

Beyond prescription: Navigating therapy in medical practice

**FACULTY OF MEDICINE
ACADEMIC SESSIONS
FMAS 2026
UNIVERSITY OF RUHUNA**



**Proceedings of the
14th Academic Sessions
Faculty of Medicine, University of Ruhuna**

**13th May 2026
T W WIKRAMANAYAKE AUDITORIUM**



Proceedings of the 14th Academic Sessions of the
Faculty of Medicine, University of Ruhuna
FMAS 2026



13th May 2026
TW Wikramanayake Auditorium

Beyond prescription: Navigating therapy
in medical practice

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Dr. Achala Liyanage

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Message from the Co-chairperson FMAS 2026

It is with great privilege that I share this message as the Co-chairperson of the 14th Annual Academic Sessions of the Faculty of Medicine, University of Ruhuna – FMAS 2026. Academic sessions continue to play a vital role in the field of medicine by providing a platform to share breakthroughs, foster collaboration, and advance clinical practice.



The pre-congress session, themed “Asthma and Allergy International Symposium,” focuses on conditions that are highly prevalent in the general population. It aims to equip doctors with up-to-date knowledge, highlight the clinical significance of asthma and allergies, and provide insights into recent scientific advancements. The session also includes a hands-on component, offering participants the opportunity to develop and refine essential clinical skills.

We are honoured to welcome a distinguished panel of specialists from Sri Lanka and India, who will share their expertise, recent research, and clinical experiences. Their contributions will undoubtedly enrich the learning experience and inspire future generations in the medical field.

I would like to extend my sincere gratitude to the Vice Chancellor of the University of Ruhuna and the Dean of the Faculty of Medicine for their guidance and support. I also wish to thank all members of the organizing committee, whose dedication and efforts have made this event possible.

I am confident that this year's sessions will contribute meaningfully to advancing knowledge, enhancing skills, and strengthening the future of medical practice.

Professor Pusphika Prabashini Jayawardana

Co-chairperson, FMAS 2026

Message from the Co-chairperson FMAS 2026

Annual academic sessions of Faculty of Medicine (FMAS) is held for the 14th consecutive time this year. As a co-chairperson, I am indeed happy to forward this message.



The theme this year, “Beyond prescription: Navigating therapy in medical practice, highlights the all-inclusive approach of patient care travelling beyond the boundaries of a writings on a pad of prescription. I hope that this theme would stimulate creative thinking to explore all possibilities to provide comprehensive care to the patient conquering all obstacles encountered in the process. The sessions include a symposium titled, “Behind the Screen: Addiction, Dependence & Resistance, where three eminent speakers will elaborate on impact of these three phenomina on biological systems, compromising health & wellbeing ranging from screen addiction & dependence to anti-microbial resistance.

This year too, the sessions include FMAS oration. Oration submissions were carefully reviewed by three independent reviewers; renowned researchers in their respective fields, to evaluate the suitability of the content for an oration. I would like to take this opportunity to thank the oration reviewers for the dedication and unwavering support they provided amidst their busy schedules. The free paper sessions for both open and undergraduate categories is an essential component in the sessions to disseminate knowledge. It is my duty to acknowledge reviewers of the free papers as well as the panel of judges who will evaluate the presentations to select best papers in each category. A novel addition to the sessions is a pregress International Symposium on Asthma & Allergy contributed both by foreign and local faculty which will be held one week before the Academic Sessions. This new addition would strengthen the academic standards of the sessions.

I wish FMAS 2026, all success and may it provide a vibrant opportunity for academics, researchers as well as undergraduates to have meaningful discussions that benefit the future of the medical profession.

Professor Eisha Indumani Waidyaratne

Co-Chairperson, FMAS 2026

Message from the Dean, Faculty of Medicine

It is with great pleasure that I present this message for the Annual Academic Sessions of the Faculty of Medicine (FMAS) 2026. This year's theme, *"Beyond Prescription: Navigating Therapy in Medical Practice,"* is both timely and thought-provoking, reflecting the increasing complexity of modern healthcare.



Contemporary medical practice extends far beyond diagnosis and pharmacological intervention. The chosen theme highlights the importance of navigating therapeutic pathways that are individualized, evidence-based, and contextually relevant to each patient. It underscores a shift toward a more holistic and patient-centered approach to care.

FMAS 2026 serves as a platform to showcase the academic and research achievements of the Faculty of Medicine, University of Ruhuna, over the past year. Undergraduate students who have excelled in major examinations and other spheres are recognized with the Dean's Awards, encouraging continued academic excellence. Academic staff are acknowledged for their contributions through publications in reputed indexed journals, while teaching excellence—evaluated through established protocols—is honoured through dedicated awards. Postgraduate students who have completed their Master's and Doctoral degrees are provided the opportunity to present their research to the wider scientific community. The *Ruhuna Journal of Medicine*, now indexed in Google Scholar, continues to be published biannually, further strengthening our academic presence.

These quality enhancement initiatives are the result of the meticulous planning and dedication of the Co-Chairpersons and the Steering Committee of FMAS 2026. I extend my sincere appreciation to them for their commitment, and I commend their efforts in organizing an additional pre-congress featuring several distinguished international speakers.

It is indeed encouraging to witness the active engagement of clinicians, researchers, and students in shaping a future where therapy is not merely prescribed, but thoughtfully guided.

Let us continue to pursue excellence in our practice, embracing innovation while remaining firmly grounded in compassion and professionalism.

Professor T. P. Weerathna
Senior Professor of Medicine
Faculty of Medicine
University of Ruhuna

Message from the Vice Chancellor, University of Ruhuna

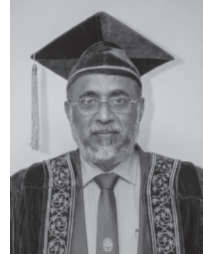
It is with immense pleasure and pride that I provide this message for the proceedings of the 14th Faculty of Medicine Academic Sessions (FMAS – 2026) of the University of Ruhuna.

This year's theme, "Beyond Prescription: Navigating Therapy in Medical Practice," is both timely and important. In an era where medical science is rapidly advancing, it is essential to remember that true therapeutic care should be extended beyond the act of prescribing medication. It should include both empathy and a deep understanding of the physical and psychological forces that determine "health" and care of the sick. The shift from writing orders to building relationships is the transformation that our communities have been waiting for.

The symposium titled "Behind the Screen: Addiction, Dependence & Resistance" will be addressing some of the most pressing challenges of our generation. It highlights the critical issues of adolescent neurobiology, described as an 'accelerator without a break', and the implications of such behavioral addictions in a digital landscape. The sessions simultaneously address the failing shields of antibiotic resistance and Gram-negative sepsis that threaten to undermine the foundations of modern medicine. By integrating these discussions on both behavioral dependence and biological resistance, the symposium unveils the necessity for medical professionals to look beyond the clinical surface, promoting a more resilient approach.

I extend my sincere appreciation to the Dean of the Faculty of Medicine, the organizing committee, distinguished speakers, and all authors and participants for their contributions to this annual academic gathering. Sessions like this provide a valuable platform for academics, university students and researchers to share their knowledge and insights and contribute collectively to the nation's advancement.

I wish you all a thoughtful and productive session.



Senior Professor P. A. Jayantha

Vice Chancellor

University of Ruhuna

Programme of the inauguration ceremony

07:45 - 08:00	Guests to be seated
08:00 - 08:10	Ceremonial Procession
08:10 - 08:15	University Song & Faculty Song
08:15 - 08:20	Lighting of the Oil Lamp
08:20 - 08:25	Welcome Speech <i>Prof. Pushpika Jayawardana, Co-Chairperson FMAS 2026</i>
08:25 - 08:30	Address by the Dean, Faculty of Medicine <i>Senior Professor Thilak Weeraratna</i>
08:30 – 08:35	Address by the Vice Chancellor, University of Ruhuna <i>Senior Professor P.A. Jayantha</i>
08:35 - 09:05	Keynote Address “From prescriptions to partnerships: The new era of therapeutic care” <i>Dr. Pushpa Punchihewa Senior Consultant Paediatrician</i>
09:05 - 09:20	Research Publication Awards 2025
09:20 – 09:25	Teaching Excellence Awards 2025
09:25 - 09:35	Dean's Awards & Dean's List 2025
09:35 - 10:05	FMAS Oration 2026 “ <i>Understanding birth defects in Sri Lanka: Associated factors, outcomes and prevention</i> ” <i>Dr. Janithra De Silva</i>
10:05- 10:15	Cultural Event
10:15 - 10:20	Vote of Thanks <i>Dr. Thilina Munasinghe Joint Secretary - FMAS 2026</i>
10:20 - 10:25	National Anthem & Closing Ceremony
10:25 - 10:45	Refreshments

Programme of the proceedings of FMAS 2026

10:45 - 12:15	<p>Symposium FMAS 2026</p> <p>Behind the Screen: Addiction, Dependence & Resistance “Accelerator without a break: Teen brain and addictions”</p> <p><i>Dr. Darshani Hettiarachchi</i> <i>Consultant Child and Adolescent Psychiatrist</i> <i>Lady Ridgeway Hospital for Children</i></p> <p>“Eyes on life, not just on screens: Managing screen dependence”</p> <p><i>Dr. Chamara Wijesinghe</i> <i>Senior Lecturer in Psychiatry and Consultant Psychiatrist, Faculty of Medicine, University of Kelaniya</i></p> <p>“The failing shield: <i>Gram-negative sepsis and invisible crisis of antibiotic resistance</i>”</p> <p><i>Dr. Mahen Kothalawala</i> <i>Consultant Clinical Microbiologist</i> <i>National Hospital of Sri Lanka, Colombo</i></p>
12:15 - 13:15	Lunch
13:15 - 14:15	Oral/Poster presentations - Open category
14:15 - 16:15	Oral/Poster presentations - Undergraduate category
16:15 - 16:30	Awards Ceremony
16:30	Tea

Keynote Address

“From Prescriptions to Partnerships: The New Era of Therapeutic Care”

When we think of medical practice, the image that often comes to ourselves is a doctor writing a prescription. Yet, as medicine evolves, we are reminded that healing is not confined to pharmacology. True healing requires us to look beyond the prescription as patients are not merely recipients of medication; they are individuals with stories, emotions, and unique contexts that shape their health outcomes.



We must embrace the whole person not just the disease but therapies that integrate physical, psychological, and social dimensions as chronic diseases like hypertension, diabetes, and depression became prevalent, the limits of prescriptions became clear. tablets can lower blood pressure, but they cannot change diet, reduce stress, or heal loneliness

As we look beyond the prescription pad, let us remember: medicine is not only about curing disease, but about restoring wholeness.

Dr. (Ms.) Pushpa Punchihewa

Senior Consultant Paediatrician

FMAS oration 2026

Understanding birth defects in Sri Lanka; Associated factors, outcomes and prevention

Birth defects, defined as structural, functional, or metabolic abnormalities present at birth, constitute a significant global public health concern. Annually, approximately eight million children are born with birth defects worldwide, of whom nearly 250,000 dies during the first 28 days of life (newborn period), while many survivors experience lifelong disabilities. Sri Lanka, despite its strong performance in maternal and child health indicators, is not exempted from this challenge. Currently, birth defects represent a leading cause of mortality among infants and children aged 1–5 years in the country.



The primary objective of the study was to describe the associated factors and outcomes of structural birth defects (SBD) among infants in Southern Sri Lanka and to develop and evaluate preventive interventions.

This research was conducted in four sequential phases. Phase I was a cross-sectional study to assess knowledge regarding birth defects among antenatal mothers. Phase II was a case–control study between infants with and without SBD to identify risk and protective factors associated with SBD. Phase III was a prospective follow-up study of infants with SBD to assess outcomes at one year of age. In Phase IV, health education materials were developed and their effectiveness was evaluated by administering them to antenatal mothers and Public Health Midwives (PHMs).

The results of the study revealed that the overall knowledge regarding birth defects among antenatal mothers was moderate and the knowledge levels were significantly associated with maternal education, socioeconomic status and the number of antenatal clinic visits they had. Key risk factors for SBD identified included low birth weight, a family history of birth defects, gestational diabetes mellitus and antenatal pyrexia. Protective factors included higher maternal education, higher socioeconomic status, receipt of preconception care and regular micronutrient supplementation during pregnancy.

Approximately 14% of infants with birth defects died within the first year. Among survivors, 28% exhibited growth impairment and 25% had developmental delays. Mortality risk was notably higher among infants with cardiovascular, neurological, and musculoskeletal defects. By one year of age, 28% of defects were fully corrected, 15% partially corrected, and 57% remained uncorrected. Spontaneous resolution accounted for 60% of corrected cases. The developed health education interventions significantly improved knowledge among both antenatal mothers and PHMs.

In conclusion, structural birth defects contribute substantially to infant morbidity and mortality in the selected setting. Knowledge regarding birth defects among women of reproductive age remains suboptimal, and treatment outcomes during infancy are less than optimal. The health education materials developed were effective in enhancing knowledge among both mothers and PHMs.

Strengthening preconception care services and increasing community awareness are recommended as essential strategies for prevention. Additionally, healthcare systems should be expanded to ensure timely and comprehensive management of affected infants. Enhanced surveillance and targeted interventions are recommended to monitor and support the growth and developmental outcomes of children with SBD.

Dr. Janithra De Silva

Senior Lecturer in Community Medicine

Faculty of Medicine

University of Ruhuna

Symposium
Behind the Screen:
Addiction, Dependence & Resistance

“Accelerator without a break: Teen brain and addictions”

Adolescence is a journey between a completely dependent child to completely independent adult. The World Health Organization defines adolescent as any person between age 10 to 19 years. During this period many developmental changes occur in physical, psychological, social, cognitive and behavioral domains.



Risk taking behaviors such as substance use, unsafe sexual activities and reckless physical activities are commonly seen in adolescents. Adolescent risk-taking is driven by brain changes, social influences, and the drive for independence. Adolescents are naturally inclined to seek new experiences and excitement due to neurological changes. The brain's reward system, particularly dopamine pathways, becomes highly sensitive during puberty, making potentially rewarding activities feel especially thrilling. Meanwhile, the prefrontal cortex, responsible for impulse control and decision-making, develops more slowly, creating a gap where teens are “all gas and no brakes” in risky situations. Peer presence further amplifies risk-taking, as social approval activates the reward system and makes risky behaviors more appealing.

