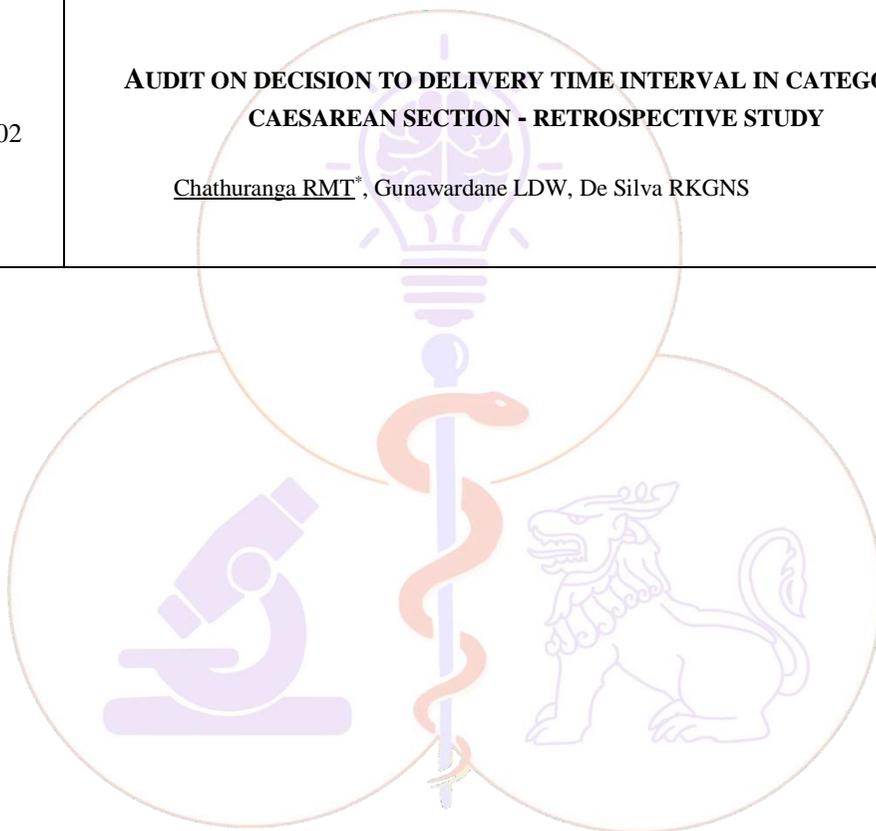
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ORAL PRESENTATION ABSTRACTS - SESSION 1A

OP – 01

**IMPACT OF USAGE OF PROTECTIVE GEAR ON THE SEVERITY OF
INJURIES SUSTAINED BY MOTORCYCLE RIDERS IN KANDY DISTRICT OF
SRI LANKA**

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Introduction: Road traffic accidents are rising globally, increasing risk of fatalities. Motorcycles, widely used in these regions, including Sri Lanka, pose serious public health risks. Understanding factors influencing injury severity and assessing the protective gear use is crucial to enhancing rider safety.

Objectives: This study aimed to assess the use of safety equipment, the body areas most impacted by the lack of protective gear, the relative reduction in injury severity and injury outcomes among motorcyclists who were and were not wearing appropriate protective gear at the time of the crash, as well as the severity of injuries sustained.

Methods: A cross-sectional analytical study recruited 432 motorcyclists around the Kandy district, Sri Lanka. An interviewer-based questionnaire assessed objectives. Data was analysed using IBM SPSS software.

Results: In our study population, 87.3% always wore helmets, 21.8% wore jackets, 12% wore sunglasses, 7.6% wore boots/shoes, and 2.5% wore gloves. Among motorcyclists who sustained injuries during an accident, 56.1% had non-grievous injuries, 40% had grievous injuries, 2.5% had endangering life type injuries, and 1.4% had fatal in ordinary course of nature type injuries. Motorcyclists were more likely to sustain injuries if they crashed while not wearing helmets (OR=0.355, CI=0.071 – 1.761), jackets (OR=0.406, CI=0.257-0.640), boots (OR=0.372, CI=0.189-0.733), and gloves (OR=0.351, CI=0.151 – 0.814). There was a significant increase in injury severity if they were not wearing helmets (p<0.001), jackets (p=0.001), boots (p=0.007), and gloves (p=0.034).

Conclusions: The majority of participants wore helmets, jackets, and eye protection, while other gears such as shin and elbow guards were often neglected. Over two-thirds of riders had at least one accident, mostly resulting in non-grievous injuries. Wearing helmets, jackets, boots, and gloves significantly reduces both injury risk and severity. The most impacted areas due to the lack of protective gear, in descending order, were the torso, upper limbs, hands, feet, and head.

Keywords: *Injuries, injury severity, motorcycle riders, protective gears*

OP – 02

BARRIERS TO ACCESSING HEALTHCARE SERVICES OF PATIENTS PRESENTING TO THE OUTPATIENTS DEPARTMENT, NATIONAL HOSPITAL, KANDY

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Introduction: Facilitating barrier-free access to public institutions is important so that the public can obtain services without hindrance and dependence. This becomes especially important in hospitals where patients are already in a compromised state.

Objectives: To identify barriers that patients encounter when accessing services at the Outpatients' Department (OPD) of the National Hospital, Kandy (NHK).

Methods: Interviewers administered a questionnaire to 384 first-visit patients presenting to the NHK's Outpatients' department. Data was analyzed using descriptive statistics.

Results: Forty-two percent of patients were aged 40–60, 27% were employed, and 71% earned less than 50,000 LKR monthly. From home to hospital 81% used public transportation with a mean travel time of one hour and an average transport cost of 300 LKR. Within the hospital, 39% struggled with the entrance incline due to physical disabilities, 51% did not use special bus services due to unavailability (10%) or unawareness (20%), 28% had trouble locating the OPD, 44% found signposts unclear, and 15% struggled with signpost language. Only 15% found the information retrieval center helpful. Within the OPD, 83% faced long queues, 66% reported inadequate seating, 55% noted poor ventilation, 69% were unable to find washrooms, and 48% needed assistance. Social barriers prevented 44% from accessing healthcare, mainly due to financial issues (16%), work leave difficulties (11%), and household responsibilities (38.5%).

Conclusions: A Majority of patients experienced physical and communication barriers within the hospital. They also experienced social and financial challenges in accessing services.

Keywords: *Barriers, health care, national hospital, outpatients' department*

OP – 03

EXPECTATIONS AND PERCEPTIONS REGARDING THE CONDUCT OF DOCTORS AMONG PATIENTS ATTENDING A TERTIARY CARE HOSPITAL IN COLOMBO

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Introduction: Doctors meeting patients' expectations have been shown to influence patients' perceived quality of care, their health-related behaviour and outcomes.

Objectives: To describe patients' expectations, perceptions and the associated factors on conduct and practices of doctors in a tertiary care hospital in Colombo.

Methods: A descriptive cross-sectional study was conducted among patients attending medical clinics in the National Hospital of Sri Lanka selected by convenient sampling. Data was collected using an interviewer-administered questionnaire, covering demographics, ratings for doctors' conducts in four settings (outpatient clinic, ward, theatre, emergency unit), and perceptions of doctors' attire. Analysis was performed using descriptive statistics and Chi-square tests in SPSS-27.

Results: Among 125 participants, 86.4% (n=108), considered competence in diagnosis and treatment to be very important across all healthcare settings. The conduct rated least important by most participants was obtaining consent (40.0%, n= 50). It had significant association with the number of previous clinic visits ($p<0.005$). Majority deemed friendliness (76.6%, n=96), educating about the condition (76.8%, n=96) and treatments (70.4%, n=88), avoiding medical terms (71.8%, n=90), being respectful (67.6%, n=85), showing empathy (66.2%, n=83), punctuality (63.2%, n=79), having a good handwriting (58.8%, n=74) and dressing appropriately (57.8%, n=72) as very important in all settings. Formal attire was most accepted for both male (92.8%, n=116) and female (95.2%, n=119) doctors. Patient gender significantly influenced expectation of appropriate attire ($p<0.005$) while household income was significantly linked to expecting punctuality ($p<0.005$).

Conclusions: Competence was highly valued by the majority. Obtaining consent was largely overlooked, though it correlated significantly with the number of prior clinic visits. Formals were the most accepted attire, with expectations for appropriate attire being significantly associated with the patient's gender. Socio-demographic variations exist in expectations and perceptions of doctors' conduct, warranting larger studies to explore this issue further.

Keywords: *Conducts of doctors, expectations of patients, perceptions of patients, , practices of doctors*

ASSESSING PATIENT ATTITUDES TOWARDS MEDICAL STUDENTS DURING CONSULTATIONS AND PROCEDURES AT THE NATIONAL HOSPITAL, KANDY

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Introduction: Patient attitudes towards medical undergraduates, influenced by cultural, socioeconomic, and communication factors, significantly impact medical education and patient care.

Objectives: The objective of the study was to assess patient attitudes toward medical students during consultations and procedures at the National Hospital, Kandy.

Methods: This descriptive cross-sectional study was conducted at the Gynaecology, Obstetrics, General Medicine, and General Surgery wards at the National Hospital, Kandy. Using systematic random sampling, 424 patients were selected. Data were collected via a pre-tested, self-administered questionnaire, covering socio-demographic details and patient attitudes and analyzed using IBM SPSS Statistics version 27.

Results: Among the 409 study participants, a majority (387, 94.6%) accepted the presence of medical students during their consultations, with 95.0% of females and 94.7% of males agreeing. A 100% acceptance rate was observed among patients over 71 years and of Tamil ethnicity. Regarding the sharing of personal health details with medical students under doctor supervision, 383(93.6%) were willing, with similar gender differences. Age and ethnicity trends followed a similar pattern, with 100% acceptance among the oldest patients and Tamil patients. Even without doctor supervision, 381(93.2%) were willing to share health details, with minimal gender differences. Muslim patients showed the lowest willingness at 79.5%, while 64.3% allowed medical students to observe while the doctor examines them regardless of the student's gender and the body part being examined. This study showed that 58.0% of females and 72.0% of males were willing to allow observations. Ethnically, 74.5% of Tamil patients were willing to allow observations. Additionally, 63.1% of participants are willing to allow medical students to perform physical examinations under a doctor's supervision.

Conclusions: This study revealed a positive attitude with most patients showing a willingness to allow medical students to perform history taking and medical examinations. However, cultural sensitivity and gender considerations must be prioritized, especially during physical examinations.

Keywords: *Clinical examination, history taking, medical students, patient attitudes*

OP – 05

NORMATIVE BONE MINERAL DENSITY REFERENCE VALUES FOR THE HIP AND LUMBAR SPINE IN A SELECTED SRI LANKAN ADULT POPULATION

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Introduction: Absence of normative bone mineral density (BMD) data for Sri Lankans has necessitated reliance on Caucasian references, potentially misestimating BMD.

Objectives: To address this, the study aims to establish age-related BMD trends in Sri Lankans for optimal bone health management.

Methods: This retrospective, correlational study analyzed data from 11,925 patients (4,549 men, 7,376 women) aged 20–80, who underwent lumbar spine and hip scans during preventive health check-ups at five private healthcare institutions in the Western Province (2015–2024). Subjects with conditions affecting bone metabolism were excluded. BMD measurements were obtained from Hologic Dual X-ray absorptiometry (DXA) scanner, and demographic and clinical details were collected via a standardized questionnaire. Subjects were grouped into age decades.

Results: Across all age categories, men demonstrated higher BMD than women. Compared to Caucasian references, Sri Lankan BMD values were significantly lower, except in elderly men and peri/post-menopausal hips of women. Peak lumbar total BMD was observed in 31–40 age category in both sexes. In women, lumbar BMD declined significantly after 41–50, reaching its lowest at 71–80. In men, BMD declined after 31–40 but increased significantly after 60. Hip BMD showed a notable decline in both sexes after 50. Spinal BMD correlated positively with weight ($r = 0.47$) and height ($r = 0.39$) ($p < 0.001$). In postmenopausal women, BMDs were negatively correlated with years since menopause ($r = -0.46$ (spine), $r = -0.39$ (left hip), $r = -0.44$ (right hip), $p < 0.001$). Among women, 41–50 age category showed the strongest correlation between weight and hip BMD ($r = 0.52$ (left), $r = 0.49$ (right), $p < 0.001$).

Conclusions: Findings establish normative BMD values for Sri Lankans, revealing age-related trends and significant deviations from Caucasian reference values in both sexes.

Keywords: BMD, DXA, healthy population, normative, Sri Lanka

ORAL PRESENTATION ABSTRACTS - SESSION 1B

OP – 01

MOTHERS' KNOWLEDGE AND APPLICABILITY OF BREASTFEEDING SUCCESS INDICATORS AND THEIR ASSOCIATION WITH POSTNATAL WEIGHT GAIN IN INFANTS AT A TERTIARY CARE SETTING IN PERADENIYA.

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Introduction: Successful initiation of breastfeeding is essential to ensure the growth and development of children. The clinical indicators used to assess breastfeeding initiation have limited research on their validity. This study focuses on four indicators of initiation of breast feeding: urine output, meconium colour change, contralateral let down reflex and sleep duration after feeding.

Objectives: To assess maternal awareness and the predictive value of clinical indicators for successful breastfeeding initiation in relation to neonatal weight gain in the first two weeks.

Methods: A descriptive cross-sectional study was conducted with 220 mother-neonate pairs at a well-baby clinic in Peradeniya, Sri Lanka, during postnatal check-ups at two weeks. Data were collected using a self-administered questionnaire and analysed with IBM SPSS software version 29.

Results: Most mothers knew about optimal urine output (82.7%), sleep duration (84.1%), and let-down reflex (65.5%), but only 39.1% knew stool colour change. Significant associations were found between urine output ($p=0.001$) and the contralateral let-down reflex ($p=0.045$) with postnatal weight gain. Better weight gain was linked to >6 urine outputs/day (OR = 13.16), stool colour change by day five (OR = 2.91), and let-down reflex (OR = 2.76). Sleeping ≥ 2 hours after a feed reduced weight gain (OR = 0.48).

Conclusions: The study highlights that while many mothers are aware of key breastfeeding indicators, gaps in knowledge remain across all education levels and parity. Regular urine output, timely stool colour change, and the let-down reflex were linked to higher odds of weight gain, while sleeping ≥ 2 hours reduced the odds. A significant association was found between optimal urine output and the contralateral let-down reflex with acceptable weight gain.

Keywords: *Breastfeeding initiation, clinical indicators, neonate, postnatal weight gain*

OP – 02

EVALUATING VACCINE COMPLIANCE AND PARENTS' KNOWLEDGE AND PERCEPTIONS TOWARD CHILDHOOD IMMUNIZATION IN A MEDICAL OFFICER OF HEALTH AREA

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Introduction: The Expanded Program on Immunization (EPI) aims to reduce morbidity and mortality from vaccine-preventable diseases. Despite Sri Lanka's high immunization coverage, vaccine hesitancy and delays persist, compromising herd immunity.

Objectives: This study aimed to evaluate vaccine compliance, knowledge, perceptions, and beliefs towards childhood immunization among parents with children equal to or less than five years old in the Doluwa Medical Officer of Health (MOH) area in, the Kandy district of Sri Lanka.