Adolescents are particularly vulnerable to both substance and behavioral addictions. Addiction affects multiple brain circuits: the basal ganglia, amygdala and the prefrontal cortex. Craving can alter decision-making, making individuals more likely to choose substances over healthier rewards, and these effects are amplified in developing brains. Even after cessation, the neural pathways associated with addiction remain, making relapse more likely if the individual starts substance use early. Therefore, it is very important to take necessary steps on prevention, early interventions and developmentally informed treatment to minimize long-term negative consequences on an individual's life.

Dr. Darshani Hettiarachchi

MBBS, MD (Psych)

Consultant Child and Adolescent Psychiatrist

Lady Ridgeway Hospital for Children

Colombo

“Eyes on life, not just on screens: Managing screen dependence”

Screen dependence has emerged as a clinically significant and escalating public health concern in Sri Lanka, driven by rapid smartphone adoption, expanding internet access, and sustained post-pandemic digital behaviours. Recent national data indicate that Sri Lanka had approximately 12.3–13.9 million internet users between 2024 and 2025, representing an internet penetration rate of 56–60% of the population, with continued annual growth.



While digital technology remains integral to education and social connectivity, excessive and unregulated use is increasingly linked to internet addiction, sedentary behaviour, impaired executive functioning, reduced academic performance, and diminished interpersonal engagement, particularly among younger populations.

Supporting the clinical relevance of this issue, a recent study conducted by the Faculty of Medicine, University of Kelaniya published in JMIR Formative Research reports that 12.6% of active internet users exhibit features of internet addiction, with an overall prevalence of 9.5%, underscoring the growing burden of problematic digital use.

This presentation examines the management of screen dependence within the Sri Lankan context, highlighting contributory factors such as low-cost data access, and behavioural normalization of prolonged screen exposure.

The roles of caregivers, educational institutions, and primary care physicians in early identification and intervention are explored. Evidence-informed strategies including digital literacy promotion, structured screen-time regulation, cognitive-behavioural approaches, and promotion of physical and social activity are introduced. In addition, pharmacological interventions, and their evidence base is discussed.

Dr. Chamara Wijesinghe

MBBS, MD(Psych),MRCPsych(UK)

Senior Lecturer in Psychiatry and Consultant Psychiatrist

Faculty of Medicine, University of Kelaniya

“The failing shield: Gram-negative sepsis and invisible crisis of antibiotic resistance”

Gram-negative sepsis remains a formidable challenge in critical care, characterized by high mortality rates and rapidly evolving pathophysiological complexities. In the contemporary clinical landscape, the efficacy of our "antibiotic shield" is deteriorating due to the alarming rise of multi-drug resistant (MDR) pathogens, including carbapenem-resistant Enterobacterales, *Acinetobacter baumannii*, and *Pseudomonas aeruginosa*. This presentation explores the "invisible crisis" of resistance, focusing on the resistance dependencies—the intricate interplay between clinical misuse, horizontal gene transfer, and the environmental reservoirs that sustain MDR phenotypes.



Consistent with the 2026 Surviving Sepsis Campaign guidelines, we examine the critical necessity of rapid molecular diagnostics and the shift towards personalized, "precision" antimicrobial therapy. The discussion will further address the addition symposium objectives by evaluating the integration of novel "addition" strategies: the use of synergistic antibiotic combinations (e.g., new β -lactam/ β -lactamase inhibitor pairings) and non-traditional adjunctive therapies like antimicrobial peptides.

In the context of Sri Lankan healthcare, where resource constraints and high MDR prevalence intersect, the session aims to advocate for robust stewardship and multidisciplinary collaboration. By addressing these systemic dependencies, we can bridge the gap between escalating resistance and effective clinical intervention, preserving the life-saving potential of antimicrobial therapy for future generations.

Dr. Mahen Kothalawala

MBBS,MD(Med.Micro),MPH(NZ)

Consultant Clinical Microbiologist

National Hospital of Sri Lanka, Colombo

Ongoing & completed postgraduate studies, Faculty of Medicine, University of Ruhuna

List of completed & ongoing postgraduate research projects during the year 2025 from the projects registered at Board of Study in Medicine and Faculty of Graduate Studies, University of Ruhuna

MPhil studies

1. Title: Effect of sarcopenia and frailty on clinical outcome and burden on caregivers of patients with hip fracture
Candidate: M.P.H.K. Dias
Department of Study: Department of Medicine, Faculty of Medicine, University of Ruhuna
Principal supervisor: Prof. Sarath Lakemwasam, Department of Medicine, Faculty of Medicine, University of Ruhuna
Status: Ongoing
2. Title: Genetic determinants of congenital hypothyroidism and its impact on protein and iron status among children in Sri Lanka.
Candidate: J.J. Bandarigoda
Department of Study: Nuclear Medicine Unit, Faculty of Medicine, University of Ruhuna
Principal supervisor: Prof. Manjula Hettiarachchi, Faculty of Medicine, University of Ruhuna
Status: On going
3. Title: Characteristics of Candida species isolated from oral flora of cancer patients and in-vitro anti-candida activity of selected medicinal plants in Sri Lanka
Candidate: A.M.D.N. Wanigasekara
Department of Study: Department of Biochemistry, Faculty of Medicine, University of Ruhuna
Principal supervisor: Prof. M.T. Napagoda, Department of Biochemistry, Faculty of Medicine, University of Ruhuna
Status: Completed

PhD studies

1. Title: Trajectory and correlates of symptoms of perinatal depression and its impact on mother-infant bonding among mothers attending Maternal and Child Health Clinics in two health unit areas in Galle
Candidate: B.V.S. De Silva
Department of Study: Department of Community Medicine, Faculty of Medicine, University of Ruhuna
Principal supervisor: Prof. P. V. De Silva, Department of Community Medicine, Faculty of Medicine, University of Ruhuna
Status: On going
2. Title: Effects of sodium glucose co-transporter-2 (SGLT2) inhibitors on functions of the autonomic nervous system, peripheral nerves and muscles of the patients with type 2 diabetes attending National Hospital Galle and laboratory evaluation of the quality control parameters of commercially available SGLT2 inhibitor tablets in Galle
Candidate: M.A.L.D. Malwatta
Department of Study: Department of Physiology, Faculty of Medicine, University of Ruhuna
Principal supervisor: Prof. S. Gunawardena, Department of Physiology, Faculty of Medicine, University of Ruhuna
Status: On going
3. Title: Effectiveness of myofascial release and kinesio taping for pain relief and rehabilitation of bicipital tendinopathy related anterior shoulder complains
Candidate: Y.H.S. De Silva
Department of Study: Department of Physiology, Faculty of Medicine, University of Ruhuna
Principal supervisor: Prof. S. Gunawardhana, Department of Physiology, Faculty of Medicine, University of Ruhuna
Status: On going
4. Title: Dietary intake, eating behaviors, body image perception and their impact on Nutritional status of adolescent school children in Galle district
Candidate: P.A.R.I. Kulathunga
Department of Study: Department of Community Medicine, Faculty of Medicine, University of Ruhuna
Principal supervisor: Prof. C.J. Wijesinghe, Department of Community Medicine, Faculty of Medicine, University of Ruhuna
Status: On going

5. Title: Evaluation of integrated therapeutic measures on functional and psychological, outcomes in athletes with iliotibial band syndrome: An interventional study
Candidate: S.T.Thebuwanaarachchi
Department of Study: Department of Physiology, Faculty of Medicine, University of Ruhuna
Principal supervisor: Prof. S. Gunawardhana, Department of Physiology, Faculty of Medicine, University of Ruhuna
Status: On going

6. Title: Digital Therapeutics in Addiction Management: Evaluation of a Digital Intervention for Substance Use Disorders in Sri Lanka
Candidate: M.P.Sudarshani
Department of Study: Department of Community Medicine, Faculty of Medicine, University of Ruhuna
Principal supervisor: Prof. C. J. Wijesinghe, Department of Community Medicine, Faculty of Medicine, University of Ruhuna
Status: On going

7. Title: Effectiveness of a novel mobile application and a modified manual process in improving advance drug reactions reporting in Teaching Hospital, Karapitiya
Candidate:M.T. Madushika
Department of Study: Department of Pharmacology, Faculty of Medicine, University of Ruhuna
Principal supervisor: Prof. S.S. Jayasinghe, Department of Pharmacology, Faculty of Medicine, University of Ruhuna
Status: On going

8. Title: Desferrioxamine-based nanochelators: Nanoformulation and evaluation of functional characteristics towards effective Iron chelation therapy
Candidate: A.K.D.V.K. Wimalasiri
Department of Study: Department of Biochemistry, Faculty of Medicine, University of Ruhuna
Principal supervisor: Dr. P. Kalansuriya, Department of Biochemistry, Faculty of Medicine, University of Ruhuna
Status: On going

9. Title: Impact of hormone replacement therapy on symptom reduction and clinical outcomes of menopausal women in Sri Lanka, including a biomarker analysis of genetic susceptibility
Candidate: V.M. Pathiraja
Department of Study: Department of Gynaecology & Obstetrics, Faculty of Medicine, University of Ruhuna
Principal supervisor: Dr. G. Delanerolle, University of Birmingham, United Kingdom
Status: On going

10. Title: Development, characterization and bioactivity assessment of nonencapsulated antidiabetic herbal drug leads from Sri Lanka
Candidate: W.N.D. De Silva
Department of Study: Department of Biochemistry, Faculty of Medicine, University of Ruhuna
Principal supervisor: Prof A.P. Attanayake, Department of Biochemistry, Faculty of Medicine, University of Ruhuna
Status: Completed

11. Title: Antidiabetic effects of nanoparticle based herbal nutraceutical formulation in wistar rats induced with diabetes mellitus
Candidate: A.S.D. Wickramasinghe
Department of Study: Department of Biochemistry, Faculty of Medicine, University of Ruhuna
Principal supervisor: Prof A.P. Attanayake, Department of Biochemistry, Faculty of Medicine, University of Ruhuna
Status: Completed

12. Title: Cardiovascular and psychological comorbidity among patients with plaque psoriasis
Candidate: P.L.A.N. Liyanage
Department of Study: Department of Medicine, Faculty of Medicine, University of Ruhuna
Principal supervisor: Prof. S. Lakemwasam, Department of Medicine, Faculty of Medicine, University of Ruhuna
Status: Completed

Research Publication Awards

Recipients of Research Publication Awards for the year 2025

Name of the recipient	Number of publications in indexed journals*
Prof. A.P. Attanayake	9
Dr. W. De Zoysa	8
Dr. I.L.A.N. Darshana	6
Prof. C.J. Wijesinghe	5
Dr. W.N.D. De Silva	4
Snr. Prof. P.V. De Silva	4
Dr. P. Kalansuriya	4
Prof. P.L.G.C. Liyanage	4
Snr. Prof. T.P. Weeraratna	4
Prof. C.K. Bodinayake	3
Dr. U.K. Egodage	3
Snr. Prof. A. De S. Nagahawatte	3
Dr. G.J. Chandana	2
Dr. N.L. De Silva	2
Dr. P.L.A.N. Liyanage	2
Dr. V.P.C. Rajakaruna	2
H.H.P.M.J. Thabrew	2
Dr. S.S. Wickramasinghe	2
Prof. T.C. Yahathugoda	2
Prof. D.L.W. Dasanayake	1
Prof. G.E.D.de Zoysa	1
Prof. A.S. Dissanayake	1
Prof. C.L. Fonseka	1
Prof. K.A.C.P. Imalke	1
Dr. P.A.R.I. Kulathunga	1

*Indexed in Science Citation Index Expanded/Social Science Citation Index

Recipients of Research Publication Awards for the year 2025 contd.

Name of the recipient	Number of publications in indexed journals*
Snr. Prof. L.K.B. Mudduwa	1
Prof. M.T. Napagoda	1
Prof. U.C.P. Perera	1
Prof. T.T. Ponnampereuma	1
Prof. I.H. Rajapakse	1
Dr. K.D.D.S. Wijeweera	1
Dr. D.C. Wijewickrama	1
Dr. W.K.D.V.K.Wimalasiri	1

*Indexed in Science Citation Index Expanded/Social Science Citation Index

Teaching Excellence Awards 2025

Teaching Excellence awards are based totally on the feedback given by the students. It is an essential component of quality assurance in higher education. Feedback regarding each phase of the undergraduate course is obtained from the batch of medical students who most recently completed the phase of study.

Pre- Clinical Phase

Dr. D.C. Wijewickrama

Department of Physiology

Para- Clinical Phase

Prof. P.L.G.C. Liyanage

Department of Pharmacology

Clinical Phase

Dr. U.I Hapuarachchi

Department of Anesthesiology

Clinical Phase Ward Teaching

Prof. N.J. Dahanayaka

Department of Medicine

Dean's Awards 2025

Dean's awards are awarded annually to the students with best overall performance at each level of main examinations; 2nd MBBS, 3rd MBBS and Final MBBS. They are funded by the University and administered by the Deputy Vice Chancellor's office in collaboration with the faculty assisted by the Divisions of Examination and Student Affairs.

Best 3rd MBBS student of the year 2025

Ms. C.D. Abeyasekera



Ms. Charushi Damithri Abeyasekera, a proud alumna of Girls' High School, Kandy, entered the University of Ruhuna in 2021 and has since maintained an outstanding academic record. She achieved First Class Honours in both the 2nd and 3rd MBBS examinations, securing distinctions in Anatomy, Physiology, Biochemistry, Microbiology, Parasitology, Pathology, Pharmacology, and Community Medicine. Her performance was

further recognized with the RUMSAA Award for the Best Performance in the 2nd MBBS Examination in 2022.

Beyond her academic accomplishments, she has consistently represented her faculty with distinction on national platforms. She was a member of the winning team at the Inter-Medical Faculty Physiology Quiz for the Professor Carlo Fonseka Challenge Trophy in 2023. She demonstrated notable leadership as Team Leader in the SLACPT Inter-Faculty Pharmacology Quiz 2025, the Path Master Quiz organized by the College of Pathologists of Sri Lanka in 2025, and the Oncology Quiz conducted by the College of Oncologists of Sri Lanka in 2025.

She has been active in the faculty's creative and communicative initiatives. She has channeled her creativity into directing and performing in dramas for various faculty events. Her aptitude for public speaking is reflected in her roles as a compere and her participation in events hosted by the Gavel Club. She represented the faculty at the Inter-Medical Faculty Debating Championship organized by the University of Sri

Jayewardenepura in the year 2024.

Serving as Batch Representative since 2023, she has been a vital link between her peers and the faculty, while her tenure as President of the Pathfinders Club (2024–2026) saw the successful organization of the “Anaemia Day programme”, integrating academic and creative platforms to enhance student participation. She has also contributed meaningfully to peer learning through her teaching in haematology and pharmacology, supporting fellow students in navigating complex concepts.

In addition to her academic and leadership pursuits, she has demonstrated versatility through her involvement in sports, securing places at the Inter-Batch Sports Meet, reflecting both teamwork and determination.

Reflecting extreme dedication and unwavering spirit, Ms. Abeyasekera maintained a consistent balance between academic pursuits and active extracurricular involvements.

Best Final MBBS student of the year 2025



Mr. Mevan Abhishek Jeremiah Induruwa is a past pupil of S. Thomas' College, Mount Lavinia. He entered the Faculty of Medicine, University of Ruhuna in 2019. He completed 2nd MBBS examination with First Class Honours and distinctions in Anatomy, Biochemistry and Physiology; 3rd MBBS examination with Second Class Honours (Upper Division) with distinctions in Microbiology, Parasitology and Community Medicine and the Final MBBS Examination with Second Class Honours (Upper Division) and a Distinction in Paediatrics while coming 22nd in the Island Merit List.

Mr. Induruwa first made waves in his first year by getting selected to represent the Sri Lanka University Team at the 30th Summer World University Games held in Italy in 2019. His defining achievement in university swimming was when he won 05 Gold medals at the 13th Sri Lanka University games in 2019, having broken Sri Lanka university records in all 05 events. He went on to captain the University Swimming Team in 2022 to win the Inter-university Mens' Swimming Championships. He took part at the 14th Sri Lanka University Games where he won several medals and aided his team to win Mens' Inter-university Swimming Championships for the third consecutive year.

He was the first Vice Captain of the university Rowing Team that won a Bronze medal at 14th Sri Lanka University Games in the Single Scull event. He captained the faculty scrabble team which won the inter-faculty tournament in 2022 and was the University Scrabble Captain in 2023.

He was appointed as the student representative for the Sri Lanka Universities Association (SLUSA) in 2020 as FISU student Ambassador for Sri Lanka in 2021. In 2022, Mr. Induruwa had the rare honour of being selected to represent Sri Lanka at the 63rd Young Ambassadors' Conference in Greece.

He served as the vice president of the University Gavel Club and also as the president

of the Faculty Resuscitation Club. He was a member of University English Debating Team and took part in several competitions winning Ruhuna's first inter-university trophy in English Debating in the year 2023. In addition, Mr. Induruwa presented his undergraduate research at the Annual Academic Sessions of College of Psychiatrists in 2023 and was awarded 3rd place in the best oral presentation category.

He also has taken part in numerous quiz completions including coming 1st runners up at the Prof. Carlo Fonseka physiology quiz.

He is currently completing his internship in medicine and surgery at the National Hospital of Sri Lanka, Colombo.

Best Paper Awards FMAS 2025

Best oral presentation-open category

Perceived stress and quality of life of adolescent school children
in Matara Educational Division: A Preliminary study

Kulathunga PARI, De Silva PV, Wijesinghe CJ

Best poster presentation-open category

Effectiveness of Thera-band exercise programme in improving strength and
reducing pain in school football athletes with iliotibial band syndrome

**Thebuwanaarachchi ST, De Silva YHS, Dissanayake AS, Samarawickrama MB,
Gunawardena S, Perera CK, Ransara HGS, Minhan MAM**

Best oral presentation-undergraduate category

Effect of childbirth experience on the development of early postpartum
depression in mothers admitted to postnatal wards at Teaching Hospital
Mahamodara, Galle

**Karunatileke AHTTM, De Silva WTP, Karunasena KRAS, Kavindi DNSP, Kodippili
TKN, Keembiyage CN, De Silva BVS**

Best poster presentation-undergraduate category

Effects of on-going economic crisis on nutritional status of
older adults in Bope - Poddala MOH area

**Sumanasekera PN, Handunhewa JN, Harshika BWK, Imalka YBU,
Jayasinghe JMTM, Wathukarawaththa VT, Samarakoon SMCN, Perera B**

Commended poster presentations-undergraduate category

Intravenous antibiotic utilization in in-patient care at a tertiary care hospital.

**Hewage RIY, Vithana ID, Kamalasinghe VA, Adhikari AMDS, Nanediri NADA,
Savindya DWS, Bandara WMCH, Gunarathna WKNM, Ranasinghe SS, Dinbara DT,
Akashmi D, Wijenayaka DP, Egodage UK, Sinhabahu T, Fonseka CL**

Variations in red cell and platelet indices, and blood cell morphology
in type II diabetes mellitus: impact of glycaemic control

Malwenna MHSN, Wickramaratne KAC, Wijewickrama DC

Abstracts

FMAS 2026

Oral Presentations: Open Category

OP 01

Safety assessment of herbal capsule *Asparagus falcatus* L. for non-alcoholic fatty liver disease: Phase I clinical trial in healthy adults

De Silva ND^{*1}, Attanayake AP¹, Weerarathna T.P.²

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Background: Aqueous extract of *Asparagus falcatus* L. (Family: Asparagaceae) is a potential drug lead for the treatment of non-alcoholic fatty liver disease due to its scientifically proven lipid-lowering potential. Safety assessment of a herbal capsule derived from *A. falcatus* aqueous leaf extract in healthy adults is important before conducting prospective phase II clinical trials.

Objective: To evaluate the safety of the herbal capsule *A. falcatus* in healthy adults.

Methods: The standardized aqueous leaf extract of *A. falcatus* in freeze-dried form was filled into soft gel capsules. Thirty healthy adults aged 25 - 57 years were recruited for the present phase I clinical trial. The study was conducted for a period of 3 months as a dose escalation study design (registered under SLCTR/2023/015). The dose of the capsules was increased at monthly intervals (125 mg, 250 mg, and 500 mg) in the study subjects. Clinical, haematological, and biochemical assessments were done at baseline and during the study period.

Results: The mean age, body mass index of the study participants were 38 ± 11 years and $24.05 \pm 4.60 \text{ kg/m}^2$, respectively. There was a significant mean change difference in the fasting blood glucose (FBG) (1.06 ± 0.72 ; $p < 0.001$), total cholesterol (0.79 ± 0.82 ; $p < 0.001$), low-density lipoprotein cholesterol (0.76 ± 1.04 ; $p < 0.001$), aspartate aminotransferase (5.05 ± 7.02 ; $p < 0.001$), alanine transaminase (6.26 ± 12.21 ; $p < 0.001$) and a borderline significance in triglycerides (0.16 ± 0.42 ; $p = 0.055$) and very low density lipoprotein (0.03 ± 90.08 ; $p = .052$), at the base line and end of the intervention. Full blood count and other biochemical parameters were within normal range, and electrocardiogram findings were also normal. There were neither serious adverse effects nor other signs of adverse effects resulting in clinically significant symptoms during the duration of the trial.

Conclusion: The daily dose of herbal capsules (125, 250, 500 mg) for three months was well tolerated and did not cause adverse or toxic effects in healthy adults.

Keywords: *Asparagus falcatus* L., healthy adults, phase I clinical trial, safety assessment

Acknowledgment: Faculty Research Grant 2023, Faculty of Medicine, University of Ruhuna, for financial assistance.

Oral Presentations: Open Category

OP 02

Optimisation and validation of the analytical protocol for salivary creatinine by Jaffe method

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Background: Serum creatinine is a key biochemical test to assess kidney function. Saliva has emerged as a promising non-invasive alternative to blood for biomarker analysis. However, its measurement typically requires invasive sampling. In this context, saliva could be a potential alternative that enhances patient compliance.

Objective: To optimise and validate a Jaffe reaction-based analytical protocol for salivary creatinine estimation.

Methods: The study involved two phases. In Phase I, the Jaffe reaction-based assay conditions were optimised by varying the wavelength, picric acid concentration, and picric acid:NaOH ratio, using saliva samples taken from patients with chronic kidney disease (CKD) and healthy individuals. In Phase II, the optimised protocol was validated by estimating salivary creatinine concentration in 30 patients with CKD and 30 apparently healthy individuals. Serum creatinine was used as the reference method. Determination of linearity, limits of detection, precision, recovery, interference factors, and diagnostic accuracy were carried out using standard procedures and ROC analysis. Ethical clearance was obtained from the Ethics Review Committee of the Faculty of Allied Health Sciences, University of Ruhuna (2024.05.403).

Results: The optimised assay procedure was linear from 0.4 to 21 mg/dL ($R^2 \approx 0.99$) with a lower detection limit of approximately 0.4 mg/dL. Intra-assay precision was acceptable ($CV \approx 10\%$) while recovery was variable at low creatinine concentrations (0.4–2.0 mg/dL). Minor interference from glucose, albumin, and urea was observed within physiologically expected salivary creatinine ranges (0.45–1.80 mg/dL). Diagnostic sensitivity and specificity for salivary creatinine estimation were 90% and 96.7%, respectively, with an area under the curve (AUC) of ~ 0.94 at the optimal cutoff of 0.38 mg/dL.

Conclusions: The optimised Jaffe reaction-based assay protocol enables reliable quantitative estimation of salivary creatinine with excellent diagnostic accuracy. It offers a non-invasive, accurate tool for the assessment of kidney function:

Keywords: creatinine; chronic kidney disease; diagnostic accuracy; Jaffe reaction; saliva; validation study

Oral Presentations: Open Category

OP 03

Prevalence and associated factors of undetected isolated systolic hypertension among older adults without prior diagnosis in a nationwide Sri Lankan study

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Introduction: Isolated systolic hypertension (ISH) is a common condition among elderly individuals, yet its prevalence and associated factors have not been explored in Sri Lanka. The objective of this research was to determine the prevalence of ISH and the associated factors among Sri Lankan older individuals attending tertiary care hospitals who had not been previously diagnosed with hypertension.

Methods: A multicenter cross-sectional study was carried out in ten tertiary care hospitals outpatient clinics across all nine provinces in Sri Lanka, with a sample of 1007 older adults aged ≥ 65 years who had not been previously diagnosed with hypertension. Data was gathered using interviewer administered questionnaire. ISH was defined as SBP ≥ 140 mmHg with DBP < 90 mmHg, whereas HTN was defined as SBP > 140 mmHg and DBP > 90 mmHg. Chi-square tests and independent sample t-tests were employed to evaluate associations, with a significance level set at $p < 0.05$.

Results: The mean age of participants was 67.5 ± 6.8 years, and 52.9% were female. The prevalence of undetected ISH was 28.9%, indicating that nearly one in three

older adults without a prior hypertension diagnosis had elevated systolic BP. Participants with ISH had significantly higher body mass index compared to those without ISH (24.15 ± 3.91 vs 23.47 ± 4.65 kg/m², $p = 0.031$). Independent predictors of ISH included Sinhala ethnicity (OR 2.94, 95% CI: 2.02–4.28), absence of family history of coronary artery disease (OR 3.57, 95% CI: 1.90–6.69) or stroke (OR 1.77, 95% CI: 1.11–2.81), absence of vascular comorbidities (OR 1.37, 95% CI: 1.01–1.85), and higher BMI (OR 1.04 per kg/m²).

Conclusions: Nearly one third of older adults attending tertiary care clinics in Sri Lanka have undetected ISH despite regular healthcare contact. The higher prevalence among individuals without established cardiovascular risk factors suggests missed opportunities for early detection. This missed opportunity within routine care pathways highlights an urgent need for systematic changes to prevent avoidable cardiovascular outcomes in ageing populations.

Keywords: Isolated systolic hypertension; Low- and middle-income countries; Multimorbidity; Older adults; Outpatient care; Prevalence; Sri Lanka

Oral Presentations: Open Category

OP 04

Enhanced desferrioxamine delivery using chitosan and β -lactoglobulin glycoprotein conjugates: comparison of cell permeability, loading capacity and efficiency, cytotoxicity and pharmacokinetic properties

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Background: Iron overload, frequently arising in conditions such as transfusion-dependent thalassemia, sickle-cell disease, contributes to progressive tissue injury through the generation of reactive oxygen species. Desferrioxamine (DFO) is a well-established therapeutic iron chelator used to reduce the iron burden in these patients. However, its clinical effectiveness is hindered by its short half-life, limited cellular uptake, and the necessity for frequent infusions.

Objectives: This study aimed to comparatively evaluate the cell permeability, drug loading capacity (LC), controlled release profile, entrapment efficiency (EE%), and cell viability of DFO in its pure form and when incorporated into three chitosan and β -lactoglobulin-based glycoprotein conjugates (DFO_CN_CTS_ β -Lac), with the goal of identifying the most effective formulation.

Methods: Three DFO-incorporated formulations were synthesised using β -lactoglobulin (β -Lac), chitosan (CTS), and *Cocos nucifera* (CN), with varying CTS: β -Lac (w/w) ratios of 1:1 (CCWL 1), 1:2 (CCWL 2), and 1:10 (CCWL 3). The nanocomposites were characterised, and their LC and EE% were determined. Prothrombin time (PT) and activated partial thromboplastin time (APTT) assays were conducted to evaluate coagulation properties, while cytotoxicity and cellular responses were assessed using the MTT [3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide] and dihydrorhodamine (DHR) assays. Cell permeability studies were performed using Caco-2 cell lines. Statistical analysis was carried out using one-way analysis of variance (ANOVA), followed by Tukey's post hoc test.