Methods: A cross-sectional study was conducted among parents attending well-baby and vaccination clinics in randomly selected Public Health Midwife (PHM) areas in the Doluwa MOH area. Data was collected using an interviewer-administered questionnaire and Child Health Developmental Records. Data analyzed using IBM SPSS Statistics version 27. Cluster sampling was employed, with each PHM area considered a cluster. Seven out of 18 clusters were selected to represent the study population. All eligible participants presenting to the clinic on the day of data collection were considered.

Results: The study involved 176 parents, comprising 169 mothers, 6 fathers and 1 legal guardian. The mean age of participants was 31 years. All participants were vaccinated their children, and 129 (73.3%) participants have given all the vaccines on time without delay. Forty-seven (26.7%) parents reported vaccination a delay, primarily due to child illness (23.4%). A significant association was found between the child's age and vaccination delay (OR = 1.045, 95% CI = 1.02–1.07). All participants obtained vaccines from the government sector. A majority (96.6%) had positive attitudes towards EPI, citing the high responsibility of the government sector (76.7%). The main source of information was PHMs, who were highly trusted with a mean trust score of 4.95 out of 5 on a Likert scale. Education level and ethnicity were significantly associated with parents' knowledge of vaccinations ($p < 0.05$). Most participants (72%) were unaware of additional vaccines offered by the private sector, and the majority (88.6%) preferred vaccinating their children over natural immunity. While parents exhibited good knowledge on vaccination, there was a notable gap in understanding the specific diseases prevented by vaccines. Only eight (4.5%) had misconceptions regarding the primary purpose of childhood vaccination.

Conclusions: Despite high vaccine coverage, delays persist, highlighting areas for improvement. Strengthening PHMs' communication strategies can enhance timely vaccination and address knowledge gaps.

Keywords: *Child Immunization, immunization knowledge, Sri Lanka, vaccine compliance*

CONGENITAL ANOMALIES OF KIDNEY AND URINARY TRACT (CAKUT); A SINGLE CENTER BASED DESCRIPTIVE ANALYSIS

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Background: Congenital Anomalies of Kidney and Urinary Tract (CAKUT) are embryonic disorders which give rise to a spectrum of defects in the kidney and outflow tract. These anomalies can range from asymptomatic to chronic kidney disease (CKD). These can be detected during antenatal screening.

Objectives: This study was designed to analyze the CAKUTs of patients attending the paediatric nephrology clinic and ward of the Teaching Hospital, Peradeniya (THP), their associated anomalies, their risk factors, and their relationship with renal impairment.

Methods: This was conducted as a cross-sectional study in which data was collected using an interviewer-administered questionnaire. After interviewing 228 participants, collected data was entered into a Microsoft Excel spreadsheet IBM SPSS Statistics version 26 was used to analyze the data. To ascertain the statistical relationship between various congenital anomalies and the development of renal impairment, Chi-squared test was used.

Results: All the participants were in 0-16 years range where 75.9% were males and 24.1% were females. The commonest CAKUTs were Vesico-Ureteral Reflux (VUR) (28.1%), Pelvi-Ureteric Junction Obstruction (PUJO) (23.2%), Posterior Urethral Valves (PUV) (21.5%), and Dysplastic Kidneys (14.9%), respectively. The majority of the patients had no other co-existing congenital anomalies (85.53%). Among 51.31% of patients, the disease condition was associated with risk factors. Low birth weight, which affected 46.15%, was the most common risk factor. The p-value obtained regarding the relationship between various CAKUT types and development of CKD was 0.001 (<0.05).

Conclusions: This study was able to find out the commonest types of CAKUTs, commonest genetic and non-genetic risk factors and co-occurrence between other congenital anomalies and CAKUT. A significant relationship between the CAKUT type and degree of renal impairment was found. Hence proper monitoring for risk factors was determined to be vital.

Keywords: *Chronic Kidney Disease (CKD), Congenital Anomalies of Kidney and Urinary Tract (CAKUT), Pelvi-Ureteric Junction Obstruction (PUJO), Posterior Urethral Valves (PUV), Vesico-Ureteral Reflux (VUR)*

OP – 04

KNOWLEDGE AND ATTITUDES ON CHILDHOOD IMMUNIZATION AMONG MOTHERS AT A SPECIALIZED CHILDREN'S HOSPITAL IN SRI LANKA: A CROSS-SECTIONAL STUDY

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Introduction: As in the guidelines of the Sri Lanka Medical Association, childhood immunization stands as one of the fundamental pillars of primary healthcare. This approach is widely recognized as highly effective in safeguarding individuals against a range of infectious diseases that are preventable through vaccination. As Mothers are primary caregivers it's important to assess the knowledge and attitudes towards immunization.

Objectives: This descriptive cross-sectional study was conducted to assess the knowledge and attitude of mothers who are attending the immunization clinic in Sirimavo Bandaranaike specialized children's hospital (SBSCH), regarding childhood immunization program. Additionally, we aimed to find the associations between knowledge and attitudes of the mothers and the socio demographic characteristics of the study participants including the age, ethnicity, religion educational level, occupation, number of children and the monthly income of the family.

Methods: Data was collected via a researcher administered questionnaire from mothers who attended the immunization clinic at SBSCH, Peradeniya. Then the data was entered into a google form then into an Excel sheet and the software package SPSS version 26 was used for the descriptive statistical data analysis. Pearson Chi-Square test was used to analyze the associations between categorical variables.

Results: The mean knowledge score of mothers was 58%. Nearly (75%) of study sample (189) had a positive attitude towards vaccines and vaccination. Associations between knowledge on childhood vaccination and mothers' level of education, ethnicity and monthly income, were found to be statistically significant. Also, associations between attitude on childhood vaccination and mothers' education level, ethnicity and monthly income, were found to be statistically significant.

Conclusions: Overall knowledge of the study sample was satisfactory. Majority of them (68.25%) had a knowledge score above the satisfactory level. Their attitudes towards childhood vaccination were Salmost 75% and this is encouraging.

Keywords: *Attitude, childhood immunization, knowledge, mothers, Sri Lank*

PSYCHOLOGICAL WELL-BEING OF CHILDREN WITH TRANSFUSION-DEPENDENT BETA THALASSAEMIA AND THEIR CAREGIVERS FOLLOWED UP AT TEACHING HOSPITAL, PERADENIYA, SRI LANKA

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Introduction: Thalassemia is a hereditary blood disorder that necessitates frequent blood transfusions. The psychological effects on children with transfusion-dependent thalassemia and their caregivers vary and are not fully understood.

Objectives: To assess the prevalence and severity of psychological problems among children with transfusion-dependent beta thalassemia, identify associated risk factors, and evaluate the psychological well-being of their caregivers.

Methods: This study was conducted at the Paediatric Unit of the Teaching Hospital Peradeniya, Sri Lanka with participants including children diagnosed with transfusion-dependent beta thalassemia and their caregivers. The Strengths and Difficulties Questionnaire (SDQ) was used to measure psychological outcomes in children, while the Depression Anxiety Stress Scales (DASS-21) assessed caregiver well-being.

Results: A total of 45 children (aged 2 to 16 years) participated in the study, comprising 19 males and 26 females. Most children (75.6%) demonstrated normal psychosocial health parameters, while high scores were noted in the hyperactivity (82.2%) and the prosocial behaviour domains (91.1%). A considerable proportion of children showed abnormal scores in the emotional symptoms' domain (22.2%) and the peer problems domain (26.7%). Parental assessments using the DASS-21 revealed normal levels of depression and anxiety in 44.4% of parents and normal stress levels in 56.5%. Nonetheless, moderate levels of depression, anxiety, and stress were also common. Severe to extremely severe scores were reported in smaller proportions, particularly in the depression (15.6%) and anxiety (22.2%) domains. Correlation analysis between SDQ scores and DASS-21 scores showed a moderate positive relationship (Pearson correlation coefficient = 0.351, $p = 0.018$), suggesting that better psychological well-being in children with thalassemia is moderately associated with better mental health in their parents.

Conclusions: Although some children with transfusion-dependent thalassemia experience emotional and behavioural challenges, the majority exhibit normal psychosocial health. Ongoing psychosocial support and caregiver education is vital to improving the quality of life for both children and their families.

Keywords: *Caregivers, psychological wellbeing, thalassemia*

ORAL PRESENTATION ABSTRACTS - SESSION 1C

OP – 01

KNOWLEDGE, ATTITUDES, AND PRACTICES TOWARDS LONG-TERM MEDICATIONS AMONG ADULT PATIENTS ATTENDING MEDICAL CLINICS AT A TERTIARY CARE HOSPITAL

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Introduction: Long-term medications are crucial for managing chronic illnesses, preventing complications, and reducing mortality. Adherence to long-term medications is key in managing chronic illnesses, and poor health literacy leads to adverse health effects.

Objectives: This study evaluates adult patients' knowledge, attitudes, and practices regarding prescribed drugs at Teaching Hospital Peradeniya, examining their understanding, adherence, and relationship with education or socioeconomic status.

Methods: A cross-sectional descriptive study was conducted at a medical clinic, Teaching Hospital Peradeniya, recruiting 396 patients all of whom received the same health education. An interviewer-administered questionnaire was used to assess knowledge, attitudes, and practices toward prescribed long-term drugs and aggregated scores were compiled. Associations with educational, income, and employment status were analysed using one-way ANOVA and Kruskal Wallis's H tests. Among 396 participants, 264 were females (66.7%), and the mean age was 62.77. A majority (68%) were unemployed, with a monthly income below Rs. 100,000 (57.8%). Most were educated up to Ordinary levels (76%). The majority had good attitudes (98.7%) and practices (89.1%). However, knowledge scores (27.3%) were lacking. Medication identification was primarily by appearance (37.37%) and frequency of intake (32.32%). Most lacked compliance because of housework (32.3%). A significant positive association of knowledge scores with education ($P<0.001$), income ($P<0.001$), and employment status ($P=0.045$) was noted. Only practice scores were positively associated with educational level ($P<0.01$).

Results: The mean knowledge score of mothers was 58%. Nearly (75%) of study sample (189) had a positive attitude towards vaccines and vaccination. Associations between knowledge on childhood vaccination and mothers' level of education, ethnicity and monthly income, were found to be statistically significant. Also, associations between attitude on childhood vaccination and mothers' education level, ethnicity and monthly income, were found to be statistically significant.

Conclusions: The study found that despite low knowledge, the patients had good attitudes and practices. Higher education levels, employment statuses, and household income correlated with better knowledge scores. Therefore, awareness programs to improve health literacy and targeted interventions for vulnerable groups and promoting strong doctor-patient relationships will further improve adherence to long-term medications.

Keywords: *Health literacy, long-term medications, medication adherence, medication identification, missed doses, prescribed drugs*

EVALUATION OF PERIODIC PREVALENCE OF URINARY TRACT INFECTIONS, RESPIRATORY TRACT INFECTIONS, AND SKIN INFECTIONS AMONG DIABETIC PATIENTS WHO ARE BEING TREATED WITH INSULIN VERSUS ORAL ANTIDIABETIC DRUGS

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Introduction: Diabetes Mellitus (DM) is a common metabolic disorder globally, including in Sri Lanka, predisposing patients to life-threatening infections due to complications and immunosuppression. However, limited data exist on the relationship between infection prevalence and different diabetes medications in Sri Lanka. Understanding this association is crucial for optimizing treatment strategies and improving patient outcomes.

Objectives: This study estimated the one-year prevalence of respiratory tract infections (RTI), urinary tract infections (UTI), and skin and soft tissue infections (SSTI) among the diabetic patients on oral antidiabetic drugs (OAD) alone and on adjunctive insulin therapy.

Methods: A cross-sectional study was conducted at the Teaching Hospital Peradeniya and Kandy, recruiting 415 diabetic patients via convenient sampling. Data was collected using an interviewer-administered questionnaire and clinical records. Infection prevalence and its association with medication type were analyzed using Pearson's chi-square test.

Results: Insulin users had a longer mean diabetes duration (14.85 ± 9.40 years) than OAD users (11.22 ± 7.82 years). Hypertension (insulin: 67.5%, OAD: 68.8%) and dyslipidemia (insulin: 62.4%, OAD: 54.6%) were the most common comorbidities, while peripheral neuropathy (61.9%) and retinopathy (51.3%) were predominant complications among insulin users. RTI was most prevalent (53.3%), followed by SSTI (26.7%) and UTI (24.6%). UTI (24.3% OAD, 24.9% insulin, $p = 0.895$), RTI (54.6% OAD, 51.8% insulin, $p = 0.567$), and SSTI (54.6% OAD, 51.8% insulin, $p = 0.065$) prevalences were similar between both groups. RTI had the highest recurrence rate for three or more episodes, but no statistically significant association was found between the type of medication and infection prevalence or recurrence rate.

Conclusions: Insulin users had a longer mean duration of diabetes with more comorbidities and complications than OAD users but showed a similar infection prevalence. These findings suggest insulin may have a potential benefit in controlling infection risk in diabetic patients.

Keywords: *Diabetes, infection, insulin, oral hypoglycemic drugs, prevalence, respiratory tract infection (RTI), skin infection, Sri Lanka, urinary tract infections (UTI)*

OP – 03

PSYCHOSOCIAL AND SEXUAL WELL-BEING OF NON-HIV SEXUALLY TRANSMITTED DISEASES, TREATED AT A NATIONAL HOSPITAL IN SRI LANKA

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Introduction: Non-HIV sexually transmitted infections (STIs) in Sri Lanka are prevalent yet under-researched, impacting physical, psychological, and social well-being. This study aims to assess the overall well-being of non-HIV STI clinic attendees at the National Hospital, Kandy, addressing a significant knowledge gap.

Objectives: To assess the sociodemographic background and psychological, social and sexual well-being of clinic attendees with non-HIV STDs in a national grade hospital in Sri Lanka.

Methods: A descriptive cross-sectional study was conducted with 157 STD clinic attendees above 18 years of age. The study utilized a validated, trilingual questionnaire; developed through literature review and expert input to assess the well-being of STD clinic attendees and the questionnaire has undergone content and face validation by experts and was pre-tested among a 10% sample recruited from the STD clinic National Hospital Kandy. Following ethical approval, data will be collected over three months via self-administered questionnaire and all the patients who fit with the inclusion criteria were included in the study. Data were analyzed using the SPSS software.

Results: The majority of participants experienced moderate impacts on their well-being: 69.5% were moderately affected and 12.7% were highly affected socially, 55.1% were moderately affected and 19.2% were highly affected psychologically, 67.8% were moderately affected and 5.4% were highly affected sexually. Majority of responders were females. Most responders were single, and mean age was 33.21 years. High prevalence of STDs among bisexual (12.7%) and homosexual (10.8%) orientations were also observed compared to the normal population.

Conclusions: The study indicates that non-HIV sexually transmitted infections (STIs) considerably affect the psychological, sexual, and social well-being of patients at the National Hospital, Kandy. A significant number of participants reported moderate to high levels of distress. These findings highlight the need for holistic healthcare approaches that address both the physical and psychosocial aspects of STI management.

Keywords: *Non-HIV sexually transmitted infections (STIs), psychosocial well-being, sexual health, Sri Lanka*

THE IMPACT OF AGE, GENDER, AND FAMILY HISTORY OF BRONCHIAL ASTHMA IN ASTHMA CONTROL AMONG A CLINIC-BASED POPULATION IN KANDY

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Introduction: The purpose of this study was to describe the impact of age, gender, and family history of asthma in first-degree relatives on asthma control among a clinic-based population in Kandy.