Results: The Fourier transform infrared spectrum of DFO incorporated CN_CTS_β-Lac showed a shift to a lower wavenumber, confirming successful entrapment. Both LC and EE% increased proportionally with β-Lac content and CCWL3 composite showed highest LC and EE% value (285.56±0.04 mg/g of LC and 85.67±13.35% of EE%). The drug release studies at physiological and intestinal pH values showed sustained release of DFO and it was best described by Peppas–Sahlin model indicating case-II-relaxation mechanism for the release of DFO. *In-vitro* blood-compatibility assays (APTT: 30-32, INR: 0.93-0.95) and cell-viability studies confirmed low-cytotoxicity compared to neat DFO. A one-way ANOVA was conducted to compare the cell permeability means of CCWL1, CCWL2, CCWL3, SIH (positive control), DFO and blank. The results showed a statistically significant difference among the groups, ($F = 34.3$, $p < 0.001$). Post hoc comparisons using the Tukey's HSD test indicated that CCWL3 had significantly higher values than other two composite when compared with pure drug DFO ($p < 0.01$) suggesting enhanced gastrointestinal uptake. The cell viability data showed a statistically significant difference compared with the pure drug (DFO) (p ; 0.001). However, no significant differences were observed among three composites (100% cell viability at the 150 µg/mL maximum therapeutic dosage) (p ; 0.847). DHR assay confirmed the persistence nature of antioxidant activity.

Conclusion: Based on the results comparison, it can be concluded that composites with high β-Lac content (CCWL3) represent promising candidates for the development of highly cell-permeable, controlled-release, and biocompatible delivery systems for DFO.

Keywords: β-lactoglobulin, chitosan, cell permeability, pharmacokinetic properties, desferrioxamine

Acknowledgements: *This work was supported by UNESCO-TWAS, Swedish International Development Cooperation Agency (Sida); FOM/RG/2022/07, FOM/RG/2023 and FOM/RG/2024/2 grants.*

Oral Presentations: Open Category

OP 05

Prevalence and psychosocial predictors of symptoms of antepartum depression among third-trimester pregnant women in Galle

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Background: Antepartum depression (APD) is a form of depression that occurs due to the stressors caused during pregnancy, with physical and psychological complications that extend into the postnatal period, affecting both the mother and the baby.

Objective: To assess the prevalence and associated factors of symptoms of APD among pregnant women attending antenatal clinics in two Medical Officer of Health (MOH) areas in Galle district.

Methods: A cross-sectional study was conducted among 450 pregnant women in their third trimester attending antenatal clinics in Bope-Poddala and Galle MOH areas. Participants were recruited using multi-stage cluster sampling. Self-administered questionnaires were employed to collect data on psychosocial factors and APD symptoms were screened with the locally validated Edinburgh Postnatal Depression Scale (EPDS).

Results: Among the pregnant women, 12.2% were screened positive for symptoms of APD (mean EPDS score \pm SD = 4.02 \pm 4.09). In bivariate analysis, presence of APD symptoms was significantly associated with Sinhala ethnicity ($p=0.03$), not having antenatal complications ($p=0.02$), carrying a female baby ($p<0.001$), marital disharmony ($p<0.001$), living alone ($p=0.05$), lack of a special person to confide in ($p=0.05$), and having an unsatisfactory relationship with the in-laws ($p<0.001$). However, only female gender of the baby (OR=2.63, $p=0.003$) and having an unsatisfactory relationship with the spouse (OR=16.28, $p=0.003$) and the in-laws (OR=5.55, $p<0.001$) remained as significant predictors of symptoms of APD in the third trimester after controlling for confounders. Overall, the final model explained 22.1% of the variation in APD symptoms (Nagelkerke $R^2 = 0.221$).

Conclusions: Symptoms of APD affect over one tenth of pregnant women in the third trimester, with female gender of the fetus and absence of good relationships with the spouse and in-laws being significant predictors. Routine screening of APD symptoms during pregnancy, addressing gender-biased attitudes in the community, and promoting family-based antenatal sessions to encourage supportive behaviours are recommended.

Keywords: *antepartum, predictors, depressive symptoms, gender-bias, EPDS*

Acknowledgments: *The authors gratefully acknowledge the financial support provided by the Research Grant (FOM/RG/2025/02) and the Faculty Development Fund of the Faculty of Medicine, University of Ruhuna.*

Oral Presentations: Open Category

OP 06

Evaluation of a nanoparticle-based anti-rKRP42 IgG lateral flow assay for the diagnosis of cutaneous leishmaniasis in Sri Lanka

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Background: With Sri Lanka's national strategic plan for leishmaniasis control, early diagnosis has become critical. The routine diagnostic, slit-skin smear (SSS) shows variable sensitivity (33–78%), highlighting the need for rapid, sensitive tools to facilitate case detection.

Objective: To evaluate the diagnostic performance of a novel, anti-rKRP42 (recombinant kinesin-related protein antigen-42) IgG lateral flow immunochromatographic rapid test (rKRP42-RDT) in detecting cutaneous leishmaniasis (CL) caused by *Leishmania donovani*.

Methods: A cross-sectional study was conducted among 58 adults with clinical CL at Base Hospital Tangalle. CL was confirmed by SSS (reference test). Serum from patients and healthy Japanese controls (JC) was tested using rKRP42-RDT, rKRP42 IgG ELISA, and rK39 rapid test. Diagnostic performance of the RDT (sensitivity, specificity, positive and negative predictive value (PPV/NPV) was calculated against SSS. Clinical associations were analyzed using chi-square, and ELISA optical densities (ODs) were compared using nonparametric tests, all with 95% CIs.

Results: The mean(SD) duration at presentation was 5.1 months(SD); 62% were males. Most had single, small (<2 cm) lesions, with ulcers being the commonest type (41%). Positivity rates for SSS, rKRP42-RDT, and rK39-RDT were 55.2%, 43.1%, and 5.2%, respectively. The rKRP42-RDT showed 43.8% sensitivity, 57.7%

specificity, and 56% and 45.5% PPV and NPV. rKRP42-RDT positivity correlated with higher ELISA OD values ($p < 0.05$), unlike SSS. Agreement between RDT and SSS was slight ($\kappa = 0.014$), suggesting the detection of different patient subsets. JC ($n = 43$) were negative by both RDTs. Male gender, presence of ulcers, lesions > 2 cm, and multiple lesions were associated with higher RDT positivity ($p < 0.05$) and higher mean OD values. Defining confirmed cases as clinical CL with either SSS or RDT positivity increased case detection from 55.2% to 74.1%.

Conclusions: The anti-rKRP42 IgG RDT showed limited standalone diagnostic accuracy. Its slight agreement with SSS suggests complementarity, potentially identifying cases missed by microscopy. It may improve case detection as an adjunct while offering a rapid, field-applicable option. Further evaluation in larger cohorts is warranted.

Oral Presentations: Undergraduate Category

SOP 01

Perception of quality of care among patients with orthopaedic injuries as homeward outliers and inliers at National Hospital, Galle

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Background: Accommodation of patients outside specialty wards—termed *homeward outliers*—is common in public healthcare systems due to bed shortages and high patient turnover. However, such placement may influence patients' perception of the quality of care received.

Objective: To assess and compare the perception of quality of care among homeward outliers and inliers admitted with orthopaedic injuries at National Hospital, Galle.

Methods: A descriptive cross-sectional study was conducted among adult patients with orthopaedic injuries admitted to surgical casualty wards and orthopaedic wards. Data were collected on the day before or on the day of discharge using a pre-tested, self-administered questionnaire assessing sociodemographic characteristics and perceptions of ward facilities, nursing care, and medical care using a 5-point Likert scale.

Results: Of the 207 participants, 69.1% were homeward outliers and 30.9% were inliers. Inliers consistently reported significantly higher satisfaction across all domains: ward surroundings (82.8% vs. 9.8%), nursing care (87.5% vs. 11.2%), doctors' care (85.9% vs. 14.0%), and overall care (90.6% vs. 13.3%) ($p < 0.05$). Satisfaction among inliers showed no significant association with demographic variables or treated condition. In contrast, outliers' perceptions were significantly influenced by educational level and type of treated condition, with higher educational attainment negatively associated with satisfaction.

Conclusion: Perceived quality of care was significantly higher among homeward inliers compared to outliers across all domains. While inliers' satisfaction was independent of demographic and clinical factors, outliers' perceptions were less favorable and influenced by educational level and clinical condition. These findings highlight the need for targeted measures to ensure equitable standards of care and patient experience across all ward settings.

Keywords: Perception, quality of care, homeward outliers, homeward inliers

Oral Presentations: Undergraduate Category

SOP 02

Artificial intelligence tools on clinical training; current usage by medical undergraduates of Faculty of Medicine, University of Ruhuna and perceptions of expert clinicians

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Background: Artificial intelligence (AI) is a rapidly transforming tool in medical education and clinical training. However, the actual usage among medical undergraduates (MU) and the acceptance of AI in clinical training by clinical experts are still unknown. Understanding how MU use AI and comparing it with the insights of expert clinicians (EC) can help to bridge that gap.

Objectives: This study assessed the usage of AI tools in clinical training, current usage by MU of Faculty of Medicine (FOM), University of Ruhuna (UOR) and perceptions of EC.

Methods: A descriptive cross-sectional study was conducted at FOM, UOR and National Hospital, Galle (NHG) among 300 MU and 25 EC. Samples were selected using a random sampling method. Two separate self-administered questionnaires were utilised for data collection. Data were analysed using SPSS Statistical software.

Results: Among 300 MU, 97% had used AI tools in clinical training, ChatGPT (98.9%), Google Bard (31.1%), and Grammarly (29.1%). The key purposes of AI usage were preparing for the assessments (92.3%), finding differential diagnoses (92%), interpreting investigations (88.6%), and generating management plans (86%). MU perceived AI as a tool enhancing learning (84.3%), saving time (86%), and improving assessment performance (68.6%). However, concerns included reduced critical thinking (74%), reliance on misinformation (69.3%), and limited extra knowledge (53%). Overall, 71% felt AI improved training. EC recognised strengths such as efficiency (48%) and readiness for future technologies (64%), but highlighted weaknesses, including overdependency (88%), limited clinical judgment (84%), and inability to interpret clinical variations (92%). A significant difference emerged between MU usage and EC recommendations in assessment preparation (Chi-square = 5.066, df = 1, and p = 0.024), but not in other entities.

Conclusions: AI is widely integrated into clinical training, offering benefits but raising concerns about overreliance and critical thinking. Guided, organised integration is essential to ensure maximum usage while preserving educational quality.

Keywords: Artificial intelligence, clinical practice, medical undergraduate, expert clinicians

Oral Presentations: Undergraduate Category

SOP 03

Pre-hospital delay, its associated factors and impact on the outcome of patients with acute myocardial infarction admitted to National Hospital Galle

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Background: Myocardial infarction is the most prevalent type of coronary artery disease globally. The delays in obtaining treatment after onset of symptoms can have a serious impact on the prognosis of these patients.

Objectives: To identify the prevalence of pre-hospital delay, its associated factors and impact on the outcomes of patients with acute myocardial infarction (AMI) admitted to National Hospital Galle (NHG).

Methods: A cross-sectional study was conducted in a consecutive sample of 217 patients with AMI, admitted to NHG. An interviewer-administered questionnaire was used to collect data. Pre-hospital delay was defined as 'the time between the onset of symptoms of AMI and the time of admission at the designated hospitals'. Data were analysed using SPSS software. Chi-square test was used to assess the association between variables.

Results: Mean age of the participants was 60.3 (SD=13.6) years and 75.1% were males. A majority (74.2%) had a pre-hospital delay of more than 60 minutes with only 25.8% arriving within the golden hour. Pre-hospital delay was significantly associated with presenting symptoms; absence of sweating ($p=0.018$), nausea/vomiting ($p=0.011$) and presence of epigastric pain ($p=0.027$). Failure to recognise symptoms as AMI ($p<0.001$), misinterpretation of symptoms ($p<0.001$), admission through transfers or referrals ($p<0.001$) and using ambulance as the mode of transport ($p=0.027$) were positively associated with pre-hospital delay. No significant associations were observed between socio-demographic factors or comorbidities and pre-hospital delay. Although over half of the patients survived with complications (50.2%) or died (2.3%), these negative outcomes did not show a statistically significant association with prehospital delay ($p=0.896$).

Conclusions: Delayed presentation was common among patients with AMI admitted to NHG, mainly associated with lack of recognition and misinterpretation of symptoms and issues related to health service delivery. Improving awareness of symptoms of AMI among the general public, emphasising the importance of early care seeking and strengthening pre-hospital emergency services will reduce treatment delays.

Keywords: Acute myocardial infarction, Pre-hospital delay, Associated factors, Patient outcomes, Sri Lanka

Oral Presentations: Undergraduate Category

SOP 04

Awareness of superficial fungal infections, its preventive practices, attitudes and its associated factors among patients with diabetes attending the endocrine clinic at National Hospital, Galle

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Introduction: Superficial fungal infections (SFIs) are a common but often overlooked consequence in people with diabetes mellitus (DM) due to their poor glycemic control and impaired immunological response. If left untreated, these infections can have serious repercussions, such as diabetic foot ulcers and amputations. The awareness and preventive practices of the diabetic population regarding SFIs are still poorly studied, despite their high incidence.

Objectives: The study aimed to assess the awareness of SFIs, its preventive practices, attitudes and its associated factors among patients with diabetes attending the endocrine clinic at National Hospital Galle (NHG).

Methods: Data were collected using an interviewer-administered, validated questionnaire in a descriptive cross-sectional study conducted at NHG, Sri Lanka, from January to March 2025. Control of diabetes was assessed by HbA1c levels. SPSS was used to analyse data on sociodemographic factors, diabetes control, SFI awareness, and preventive measures. The relationships between awareness of diabetes and control and other characteristics were assessed using chi-square and t-tests.

Results: Only 8.2% and 9.2% of participants, respectively, knew what "*Candida*" and "*Tinea*" meant, although 70.2% of individuals showed strong general awareness of SFIs. The majority (89.4%) were found to have a good awareness of preventive measures, especially those related to blood glucose control and personal hygiene. Based on the Chi-square test, awareness of preventive practices was significantly correlated with unemployment ($p=0.002$), lower levels of education ($p=0.040$), and male gender ($p=0.003$). However, there was no discernible correlation between

glycemic control (HbA1c) and awareness levels.

Conclusion: Patients with diabetes lack precise understanding of SFIs, despite a good level of general awareness. Targeted educational interventions that focus on terminology, transmission, and early signs are needed, particularly for males, those with lower levels of education, and unemployed individuals.

Keywords: Diabetes Mellitus, Superficial Fungal Infections, Candida, Tinea, Awareness, Preventive Practices, Glycemic Control

Oral Presentations: Undergraduate Category

SOP 05

Symptoms of antenatal anxiety, its correlates and perceived social support among third-trimester pregnant women attending antenatal clinics at a tertiary care hospital, Galle

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Background: Antenatal anxiety is a distinct syndrome characterised by fears about the baby's health, childbirth, and parental concerns. Perceived social support is the subjective feeling of the availability of the support from those around them.