Objectives: A descriptive cross-sectional study was conducted among patients with a diagnosis of bronchial asthma who attended medical clinics at the National Hospital, Kandy; Teaching Hospital, Peradeniya; and Bogambara Chest Clinic, Kandy. A total of 217 bronchial asthma patients aged ≥ 18 years were included in this study, which was conducted between March and April 2024. Data was collected using an interviewer-administered questionnaire. The Global Initiative for Asthma guidelines were used to assess asthma control over the past month.

Methods: A cross-sectional study was conducted at the Teaching Hospital Peradeniya and Kandy, recruiting 415 diabetic patients via convenient sampling. Data was collected using an interviewer-administered questionnaire and clinical records. Infection prevalence and its association with medication type were analyzed using Pearson's chi-square test.

Results: A total of 217 patients participated in the study. The study population was predominantly female (73.7%), with the majority (72.8%) being over 50 years of age. Approximately 42.9% of patients had a family history of asthma in a first-degree relative. Patients under 50 years of age had a higher prevalence of a family history of asthma compared to those over 50. Among the participants, 36.86% had well-controlled asthma, 35.02% had partially controlled asthma, and 28.11% had poorly controlled asthma. Among males over 50 years of age, 37% had well-controlled asthma. Patients without a family history of asthma (41.13%) demonstrated better asthma control than those with a family history of the condition.

Conclusions: Males over 50 years of age exhibited better asthma control, which may be attributed to the fact that the majority of individuals in this group did not have a first-degree family history of asthma. These findings suggest a potential relationship between first-degree family history and the level of asthma control.

Keywords: *Asthma control, history of asthma*

OP – 05

THE ASSOCIATION BETWEEN ANTHROPOMETRIC MEASUREMENTS AND NON-ALCOHOLIC FATTY LIVER DISEASE IN PATIENTS ATTENDING NATIONAL HOSPITAL KANDY AND TEACHING HOSPITAL PERADENIYA FOR ABDOMINAL ULTRASOUND SCAN

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Introduction: Non-alcoholic fatty liver disease (NAFLD) is a growing global health concern linked to obesity and metabolic disorders. Early detection is essential to prevent complications. Anthropometric indices such as Body Mass Index (BMI), waist circumference (WC), and waist-to-hip ratio (WHR) serve as accessible and non-invasive indicators of obesity risk. This study explores the association between simple physical measurements and NAFLD in patients undergoing routine ultrasound scans, emphasizing their potential predictive value in early detection and management of NAFLD.

Objectives: To assess the association between anthropometric measurements and NAFLD in patients attending National Hospital Kandy and Teaching Hospital Peradeniya for routine abdominal ultrasound scan.

Methods: An analytical cross-sectional study was conducted among 87 patients who attended for abdominal ultrasound and met the inclusion criteria. Height, weight, WC, and hip circumference were measured. NAFLD was diagnosed via ultrasound. The association between anthropometric indices and NAFLD was analyzed using Receiver Operating Characteristic (ROC) curves.

Results: The optimal BMI cut-off was 24.57 kg/m² (Sensitivity: 59.38%, specificity: 76.36%, AUC: 0.6909). WC cut-offs were 83.50 cm in males (Sensitivity: 71.43%, specificity: 68.42%, AUC: 0.5357) and 91.50 cm in females (Sensitivity: 66.67%, specificity: 83.33%, AUC: 0.8048). WHR cut-offs were 0.9950 (Sensitivity: 21.43%, specificity: 94.74%, AUC: 0.6241) in males, 0.8720 (Sensitivity: 83.33%, specificity: 66.67%, AUC: 0.7446) in females and, 0.8750 (Sensitivity: 81.25%, specificity: 56.36%, AUC: 0.7196) when considered together.

Conclusions: WC and WHR were moderately associated with NAFLD, with WC showing a stronger correlation in females. BMI demonstrated fair discriminatory ability. In contrast, the indices in females showed a stronger discriminatory power compared to males. They can be useful when combined with other diagnostic methods and clinical findings as screening tools for NAFLD. The findings support integrating these measures into routine screening protocols to enhance early detection of NAFLD.

Keywords: *Body mass index, NAFLD, screening, ultrasound, waist circumference, waist-to-hip ratio*

ORAL PRESENTATION ABSTRACTS - SESSION 1D

OP – 01

KNOWLEDGE, ATTITUDES, AND PRACTICES REGARDING MENSTRUAL HYGIENE AMONG POST PUBERTAL SCHOOL GIRLS OF MAHAMAYA GIRLS' COLLEGE, KANDY, SRI LANKA

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Introduction: Menstrual hygiene remains a neglected topic in Sri Lanka. Only a limited number of studies are done on this topic. So, the availability of further studies for the improvement of this aspect is crucial.

Objectives: The purpose is to assess the knowledge, attitudes and practices regarding menstrual hygiene among post pubertal school girls of Mahamaya Girls' College, Kandy.

Methods: This study was a descriptive cross-sectional study conducted among grade twelve female students at Mahamaya Girls' College, Kandy. Three classes were selected from each stream via a disproportionate stratified random sampling method by using computer generated randomization. The data was collected by using a self-administered questionnaire with informed consent. Results from Google forms were converted to Google spreadsheets.

Results: Majority of the participants experienced their menarche at the age of twelve and fourteen. 97.67% (252) of students are using disposable sanitary pads. 97.29% (251) of students have adequate knowledge on using sanitary products. Among participants, 99.22% (256) students mentioned menstruation as a normal process while 10.08% (26) students considered it as dirty blood passing through menstruation. Most of the students, which is 41.47% (107) were restricted from going to worship places during their menstruation. Most prevalent symptoms are severe lower abdominal pain 65.89% (170), Bloating 11.24% (29) and genital itching which is 3.49% (9). 91.09% (235) of students mentioned they dispose of used pads into trash bins.

Conclusions: Adequate knowledge is noticed among the students about menstrual hygiene, but there is a need to improve a positive attitude. Most of the students are following proper menstrual hygiene practices.

Keywords: *Menstrual hygiene, menstrual hygiene related diseases, school students, Sri Lanka*

OP – 02

ASSESSMENT OF THE AWARENESS OF GESTATIONAL DIABETES MELLITUS AMONG PREGNANT WOMEN ATTENDING TO THE TEACHING HOSPITAL OF PERADENIYA

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Introduction: Gestational diabetes mellitus (GDM) is a disease that occurs during pregnancy, with potential complications for both mother and fetus. Thus, adequate maternal awareness of GDM regarding its risk factors, complications and management options is crucial for early detection, prevention and control.

Objectives: To evaluate the awareness of the pregnant mothers attending professorial obstetrics wards and professorial obstetrics clinics in Teaching Hospital Peradeniya on Gestational Diabetes Mellitus.

Methods: A descriptive cross-sectional study was conducted using a pre-tested, self-administered questionnaire, which was distributed among the pregnant women above 18 years of age at the Professorial Obstetrics clinic and wards of Teaching hospital Peradeniya. The data was analyzed using the Statistical Package for Social Sciences (SPSS) software.

Results: Of 288 participants, 249 (86.5%) have heard of GDM. Only 42.4 % (122) had sufficient knowledge. And 49% (141), 60.4% (174), 62.5% (180) of the total participants had insufficient knowledge on risk factors, complications and management methods of GDM respectively. Higher Knowledge of GDM was significantly associated with higher education, better economic status, prior history of GDM and presence of GDM in the current pregnancy. Midwives were the most common source of information. (n= 94)

Conclusions: Majority of pregnant women had insufficient knowledge on GDM (57.6%, 166), evident by the large percentages of unawareness, of risk factors (e.g., previous children with macrosomia -61.8%, 178), complications (e.g., CVS diseases -57.3%, 165) and management options (e.g., GDM can be controlled by non-pharmacological therapy alone - 37.8%, 109). Lower education and income levels were linked with lower knowledge levels too. Given that midwives are a primary source of information it is essential to enhance their training and increase their contact with pregnant women.

Keywords: *Gestational diabetes mellitus, knowledge, pregnancy, Sri Lanka*

KNOWLEDGE AND ATTITUDES ABOUT CONTRACEPTIVE METHODS AND THEIR COMPLICATIONS AMONG POSTPARTUM MOTHERS IN TWO TERTIARY CARE HOSPITALS IN KANDY DISTRICT

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Introduction: Family planning and the use of contraceptives are crucial aspects of maternal health, particularly among postpartum mothers. Adequate knowledge and positive attitudes towards contraceptive use significantly reduce the risk of unintended pregnancies and associated complications, making it essential to assess the knowledge and attitudes of postpartum mothers regarding contraceptive methods.

Objectives: To assess the knowledge and attitudes about contraceptives as a family planning method and its complications among postpartum mothers in maternity wards of Kandy and Peradeniya hospitals.

Methods: A descriptive cross-sectional study was conducted involving 267 of selected ward mothers at the National Hospital Kandy and the Teaching Hospital Peradeniya. Knowledge and attitudes about contraceptive methods and their complications were assessed using a self-administered questionnaire. Data analysis was performed using SPSS software and Fisher's exact test was used to determine significant associations.

Results: According to the results, respectively 27.3%, 72.3%, 0.4% had mildly satisfied, moderately satisfied and highly satisfied knowledge. A significantly high proportion (74.90%) had good attitudes towards contraceptives. Out of the study group 54.7% of them had a willingness to use any kind of contraceptive method. Among them implants were the most popular contraceptive method (30.8%). There were many reasons for choosing a contraceptive method; previous usage (3.2%), ease of use (13.00%) and adverse effects of other methods. (10.56%).

Conclusions: These findings highlight the need to enhance the postpartum mother's knowledge and attitudes regarding contraceptive methods. This underscores the importance of targeted interventions including health education, health promotion, strengthening the primary care sector, and ensuring free access to contraceptive services.

Keywords: *Contraception, Kandy, knowledge and attitudes, postpartum mothers, tertiary hospitals*

OP – 04

A CROSS-SECTIONAL STUDY ON KNOWLEDGE, ATTITUDE AND PREFERENCE OF PRIMIGRAVIDA WOMEN REGARDING MODE OF DELIVERY

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Introduction: Vaginal delivery and cesarean section are the primary childbirth methods, each influenced by many factors. The increasing trend of shared decision making in healthcare allows women to actively participate in choosing their childbirth method, highlighting the importance of providing comprehensive information about the advantages and risks of both delivery methods. Effective communication between healthcare providers and expectant mothers is crucial in this process. Understanding primigravida women's knowledge, attitude and preference helps healthcare professionals to offer better support and counseling, ultimately improving maternal and childcare outcomes.

Objectives: Assess primigravida women's knowledge, attitude and preference regarding vaginal delivery and cesarean section.

Methods: Two hundred and twenty-three primigravida women who attended the antenatal clinics and were admitted to ward 10 in Teaching Hospital, Peradeniya, were interviewed via self-administered questionnaires during the study period after obtaining informed consent. All the data were analyzed by using the JAMOVI 2.3.28.0 version. Overall scores for knowledge and attitude statements, mean \pm SD were calculated.

Results: Overall, the rating for knowledge about modes of delivery was weak among 38 (17.04%) women, while medium and good were rated at 124 (55.61%) and 61 (27.35%) women respectively. The mean attitude score was 18.27 ± 4.89 for vaginal delivery and 10.84 ± 5.67 for the cesarean section. It showed that the majority of women have shown a neutral attitude (n=121, 54.26%) towards vaginal delivery, while the majority of women have shown a negative attitude (n=126, 56.50%) towards cesarean section. 35.43 % (n=79) women preferred cesarean section as the primary mode of delivery, while 64.57 % (n=144) women preferred vaginal delivery in the current pregnancy.

Conclusions: Women in our setting had a medium level of knowledge regarding modes of delivery and neutral and negative attitudes towards vaginal delivery and cesarean section, respectively. Thus, there is a need for a program to increase women's understanding of different modes of delivery.

Keywords: *Attitude, delivery modes, knowledge, preferences, pregnant women, primigravida*

**ASSESSING POST- MENOPAUSAL OSTEOPOROSIS RELATED KNOWLEDGE
AMONG FEMALE NON-ACADEMIC STAFF OF FACULTY OF MEDICINE,
UNIVERSITY OF PERADENIYA**

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Introduction: Osteoporosis is a metabolic bone disease resulting in reduced bone mineral density and increased pathological fractures. Prevalence of this disease is particularly high in post-menopausal women. Our study aims to explore the knowledge about post-menopausal osteoporosis among female non-academic staff of the faculty of medicine which constitute a significant part of the workforce in the faculty.

Objectives: This study has been undertaken to assess the level of knowledge on post-menopausal osteoporosis among female non-academic staff in the Faculty of Medicine, University of Peradeniya.

Methods: A descriptive cross-sectional study was conducted and data was collected using a validated self-administered questionnaire – Osteoporosis Knowledge Assessment Tool (OKAT). Data analysis was done using IBM SPSS software version 29.

Results: The majority of the population showed either good (63.13%) or poor (34.7%) levels of knowledge, with only a small percentage (2.11%) having very good knowledge of the condition. We covered four main areas of assessment: foundational knowledge, risk factors, lifestyle and nutrition influences, and available treatments. The findings showed a moderate level of understanding regarding the fundamentals of osteoporosis (mean score: 3.15/6) and risk factors (mean score: 2.96/5). Knowledge gap about the availability and effectiveness of treatments (mean score: 0.53/2) is significant, understanding about the effects of nutritional and lifestyle factors on osteoporosis (mean score: 2.11/6) is also very low. It is notable that the study revealed no significant association between the participants' educational level and their knowledge of osteoporosis, which implies that knowledge of this particular health concern may not be directly influenced by educational achievement.

Conclusions: The study revealed significant knowledge gaps, particularly regarding treatment options and lifestyle modifications. The findings emphasize the need for targeted educational programs to improve osteoporosis awareness and preventive measures among female non-academic staff.

Keywords: *Bone health, osteoporosis, postmenopausal women*

ORAL PRESENTATION ABSTRACTS - SESSION 2A

OP – 01

PREVALENCE OF DEPRESSION AMONG SUBSTANCE ABUSERS PRESENTED TO THE OUTPATIENT DEPARTMENT OF TEACHING HOSPITAL, PERADENIYA, SRI LANKA

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Introduction: The aetiology of depression is multifactorial. Substance abuse has a bidirectional relationship with depression, and it is a common psychiatric comorbidity among patients with substance abuse. Treating depression may reduce their substance craving and enhance their overall outcomes. A methodical, staged screening and assessment can help the diagnostic challenge of distinguishing symptoms of affective disorders from manifestations of substance intoxication and withdrawal.

Objectives: This study aimed to determine the prevalence of substance abuse among outpatients of Teaching Hospital, Peradeniya and to determine the prevalence of depression among substance abusers.

Methods: A descriptive cross-sectional study was conducted by using a simple consecutive sampling technique that included 572 outpatients who came to the outpatient department of Teaching Hospital, Peradeniya. An interviewer administered questionnaire was used for data collection and to assess depression among recognized substance abusers, Peradeniya depression scale (PDS) was used, and the collected data was analysed using the Statistical Package for the Social Sciences (SPSS) statistical software package.

Results: Among 572 outpatients, 298 (52.10%) were using various substances. Among substance abusers, 240 (41.96%) were Drug Abuse Screening Test (DAST-10) screened positive. Among DAST screened positive patients, 28 (11.67%) were identified as PDS screened positive. According to our findings, prevalence of substance abuse among outpatients of Teaching Hospital, Peradeniya is 52% and prevalence of depression among substance abusers reported to the outpatient department of Teaching Hospital, Peradeniya is 11%.

Conclusions: Prevalence of substance abuse among outpatients and prevalence of depression among substance abusers is high. So, this study emphasizes the need for interventions such as educational and screening programs to ensure early detection and improve the treatment outcomes. Those screening positive for depression were referred for psychiatric care, while substance abusers received counselling. A major drawback was not establishing whether depression or substance abuse occurred first in participants.

Keywords: *Depression, outpatient department, prevalence, substance abuse*

PREVALENCE OF ANXIETY AND DEPRESSION BEFORE AND AFTER 2ND MBBS EXAMINATION AMONG MEDICAL STUDENTS IN FACULTY OF MEDICINE UNIVERSITY OF PERADENIYA

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Introduction: Anxiety and depression significantly affect medical students, impacting their academic performance and social interactions. Students often face high stress and struggle to adjust in early years, leading to anxiety and depression. While some adapt after the 2nd MBBS exam, which is the first barrier exam, clinical sessions reintroduce stress, indicating anxiety, depression fluctuate before, after the exam. While various studies have explored anxiety and depression among medical students globally, none have examined changes in their prevalence before, after the 2nd MBBS examination. This study aims to address this gap in literature.

Objectives: To determine the prevalence of anxiety and depression among medical students before and after the 2nd MBBS examination, to compare anxiety and depression levels of the medical students before and after the 2nd MBBS examination.

Methods: This comparative cross-sectional study conducted to study the prevalence of anxiety and depression among medical students before and after the 2nd MBBS examination faculty of medicine, University of Peradeniya. Data was collected using pre-used, self-administered questionnaire. Hospital anxiety and depression scale was used. Collected data was analyzed and the chi-square test was used to find any significant association between exposure to 2nd MBBS examination and depression or anxiety.

Results: In 19/20 batch 70.27% were normal and 29.73% diagnosed to have depression. In 22/23 batch 80.54% was normal and 19.46% diagnosed to have depression. In 19/20 batch 58.91% were normal and 41.09% diagnosed to have anxiety. In 22/23 batch 82.73% were normal and 17.27% diagnosed to have anxiety.

Conclusions: Compared to students who are studying before the 2nd MBBS examination, students who are studying after 2nd MBBS examination have higher levels of anxiety and depression.

Keywords: 2nd MBBS examination, anxiety, depression, medical students,

OP – 03

OPINION SURVEY AMONG UNIVERSITY STUDENTS ON FACTORS CONTRIBUTING TO SUICIDAL IDEATION, AWARENESS OF CARE AVAILABILITY AND ACCESSIBILITY, AND BARRIERS TO CARE SEEKING BEHAVIOR AMONG UNIVERSITY STUDENTS

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Introduction: Suicide is a global health issue that affects all people. Suicide ideation is an initiative factor in suicide. The high number of suicides in the University of Peradeniya in 2023 alone warrants timely research in exploring factors contributing to these, the knowledge of students regarding mental health care availability and accessibility and the existing barriers in care seeking behaviour.

Objectives: To identify key academic, social, and psychological factors associated with suicidal ideation among university students, assess the awareness of on and off-campus counseling services, hotlines, and peer support programs and identify the barriers to mental health care seeking behaviour.

Methods: A descriptive cross-sectional study with 425 third-year students randomly selected from four selected faculties was conducted using a self-administered questionnaire in all three languages. T-tests and ANOVA were used in analyzing the data.

Results: Academic stress (73.8%), relationship conflicts (64.9%), social isolation (63.5), poor financial support (62.9%), and sexual abuse (53.1%) were identified as common opinions of the students contributing to suicidal ideation. Students often received informal mental health support from their social circles instead of accessing professional care. Regarding awareness of care availability and accessibility, no statistically significant difference in knowledge was found between genders ($p = 0.387$) or among the faculties ($p = 0.439$). Barriers to care-seeking behaviour were mostly due to the fear of stigma and discrimination (74.8%), lack of awareness about mental health services (76.8%).

Conclusions: The findings demand an evaluation of the steps currently taken to address the academic stress of the students at University of Peradeniya. More attention is required in teaching healthy mechanisms to deal with students' relationship conflicts, social isolation, and sexual abuse. As overall knowledge about mental health care availability and accessibility were not up to a satisfactory level, more interventions on raising awareness and addressing the barriers that hinder students from seeking the necessary support will be necessary. The study's limited sample, use of a non-validated self-report tool, and lack of power-calculated sampling may reduce generalizability and risk missing true effects.

Keywords: *Barriers to care seeking, mental health care services, opinion survey, suicidal ideation, university students*

REPORTED ADJUSTMENT ISSUES AND LONELINESS AMONG FIRST AND SECOND-YEAR MEDICAL STUDENTS AT THE UNIVERSITY OF PERADENIYA: THEIR ASSOCIATIONS WITH SOCIO-DEMOGRAPHIC FACTORS AND ACADEMIC PERFORMANCE- A CROSS-SECTIONAL STUDY

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Introduction: The study focuses on exploring reported adjustment issues and loneliness among First and Second-year medical students at the University of Peradeniya (UoP) in Sri Lanka.

Objectives: To describe adjustment issues and the level of loneliness reported by first and second-year medical students at the UoP, and, to determine their associations with socio-demographic factors and academic performance.

Methods: Planned descriptive cross-sectional study aimed at assessing adjustment issues and loneliness among first (22/23 batch) and second (21/22 batch) -year medical students at the FoM (Faculty of Medicine), the UoP in 2024. The study included all the students of both batches. A pre-tested and self-administered questionnaire was given to the students. Data were analyzed using Jamovi 2.3.28. Chi-square tests were used to explore associations between variables. The ethical approval was obtained from the Ethics Review Committee of the FoM, the UoP, Sri Lanka.

Results: In the questionnaire related to adjustment issues, it was a relief to note that most of the students do not have major adjustment issues. The response to the questionnaire using the UCLA scale to assess loneliness showed a low level of loneliness among the students. However, we found that there is significant association between the following socio-demographic factors and adjustment issues: Self-assessment of English competence, Self-assessment of interactions with friends and Source of financial support. We also found that there is significant association between the following socio-demographic factors and loneliness: G.C.E. advanced level general English results and Self-assessment of interactions with friends. As per our results, no association was found between academic performance and adjustment issues or loneliness among junior medical students.

Conclusions: A reasonable number of first and second-year medical students at the UoP face adjustment issues with language competence, poor social interactions, and financial support. The study suggests that English support programs, social activities, mentorship, and increased financial aid to needy students have the potential to facilitate students' adaptation, reduce loneliness, and enhance academic performance. Instruments, translation and confounding biases limit this study.

Keywords: *Academic performance, adjustment issues, loneliness, medical students, mental health, socio-demographic factors, University of Peradeniya*

ORAL PRESENTATION ABSTRACTS - SESSION 2B

OP – 01

ASSESSMENT OF PSYCHOLOGICAL STRESS AND AUTONOMIC REACTIVITY TO ACUTE STRESS IN MEDICAL STUDENTS

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Introduction: Medical students often experience high levels of psychological stress, however, there is limited data on how acute stress affects autonomic reactivity, a key indicator of cardiovascular health, in medical students.

Objectives: To assess the sources and levels of stress in third-year medical students at the University of Peradeniya and measure autonomic reactivity to an acute psychological stressor based on their stress levels.

Methods: Stress levels in 185 students were assessed using the previously validated Medical Student Stressor Questionnaire (MSSQ) having scores ranging from 0.00 to 4.00. Then, heart rate (HR) was continuously recorded during a 10-minute supine rest, 5 minutes of an acute stressor (Stroop task), and 3 minutes of recovery in 34 students each with the highest (HS) and lowest (LS) stress levels. HR variability (HRV) measures, including standard deviation of the N-N intervals (SDNN), and low frequency/high frequency (LF/HF) ratio, were calculated for each period. Group comparisons were performed using the Mann-Whitney *U* test.

Results: Among the students, 39% experienced mild stress, 53% moderate stress, and 8% high stress, with no students with severe stress. Academic stressors caused the highest stress [Median (inter quartile range, IQR) 1.46(1.00)]. HR [HS, 75(18); LS, 76(11) bpm] and HRV measures during rest were not different between HS and LS groups ($p > 0.05$). HR increase during the Stroop task was similar in both groups [HS, $\Delta+13(12)$; LS, $\Delta+12(13)$ bpm; $p=0.937$]. Both groups exhibited a reduction in HRV [SDNN: HS, $\Delta-12.70(15.91)$; LS, $\Delta-11.37(27.73)$ ms] and sympathovagal balance shifted towards increased sympathetic activity during the stressor [LF/HF ratio: HS, $\Delta+0.31(1.20)$; LS, $\Delta+0.16(1.55)$], with no significant difference between the groups ($p > 0.05$).

Conclusions: Most third-year medical students experienced mild to moderate psychological stress. Further, an acute stressor did not adversely affect autonomic reactivity in students with high stress levels.

Keywords: *Heart rate variability, medical student stressor questionnaire, parasympathetic withdrawal, Stroop test, sympathovagal balance*

ASSESSING THE IMPACT OF FAMILY HISTORY OF HYPERTENSION ON THE SYMPATHETIC PRESSOR RESPONSE IN NORMOTENSIVE HEALTHY YOUNG ADULTS A :CROSS-SECTIONAL STUDY

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Introduction: Hypertension is a multifactorial disease with family history identified as a key risk factor. Sympathetic activity is known to be heightened in hypertensive patients.

Objectives: To compare the pressor response to sympathetic autonomic function tests in normotensive young adults with and without a family history of hypertension ,to evaluate its potential as an early predictor of future hypertension development.

Methods: A cross-sectional analytical study was conducted using consecutive sampling of 23-26 year-old students from the Faculty of Medicine, University of Peradeniya. Two groups, those with (n=49) and without (n=38) a family history of hypertension, were matched for gender, age, and body mass index. Sympathetic response was assessed via the Isometric Handgrip and Mental Arithmetic Tests. Statistical analyses were performed using independent sample t-tests, two-way ANOVA, Mann-Whitney U and Pearson's r tests to compare the groups.

Results: During the isometric handgrip test, the mean (\pm SD) diastolic blood pressure (DBP) rise was 24 (\pm 13) mm Hg for the family history positive group and 23 (\pm 13) mm Hg for the negative group. During the mental arithmetic test, the DBP rise was 12 (\pm 7) mm Hg and 13 (\pm 10) mm Hg, respectively. No significant differences were observed in DBP rise between the groups in either test (handgrip: $t=0.1089$, $p=0.913$; arithmetic: Mann-Whitney $U=872.5$, $p=0.619$). Meanwhile, the gender of the subjects showed a statistically significant difference with both the DBP rise ($f=8.628$, $p=0.004$) and the maximum voluntary contraction ($f=89.08$, $p<0.0001$), with male gender showing positive association in both parameters irrespective of the family history of hypertension status.

Conclusions: The sympathetic response, measured by the Isometric Handgrip and Mental Arithmetic Tests, does not significantly differ between normotensive healthy young adults with and without a family history of hypertension.

Keywords: *blood pressure, isometric handgrip test, mental arithmetic test*

OP – 03

A STUDY ON THE PROCEDURAL PAIN CONTROL METHODS USED IN CHILDREN AND HEALTHCARE WORKER'S PERCEPTION IN TERTIARY HEALTHCARE CENTRES OF KANDY DISTRICT

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Introduction: Procedural pain relief is crucial in children's healthcare. Many pain control methods exist, and healthcare workers (HCWs) play a major role in using those. Yet children often lack pain relief during needle procedures.

Objectives: To identify different pain control methods for children during needle procedures and their effectiveness. To assess HCWs' knowledge, promoting and hindering factors in using such methods.

Methods: The descriptive cross-sectional study was conducted at tertiary health care centers in Kandy district [Sirimavo Bandaranaike Specialized Children's Hospital (SBSCH), National Hospital Kandy (NHK), Teaching Hospital Peradeniya (THP)] during April 2024. All the children (n₁=167) between 2 months-5 years presented for needle procedures were included using consecutive sampling. Pain control methods were collected. Pain was assessed using FLACC scale. HCWs' (n₂=164) perceptions regarding these methods were collected via a validated interviewer-administered questionnaire. Their age, gender, occupation, experience, knowledge, views on promoting and hindering factors for using these methods were collected.

Results: Of 167 children observed, 80.2% were over 1 year, 72.7% experienced severe pain during procedures, only 6.6% received pain control method. [2.4% (4) received EMLA and, 4.2% (7) received distraction]. Out of 164 HCWs 67% were nurses and 50.6% had over 10 years of experience. HCWs were knowledgeable in such methods (94.5%), but they desired more learning (94.5%), institutional (92.9%) and parental support (69.4%). HCWs agreed that busy ward conditions (68.3%), poor working atmosphere (62.2%), and rapid patient turnover (59.8%) hinder the use of such methods.

Conclusions: Majority (93.4%) of children don't receive procedural pain relief. Nearly 2/3(72.7%) suffer severe pain. The majority of HCWs were knowledgeable in pain relief methods, while further learning, parental and institutional support will enhance usage.

Keywords: *Children, hindering factors, pain control methods, promoting factors*

**AWARENESS AND ATTITUDES TOWARDS CARDIOPULMONARY
RESUSCITATION AMONG ADULTS ACCOMPANYING PAEDIATRIC
PATIENTS AT THE SIRIMAVO BANDARANAIKE SPECIALISED CHILDREN'S
HOSPITAL, PERADENIYA**

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Introduction: Out-of-hospital cardiac arrest (OHCA) is defined as the “cessation of cardiac mechanical activity, confirmed by the absence of signs of circulation and that which occurs outside the hospital setting.” OHCAs are a major issue in health systems due to the urgency of treatment when events occur. Bystander cardiopulmonary resuscitation (CPR) is a crucial part of the management of OHCA, thereby underscoring the importance of public knowledge and favourable attitudes towards CPR.

Objectives: This study assessed the awareness and attitudes towards cardiopulmonary resuscitation and identified the influencing factors among the adults accompanying paediatric patients at the Sirimavo Bandaranaike Specialized Children’s Hospital.

Methods: A cross-sectional descriptive study with an analytical component, by using a consecutive sampling technique, involving 407 adults accompanying paediatric patients, who visited the outpatient department (OPD) of the Sirimavo Bandaranaike Specialized Children’s Hospital, was done. A pre-tested self-administered, structured questionnaire was used as the primary tool for data collection. Knowledge was then categorized as “satisfactory” and “not satisfactory”, and attitudes were also categorized as “favourable” and “unfavourable”, using a 50% cut-off score for both values. Responses for individual questions were also quantitatively analyzed.

Results: Among 407 participants, our findings showed that only 16.2% of participants could be considered to have satisfactory knowledge, however, 51.1% of participants could be considered to have favourable attitudes towards CPR. Prior CPR training, occupation and educational level were determined to affect CPR knowledge, and gender and educational level, were determined to affect attitudes towards CPR.

Conclusions: CPR knowledge is insufficient, and attitudes are not satisfactory, among the general public. We conclude that workshops through integration with school and university curriculum, and society-based programmes, should be carried out to increase the probability of positive outcomes to OHCA events, and recommend that CPR skills too, be assessed in future studies.