Objectives: The study aimed to assess the prevalence and factors associated with symptoms of antenatal anxiety during the third trimester and its association with perceived social support among pregnant women attending antenatal clinics at a tertiary care hospital.

Methods: A descriptive cross-sectional study was conducted among 385 pregnant women in the third trimester attending antenatal clinics at German Sri Lanka Friendship Hospital for Women, employing systematic random sampling. The validated Sinhala versions of the Perinatal Anxiety Screening Scale and Multi-dimensional Scale of Perceived Social Support were used to screen for symptoms of antenatal anxiety and perceived social support, respectively. A self-administered questionnaire designed by the investigators was employed to identify associated factors of antenatal anxiety. Data were analysed with Chi-square and Pearson correlation using the Statistical Package for Social Sciences.

Results: Symptoms of antenatal anxiety were present among 23.6% pregnant women, and 88.3% had high perceived social support. Monthly income ($p = 0.019$), living with husband ($p = 0.003$), living with in-laws ($p = 0.009$), social support from family ($p = 0.012$), friends ($p = 0.018$), and a significant other person ($p = 0.016$) were significantly associated with symptoms of antenatal anxiety. A weak negative correlation was observed between

antenatal anxiety and perceived social support ($r = -0.217, p = <0.05$).

Conclusions: Prevalence of symptoms of antenatal anxiety is lower than Asian prevalences, yet significant among third-trimester women and is associated with support received from multiple parties during pregnancy. It is recommended to introduce routine screening of anxiety to the maternal care package and to ensure social support provided by family and friends during pregnancy through increasing their awareness.

Keywords: *Antenatal Anxiety, Perceived Social Support, Pregnancy, Third-Trimester, Galle*

Oral Presentations: Undergraduate Category

SOP 06

Clinical and haematological patterns in dengue and dengue hemorrhagic fever among patients in adult medical wards at National Hospital, Galle

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Background: Dengue fever (DF) remains endemic in Sri Lanka with significant morbidity and mortality. Early identification of clinical and haematological parameters predictive of disease severity is essential for risk stratification and optimal patient management during the critical phase of infection.

Objectives: This study evaluated the clinical and haematological patterns of DF and dengue haemorrhagic fever (DHF) in hospitalised adult patients at the National Hospital, Galle, and identified clinical warning signs and haematological parameters predicting progression to severe disease.

Methods: A retrospective cross-sectional observational study was conducted on 100 adult patients (≥12 years) admitted with DF. Clinical features and haematological parameters were extracted from medical records following ethical approval obtained from the Ethics Review Committee, Faculty of Medicine, University of Ruhuna, and institutional permission from the National Hospital, Galle. Patients were classified into DF and DHF groups per WHO criteria.

Results: Of 100 patients, 63% were males with a mean age of 30(21-43) years; 77 had DF and 23 had DHF with no reported mortality, intensive care unit admissions, or major haemorrhagic complications. DHF patients had significantly longer hospital stays (4.09±2.15 vs 2.55±1.89 days, p<0.05), reflecting greater clinical severity. Retro-orbital pain was markedly more prevalent in DHF patients (85% vs 18.75%, p<0.001), representing a 4.5-fold higher occurrence compared to DF. Haematological analysis revealed significantly lower platelet counts in DHF at illness day 5 (43.31±25.10 vs 87.59±32.56 ×10⁹/μL, p<0.001) and elevated haematocrit during the critical phase (p<0.05), consistent with plasma leakage. White blood cell count recovery preceded platelet recovery in both the groups.

Conclusions: DHF patients exhibited distinct clinical and haematological phenotypes compared to DF. The strikingly high prevalence of retro-orbital pain in DHF warrants attention as a clinical differentiating feature. Severe thrombocytopenia and haemoconcentration during the critical phase serve as objective haematological markers correlating with greater disease severity and prolonged hospitalisation, supporting their utility in bedside risk stratification.

Keywords: Dengue fever, dengue hemorrhagic fever, haematological parameters, thrombocytopenia, prognostic indicators

Oral Presentations: Undergraduate Category

SOP 07

Mental health and nutritional status among patients on neo-adjuvant therapy vs adjuvant therapy, attending oncology units at National Hospital, Galle

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Background: Cancer patients undergoing systemic therapies commonly develop malnutrition and psychological morbidities, which adversely affect treatment tolerance and overall prognosis. Neo-adjuvant therapy (NAT) and adjuvant therapy (AT) are widely practiced therapeutic modalities. However, their impact on patients' nutritional and mental health status in the Sri Lankan setting is not well established.

Objectives: To compare mental health and nutritional status among patients on NAT vs AT attending oncology units at National Hospital, Galle.

Methods: A comparative cross-sectional study was conducted among random sample of 95 cancer patients (58 on AT, 37 on NAT) attending oncology wards at the National Hospital, Galle. Nutritional status was assessed using BMI, haemoglobin levels, and weight loss, while mental health was evaluated using the Depression, Anxiety, and Stress Scales (DASS-21). Data were analysed using z-test for two means and z-test for two proportions, where significance level was $p < 0.05$.

Results: The NAT group primarily comprised patients with breast cancer (12, 32.4%), followed by gastrointestinal tract malignancies, including oral (3, 8.1%), upper gastrointestinal (5, 13.5%), and lower gastrointestinal cancers (8, 21.6%). Other malignancies included female urogenital tract (2, 5.4%), upper respiratory

tract (2, 5.4%), and male urogenital tract cancers (1, 2.7%). Similarly, the AT group was predominantly composed of patients with breast cancer (33, 56.9%). This was followed by cancers of the female urogenital tract (5, 8.6%) and gastrointestinal tract, including oral (3, 5.2%), upper gastrointestinal (2, 3.4%), and lower gastrointestinal cancers (3, 5.2%). Additional cases included male urogenital tract (2, 3.4%) and upper respiratory tract malignancies (1, 1.7%). NAT patients mainly had significantly lower mean haemoglobin (10.06 g/dL vs. 10.77 g/dL of AT patients, $p=0.047$) and BMI (20.87 vs. 23.00 kg/m² of AT patients, $p=0.031$). Prevalence of anemia (91.9% vs. 75.8% of AT patients), undernutrition (40.5% vs. 19.0% of AT patients) and, of significant weight loss (72.9% vs. 50.0% of AT patients) were higher in the NAT group. Depression (54.1% vs. 32.8% of AT patients, $p=0.039$) and anxiety (43.2% vs. 22.4% of AT patients, $p=0.032$) were significantly higher in the NAT group, but stress was more prevalent in the AT group (58.6% vs. 35.1% of NAT patients, $p=0.026$).

Conclusions: Patients on NAT are more prone for nutritional deterioration, depression, and anxiety, while AT patients are more likely to experience higher stress. Phase-specific nutritional and psychological interventions should be integrated into cancer care to enhance treatment outcomes and quality of life.

Keywords: Neo-adjuvant therapy, adjuvant therapy, nutritional status, mental health, cancer patients

Oral Presentations: Undergraduate Category

SOP 08

Scrolling time, academic performance and mental well-being of medical students in the Faculty of Medicine, University of Ruhuna

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Background: Mobile phone use has become a routine behaviour among university students, with prolonged scrolling time increasingly linked to poor academic engagement and psychological distress. Despite high digital exposure among medical undergraduates in Sri Lanka, local evidence on how scrolling time affects their academic performance and mental well-being remains limited.

Objective: To evaluate the scrolling time (ST), and its impact on academic performance (AP) and mental well-being (MW) of medical undergraduates of University of Ruhuna.

Methods: A descriptive cross-sectional study was conducted among 470 medical undergraduates who had completed 2nd MBBS, 3rd MBBS Part I, and 3rd MBBS Part II. Stratified sampling ensured proportional representation across academic years. Data were collected using a self-administered, pre-tested online questionnaire developed following a literature review and expert input. Mental well-being was assessed using the WHO-5 index, and academic performance was categorised according to examination results. Associations between scrolling time, academic performance, and mental well-being were analysed using the Chi-square test, with $p < 0.05$ considered significant. Ethical approval was obtained from the Ethics Review Committee, Faculty of Medicine, University of Ruhuna.

Results: A total of 79.4% of students reported scrolling for more than two hours daily. Females (96.8%) had significantly higher scrolling time than males (44.6%) ($\chi^2 = 174.069$, $p = 0.001$). Higher scrolling time was significantly associated with low mental well-being ($\chi^2 = 378.764$, $p = 0.001$) and poor academic performance ($\chi^2 =$

424.878, $p = 0.001$). Students who used strategies such as setting time limits, disabling notifications, or using separate devices for studying demonstrated lower daily scrolling time.

Conclusions: Excessive scrolling time is common among medical undergraduates of University of Ruhuna and is strongly associated with poorer academic performance and lower mental well-being. Promoting healthier digital habits and structured interventions may help reduce scrolling time and support student well-being and academic success.

Keywords: Scrolling time, mental well-being, academic performance, medical students

Oral Presentations: Undergraduate Category

SOP 09

Prevalence and associated factors of chronic pruritus among the patients with chronic kidney disease attending the adult nephrology clinic at National Hospital Galle

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Background: Chronic pruritus is a frequent and distressing symptom among patients with chronic kidney disease (CKD), significantly impairing their quality of life. Although the burden of CKD is on the rise, data on the prevalence and risk factors for pruritus remain scarce.

Objectives: To describe the prevalence and associated factors of chronic pruritus among patients with CKD attending the adult nephrology clinic at the National Hospital Galle (NHG).

Methods: A descriptive cross-sectional study was conducted at the adult nephrology clinic of the NHG, among patients with CKD aged 18 to 65 years using consecutive convenient sampling. Data were collected using a pre-tested, interviewer-administered questionnaire including data on sociodemographic information, disease related characteristics, presence and severity of pruritus assessed using visual analogue scale. Data were analysed with the Statistical Package for Social Sciences (SPSS) version 27.

Results: Of 430 patients, the mean (\pm SD) age was 56 (\pm 9) years and 55.2% were males. The majority of the participants belonged to social class 5 (48.8%) and were in CKD stage 4 (29.2%) with diabetic nephropathy being the most common aetiology (44.8%). Erythropoietin injection was received by 53.6% patients while 14.4% were receiving regular haemodialysis and a minority (11.2%) of the patients had been recommended for kidney transplantation. Prevalence of chronic pruritus was 29.6% with median (IQR) severity score 4 (6-3). A significant association was found between

increased pruritus and late CKD stage ($X^2=15.999$, $df=1$, $p<0.001$), administration of erythropoietin ($x^2=8.246$, $df=1$, $p=0.004$), undergoing haemodialysis ($x^2=13.596$, $df=1$, $p<0.01$), eGFR level ($x^2=18.861$, $df=1$, $p<0.001$) and uric acid level ($x^2=4.695$, $df=1$, $p=0.03$). According to our study there is no significant association of chronic pruritus with age, serum creatinine level, haemoglobin level, and serum calcium level.

Conclusions: Nearly one third of patients with CKD experience chronic pruritus and was significantly associated with advanced CKD stage, lower eGFR, erythropoietin use, haemodialysis and higher uric acid levels. The findings highlight the importance of routine assessment of chronic pruritus particularly in advanced stages of CKD during their clinic visits and relevant solutions should be given accordingly.

Keywords: Prevalence of pruritus, associated factors of pruritus, adult nephrology clinic, chronic kidney disease.

Oral Presentations: Undergraduate Category

SOP 10

Vaccine hesitancy on the National Immunisation Programme in Welipitmodara Public Health Midwife area, Galle.

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Background: Sri Lanka is recognised internationally for its high immunisation coverage achieved through the National Immunisation Programme (NIP). However, localised challenges such as parental vaccine hesitancy continue to threaten these achievements, contributing to outbreaks of vaccine-preventable diseases. Vaccine hesitancy is defined as the postponement or refusal to receive vaccines despite the presence of accessible vaccination services.

Objective: This study aimed to assess vaccine hesitancy and its association with knowledge regarding the NIP in Welipitmodara public health midwife (PHM) area.

Methods: A community-based survey was conducted in the Welipitmodara PHM area of the Bope-Poddala MOH division, in Galle district, which recently experienced a measles outbreak. Data were collected among 282 families having children under 12 years, focusing on socio-demographic characteristics, primary caregivers' knowledge of NIP, and the immunisation status of the firstborn child in each family.

Results: There were 228 firstborn children, and 99% of these families were Muslim. Overall, NIP coverage was 94.3%, while 5.7% had not received age-appropriate vaccines. The mean NIP knowledge of the primary caregiver was 21.03 (SD=4.56, range, 0-30). The majority (88%) reported receiving information from the PHM. Knowledge scores were not associated with income or educational level ($p < 0.05$). Vaccine hesitancy showed no significant association with primary caregivers' knowledge ($t(df) = -1.943, p = 0.053$).

Conclusions: The vaccination coverage in this community was lower than the national coverage of 99%. PHM served as the primary source of information across all social classes and educational groups. Notably, knowledge was not associated with hesitancy, highlighting the need to investigate further underlying factors contributing to hesitancy.

Keywords: Vaccine hesitancy, National Immunisation Programme, primary caregivers' knowledge, immunisation coverage

Oral Presentations: Undergraduate Category

SOP 11

Knowledge, attitudes, and perceptions of leprosy among adults attending the outpatient Department of the National Hospital, Galle.

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Background: Leprosy is a curable disease. However, limited public awareness and persistent stigma delay early diagnosis and treatment, increasing the risk of disability and ongoing transmission. Understanding adult perceptions is important for improving education and reducing stigma.

Objective: To describe the knowledge, attitudes, and perceptions regarding leprosy among adults attending the outpatient department at the National Hospital, Galle.

Methods: A descriptive cross-sectional study was conducted among 381 adults aged ≥18 years using convenience sampling. Data were collected through face-to-face interviews using a structured questionnaire adapted from previous literature. Knowledge was assessed using a scoring system, while attitudes were measured using a five-point Likert scale (abstracted from cited literature) and categorised as favourable (>60%) or unfavourable (≤60%). Data were analysed using SPSS, and associations with sociodemographic factors were tested using the Chi-square test at $p < 0.05$. Ethical approval was obtained from the Ethics Review Committee of the Faculty of Medicine, University of Ruhuna.

Results: Overall, 67.46% had poor or very poor knowledge, while 32.55% had good knowledge. Most participants (49.9%) obtained information from television, radio, or newspapers, with only 5.2% from health-care workers. Only 14.96% had seen a person affected by leprosy. Although 56.84% knew it is curable, awareness of symptoms was low, and misconceptions about causes and transmission were common. Attitudes were largely negative (62.20%), with reluctance for close contact. More favourable attitudes were seen among males ($p=0.0014$) and younger participants ($p=0.036$). Knowledge was associated with education ($p=0.001$), occupation ($p=0.002$), socioeconomic status ($p=0.001$), and religion ($p=0.024$), with higher knowledge among Christians.

Conclusions: Awareness was suboptimal and negative attitudes common due to misconceptions and stigma. Limited health care worker involvement highlights the need to strengthen health education. These findings support targeted awareness and stigma reduction for early detection and acceptance.

Keywords: *Leprosy, awareness, stigma, community attitudes, Sri Lanka*

Oral Presentations: Undergraduate Category

SOP 12

Perception of skin complexion, knowledge, attitude and usage of fairness skin care products among female garment workers of selected garments in Galle district

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Background: Skin tone plays a significant role in shaping beauty standards and self-image, especially for women in South Asian countries where lighter skin is widely regarded as socially desirable. Also fairness skin care products are widely used even though there are rising worries about their safety and effectiveness.

Objectives: The aim of the study was to assess perception of skin complexion, knowledge, attitude and usage of fairness skin care products among female garment workers of selected garments in Galle district.

Methods: A descriptive, cross-sectional study was carried out among 421 female garment workers in selected garments in Galle district. A pre-tested, self-administered questionnaire was used to collect data. This questionnaire was developed by the investigators, with the guidance of experts in the field, to collect socio-demographic information (A), perception of skin complexion (B), knowledge of skin and fairness skin care products (C), attitude towards skin care products (D), usage of fairness skin care products (E). Data was analyzed using SPSS version 25.0

Results: Overall 79.6% (n = 335) of respondents had a poor perception regarding self-skin complexion and fairness skin care products. The majority of participants (80.8%, n = 340) had good knowledge regarding fairness skin care products. The mean overall attitude score was 30.9 ±4.6 out of 45, mode score was 36 and median score was 31. The majority, 77.5% (n = 224) indicated a poor attitude. The majority of the participants (n = 289, 68.6%) used fairness skin care products. The majority of the participants 97.2% (n = 281) had good usage that indicating that the majority of participants are frequent and consistent users of fairness skincare products based on the study scoring system, but it does not necessarily indicate safe or appropriate use. Younger age (18–34 years) ((p < 0.001) and higher education levels (A/Ls and above)

($p < 0.001$) were associated with better knowledge and positive attitude. Product use was positively associated with living with the spouse ($p = 0.001$), higher income (\geq LKR 50,000) ($p = 0.025$), poor skin complexion perception ($p < 0.001$) and better knowledge about skin and fairness skin care products($p < 0.001$).

Conclusions: The majority had high usage and good knowledge of fairness skin care products, most demonstrated poor perception and negative attitudes towards skin complexion and fairness products. This indicates a clear gap between knowledge and attitudes suggesting that awareness alone does not necessarily translate into positive perceptions or safe practices. Higher education level and younger age were associated with better knowledge and more positive attitudes suggesting improving knowledge alone may be insufficient without addressing underlying perceptions and societal norms.

Keywords: Fairness skin care products, Perception, Knowledge, Attitude, Usage

Poster Presentations: Open Category

PP 01

Clinical manifestations, disability and their temporal pattern in Acute Chikungunya infection in Southern Sri Lanka

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Background: Chikungunya is a re-emerging arboviral disease in Sri Lanka that causes prolonged joint symptoms and socioeconomic burden. Despite major outbreaks since 2006, data on symptom progression, disability, and recovery remain limited.

Objective: This study aimed to describe the clinical features, symptom progression, recovery timelines, and socioeconomic impact of chikungunya infection among laboratory-confirmed patients in Southern Sri Lanka.

Methods: We recruited 102 clinically diagnosed patients with chikungunya, receiving inpatient or outpatient care from government and private hospitals in Southern Sri Lanka. Of these, 69 were laboratory confirmed with chikungunya specific IgM testing after 5 days of acute illness. Data was collected using a structured interviewer-administered questionnaire, supplemented by follow-up assessments at one-month post-infection. Performance was assessed using a 0-100 scale, with pre-illness status defined as 100.

Results: Among the 69 confirmed patients, 38 (55.1%) were female, and 42% were aged 25–44 years. Ninety-four percent developed joint pain within 24–48 hours of fever onset. The commonest affected joints were the ankle (86%), forefoot (81%), and midfoot (78%). Common associated symptoms were myalgia (66.7%) and headache (62.3%). All patients had joint pain and out of them joint swelling was present in 78.2%. Chik sign was observed in 47.8%, appearing around day five in nearly one quarter. Median performance scores at presentation and 1 month were 20 (IQR=32.5-10) and 80 (IQR=95-60). Individuals lost a median of 10 (IQR=14-5) working days and spent a median of Rs. 15,000 (IQR=20,000-10,000) on private healthcare.

Conclusions: Chikungunya was prevalent among females and the middle-aged population. It causes pain and swelling predominately at the joint of the foot with significantly lower disability at the first month of illness compared to the presentation and led to substantial occupational and financial loss.

Keywords: Chikungunya, disability, joint pain, arthritis

Poster Presentations: Open Category

PP 02

Surveillance of acute pyelonephritis in National Hospital Galle

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Background: Acute pyelonephritis is a severe upper urinary tract infection, associated with considerable morbidity. Characterising its epidemiology, associated risk factors, and treatment outcomes is essential to inform clinical management and guide surveillance strategies.

Objectives: To condense demographics, risks, microbiology, disease characteristics, aetiology and management of patients with acute pyelonephritis.

Methods: A cross-sectional observational study was carried out among 51 patients with clinically diagnosed pyelonephritis admitted to medical units of National Hospital Galle from June 2025 over 2 months.

Results: Of the 51 patients, the majority were females (80.4%) with a mean age of 55± 5 years. Fever (86.3%), loin/flank pain (74.5%), nausea, vomiting (86.3%) were the most frequently reported symptoms. Renal angle tenderness was observed in 64.7%. Two thirds (66.7%) of the cohort had diabetes mellitus. Ultrasonographic findings suggestive of pyelonephritis were present in 62.7% of patients. Urine culture yielded growth in 16% (n =8) of cases, with *Escherichia coli* (n =5) being the most common pathogen followed by *Klebsiella spp.* *Candida spp.* were also isolated in a subset of samples. Among culture positive bacterial isolates, ESBL producing organisms were identified in 50% (n=4). Empirical therapy was most frequently initiated with intravenous co-amoxiclav (51.1%) and ceftriaxone (42%). Antibiotic escalation was required in 47.1%. Out of them, 17.6% were treated with meropenem. Others received ceftriaxone/cefotaxime and amikacin. Among the patients, 2% developed septic shock. Acute kidney injury occurred in 33.3% of patients. Twenty-six percent had previous episodes of pyelonephritis. Among reported lifestyle practices, 37.3% reported habitual urine holding, and 68.6% reported a daily water intake below 2 liters. The median duration of the hospitalisation was 7 days (IQR 5-10).

Conclusions: Acute pyelonephritis predominantly affected middle-aged females in this cohort, with diabetes mellitus being the most common comorbidity. Among admitted patients, antimicrobial resistance necessitating antibiotic escalation was observed, highlighting the need for ongoing resistance surveillance and strengthened antimicrobial stewardship.

Keywords: Pyelonephritis, antimicrobial resistance, ESBL, empirical antibiotic therapy

Poster Presentations: Open Category

PP 03

Profile and outcomes of the infants with structural defects of the central nervous system: A longitudinal follow-up study in Galle, Sri Lanka

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Background: Structural defects of the central nervous system (CNS) are known to cause a significant morbidity and mortality among children and found to be the second commonest group of birth defects globally.

Objective: The aim of this study is to identify the outcomes of the infants with structural defects of the CNS.

Methods: A descriptive longitudinal study was carried at two tertiary care centers in Galle, Sri Lanka. Infants with structural birth defects of the CNS aged up to six months residing in Galle were recruited consecutively and were prospectively followed-up for one year to identify the outcomes of the defects and outcomes of the children during infancy.

Results: During a period of one year, 37 infants with CNS defects were recruited. Among them 25 (67.6%) were males, 8 were preterm (21.6%) and 17 (45.9%) had low birth weight. Twenty-eight (75.7%) infants had defects involving other systems. The most common CNS defects identified were hydrocephalus (n=18) and neural tube defects (NTD) (n=15). Twelve infants died during infancy showing 32.4% mortality. Growth impairment was reported among 64% (n=16, stunting 20%, wasting 4%, both stunting and wasting 40%) of the infants who were alive by the first year of life. Global developmental delay was seen among 80% (n=20), and motor delay and normal development were reported 12% and 8% respectively. Among the infants with NTD, 10 underwent surgical repair and the mean age of surgical correction was 32.9 days (7-110 days). Incontinence was reported among 6 (54.5%) infants and congenital talipes was seen among 4 (36.4%) infants. Among the infants with hydrocephalus 10

infants underwent surgical procedures and 50% among them had infection and reinsertion of the shunts.

Conclusions: Structural defects of CNS among infants showed a very high morbidity and mortality among the affected infants, making their prevention and management crucial for healthcare systems of Sri Lanka.

Key words: Birth defects, Central Nervous System, Outcomes, Galle, Sri Lanka

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Poster Presentations: Open Category

PP 04

Association between dyslipidaemia and renal function in patients with chronic kidney disease attending the Nephrology Clinics at National Hospital, Galle

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Background: Chronic kidney disease (CKD) is a serious health problem worldwide. Dyslipidaemia is identified as a common complication of CKD, which can lead to cardiovascular disease (CVD). Recent evidence increasingly supports that a non-fasting lipid profile is a better indicator of dyslipidaemia and cardiovascular risk compared to a traditional fasting lipid profile.

Objective: To assess the association between dyslipidaemia and kidney function among CKD patients attending the Nephrology clinics at National Hospital Galle (NHG)

Methods: A descriptive cross-sectional study was carried out using 151 patients with CKD, attending the Nephrology clinics at NHG. Sociodemographic and clinical data were collected from the participants, and retained non-fasting serum samples were collected from the Chemical Pathology laboratory, NHG, for the assessment of lipid profile parameters by spectrophotometric methods. Random duplication of the tests was done as a quality control measure for each parameter. The atherogenic risk predictor indices, including the atherogenic index of plasma (AIP), Castelli's risk index-I (CRI-I), Castelli's risk index-II (CRI-II), and atherogenic coefficient (AC) were calculated. Ethical clearance was obtained from the ERC, Faculty of Allied Health Sciences (2024.05.385).

Results: Prevalence of dyslipidaemia was observed in 75.50% of the participants, with the highest prevalence (83.33%) in patients with CKD stage 2 and the lowest prevalence in stage 3A (60.00%). Reduced HDL-C was the most frequent lipid abnormality (52.32%) followed by hypertriglyceridaemia (47.02%). The mean differences of CRI-I (0.75, p=0.019; 0.90, p=0.047), CRI-II (0.66, p=0.023; 0.82, p=0.029), and AC (0.75, p=0.019; 0.90, p=0.047) showed a significant increase in

values among patients with CKD stage 5 compared to stage 3A and 4, respectively. Dyslipidaemia showed a positive association with CKD stages ($\chi^2 = 4.414$); however, it did not differ significantly across stages.

Conclusions: The present findings revealed a high prevalence of dyslipidaemia among patients with CKD, while low HDL-C was the most frequent lipid abnormality. The findings showed increased dyslipidaemia and CVD risk with the advanced stage of the disease, with the highest CVD risk in CKD stage 5. These findings highlight the importance of continuous assessment of dyslipidemia for the better management of complications associated with CKD patients.

Keywords: Cardiovascular disease, chronic kidney disease, dyslipidaemia, CKD stages

Poster Presentations: Open Category

PP 05

Effect of delayed processing, cerebrospinal fluid glucose and protein levels on cerebrospinal fluid manual cell count at National Hospital, Galle

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Background: Laboratory findings on cerebrospinal fluid (CSF) cell count and differential cell count offer valuable objective evidence on central nervous system pathologies. Even though haematological analysis in CSF should preferably be performed within one hour of sample collection, delayed processing often occurs with the heavy workload.

Objective: To assess the effect of time delay in sample processing, CSF glucose and protein levels on CSF manual cell counts.

Methods: A cross-sectional study was conducted and the sample size was calculated using G* power analysis. Accordingly, a total of 30 CSF samples received at the Chemical Pathology Laboratory, National Hospital Galle were assessed. Manual red cell count, white cell count, and polymorphonuclear cell count were performed using the Fuchs-Rosenthal chamber, at one-hour intervals up to four hours at room temperature from the baseline, and at 24 hours of the refrigerated residual sample. The baseline counts were performed within two hours from sample collection. The laboratory data on biochemical analysis of CSF glucose and protein were retrieved from laboratory records. One-way ANOVA and Pearson chi-squared tests were used to compare the mean differences between the time intervals and to assess the association between biochemical parameters and cell counts.

Results: No significant differences were observed in CSF red cell ($p=1.000$), lymphocyte ($p=0.441$) and polymorphs ($p=0.999$) counts taken at different time points up to 24 hours, from the baseline counts. There were no statistically significant changes among cell counts across time intervals in samples with varying glucose and protein concentrations ($p>0.05$). A significant association was observed only between CSF glucose and lymphocyte counts ($\chi^2=39.57, p=0.043$).

Conclusions: The study revealed there is no significant effect of time delay in processing samples up to 4 hours at room temperature and 24 hours at the refrigerated temperature on CSF cell counts. Further, there is no effect of glucose and protein concentrations on time dependent changes in cell counts.