Keywords: *Bystander CPR, cardiopulmonary resuscitation (CPR), CPR attitudes, CPR awareness, out-of-hospital cardiac arrest (OHCA)*

ORAL PRESENTATION ABSTRACTS - SESSION 2C

OP – 01

ACUTE EXACERBATION OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD); PREDICTORS OF SEVERITY, IN-HOSPITAL LUNG FUNCTIONS AND THEIR CORRELATIONS AMONG MALE PATIENTS PRESENTED TO THE TEACHING HOSPITAL PERADENIYA (THP)

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Introduction: COPD is a prevalent airway disease with persistent respiratory symptoms and airflow limitation, affecting 10.5% of Sri Lankans, similar to global rates. Although spirometry is the diagnostic gold standard, treatment often begins based on symptoms in primary care. Acute exacerbations of COPD (AECOPD) are common, yet factors influencing their severity remain unclear.

Objectives: To assess the factors affecting the severity and exacerbation frequency, to describe in hospital lung functions according to forced expiratory volume in 1 second (FEV1) and compare spirometry and peak expiratory flow rate (PEFR) in AECOPD patients.

Methods: This cross-sectional descriptive study recruited 76 male patients over 40 years treated for AECOPD at THP between April and May 2024. Demographic data, smoking history, comorbidities, and baseline dyspnoea were collected via an interviewer-administered questionnaire. Patients were prospectively followed to record the need for High Dependency Unit (HDU) care and length of hospital stay. On discharge, spirometry and PEFR were measured. Data were analyzed using SPSS statistics software, with independent t-tests, chi-square tests, and Pearson's correlation tests.

Results: Mean age of sample was 68.8 years. No significant association was noted between the duration of hospital stay and smoking status ($p=0.6$), diabetes ($p=0.655$) or hypertension ($p=0.911$). Moreover, there was no association between HDU care requirement and age ($p=0.894$), smoking status ($p=0.732$), diabetes ($p=0.093$), hypertension ($p=0.402$) or baseline dyspnoea ($p=0.78$). Exacerbation frequency was not associated with the type of long-term drug therapy ($p=0.583$) or living area ($p=0.236$). Spirometry revealed an obstructive pattern in 56 patients (73.68%), a restrictive pattern in 5 (6.57%), and normal findings in 15 (19.73%). FEV1 was 50%-80% of predicted value in 38% of participants. PEFR demonstrated a positive correlation with FEV1 ($r=0.495$, $p < 0.001$).

Conclusions: Age, smoking, diabetes, hypertension, and baseline dyspnoea did not significantly impact hospital stay or HDU care in AECOPD. Twenty out of seventy-six did not have obstructive patterns in spirometry. PEFR shows promise as a surrogate marker for lung function, although its diagnostic performance requires further evaluation.

Keywords: *AECOPD, hospital stay, lung function, PEFR, spirometry*

ASSOCIATION BETWEEN HYPOGLYCAEMIC EPISODES AND KNOWLEDGE AND PRACTICES ON HYPOGLYCAEMIA AND INSULIN USE AMONG INSULIN-TREATED TYPE 2 DIABETES MELLITUS (DM) PATIENTS ATTENDING NATIONAL HOSPITAL KANDY (NHK)

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Introduction: Insulin is a main treatment modality in DM and hypoglycaemia is a common complication of insulin with a significant impact on patients' safety. Globally, there are limited studies evaluating the relationship between patients' knowledge and practices (KP) on insulin use and hypoglycaemia and the occurrence of hypoglycaemic episodes and this study would be the first of its kind in Sri Lanka.

Objectives: This study aimed to describe the association between hypoglycemic episodes and KP on insulin use and hypoglycemia and to identify risk factors contributing to the hypoglycaemic episodes among insulin-treated Type 2 DM patients at NHK.

Methods: The study was cross-sectional analytical study and systematic random sampling method was used for data collection through an interviewer administered questionnaire. Hypoglycaemic episodes were described retrospectively, as in similar studies globally. Symptoms of hypoglycaemia were listed and experiencing at least one of the symptoms where the symptoms were relieved after consumption of a glucose containing item and if such episodes at least once a month, then such episodes were considered as hypoglycaemic episodes. An entity called "KP adequacy" was defined with few questions assessing essential KP where only those who answered all those questions appropriately were considered to have KP adequacy. Associations were analyzed using chi-square test, independent sample T- test and Mann-Whitney U test.

Results: Among the 100 participants, 53% had faced hypoglycemic episodes in last 6 months. Means of percentage scores of knowledge, practices, and KP total were 82.3%, 86.6% and 83.3% respectively and 54% of the sample had adequate KP on insulin use and hypoglycemia. Significant associations were found between Knowledge ($p=0.022$), Practices ($p<0.001$), KP total ($p<0.001$) scores, having adequate KP ($p<0.001$) and hypoglycaemic episodes. A significant association was found between occurrence of hypoglycaemia and chronic hypertension ($p< 0.009\%$).

Conclusions: Results show a high level of KP among participants. Good KP may reflect post-hypoglycemia education where experiencing hypoglycaemia has motivated patients to educate themselves about hypoglycaemia to avoid future episodes. However, more studies directly correlating hypoglycaemia and KP would prove helpful in gaining better insight.

Keywords: *Diabetes mellitus, hypoglycaemia, insulin, knowledge, practices*

OP – 03

AWARENESS AND TREATMENT ADHERENCE TO WARFARIN THERAPY AMONG PATIENTS ATTENDING THE CARDIOLOGY CLINIC, NATIONAL HOSPITAL, KANDY

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Introduction: Warfarin is an anticoagulant with a narrow therapeutic range, thus associated with several complications. Therefore, patients who are on warfarin are expected to have a proper understanding about their treatment regimen, possible drug–food interactions, associated complications and monitoring of treatment outcomes. Adherence to warfarin therapy is also crucial for better treatment outcomes

Objectives: To evaluate the knowledge and treatment adherence of warfarin therapy among patients attending the Cardiology Clinic, National Hospital, Kandy in 2024.

Methods: This descriptive cross-sectional study was conducted enrolling 151 consecutively selected patients who attended the cardiology clinic, National Hospital, Kandy. A self-administered questionnaire was used to assess their knowledge and treatment adherence on warfarin therapy. Responses were analyzed using descriptive statistics. The Spearman's correlation coefficient was used to assess the association between the knowledge and the treatment adherence.

Results: In the study population, with a mean age of 59 years and a male: female ratio of ~1:1, 55.6% demonstrated good knowledge ($\geq 75\%$), while 44.4% demonstrated poor knowledge ($< 75\%$). Significant knowledge gaps were observed in areas of action of warfarin, its potential complications, warning signs and interactions with drugs, food or alcohol. Only 70% knew their target International Normalized Ratio (INR) value which is a key indicator of their risk of bleeding.

Approximately 79% had good adherence ($\geq 75\%$), while 21% had poor adherence ($< 75\%$) with a considerable degree of forgetfulness and stress related to warfarin therapy. There was no statistically significant correlation between knowledge and adherence with a Spearman's correlation coefficient ($\rho=0.104$, $p=0.203$)

Conclusions: There are specific areas of knowledge gaps regarding warfarin therapy which need to be addressed to achieve a better treatment outcome. Interventions to overcome forgetfulness and stress could potentially improve treatment adherence. Improving patient knowledge alone may not be sufficient to enhance adherence.

Keywords: *Knowledge, treatment adherence, warfarin*

ASSESSING THE KNOWLEDGE, ATTITUDES AND PRACTICES REGARDING DIETARY AND LIFESTYLE MANAGEMENT AMONG PATIENTS WITH TYPE 2 DIABETES MELLITUS ATTENDING NATIONAL HOSPITAL KANDY

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Introduction: Type 2 diabetes mellitus is a major public health burden in Sri Lanka, causing various complications. Effective diet and lifestyle management can greatly influence disease progression and outcomes.

Objectives: To assess the knowledge, attitudes and practices regarding dietary and lifestyle management among patients with type 2 diabetes mellitus attending the Endocrinology Unit at the National Hospital Kandy.

Methods: A cross-sectional study was conducted among 217 patients with Type 2 diabetes mellitus attending the National Hospital Kandy. Participants who provided informed consent were interviewed using an online, interviewer-administered questionnaire. Data were analyzed using Jamovi 2.5.3 software.

Results: Among 217 participants, 39.2% were male and 60.8% were female. Knowledge on dietary management was generally good. For example, 98.2% of the participants knew that starchy food is unfavourable for diabetes. But nearly half (46.1 %) of the participants struggled to identify different nutrient components and their amounts by examining food labels. However, knowledge wasn't significantly associated with gender, educational status, or age categories (All 'p-values' were greater than 0.05). Attitudes towards dietary practices were satisfactory overall. Females exhibited significantly more positive attitudes compared to males ($p = 0.016$). However, actual dietary practices were suboptimal: only 62.7% regularly followed the diet recommended by the doctors, and only 17.5% had always checked the labels of food before purchasing to check the nutrient amounts. Younger participants (21–40 years) reported significantly better dietary practices than older groups ($p < 0.05$). Regarding lifestyle management, knowledge was generally good and had no significant relationships with age categories, gender, or educational levels. Attitudes towards lifestyle modification were generally favourable, but there was a clear difference in the attitudes among participants according to the educational levels. ($p = 0.015$) Despite satisfactory knowledge and attitudes, actual practice scores were relatively poor. There's a reluctance among the participants to control their body weight and to be involved in exercises daily. Abstinence from alcohol and smoking was significantly higher among females ($p < 0.001$). Practice scores of 'Involving in Exercises daily' were positively associated with 21-40 age group than the other age groups ($p < 0.001$) and had a higher tendency with males than females ($p = 0.001$).

Conclusions: Knowledge and attitudes regarding dietary and lifestyle modifications in patients with type 2 diabetes mellitus are generally satisfactory, although some gaps remain. However, patients' practice levels are suboptimal.

Keywords: Attitudes, diabetes mellitus type 2, dietary management, health knowledge, lifestyle management, National Hospital Kandy, practice

OP – 05

A DESCRIPTIVE STUDY OF CUTANEOUS LEISHMANIASIS: SOCIODEMOGRAPHIC PROFILES, OCCUPATIONAL CORRELATION, PRIMARY VECTOR BITE SITES, AND DISEASE AWARENESS IN KURUNEGALA DISTRICT

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Introduction: Cutaneous Leishmaniasis (CL) is increasing in Sri Lanka, particularly in the Kurunegala District. Limited awareness, delayed diagnosis, and poor vector control worsen its impact. This study aimed at disease awareness, vector exposure, and risk factors to enhance surveillance, promote early diagnosis, and improve public health measures for CL control.

Objectives: To assess socio-demographic factors, frequent vector bite sites, patient awareness of Cutaneous Leishmaniasis (CL) before and after diagnosis, and its impact on early detection and medical consultation of patients in Kurunegala District.

Methods: A descriptive cross-sectional study was conducted in Kurunegala District in dermatology clinics TH Kurunegala and BH Dambadeniya. 223 CL patients were recruited via convenient sampling. Data on demographics, lesions, awareness, and environment were collected through an interviewer-administered questionnaire. SPSS analysis included chi-square tests and knowledge scoring. Ethical approval and informed consent were obtained.

Results: Among 223 Cutaneous Leishmaniasis (CL) patients, males (52.5%) and females (47.5%) were nearly equal, with the highest prevalence in the working-age group (20-59 years, 58.3%). Most (98.7%) were Sinhalese. Awareness before diagnosis was low, with only 33.6% knowing the disease and 30.9% recognizing sandflies as vectors, but it significantly increased post-diagnosis to 93.3% ($p < 0.05$). Poor awareness led to delayed treatment, with 41.4% seeking care after three months. Lesions were most common on the upper limbs (45.3%), lower limbs (30%), and the face (16.5%), highlighting exposed bite sites. High-risk groups included outdoor workers and unemployed individuals (66.6%), stressing the need for awareness programs.

Conclusions: Low awareness of Cutaneous Leishmaniasis (CL) leads to delayed treatment and increased burden. Significant post-diagnosis knowledge improvement ($p < 0.05$) highlights the need for targeted interventions regarding public awareness. Identifying age groups, occupational and exposure risks suggest targeted awareness should be carried out to lower the increasing trend of cases and for early detection of lesions.

Keywords: *Cutaneous Leishmaniasis, disease awareness, preventive measures, public health education, sand-fly vector, treatment delay, vector control*

ORAL PRESENTATION ABSTRACTS - SESSION 2D

OP – 01

KNOWLEDGE ATTITUDE AND PRACTICES REGARDING THE STANDARD MANAGEMENT OF DENGUE VIRAL INFECTION IN A COHORT OF IN-WARDS PATIENTS WITH DENGUE FEVER IN A TERTIARY CARE HOSPITAL IN SRI LANKA

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Introduction: Dengue fever is a major public health concern in Sri Lanka, causing significant morbidity and mortality. Proper in-ward management necessitating judicious fluid management plays a crucial role in controlling disease impact. Patient contribution plays a pivotal part in ensuring optimum outcome.

Objectives: The study was designed to assess the knowledge, attitudes and practices among patients regarding dengue fever in-ward management and to identify demographic factors influencing these KAP scores.

Methods: A descriptive cross-sectional study was conducted among 86 dengue patients admitted to Teaching Hospital Peradeniya and National Hospital Kandy. Data was collected using an interviewer-administered questionnaire and analyzed using SPSS version 25 software.

Knowledge, attitude, and practice scores were computed and compared across different demographic groups.

Results: In the study population, 53.5% had below-average knowledge of in-ward dengue management, with healthcare workers scoring slightly higher in KAP assessments. Healthcare workers had a mean knowledge (K) score of 7, while others scored 4, a statistically significant difference. Attitudes toward dengue management were notably positive among healthcare workers depicted by a mean attitude (A) score of 39.17 (SD = 4.17), compared to 29.63 (SD = 4.58) in non-healthcare workers. No significant differences were noted based on age, past infection, or income. The mean practice (P) score was 19.37 (SD = 0.66). Practice scores were consistent across demographics, with older participants (>60 years, n=8) scoring slightly higher.

Conclusions: The study highlights a reasonable level of awareness among participants regarding dengue fever management, though further improvement is necessary, particularly in translating knowledge and attitudes into effective practices.

Keywords: *Dengue fever, in-ward management*

OP – 02

PSYCHOSOCIAL IMPACT OF ACNE ON A POPULATION OF PATIENTS VISITING THE SPECIALIZED DERMATOLOGY CLINICS AND THE OUTPATIENT DEPARTMENT (OPD) OF NATIONAL HOSPITAL KANDY (NHK) AND TEACHING HOSPITAL PERADENIYA (THP)

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Introduction: Acne vulgaris, a common inflammatory condition affecting the skin, in different regions of the body, with varying grades of severity, is associated with psychosocial impacts.

Objectives: Evaluating acne's impact on patients' quality of life (QoL), self-esteem, professional and personal lives, and relationships.

Methods: A cross-sectional study of 385 acne patients was conducted at dermatology clinics and OPDs of NHK and THP after ethical approval. Data was collected via a validated self-administered questionnaire, including Dermatology Life Quality Index (DLQI). Statistical Package for the Social Sciences was used for analysis, employing Spearman's correlation (ρ) and Kruskal-Wallis tests.