Keywords: Cerebrospinal fluid (CSF), Manual cell count, Time delay, Stability, Biochemical analysis

Poster Presentations: Open Category

PP 06

Exploring reflections of first-year medical students following the inaugural Early Clinical Exposure Programme

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Background: The Faculty of Medicine, University of Ruhuna introduced early clinical exposure (ECE) into Phase 1 teaching-learning programme of its revised curriculum starting in 2025. This programme provides structured encounters of patients to contextualise preclinical learning and ease the transition into clinical practice. Students complete reflective writing exercises as part of ECE.

Objective: The aim of this study was to analyse the initial reflections of students following the first session of the programme to explore early perceptions, emotional responses and learning insights.

Methods: This study adopted a qualitative, descriptive research design utilising thematic analysis to explore first-year medical students' reflective narratives. All first-year students who submitted reflective narratives were included for this study. Thematic analysis was used to identify and interpret patterns within the reflective writings. Credibility of the process was enhanced through investigator triangulation.

Results: A total of 290 students participated in the first ECE session, of whom 139 submitted reflective writings. After excluding submissions that were purely descriptive and lacked personal reflection, 134 reflections (46%) were included in the analysis. All 134 reflections were analysed, although thematic saturation was achieved at approximately 100 reflections. Thematic analysis identified five major themes: (1) compassion and commitment to patient wellbeing, (2) motivation and purpose for learning, (3) familiarisation with patient-based clinical learning, (4) concerns about students' performance and (5) dissatisfaction with limited exposure with ECE programme.

Conclusions: Reflections from first-year medical students following the inaugural early clinical exposure programme revealed that it provided a meaningful bridge

between preclinical learning and clinical experiences by enhancing motivation for learning, sensitising students to core professional values such as compassion and patient-centeredness, and fostering an early appreciation of clinical competencies including communication and teamwork. However, the low reflective writing submission rate may introduce non-response bias, potentially limiting the representativeness of the findings.

Keywords: Early clinical exposure, medical education, preclinical learning, clinical practice

Poster Presentations: Open Category

PP 07

Knowledge, attitudes, and associated factors on nutritional management among patients with chronic kidney disease in Southern Sri Lanka

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Background: Undernourishment has been identified as a serious and common presentation among patients with chronic kidney disease (CKD), which depreciates their quality of life. Despite the established dietary guidelines, nutritional management of CKD is often influenced by knowledge and attitudes of the patients.

Objectives: To assess knowledge, attitudes, and associated factors on nutritional management of patients with CKD in Southern Sri Lanka

Methods: A cross-sectional study was carried out among 423 CKD patients via an interviewer administered questionnaire at National Hospital Galle (NHG), and District Ayurvedic Hospitals (DAH); Galle and Beliatta. Knowledge (inadequate/adequate) and attitudes (poor/fair/good) were categorised based on mean scores, and associations were analysed using chi-square test in SPSS software.

Results: Of the 423 participants, the majority attended the nephrology clinics at NHG (93.6%, n= 396) followed by DAH-Galle (5.0%, n= 21) and Beliatta (1.4%, n= 06). Most of the participants (62.6%) were males and were within the CKD stage 3 (39.2%). The Mean±SD scores for knowledge and attitudes were 6.89±2.2 and 39.19±6.7 respectively. Of the total, 297 (70.2%) participants had an adequate level of knowledge and 277 (65.5%) demonstrated a fair level of attitudes towards nutritional management of CKD. Key factors associated with knowledge on nutritional management of CKD were age ($\chi^2= 10.995$), education ($\chi^2= 14.774$), marital status ($\chi^2= 4.172$), monthly income ($\chi^2= 11.712$), smoking ($\chi^2= 16.097$), alcohol consumption ($\chi^2= 34.780$), CKD stage ($\chi^2= 47.021$) and family history of CKD ($\chi^2= 10.221$) ($p<0.05$). In terms of attitudes, the key associated factors were age ($\chi^2= 33.268$), gender ($\chi^2= 15.369$), ethnicity ($\chi^2= 16.480$), education ($\chi^2= 28.961$), marital

status ($\chi^2= 17.170$), occupation ($\chi^2= 10.880$), smoking ($\chi^2= 52.745$), alcohol consumption ($\chi^2= 69.858$), monthly income ($\chi^2= 29.839$), CKD stage ($\chi^2= 73.092$) and family history ($\chi^2= 48.664$) ($p<0.05$).

Conclusions: The findings revealed that participants had adequate knowledge and fair attitudes towards nutritional management of CKD, while age, education, marital status, monthly income, smoking, alcohol consumption, CKD stage and family history of CKD being the key factors associated with both knowledge and attitudes towards nutritional management.

Keywords: Attitudes, Chronic Kidney Disease, Knowledge, Nutrition, Southern province

Poster Presentations: Open Category

PP 08

Fatal septicaemia following unrecognised metallophagia in a neuropsychiatrically impaired adult: A forensic autopsy case report

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Background: Metallophagia, a rare subtype of pica involving the ingestion of metallic objects, can result in fatal complications when unrecognised, particularly among individuals with untreated neuropsychiatric conditions. This case report describes an unusual and fatal presentation of unrecognised metallophagia leading to septicaemia in a socially isolated adult female with a lifelong history of epilepsy and suspected psychiatric impairment.

Case Presentation: A 40-year-old unmarried woman with a known history of epilepsy since childhood was found gasping at home and was declared dead upon admission. She had not been under regular medical care and had displayed signs of cognitive impairment. Forensic autopsy revealed multiple metallic foreign bodies (hairpins and clips) in the oesophagus and stomach. One metallic clip had penetrated the pharyngeal wall, resulting in a localised abscess measuring approximately 1.5 x 1 cm, with surrounding inflammatory changes. Although the abscess caused localised mass effect, there was no evidence of complete airway obstruction. Additional foreign bodies caused mucosal injury, ulcers, and haemorrhagic areas throughout the gastrointestinal tract. Evidence of systemic infection, including septic emboli and visceral congestion, confirmed septicaemia. The cause of death was certified as septicaemia secondary to a pharyngeal abscess caused by foreign body ingestion.

Discussion: This case underscores the fatal complications of untreated pica, particularly in patients with underlying neurological and psychiatric disorders. The absence of medical supervision and poor insight into her condition likely contributed to the unchecked progression of this behaviour. The findings emphasise the importance of early recognition and psychiatric evaluation in vulnerable populations. Medico-legally, the case raises concerns about systemic neglect and the need for comprehensive mental health surveillance in socially isolated individuals.

Conclusions: Unrecognised metallophagia in adults with neuropsychiatric impairment can lead to fatal septic complications. Forensic pathologists play a crucial role in identifying such rare causes of death and highlighting the broader implications for public health and preventive psychiatry.

Keywords: Metallophagia, pica, septicaemia, foreign body ingestion

Poster Presentations: Open Category

PP 09

Storage, reuse, misuse, and disposal of unused and expired medications in households among mothers of children under five years attending Medical Officer of Health clinics in the Dehiwala-Mount Lavinia area

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Background: Pharmaceutical waste management in households poses significant public health and environmental challenges. Mothers play a critical role in medication handling within families, yet their practices regarding storage, disposal, and reuse of unused medications remain poorly documented in Sri Lanka, limiting the development of effective intervention strategies.

Objective: To assess knowledge, attitudes, and practices regarding storage, reuse, misuse, and disposal of unused and expired medications among mothers of children under five years attending Medical Officer of Health clinics in the Dehiwala-Mount Lavinia area.

Methods: A descriptive, cross-sectional study was conducted among 189 mothers recruited using simple random sampling (lottery method) across multiple clinic days. Data were collected using a pre-tested, interviewer-administered structured questionnaire. Data were analysed using SPSS version 26, employing chi-square tests and logistic regression to identify associations and predictors.

Results: Approximately 87.3% of households accumulated unused medications, primarily through over-purchasing and premature treatment discontinuation. Knowledge deficits were substantial, with only 40.2% having heard about medication waste, 69.3% not checking expiration dates, and 97.4% unaware of drug take-back programmes. Concerning practices, with 77.8% reusing leftover medications for family members, and 60.3% administering previously used medications to children without medical consultation. Alarming, 32.3% reported child poisoning incidents. Disposal practices were problematic, with 84.1% discarding medications with household waste. Despite poor practices, participants demonstrated positive

attitudes, with 87.3% recognising health and environmental harms of improper disposal and 74% supporting mandatory medicine return programmes. Education level emerged as the strongest predictor of safe practices: higher-educated mothers were approximately 20 times more likely to have encountered disposal instructions (OR=20.356, 95% CI; $p<0.001$), 22 times more likely to check expiry dates regularly (OR=22.055; $p<0.001$), and 87% less likely to reuse medications for children without consultation (OR=0.131; $p<0.001$). Income also significantly influenced medication management behaviours, with higher-income participants 2.1 times more likely to have encountered disposal instructions (OR=2.129; $p<0.001$) and 1.8 times more likely to check expiry dates before use (OR=1.842; $p<0.001$).

Conclusions: Critical gaps exist in medication waste knowledge and practices among mothers, contributing to child poisoning risks and environmental contamination. The findings underscore the urgent need for household-specific disposal guidelines, accessible medicine return infrastructure through community pharmacies and Medical Officer of Health clinics, targeted health education campaigns, and interventions.

Keywords: Pharmaceutical waste, Expired medications, Medication disposal, Medication misuse, Household medication storage, Child poisoning prevention

Poster Presentations: Open Category

PP 10

Characterisation of a conformationally constrained peptide with immune stimulatory activity

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Background: Molecular-targeting peptides and mini-proteins are promising alternatives to antibodies in a wide range of applications in bioscience and medicine. Peptides with helix-loop-helix (HLH) structures have emerged with increased stability and target-specificity while having no immunogenicity. CTLA-4 downregulates immune responses of cytotoxic T-cells by interacting with B7-1, a co-stimulatory molecule expressed on antigen-presenting cells. Previously discovered peptide, ERY2-4 inhibited the CTLA-4/B7-1 interaction and induced immune stimulatory activity.

Objective: Characterisation of an immune-stimulatory peptide against CTLA-4

Methods: A peptide with CTLA-4 binding activity was identified from ERY2-4 based secondary peptide library. The peptide was synthesised by standard Fmoc solid-phase methods and purified by reversed-phase high-performance liquid chromatography (RP-HPLC). Circular Dichroism (CD) spectra were recorded using a J-820 spectrometer (Jasco). The selective binding activity of the peptide was measured using ELISA. Concentration of the peptide and single helix peptide of the c-terminus of the peptide were evaluated in human serum and culture media (RPMI 5% FBS, Pc/sm), and the stability of the peptide against culture media and serum was evaluated by RP-HPLC. The immunostimulatory activity was measured using the mixed lymphocyte reaction by BrdU incorporation assay.

Results: The molecular weight of the peptide was around 4 kDa, and CD spectra exhibited double minima at 208 and 222 nm, showing that the peptide retained α -helical conformations. Further, the peptide showed selective binding activity to CTLA-4 and no binding activity to CD28, which is the immune stimulatory costimulatory molecule. In both conditions peptide showed greatly improved stability compared to the single helix peptide, with a half-life of 7 hours and 96 hours in human serum and culture media, respectively. Further, the peptide (30 μ M) showed 1.3-fold proliferation of allogenic lymphocytes compared to ERY2-4 in the MLR assay.

Conclusions: The CTLA-4 targeting HLH peptide showed selective binding activity, improved stability compared to a single helix peptide in human serum and culture media, and immune stimulatory activity by increased proliferation of T-cells.

Keywords: Characterisation, CTLA-4, HLH-peptides, immune stimulatory activity

Poster Presentations: Open Category

PP 11

In vitro screening of antimicrobial properties of selected Sri Lankan medicinal plants used in bone fracture treatment against Methicillin-Resistant *Staphylococcus aureus* (MRSA)

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Background: Antibiotic resistance has emerged as a global therapeutic challenge, with methicillin-resistant *Staphylococcus aureus* (MRSA) emerging as a particularly significant pathogen. The rise of antibiotic-resistant strains has reduced the effectiveness of existing antibacterial drugs, emphasising the urgent need to develop more advanced antibacterial agents. In this context, plants have gained attention as promising natural sources of novel antibacterial compounds.

Objective: To determine the antimicrobial properties of ethanol and aqueous extracts of *Croton aromaticus* (Gas-keppitiya), *Jeffreyia zeylanica* (Pupula), *Symplocos acuminata* (Bombu), and *Cynanchum viminalis* subsp. *brunonianum* (Muwakeeriyaya) against methicillin sensitive and resistant *Staphylococcus aureus*.

Methods: Ethanol and aqueous extracts of each plant were prepared and screened *in vitro* for antimicrobial activities against two clinical isolates of MRSA using disc diffusion assay. *Staphylococcus aureus* (ATCC 25923) was used as the reference strain. Extracts demonstrating activity in the disc diffusion assay were subsequently subjected to broth micro-dilution assay to determine the minimum inhibitory concentration (MIC). A two-fold serial dilution of each plant extract was used, and all the assays were performed in triplicate.

Results: Among the four plants screened, only *J. zeylanica* demonstrated antibacterial activity against MRSA, with inhibitory zones 7-10 mm and 8-11 mm for ethanol and aqueous extracts respectively, at 300 mg/mL. The positive control, vancomycin, exhibited a mean inhibitory zone of 18.5 mm. *S. aureus* (ATCC 25923)

showed a similar susceptibility profile to both extracts. The MIC for both the ethanol and water extracts of *J. zeylanica* was 300 mg/mL whereas vancomycin exhibited a MIC between 1-2 µg/mL.

Conclusions: *J. zeylanica* exhibited moderate antibacterial activity against MRSA. The MIC values for both extracts were equal to the highest concentration tested. This suggests bioactive compounds were present at relatively low concentrations. Therefore, additional investigations including fractionation and phytochemical characterisations are warranted to identify the bioactive secondary metabolites responsible for the observed antibacterial activity.

Keywords: MRSA, antibiotic resistance, *J. zeylanica*, antimicrobial activity

Acknowledgement: This study was funded by the Faculty of Medicine and Faculty of Allied Health Sciences, University of Ruhuna, Sri Lanka.

Poster Presentations: Open Category

PP 12

Effect of workload on the tissue processing practices in histopathology laboratories in Southern Province

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Background: Tissue processing is a key step in histo-technology. There is no recommended national protocol for tissue processing in Sri Lanka. Practices and schedules of tissue processing in different laboratories vary.