Results: Impact of the acne was reported as: 1.6% of participants indicated an extremely large effect, while 35.6% experienced a moderate effect. Further, 13.2%, reported no effect. Additionally, 34.3% experienced a small effect, and 15.3% noted large effect. As age increases, acne severity ($\rho=-0.1771368$), its impact on work and school ($\rho=-0.206$), treatment burden ($\rho=-0.104$), and impact on overall QoL ($\rho=0.112$), slightly decrease ($p<0.05$). Gender affected acne severity ($p<0.05$), and ethnicity influenced symptoms ($p<0.001$), work and school impact ($p<0.001$), personal relationships ($p<0.001$), treatment impact ($p<0.001$), DLQI scores, and overall QoL impairment ($p<0.001$). A weak positive correlation was observed between acne visibility and QoL impairment ($\rho=0.2997$, $p<0.001$). Acne severity has a statistically significant ($p<0.05$) moderate positive monotonic correlation with scores for symptoms and feelings ($\rho=0.427$), personal relationships ($\rho=0.444$), treatment ($\rho=0.430$) sub-scales and the total score ($\rho=0.458$), and QoL impact ($\rho=0.437$). Daily activities ($\rho=0.256$), leisure ($\rho=0.247$), and work and school ($\rho=0.341$), are on the other hand are only weakly positively monotonically correlated with increasing acne grade ($p<0.05$).

Conclusions: Weak negative correlation between age and acne severity, age and impact on work and school, age and treatment impact, and age and total DLQI score was found. Association was found between sex and acne severity, between ethnicity and symptoms and feelings, impact on work and school, impact on personal relationships, impact due to treatment, total DLQI scores and overall QoL impairment found. A weak positive correlation was found between acne visibility and QoL impairment. Moderate positive correlations were found between acne severity and symptoms and feelings.

Keywords: ACNE, psychosocial impact

ASSOCIATION BETWEEN COMORBIDITIES AND DISEASE SEVERITY IN COPD PATIENTS ATTENDING TEACHING HOSPITAL PERADENIYA

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Introduction: Chronic obstructive pulmonary disease (COPD) is a progressive respiratory condition with irreversible airflow limitation. In Sri Lanka, limited data on COPD and its comorbidities restricts effective disease management. This study aimed to examine the link between comorbid conditions and COPD severity.

Objectives: To determine the association between comorbidities and COPD severity among patients attending Teaching Hospital, Peradeniya.

Methods: A cross-sectional analytical study was conducted at the hospital's respiratory clinic in 2024. In total, 85 COPD patients diagnosed via spirometry findings were recruited using consecutive sampling methods. Disease severity was classified using the Global Initiative for Chronic Obstructive Lung Disease (GOLD) criteria. Data were collected through an interviewer-administered questionnaire and analyzed using Statistical Package for the Social Sciences (SPSS) Version 29.0, with the Chi-square test assessing associations between comorbidities and COPD severity.

Results: The majority of patients were aged 71-75 years (24.7%) and predominantly male (94.1%). Exposure to smoke was high (82.4% active smokers), with 72.9% exposed to dust. Asthma-COPD overlap syndrome (ACOS) was present in 15.3% of patients. According to COPD severity distribution, 25.9% of patients were in GOLD 1, 54.1% in GOLD 2, and 20% in GOLD 3. Comorbidities were common (85.9%), with hypertension (65.9%), dyslipidemia (32.9%), and diabetes mellitus (31.8%) being the most prevalent. However, there was no significant association between comorbidities and COPD severity.

Conclusions: While comorbidities were highly prevalent, they did not significantly impact COPD severity. Comprehensive care should prioritize early identification and management of comorbidities to improve patient outcomes. Future research should include larger samples and longitudinal studies to explore potential causal relationships.

Keywords: *Comorbidities, COPD, disease severity, GOLD classification, spirometry, Sri Lanka*

OP – 04

VARIATIONS IN THE DRAINAGE PATTERN OF THE INFERIOR MESENTERIC VEIN: A CADAVERIC STUDY

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Introduction: The inferior mesenteric vein (IMV) is one of the major tributaries of the portal vein, which drains the rectum, sigmoid colon, and descending colon. It usually drains into the splenic vein (SV) and makes the splenomesenteric trunk before joining the superior mesenteric vein (SMV) to form the portal vein. There are several variations in this draining pattern. Knowledge of mesenterico-portal venous drainage is essential in diagnosing and treating diseases in this region.

Objectives: To study the drainage patterns of the IMV using cadaveric dissections based on the Krumm classification in a Sri Lankan cohort.

Methods: This study was conducted at the Department of Anatomy, University of Peradeniya, Sri Lanka. Thirty-eight formalin-preserved cadavers used for undergraduate medical teaching were finely dissected to identify the drainage pattern of IMV and subsequently photographed and classified. Age, sex and cadaver number were documented. Descriptive statistics and Fisher's exact test were used for results analysis.

Results: The mean age of the study sample was 81 years, with the majority being females (55.26%). According to the classification, three variant drainage patterns of IMV were observed. The most dominant type was Krumm Type 3, where IMV drained into the SMV (42.1%), followed by Type 1, where IMV drained into the SV (34.2%), and Type 2, where IMV drained into the confluence of IMV, SMV, and SV (23.7%), respectively. No significant relationship between sex and IMV drainage pattern was observed ($p = 0.914$).

Conclusions: In this Sri Lankan sample, the main drainage pattern was Krumm Type 3, deviating from the reported literature. These findings suggest the presence of regional variations in drainage patterns, which should be considered to minimize the risk of iatrogenic injury.

Keywords: *Inferior mesenteric vein, portal vein origin, splenic vein, superior mesenteric vein*

VARIATIONS OF THE SUPERFICIAL VEINS IN CUBITAL FOSSA - A CADAVERIC STUDY IN A SRI LANKAN POPULATION

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Introduction: The cubital fossa is an important site for various procedures including venepuncture, intravenous access and arteriovenous fistula creation. Anatomical variations in the arrangement of cephalic, basilic and median cubital veins can influence these clinical procedures. Classical patterns in literature are M-type, Y-type, N-type and W-type but Charles classification gives a more detailed picture. It is crucial to study variations of these veins to optimize procedural techniques and minimize complications. The lack of research among Sri Lankans with demographic variations emphasizes the necessity for further research.

Objectives: To describe morphological patterns of superficial cubital veins using preserved cadavers in a Sri Lankan cadaveric population.

Methods: This study was conducted at the Department of Anatomy, Faculty of Medicine, University of Peradeniya. Both upper limbs of sixteen formalin-preserved cadavers used for undergraduate medical teaching were finely dissected. The patterns of cubital veins were observed, documented, and classified.

Results: The sample consisted of adult cadavers with an equal male-to-female ratio. Two right upper limbs were excluded due to destruction of veins leaving a final sample size of 30 (14 right, 16 left). Type 1 was the most common cubital vein morphology (33.3%), followed by Type 3 (30%). Females exhibited a higher frequency of Type 1 (28.6%), while males showed a greater occurrence of Type 3 (43.8%). There was no statistically significant association between vein morphology and sex ($p=0.389$) or laterality ($p=1.000$).

Conclusions: Type 1 is the most prevalent venous pattern, followed by Type 3, with minor differences between sexes and limb laterality. The absence of a statistically significant correlation between vein morphology and sex or laterality suggests that these variations occur randomly.

Keywords: *Basilic vein, cephalic vein, median cubital vein, upper limb veins*

ORAL PRESENTATION ABSTRACTS - SESSION 3A

OP – 01

AWARENESS REGARDING DIABETIC EYE DISEASE AMONG PATIENTS ATTENDING DIABETIC CLINIC IN NATIONAL HOSPITAL IN KANDY

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Introduction: Diabetes mellitus is a metabolic disorder with complications like diabetic retinopathy (DR), a major cause of preventable blindness. Early detection and treatment can significantly reduce vision loss. This study assessed awareness of DR among patients at the Diabetic Clinic, National Hospital Kandy.

Objectives: The study aimed to evaluate awareness of diabetic retinopathy among diabetic patients and analyze its association with demographic and clinical factors, including age, sex, education, and duration of diabetes. The study also explored barriers to regular eye screening.

Methods: A cross-sectional analytical study was conducted over two weeks with 95 diabetic patients using an interviewer-administered questionnaire. Data were analyzed using SPSS-27.0. Awareness was scored and associations tested using Kruskal Wallis test, Man Whitney U test and Spearman correlation. Significance was set at $p < 0.05$.

Results: The majority of participants were female (77.89%) and aged between 47–60 years (63.15%) with education level below O/L (53.68%). While 83.2% recognized that diabetes could cause blindness, only 26.3% identified diabetic retinopathy as a diabetic eye disease. A large proportion (82.1%) was unaware of its effects, and 65.3% did not recognize its symptoms. Despite 87.4% being advised to visit an eye clinic, 24.2% postponed their visits, citing long queues and busy schedules as primary reasons. No significant association was found between awareness levels and age, sex, education, or duration of diabetes.

Conclusions: The study highlights a significant lack of awareness regarding diabetic retinopathy among diabetic patients. Widespread educational initiatives and targeted interventions are needed to promote early screening and reduce preventable blindness. Further research and national awareness programs are recommended to bridge the knowledge gap and improve diabetic eye care.

Keywords: *Awareness, diabetes mellitus, diabetic retinopathy, eye screening, vision impairment*

KNOWLEDGE, ATTITUDES AND PRACTICES ON RABIES AND ITS POST-EXPOSURE MANAGEMENT AMONG ATTENDEES OF THE OUTPATIENT DEPARTMENT, NATIONAL HOSPITAL KANDY

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Introduction: Rabies is a fatal zoonotic disease affecting humans worldwide, particularly in resource-limited regions. It is primarily transmitted through infected animals, especially domestic dogs. The World Health Organization estimates tens of thousands of rabies-related deaths annually, with cases often under-reported in rural areas. Sri Lanka experiences a high prevalence of animal bites, leading to significant human mortality.

Objectives: This study aims to assess the level of knowledge, attitudes, and practices related to rabies, as well as awareness of its post-exposure management. Additionally, it examines associations between these factors and socioeconomic and demographic status.

Methods: A descriptive cross-sectional study was conducted among 424 attendees of the Outpatient Department at the National Hospital Kandy. The data that were collected using a structured, self-administered questionnaire and sampled using the convenience sampling method were analyzed using SPSS software.

Results: Most participants had an unsatisfactory level of knowledge about rabies (79.7%), whereas most had a satisfactory attitude towards the disease (60.14%). However, awareness of rabies post-exposure management was significantly high. Associations between knowledge and various socio-demographic factors were assessed using the Chi-square test. Significant associations existed between the level of knowledge and factors such as ethnicity, occupation, education level, and monthly income. The p-values between the level of knowledge and age, gender, ethnicity, occupation, educational level, and monthly income were 0.056, 0.248, 0.015, 0.010, 0.001, and 0.014, respectively. Similarly, attitudes were associated with age, ethnicity, occupation, educational level, and monthly income. The p-values between the level of attitude and age, gender, ethnicity, occupation, educational level, and monthly income were 0.002, 0.709, 0.000, 0.000, 0.000, and 0.000, respectively.

Conclusions: The study reveals a significant gap in knowledge regarding rabies among the majority of participants, despite a generally positive attitude toward the disease and good awareness of post-exposure management. Notably, knowledge and attitudes were significantly associated with socio-demographic factors such as age, ethnicity, occupation, education level, and monthly income. These findings highlight the urgent need for targeted public health interventions to enhance rabies-related knowledge, particularly among vulnerable groups. Strengthening educational efforts is essential for empowering communities and contributing effectively to the national goal of rabies elimination in Sri Lanka.

Keywords: *Attitudes, knowledge, post-exposure, practices, rabies*

OP – 03

ASSESSING AWARENESS OF BREAST CANCER AND PRACTICES OF BREAST SELF-EXAMINATION AMONG ADOLESCENTS: A STUDY OF SCHOOLS IN THE KANDY DISTRICT

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Introduction: Breast cancer is the most common cancer among females and a leading cause of cancer-related deaths worldwide. Early detection significantly improves prognosis. Awareness of risk factors, early warning signs, and breast self-examination (BSE) play a crucial role in early detection. However, limited studies have explored this among adolescents in Sri Lanka.

Objectives: To assess knowledge and attitudes about breast carcinoma and the importance of breast self-examination (BSE) in reducing the risk of worsening of conditions through early detection.

Methods: A cross-sectional descriptive study among 626 grade 10–11 girls (aged 14–16) from 1AB schools in Kandy used a self-administered, pre-tested questionnaire. Multi-stage cluster sampling was used. Data were analyzed with Jamovi 2.3.28 and Microsoft Excel 2019 using descriptive statistics and chi-square tests.

Results: Regarding early warning signs, 61.8% identified a breast lump as a sign while nipple discharge (23.5%), nipple retraction (12.9%) and lump in the neck or axilla (18.4%) was correctly identified by only a small number of participants. Family history (63.9%) is the most recognized risk factor. 23.16% of students indicated that they would only see a doctor if additional symptoms of breast cancer were present. 36.1% were not aware that BSE is a method of early detection. 81.6% were unaware of how to perform BSE, and only 7.7% had ever performed it. Television was the most popular information source (34.42%) regarding breast cancer while parents (14.53%) were the most popular source for BSE. Awareness was significantly associated with having a healthcare worker in the family ($p < 0.001$) and grade level ($p < 0.001$).

Conclusions: Significant gaps exist in knowledge and awareness of breast cancer and BSE among adolescent females. Educational interventions are essential to improve awareness and encourage early detection practices in this population.

Keywords: *Adolescent, awareness, breast cancer, female, Kandy, schoolgirls, self-breast examination, Sri Lanka*

KNOWLEDGE AND ATTITUDES AMONG PREGNANT MOTHERS IN THE YATINUWARA MOH AREA OF VACCINES GIVEN TO CHILDREN UNDER FIVE YEARS AS PART OF THE NATIONAL IMMUNIZATIONS PROGRAMME

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Introduction: Opinion of vaccination of pregnant mothers is very important in the success of the national immunization programme in Sri Lanka. Recently we have seen few outbreaks of diseases probably due to vaccine hesitancy. Therefore, assessing the knowledge and attitudes toward childhood vaccination is essential.

Objectives: To assess the knowledge and attitudes regarding vaccines given to children under five years as part of National Immunization Programme among pregnant mothers of Yatinuwara Medical Officer of Health (MOH) area.

Methods: A total number of 260 pregnant mothers participated in this study, and data were collected using an interviewer administered, printed structured questionnaire at randomly selected antenatal clinics of Yatinuwara MOH area.

Results: Majority of pregnant mothers (75.9%) had an average knowledge on vaccination. There was a statistically significant relationship between knowledge and both educational and employment status. Knowledge scores were significantly higher among mothers who did biology in A/L. The Majority (76.6%) expressed a positive attitude regarding their willingness to vaccinate their children and 61.9% believed that vaccination is important for protecting community health. However, 48.5% of mothers were concerned about adverse events following vaccination and 33.4% were unsure about the safety of new vaccines. Notably, 62.7 % believed that vaccination could cause diseases such as autism or cancer. The most preferred method of getting information on vaccination was through public health midwives (PHM).

Conclusions: While most pregnant mothers had average knowledge, those with higher education levels and bio stream backgrounds demonstrated better knowledge. Attitudes were generally positive, recognizing community protection through vaccination, but concerns about adverse events and new vaccine safety were prevalent. Nonetheless, widespread misconceptions and concerns about vaccine safety persist. Since PHMs were the most trusted source of information, strengthening their role in education may improve vaccine uptake.

Keywords: *Attitude, childhood vaccination, knowledge, pregnant mother, Sri Lan*

ORAL PRESENTATION ABSTRACTS - SESSION 3B

OP – 01

HEALTH CONSCIOUSNESS AMONG STUDENTS OF UNIVERSITY OF PERADENIYA: A STUDY ON BEHAVIOURS, ATTITUDES AND SUBOPTIMAL HEALTH STATUS

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Introduction: Health consciousness is the degree to which one cares about their health, reflected in their attitudes and adoption of healthy behaviours. Suboptimal health status (SHS) refers to an early, reversible phase of pre-chronic illness, marked by symptoms such as chronic fatigue and low energy, often linked to poor health consciousness. Improving health consciousness by addressing its determinants can help prevent SHS and reduce risk of chronic illness.

Objectives: This study evaluated the level of health consciousness and SHS among students of University of Peradeniya, and assessed the association between the two, while also determining the factors that influenced their health consciousness.

Methods: A cross-sectional descriptive study with an analytical component was conducted among 2020/2021 undergraduates of five faculties at the University of Peradeniya using stratified random sampling. Data was collected through a pre-tested, structured, self-administered questionnaire, consisting of 3 sections. The first section evaluated factors influencing health consciousness, while the second section measured health consciousness scores based on attitudes and behaviours, categorizing them as "Poor" or "Good" using a 50% cut-off. The third section assessed SHS, with scores above 35 indicating SHS.

Results: Among 388 participants, 72.9% had a poor level of health consciousness while 20.6% had SHS. A weak negative correlation between health consciousness and SHS was observed, though it was not statistically significant. Financial difficulties, academic pressure, and time constraints were the primary factors negatively impacting health consciousness. Students were notably poor in health behaviours related to physical activity, stress management and health responsibility.

Conclusions: The majority of University of Peradeniya students had a poor health consciousness and a moderate proportion had SHS. Improving health consciousness in this population group is important, with special consideration of financial difficulties, academic pressure, and time constraints.

Keywords: *Health consciousness, healthy attitudes, healthy behaviours, suboptimal health status*

JOB SATISFACTION AMONG DOCTORS IN A NATIONAL HOSPITAL IN SRI LANKA: A CROSS-SECTIONAL STUDY

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Introduction: Job satisfaction is essential for effective healthcare delivery, influencing both professional retention and patient care quality. Understanding factors contributing to doctors' satisfaction can help improve healthcare settings and reduce brain drain in Sri Lanka. This study was conducted in a context where no recent research had been undertaken on doctors' job satisfaction in Sri Lanka.

Objectives: To assess the level of job satisfaction among doctors at a national hospital in Sri Lanka and identify the factors that influence their satisfaction.

Methods: The study at National Hospital Kandy used a cross-sectional descriptive design with a convenient sampling method including 110 participants, ranging from house officers to consultants across various specialties. Data were collected using the Standard Short Minnesota Satisfaction Questionnaire and analysed with IBM SPSS Statistics 27 with Spearman's correlation to assess relationships between job satisfaction domains (work itself, work environment, leadership management, interpersonal relationships, pay and benefits) and overall job satisfaction. The Mann-Whitney U and Kruskal-Wallis tests were used to compare job satisfaction across different groups (age, gender, experience, marital status, specialty, and job position), with a significance level set at $P \leq 0.05$.

Results: The findings indicate that 85.5% of doctors were satisfied with their jobs. The highest satisfaction was in interpersonal relationships, and the lowest in pay and benefits. The work itself had the strongest correlation with job satisfaction ($r = 0.848$, $p < 0.001$). Demographic factors like age, gender, and marital status had no significant effect, while job position and specialization did with senior registrars and those in psychiatry reporting the highest satisfaction, respectively.

Conclusions: Targeted strategies to address work-related needs, manage workload, and improve compensation could enhance job satisfaction and retention of medical professionals in Sri Lanka, improving healthcare delivery and population health.

Keywords: *Doctors, job satisfaction, national hospital, Sri Lanka*

OP – 03

IMPACT OF WORKLOAD ON THE HEALTH STATUS OF NURSES EMPLOYED IN BASE HOSPITAL (TEACHING) GAMPOLA

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Introduction: Nurses play a crucial role in healthcare delivery in Sri Lanka. Obviously, the well-being of nurses directly influences healthcare quality. Excessive workload has been associated with various adverse health outcomes, making it essential to assess its impact on nurses' health status in a structured manner.

Objectives: To identify the impact of workload on the health status of nurses employed in Base Hospital (Teaching) Gampola.

Methods: A descriptive cross-sectional study was conducted among the entire population of female nurses employed at Base Hospital (Teaching) Gampola. A total of 189 eligible nurses of the age range 26 to 58 years were selected. The workload of the nurses and their health status were assessed using a validated self-administered questionnaire. Overall health status assessment covered physical health indicators (BMI, chronic conditions) and mental health aspects (stress, burnout). Overall workload was evaluated based on shift hours, patient load, difficulty of work, overtime frequency and exposure to ergonomic hazards. Data analysis was performed using SPSS software, applying chi-square tests, independent t-tests, and linear regression to determine significant associations.

Results: With regard to BMI, 37.6% were overweight and 13.2% were found to be obese. Distribution of common illnesses were allergies (25.9%), varicose veins (25.4%) hypertension (11.1%), and diabetes (5.3%). Summing up, the difficulty of work and exposure to ergonomic hazards it was found that 32.8% were exposed to increased workload. Good health was negatively and significantly associated with workload level (chi-square = 22.6, df = 4, P<0.001).

Conclusions: This study demonstrated a significant association between workload and the health status of nurses at Base Hospital (Teaching) Gampola. Increased workload was linked to poorer health outcomes, with hypertension, varicose veins, allergies and diabetes.

Keywords: *BMI, mental health, nurses, physical health, Workload*

OP – 04

**A STUDY ON THE FACTORS THAT AFFECT ACADEMIC PERFORMANCE
AMONG SECONDARY SCHOOL STUDENTS OF TWO SELECTED SCHOOLS
IN THE KANDY DISTRICT**

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Introduction: Education serves as a cornerstone for both individual development and societal progress. Various factors influence students' academic performance, necessitating a comprehensive understanding of these determinants.

Objectives: This study aimed to identify and analyze key factors affecting the academic performance of secondary school students in Kandy, Sri Lanka.

Methods: A descriptive cross-sectional study was conducted among 379 Grade 10 students from two selected secondary schools in Kandy. Data was collected in March 2024 using a self-administered questionnaire. A convenient sampling method was employed. Statistical analysis was performed using the Mann-Whitney U test and Kruskal-Wallis test to determine associations between different variables and academic performance.

Results: The findings revealed a significant relationship between academic performance and several factors, including gender, time spent in tuition classes, breakfast consumption, quality of sleep, family income, distance to school, number of dependents in the family, and parents' education level. However, time spent on extracurricular activities, total sleep duration, screen time for non-academic purposes, and mode of transport did not show a statistically significant impact.

Conclusions: The study highlights multiple determinants that significantly influence secondary school students' academic performance. Addressing modifiable factors such as nutrition, sleep quality, and family-related socioeconomic conditions through targeted interventions may enhance academic outcomes. These findings provide valuable insights for educators, policymakers, and parents in implementing strategies to improve students' educational achievements.

Keywords: *Academic performance, secondary education*

ORAL PRESENTATION ABSTRACTS - SESSION 3C

OP – 01

INFLUENCE OF DEMOGRAPHIC AND ANTHROPOMETRIC FACTORS ON CARDIOTHORACIC RATIO IN HEALTHY ADULTS: A CROSS-SECTIONAL STUDY

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Introduction: Cardiothoracic ratio (CTR) refers to the correlation between heart size and the transverse dimension of the chest on a posteroanterior (PA) chest radiograph.

Objectives: The study was done to assess the mean CTR and to see whether there is any association with age, gender, and body mass index (BMI) among healthy individuals and compare with other available CTRs. This enables to establish normal CTRs for age groups of local population and to assess the presence of true cardiomegaly.

Methods: A prospective cross-sectional study was conducted among healthy individuals who underwent a PA chest X-ray at Bogambara chest clinic in Kandy for medical examination. A total of 190 PA chest X-rays were included, consisting of 65 males and 125 females. The maximum transverse cardiac diameter (max TCD) was measured by summing two measurements taken from the spinous process to the widest points of the right and left heart borders. The maximum internal transverse thoracic diameter (max ITTD) was measured as the widest inner surface diameter of the thoracic cage. RadiAnt DICOM Viewer software was used to acquire measurements. CTR was calculated by dividing the max TCD by the max ITTD. Height and weight of the subjects were measured, and BMI was calculated. Independent t-test, one way analysis of variance test, and Spearman's rank correlation were tested using the SPSS statistical package.

Results: The mean values of CTR for males, females, and the study population were 0.43657 ± 0.04445 , 0.44717 ± 0.04595 , and 0.44354 ± 0.04561 , respectively, indicating a higher mean CTR in females than males. A Statistically significant variation was noted between the mean CTR and the age. A moderate positive correlation was found between BMI and CTR, which was statistically significant ($rs=0.344$) at $p=0.01$ level.

Conclusions: Mean value of CTR for the study population was compatible with studies done among Asians. A statistically significant variation was observed in CTR with age and BMI. However, there was no statistically significant difference in CTR between males and females.

Keywords: *Body mass index, cardiothoracic ratio, healthy individual*

CURRENT PRACTICES AND OUTCOMES OF PREMEDICATION WITH STEROIDS IN THE PREVENTION OF REACTIONS TO INTRAVENOUS CONTRAST MEDIA IN ADULT PATIENTS UNDERGOING CONTRAST ENHANCED COMPUTED TOMOGRAPHY

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Introduction: Contrast-enhanced computed tomography (CECT) is widely used, yet intravenous contrast media (CM) can lead to adverse reactions. Premedication with steroids is important in mitigation of adverse reactions, but standardized practices are lacking in Sri Lanka.

Objectives: To find out the current practices of premedication with steroids used in prevention of reactions to intravenous contrast media in adult patients undergoing CECT in selected tertiary health care institutions in Sri Lanka and to correlate them with CM induced reactions. This includes finding out the indications for premedication, identifying premedication regimes which were being used across the institutions, finding out the proportion of contrast media induced reactions and the association between reactions with each premedication regimes in the study sample.

Methods: A descriptive cross-sectional study was conducted involving 425 adult patients undergoing CECT with intravenous CM at four tertiary care hospitals. Data were collected using interviewer-administered questionnaires. Analysis involved descriptive statistics and association tests.

Results: Out of 425 patients, 210 (49.4%) received steroid premedication. Among them, 65.2% were premedicated without clear clinical indication. Only seven (1.65%) experienced CM-induced reactions and all the reactions were mild reactions. All the reactions occurred in premedicated patients. And there were no CM induced reactions occurred in non-premedicated patients. Non-ionic, low-osmolar CM was uniformly used across institutions. Premedication significantly correlated with a higher likelihood of reactions ($P=0.007$, $OR=15.9$). Three specific steroid regimens were used across institutions, but no significant association was found between steroid regimens and reaction incidence ($P=0.737$). Prednisolone was the preferred premedication with varying dosages across all institutions.

Conclusions: Steroid premedication practices in Sri Lankan tertiary care hospitals vary and often deviate from standard clinical indications. Notably, premedicated patients demonstrated a higher likelihood of mild reactions, indicating the need for revision of current practices and developing standardized local guidelines.

Keywords: *Adverse reactions, contrast-enhanced computed tomography, intravenous contrast media, Sri Lanka, steroid premedication*

OP – 03

HISTOLOGICAL AND MOLECULAR CLASSIFICATION, GRADING, STAGING AND PROGNOSTIC INDEXING OF FEMALE BREAST CANCER: A SINGLE CENTRE DESCRIPTIVE STUDY

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Introduction: Breast cancer, the most common cancer among women globally, has a prevalence of 2.3 million cases in Sri Lanka, with 684,996 deaths reported in 2020. It is a heterogeneous disease, classified histologically into invasive ductal and lobular carcinomas, and molecularly into Luminal A, Luminal B, Triple-negative, and HER2-enriched subtypes. The Nottingham Prognostic Index (NPI), integrating tumour size, nodal status, and histological grade, is widely used to predict patient outcomes. This study examines the relationship between NPI and prognostic factors in breast cancer patients at the National Hospital, Kandy, to improve treatment strategies.

Objectives: To evaluate histopathological features and prognostic indices in breast cancer patients at the National Hospital, Kandy.

Methods: This retrospective cross-sectional study analysed 144 patients who underwent surgical mastectomy between September 2020 and September 2023. Data from histopathology and immunohistochemistry reports were analysed using SPSS 28. Patients who had received neoadjuvant therapy or prior lumpectomy were excluded. Ethical approval was obtained from the ethics review committee, Faculty of Medicine, University of Peradeniya.

Results: In the study cohort, peak incidence of breast cancers was in the 61–70 years age group (29.2%). The predominant histological type was invasive carcinoma of no special type (84%), with Luminal B as the most common molecular subtype (51.4%). Most cases were Nottingham grade 2 (72.2%) and stage I (54.9%). NPI showed a weak negative correlation with age ($r=-0.296$), a moderate positive correlation with grading ($r=0.479$), and a strong positive correlation with staging ($r=0.855$). The molecular subtype showed a significant association with grading but not staging.

Conclusions: NPI is a valuable prognostic tool for breast cancer. Age, tumour grade and stage significantly correlated with NPI, while molecular subtype was significantly linked to grading. These findings highlight the role of NPI in comprehensive breast cancer management.

Keywords: *Breast cancer, grading, histological type, molecular subtype, Nottingham prognostic index, staging*

KNOWLEDGE, ATTITUDES AND PRACTICE AMONG HEALTH CARE PROFESSIONALS IN REPORTING ADVERSE DRUG REACTIONS IN SELECTED PRIMARY, SECONDARY, AND TERTIARY CARE UNITS IN KANDY DISTRICT

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Introduction: Adverse drug reactions (ADRs) reporting is essential for pharmacovigilance and healthcare professionals (HCPs) have a responsibility to do so.

Objectives: This study aimed to assess the knowledge, attitudes and practice among health care professionals in reporting adverse drug reactions in selected tertiary, secondary and primary care units in the Kandy district.

Methods: A descriptive cross-sectional study was conducted in five selected hospitals using a self-administered questionnaire. The study sample (n=205) was selected using convenient sampling among doctors, nurses and pharmacists. Levels of knowledge, attitudes and practice were evaluated with SPSS software using descriptive statistics and parametric tests.

Results: The majority of doctors (75%), nurses (58%) and pharmacists (80%) possessed average levels knowledge on ADR reporting though there were no significant differences in knowledge scores amongst the professions (p=0.54). 78.0% selected training programs and seminars as the source of knowledge, but 13.2% received formal training on ADR reporting. The majority of participants (93.7%) showed good attitudes to reporting ADRs with nurses having the highest attitude scores (p<0.001). The majority (69.67%) had poor practice. Secondary care level showed the highest practice score (p=<0.001). 90.2% of HCPs had encountered at least one patient with ADR, but 22% had reported ADR. The good practice was associated with awareness of the reporting process (Pearson chi-square value = 66.411, p <0.001) and knowing whereabouts of the reporting forms (Pearson chi-square value = 67.49, p <0.001).

Conclusions: Good attitudes among the majority indicated the potential to improve ADR reporting. Interventions to enhance the knowledge and practice of ADR reporting, awareness of reporting process and ADR reporting forms could enhance the ADR reporting and ensure patient safety.

Keywords: *Adverse drug reactions reporting, healthcare professionals, knowledge; attitudes and practice, pharmacovigilance*

ORAL PRESENTATION ABSTRACTS - SESSION 3D

OP – 01

MASK-WEARING FOR RESPIRATORY TRACT INFECTIONS AT AN OUTPATIENT SETTING IN A TERTIARY CARE CENTER DURING THE POST-COVID-19 PERIOD

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Introduction: Mask-wearing, widely adopted during COVID-19, is a crucial method for preventing respiratory tract infections (RTIs). With proper understanding, it can remain an effective preventive measure for RTIs post-pandemic.

Objectives: To assess the knowledge and practices on mask-wearing for preventing RTIs during the post-COVID-19 period among the visitors coming to the Outpatient Department (OPD) at Teaching Hospital, Peradeniya (THP).

Methods: A cross-sectional descriptive study was conducted in April 2024 among 423 OPD visitors at THP aged 18 to 75, using a validated self-administered questionnaire. Knowledge (KS) and practice scores (PS) were calculated. Mask-wearing practices were observed during the interview. The KS and PS were categorised as good (80-100%), moderate (79-60%) and poor (<60%).

Results: Data were analyzed for 394 participants with valid responses, with a mean age of 34.1 years (SD=13.9y). The majority were female (273, 69.3%). The knowledge score (KS) ranged from 6 to 18 out of 19, with a median of 15.00 (IQR=13–16), and the majority (207, 52.5%) had moderate knowledge. The majority (226, 57.4%) agreed that masks were necessary in the post-pandemic period. The practice score (PS) ranged from 16-35 out of 35, with a median of 32.00 (IQR=30–35). The majority (222, 56.3%) reported that they always wore masks when in close contact with symptomatic individuals with RTIs, while 287 (72.8%) stated that they always wore masks when symptomatic themselves. However, mask usage was observed in 74 (18.8%) participants. The majority of those wearing masks were symptomatic or accompanying symptomatic individuals (56/74, 75.68%). This accounted for 21.5% of the 261 participants who were either symptomatic or accompanying a symptomatic individual.

Conclusions: While many reported adherences, mask usage was low—only 18.8% overall and 21.5% among those with symptoms or accompanying someone symptomatic—highlighting a gap in adherence to preventive measures, even in healthcare settings.

Keywords: COVID-19, Mask, Respiratory tract infections

MICROBIOLOGICAL PROFILE AND ANTIBIOTIC SUSCEPTIBILITY PATTERNS OF COMMUNITY-ACQUIRED URINARY TRACT INFECTIONS IN ADULTS AT A TERTIARY CARE HOSPITAL IN SRI LANKA

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Introduction: Community-acquired urinary tract infections (CA-UTIs) are common in hospital settings. While symptomatology and causative organisms are well known, evolving antimicrobial resistance complicates empiric treatment. This study assessed antibiotic susceptibility patterns of CA-UTI pathogens in a large tertiary care hospital in Sri Lanka and identified prevalent symptoms and causative organisms.

Objectives: To assess symptomatology, microbiological profiles, and antibiotic susceptibility patterns of uropathogens among patients presenting with CA-UTIs in the medical wards of the National Hospital, Kandy.

Methods: Patients with significant bacteriuria ($>10^5$ CFU/ml) from February to May 2024 were identified through laboratory records and traced to medical wards. Those with indwelling catheters were excluded. Symptom assessment was conducted using the interviewer-administered “Urinary Tract Infection Symptom and Impairment Questionnaire” (UTI-SIQ 8). Isolates were subjected to culture and susceptibility testing based on Clinical and Laboratory Standards Institute (CLSI) guidelines.

Results: Of the 212 patients included, the most reported symptom was dysuria (64.2%), followed by suprapubic pain (57.5%), frequency (56.1%), and urgency (51.4%). Hematuria (7.1%) and lower back pain (0.9%) were infrequent. Most symptoms were mild in intensity. Coliforms were the predominant isolates (83.5%), followed by *Enterococcus faecalis* (6.6%). Notably, *Streptococcus* species were the least identified, accounting for only 0.9% of isolates. Coliforms showed highest sensitivity to amikacin (74.6%) and nitrofurantoin (71.8%). Among cephalosporins, ceftazidime had the highest sensitivity (61.6%), while cefalexin had lower sensitivity (37.9%). Ciprofloxacin and norfloxacin showed moderate sensitivity (46.3% and 54.2%, respectively).

Conclusions: Coliforms were the predominant uropathogens in CA-UTIs, showing highest susceptibility to amikacin and nitrofurantoin. These findings align with national and global data, where both antibiotics remain effective despite an increase in resistance. The prevalence of mild symptoms like dysuria and suprapubic pain indicative of lower urinary tract infections supports the use of nitrofurantoin as a suitable empiric treatment for uncomplicated CA-UTIs

Keywords: *Antibiotic susceptibility, Coliforms, Urinary tract infection*

OP – 03

OBSERVATIONAL STUDY REGARDING STANDARD VENEPUNCTURE PRACTICES AT TEACHING HOSPITAL PERADEINIYA

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Introduction: Standard venepuncture techniques are crucial to ensure patient safety, accurate diagnoses, and prevent complications.

Objectives: To evaluate the standard practices of venepuncture procedures in selected units of Teaching Hospital, Peradeniya.

Methods: This was a descriptive cross-sectional study conducted at the selected units by observing 407 venepuncture procedures according to the validated and pre-tested checklist to evaluate practices related to hand hygiene, glove usage, appropriate standards of skin preparation, adherence to the aseptic non-touch techniques, waste disposal and sharps handling.

Results: Hand hygiene compliance was low, with only 20.88% performing it before and after the procedures. For blood cultures, 75% of healthcare workers practiced hand hygiene before skin preparation, but 45% did not repeat it before sample collection. The risk of contamination due to reused gloves was 32.92%. Although sterile gloves were used in 80% of blood culture procedures, improper handling was common. Proper skin cleaning was achieved in 67.32% of routine venepunctures but only 30% during blood cultures. Rubber cap of the blood culture bottle was cleaned only 30% of the time. Adherence to aseptic non-touch technique was low at 14.25%. Touching the sterile site after cleaning seen in 35% blood cultures. Sharps handling and disposal revealed risky practices in 21.87% observations, while only 24.57% of gloves were correctly disposed to infectious wastebins.

Conclusions: Major deviations from infection control protocols were observed in both venepunctures for routine investigations and blood cultures. Regular educational programs, evaluation, and monitoring are needed for the improvement of practices.

Keywords: *Healthcare worker, infection prevention, standard venepuncture practices*

KNOWLEDGE, ATTITUDES AND PRACTICES ON HOSPITAL-ACQUIRED INFECTIONS PREVENTION AMONG NURSES AT TEACHING HOSPITAL PERADENIYA

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Introduction: Hospital-acquired infections (HAIs) are infections acquired in healthcare facilities which were neither present nor incubating at the time of admission. They pose significant global health challenges, increasing morbidity, mortality, and healthcare costs. Nurses play a critical role in preventing and minimizing HAIs.

Objectives: This study assessed the knowledge, attitudes, and practices (KAP) of staff nurses at Teaching Hospital Peradeniya on hospital-acquired infection (HAI) prevention and examined the correlation between their knowledge and infection control practices.

Methods: A cross-sectional study was conducted among 274 nurses after obtaining informed consent. Data were collected via a structured, self-administered questionnaire assessing knowledge, attitudes, and practices on HAIs, including standard precautions, care bundles, common pathogens, and PPE usage. Associations between dependant and independent variables were analysed using IBM SPSS 29.

Results: The study revealed that 51.8% of nurses had good knowledge (>70%) of HAIs, 68.6% showed positive attitudes (>70%), and 94.9% had good insight on practices (>70%). Sex, age, and work-experience had no significant impact on knowledge, attitudes, or practices. Hand hygiene was identified by 96% of nurses as the most effective HAI prevention method. Significant differences in mean knowledge and practice scores were observed across wards ($p < 0.05$), with ICU nurses scoring highest. Over 80% of nurses were knowledgeable on venous catheter care bundles, glove use, and common pathogens. Attitude scores differed significantly by education type ($p < 0.05$), with graduate nurses exhibiting more favourable attitudes. A weak positive correlation between knowledge and practice scores ($\rho = 0.144$, $p < 0.05$) indicated that higher knowledge scores led to only a modest improvement in practices.

Conclusions: Despite good grasp of practices, nurses demonstrated suboptimal level of knowledge on HAIs. Continuous in-service education, including infection control sessions and self-directed learning, remains essential. Higher KAP scores among nurses in specialized units underscore the benefits of targeted training.

Keywords: *Hospital-acquired infections, nosocomial, nursing, Peradeniya*

POSTER PRESENTATION ABSTRACTS

PP-01

OSMOTIC DEMYELINATION SYNDROME IN A 48-YEAR-OLD SRI LANKAN BUSINESSMAN FOLLOWING CORRECTION OF SEVERE HYPONATREMIA SECONDARY TO A PITUITARY MACROADENOMA

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Introduction: Severe hyponatremia and Osmotic Demyelination Syndrome (ODS) represent two ends of the spectrum of sodium related emergencies and pituitary adenomas are considered a rare cause of severe hyponatremia with Syndrome of Inappropriate ADH secretion (SIADH) and anterior pituitary hormone deficiencies playing a major role in pathogenesis. ODS, which includes Extrapontine myelinolysis (EPM) and Central pontine myelinolysis (CPM) is a rare neurological disorder most often associated with rapid correction of hyponatremia.

Case Presentation: We present the case of a 48-year-old Sri Lankan man with a newly diagnosed pituitary macroadenoma, who developed ODS pre-operatively, following the correction of severe hyponatremia of serum Na⁺ 99 mmol/l to 128mmol/l over 3 days. The patient initially presented with vomiting and loss of consciousness, which was attributed to hyponatremia secondary to a pituitary adenoma which was diagnosed during this episode. His sodium was corrected with 3% sodium chloride and his symptoms initially started to improve; however, he then went on to develop slurring of speech, ataxia, dysphagia, and urinary incontinence. A subsequent MRI revealed extrapontine myelinolysis, demonstrated by high signal intensity in the basal ganglia, in diffusion weighted images. The patient had a holistic treatment approach via a multi-disciplinary team. The pituitary tumor was then excised, sodium levels closely monitored, and the patient went on to show significant improvement.

Conclusions: This uncommon case highlights the importance of carefully pacing sodium correction, being vigilant about sodium levels in such cases as well as the importance of multidisciplinary management of ODS, especially in the context of hyponatremia occurring secondary to a pituitary pathology, thus adding value to the existing literature.

Keywords: *Extrapontine myelinolysis, hyponatremia, multidisciplinary management, osmotic demyelination syndrome, pituitary macroadenoma*

AUDIT ON DECISION TO DELIVERY TIME INTERVAL IN CATEGORY-1 CESAREAN SECTION - RETROSPECTIVE SINGLE CENTER STUDY

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Introduction: Cesarean section is a commonly performed surgery in obstetrics units. The urgency of the cesarean section is categorized according to the associated fetal and maternal morbidity and mortality. Category 1 cesarean sections are performed when there is an immediate danger to the lives of mother and/or fetus. We have taken NICE guideline (NG192) updated on 30th January 2024 as the accepted guide, which suggested the decision to deliver time within 30 minutes.

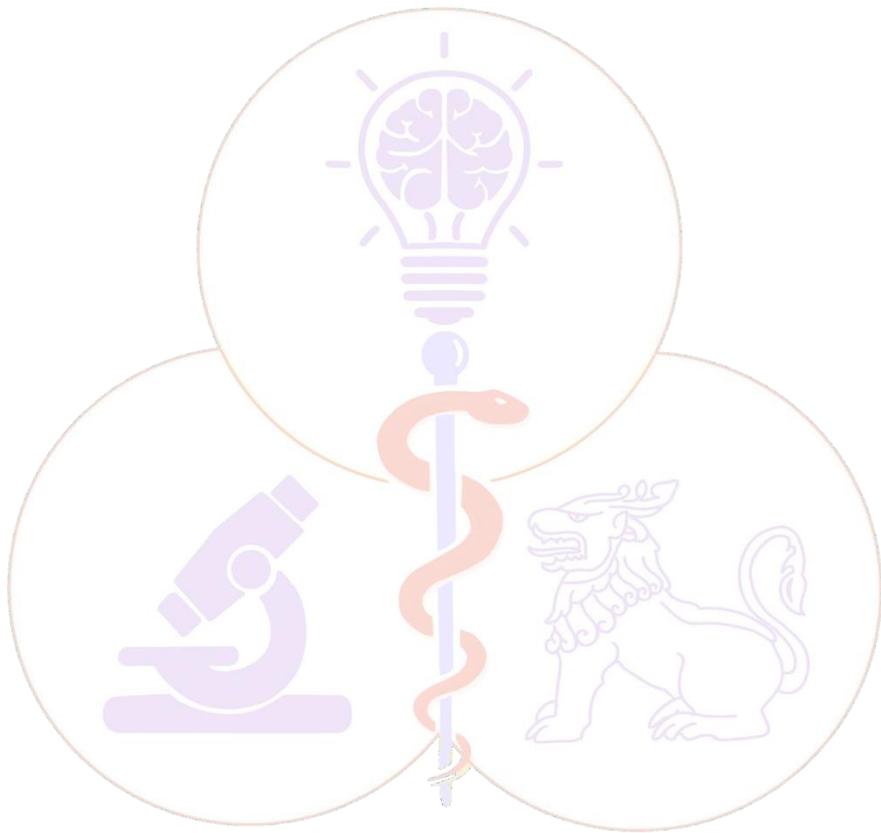
Objectives: To assess the adherence to the accepted practice and identify the pitfalls that lead to delays in the decision to delivery time interval, assess the documentation accuracy and quality and ensure training and awareness among the staff.

Methods: This study was conducted as a retrospective study using hospital records from 1st September 2024 to 30th November 2024. The time of decision taken and the time of delivery were recorded, and interval was calculated. A brief survey and informal discussions with theater staff were conducted to assess awareness and training related to Category 1 cesarean protocols. Descriptive statistics were used to express the categorical variables as percentages for clear and convenient representation.

Results: Out of the 28 cesarean sections performed, the majority (75%) were due to fetal distress, 14.2% were due to antepartum haemorrhage with placental abruption, 7.14% were due to cord prolapse and 3.57% were due to failed instrumental delivery. The mean interval between decision and delivery time was 22.92 minutes. Out of the 28 deliveries only 1 incident had an interval of 32 minutes. The major reason for the delay was due to the difficulties faced in securing the airway and lack of staff at that time. All the details, including the time when the decision was taken, and the delivery time were clearly mentioned in patients' records.

Conclusions: The audit reveals that while the decision-to-delivery time for Category 1 cesarean sections at Teaching Hospital Badulla generally aligns with the NICE guidelines, there remains room for improvement, particularly in ensuring prompt airway management and adequate staffing during emergencies. Targeted training programs and periodic drills may enhance emergency preparedness and improve overall outcomes. Addressing these factors will further minimize delays, ensuring optimal outcomes for both mother and fetus.

Keywords: *Cesarean section, Difficult airway, Fetal distress, Instrumental delivery, Obstetrics*





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