Objective: To compare tissue processing practices among histopathology laboratories in the Southern Province of Sri Lanka, based on the workload

Methods: A descriptive cross-sectional study was conducted to evaluate tissue processing practices and their effects on the quality of haematoxylin and eosin (H&E)-stained histology sections, across nine histopathology laboratories in the Southern Province. Real-time observations were carried out from specimen reception to slide preparation using a validated checklist. H&E-stained histology sections (five/laboratory) were examined according to a semi-quantitative scoring system to assess physical quality of sections, tissue preservation, embedding practices and staining quality. Comparisons were made based on the monthly tissue processing workload of the laboratories as low (<500), moderate (500-1000) and high (>1000 tissue blocks).

Results: Laboratories with a moderate-workload (n=2) consistently achieved the highest scores for fixation (7.52±0.18) and overall slide quality (17.30±1.63). They adopted a timely reagent renewal schedule and changed all reagents in the tissue processor at the end of one schedule. High-workload laboratories (n=3) used advanced tissue processors and maintained records but had slightly lower scores for fixation (6.90±0.25) and embedding (18.02±0.26). Low-workload laboratories (n=4) showed the lowest scores for fixation (5.94± 0.11) and overall slide quality (14.29±1.10). Inconsistent and infrequent reagent renewal were observed in low-workload laboratories, but they had the highest score for embedding (19.66±0.16). No statistically significant differences were found in total scores for histology among the low-, moderate- and high-workload laboratories respectively (14.29±1.10, 17.30±1.63, 16.00±1.28) (p>0.05), moderate-workload laboratories demonstrated a clear trend of superior performance.

Conclusions: Moderate-workload laboratories demonstrated the best overall performance in histology sample processing compared to low- and high-workload laboratories. Practices in tissue processing have ensured best quality of the final product in moderate-workload laboratories.

Keywords: Haematoxylin and eosin staining, Laboratory practices, Laboratory workload, Tissue processing

Poster Presentations: Open Category

PP 13

Weight and shape concerns among adolescent school children in Matara Educational Division: A preliminary study

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Background: Weight and shape concerns are a growing issue among adolescents with significant implications on their psychological wellbeing.

Objective: This preliminary study aimed to assess weight and shape concerns among adolescent school children in Matara Educational Division, Sri Lanka.

Methods: A cross-sectional study was conducted among a random sample of 168 adolescents aged 16-19 years attending schools in Matara Educational Division. Weight and shape concerns were assessed using a self-administered, Sinhala version of Eating Disorders Examination Questionnaire 6.0. Weight and height of the adolescents were measured to calculate Body Mass Index (BMI). Data were analysed using Statistical Package for Social Sciences software, version 30 using descriptive statistics, Pearson correlation test and independent sample t test.

Results: Mean age (SD) of the adolescents was 16.9 (0.9) years. Over 60% of the adolescents reported weight dissatisfaction while 66.1% reported shape dissatisfaction. Among them, 17.3% showed moderate to marked weight dissatisfaction and 16% showed moderate to marked shape dissatisfaction. Due to the concerns on weight and shape, 8.9% of the adolescents had felt guilt about eating, more than half of the times they ate, during the preceding 28 days. Among adolescents, 13.6% had concern about other people seeing what they eat. Weight had influenced 27.3% of adolescents on how they judge themselves as a person, whereas shape had influenced 36.9%. Over 17% of the adolescents had felt uncomfortable seeing their shape in the mirror. Almost 15% of the adolescents had felt uncomfortable about others seeing their shape or figure in wearing tight clothes. Weight concern and shape concern subscale scores showed significant, positive, moderate correlations with BMI ($r=0.389$, $p<0.001$ for weight concern, $r=0.451$,

p<0.001 for shape concern). Mean subscale scores did not show significant difference between male and female groups.

Conclusions: Weight and shape concerns appear to influence eating-related guilt, self-evaluation and social discomfort of adolescents. These findings highlight the potential emergence of body image concerns as a public health issue in Sri Lanka. Further research incorporating larger samples is recommended to assess the effects of weight and shape concerns among Sri Lankan adolescents.

Keywords: Adolescents, psychological influence, weight, shape concerns, Sri Lanka

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Poster Presentations: Open Category

PP 14

Current practices and quality achieved in microtomy and slide preparation in histopathology laboratories in the Southern Province

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Background: All steps in preparing Hematoxylin and Eosin (H&E) stained slides are critical as the quality of the slide affects diagnostic accuracy. Suboptimal quality compromises accurate histopathological interpretation.

Objective: To describe current practices and quality achieved in histopathology laboratories of the Southern Province in preparing slides, from microtomy to the final slide

Methods: Slide preparation from microtomy to final slide were observed in the nine histopathology laboratories enrolled and deviations from the reference protocol were recorded using a pre-validated checklist. Five H&E-stained slides from each laboratory were assessed using a semi-quantitative scoring system to evaluate the quality of slides. Mean scores for each parameter assessed were expressed as a percentage of the maximum achievable score. Laboratories were categorised as high-workload (HWL, n=3), moderate-workload (MWL, n=2), and low-workload (LWL, n=4) based on the total number of slides prepared per month. Data was analysed using Kruskal-Wallis H test.

Results: Microtomy and section mounting by all three types of laboratories reached >90% of the mean score. Percentage of mean scores for microscopic physical quality of sections were; HWL-83.72%, MWL-81.11% and LWL-79.44% (p=0.48). Absence of section disruption was best in HWLs which was average in MWLs and LWLs (p=0.007). Quality of staining was best in MWLs (74.29%) others; HLWs-54.79%, LWLs (52.86%, p=0.08). The significant variation in the achieved percentage of mean score was due to the low scores obtained by the LWLs for uniformity in staining

($1.15 \pm 0.182/2$, $p=0.046$) and lower scores obtained for cytoplasmic staining by the HWLs ($0.73 \pm 0.228/2$) and LWLs ($1.05 \pm 0.211/2$, $p=0.015$). In addition, LWLs obtained a lower score for staining of extracellular substances ($1.10 \pm 0.19/2$). It was observed that the adherence to staining protocol was poor in LWLs.

Conclusions: All three types of laboratories performed well in microtomy and section mounting. The quality of staining did not reach a high standard except for MWLs. This study highlights the need for strict adherence to protocols in staining to achieve best quality in histopathology slide preparation.

Poster Presentations: Open Category

PP 15

Prevalence of gastrointestinal symptoms among athletes in Badulla district

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Background: Athletes are commonly affected by gastrointestinal (GI) symptoms, which can impair training quality and performance. There is a lack of evidence from South Asia, where many associated factors vary.

Objective: To determine the prevalence and associated factors of exercise-induced gastrointestinal symptoms among athletes in Badulla district, Sri Lanka.

Methods: In a descriptive cross-sectional study involving 385 athletes, data on GI symptoms and associated factors were collected using an interviewer-administered questionnaire. Descriptive statistics were used to summarise participant characteristics and the prevalence. Relationship between predictors and GI symptoms were analysed using Chi-square tests, odds ratios (OR), and prevalence ratios (PR) with 95% confidence intervals (CI). A p value less than 0.05 was considered significant.

Results: Overall, 49.9% of athletes reported at least one exercise-induced GI symptom. Upper GI symptoms were most frequent (44.2%) followed by lower GI symptoms (30.1%). Heartburn, abdominal pain and burping were the leading complaints. Female athletes had a higher prevalence of lower GI symptoms; 41.6% compared to 31.4% for males; OR=1.33, 95% CI: 1.02-1.74, p=0.04. Females were more likely to have training disruptions (41.6%). Endurance athletes and those in high VO₂max sports experienced GI symptoms more frequently (OR=2.13, 95%CI: 1.33-3.41, p=0.001; OR=2.42, 95%CI: 1.58-3.69, p<0.001). High fibre intake was associated with low odds of developing upper and lower GI symptoms (OR=0.47, 95%CI: 0.26-0.84, p=0.011). Half of the symptomatic athletes reduced training intensity when experiencing symptoms, one third paused training, and less than 5% withdrew from competitions.

Conclusions: GI symptoms are common among athletes in Badulla district. Female athletes, those involved in endurance sports and high VO₂max activities, are especially at risk, while high fibre intake seems to offer some protection. Regular screening for symptoms and modifications in diet and training should be considered to reduce GI issues.

Keywords: exercise, gastrointestinal symptoms, prevalence, fibre intake

Acknowledgement: This study was funded by Uva Wellassa University Research

Poster Presentations: Open Category

PP 16

Correlation of symptom severity and neurophysiological parameters in patients with carpal tunnel syndrome referred for surgical decompression

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Background: Carpal Tunnel Syndrome (CTS) is the commonest entrapment neuropathy. Nerve conduction studies (NCS) are considered the diagnostic gold standard. However, it remains uncertain whether NCS parameters can predict the need for surgical decompression when compared with the Boston Carpal Tunnel Syndrome Scale (BCTS), which measures symptom severity.

Objective: This study aimed to investigate the correlation between BCTS scores and neurophysiological parameters in patients referred to surgical decompression.

Methods: Data were retrieved from patients recommended for surgery. Motor distal latencies (DL) and compound muscle action potential (CMAP) amplitudes of the median (MN) and ulnar nerves (UN) were recorded over the abductor pollicis brevis (APB), second lumbrical, palmar interosseous, and abductor digiti minimi muscles. Sensory NCS included sensory nerve conduction velocities (SNCV) and sensory nerve action potential (SNAP) amplitudes of the MN (digits 2 and 4) and UN (digits 4 and 5). Differences in equidistant DL between MN and UN to digit 4 were calculated. Correlations between BCTS scores and neurophysiological parameters were analysed.

Results: Significant positive correlations were observed between BCTS scores and MN motor DL to APB ($r = 0.286$, $p = 0.049$) and to the second lumbrical ($r = 0.296$, $p = 0.041$). Conversely, SNC of MV N to digit 2 ($r = -0.297$, $p = 0.040$) and digit 4 ($r = -0.310$, $p = 0.032$) showed significant negative correlations with BCTS. Other parameters, including CMAP and SNAP amplitudes showed only a weak correlation.

Conclusions: These findings suggest that delayed motor and sensory distal latencies and reduced sensory conduction velocities are associated with greater symptom severity in CTS. Such correlations support the role of neurophysiological testing in guiding surgical decision making. As the correlation is weak further prospective studies will be needed for confirmation of these results.

Poster Presentations: Open Category

PP 17

Clinical profile, functional impact and treatment approaches in chronic chikungunya arthritis in Southern Sri Lanka.

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Background: Chronic chikungunya arthritis, defined as persistent or recurrent articular manifestations beyond 3 months following acute illness, remains poorly understood and clinically challenging. Reinforcing current knowledge is essential due to its long-term sequelae leading to significant functional impairment.

Objective: The study explored common articular features, associated disability, impact on the quality of life and common treatment practices among affected individuals.

Methods: A descriptive longitudinal study was conducted among 69 laboratory-confirmed chikungunya patients in Southern Sri Lanka, during the acute phase with follow-up assessments at one and three months post-infection. Sixty-one patients attended three-month follow-up by November 2025. Data were collected using an interviewer-administered questionnaire. Performance was assessed using a 0–100 scale, with pre-illness status defined as 100. Multiple linear regression was used to evaluate associations.

Results: Of the 61 patients, 35 (57.4%) were females with the majority (n=26; 42.6%) aged 25–44 years. Persistent residual symptoms were reported in 42 (68.9%), predominantly joint pain (n=38; 62.3%), with morning stiffness more than 30 minutes and fatigue each in 11 (18.0%) and joint swelling in 8 (14%), meeting Centers for Disease Control and Prevention (CDC) criteria for chronic chikungunya. The most affected joints were ankle (n=23; 37.7%), knee (n=15; 24.59%) and forefoot (n=11; 18.03%). During this period, 42 (68.9%) received non-steroidal anti-inflammatory drugs (NSAIDs) and 40 (65.6%) received steroids for median durations of 4.5 (IQR=5) weeks and 5 weeks (IQR=5) respectively. Notably, four (6.6%) were started on

sulfasalazine. Functional impairment was observed across daily activities (n=1; 1.63%), extended activities (n=10; 16.39%) or high intensity activities (n=26; 42.6%). Mean performance scores were 73.2 (SD=20.1) at one month and 89.8 (SD=14.11) at three months. One-month performance score (B=0.33; p<0.001) and female gender (B=3.62; p=0.025) significantly predicted 3-month performance.

Conclusions: Chronic chikungunya disease commonly leads to persistent articular manifestations and disability, predicted by performance score at one month and female gender, with NSAIDs and steroids being the primary treatment modalities.

Key words: Chronic chikungunya, articular manifestations, performance, predictors

Poster Presentations: Open Category

PP 18

Association of tumour border configuration and stromal reaction in papillary thyroid carcinoma with lymph node metastasis

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Background: Papillary thyroid carcinoma (PTC) carries an excellent prognosis, yet lymph node metastasis (LNM) significantly affects prognosis. Tumour border configuration is an established prognostic factor in several malignancies, but has not been studied in PTC.

Objective: To describe tumour border configuration and stromal reaction in PTC and to assess its association with lymph node metastasis.

Methods: This retrospective cross-sectional study included PTC cases diagnosed from 2021 to 2023 at the National Hospital Galle and Faculty of Medicine, University of Ruhuna. Cases with confirmed PTC and documented lymph node assessment were included. Encapsulated tumours were excluded. Tumour borders were classified as pushing or infiltrative. The presence of the stromal reaction was recorded. Associations with LNM and lymphovascular invasion (LVI) were analysed. A p-value of <0.05 was considered significant.

Results: A total of 88 (mean age of 43.6 years; ± 13.66 , with 79.5% less than 55 years) PTC cases were included, with 78 (88.6%) females. Most tumours (64.8%) measured ≤ 10 mm. Conventional PTC accounted for 65.9% of cases, followed by the follicular variant (30.7%). Infiltrative borders were identified in 61.4% (n = 54), while 38.6% (n = 34) showed pushing borders. Stromal reaction was present in 48.9% (n = 43). LVI was evident in 27.3% (n=24). LNM was identified in 15.9% (n = 14). Tumour border configuration was not significantly associated with LNM (p = 0.149). Stromal reaction demonstrated a significant positive association with LVI (p = 0.003).

Conclusions: While infiltrative borders were more common, tumour border configuration was not significantly associated with LNM. However, the presence of stromal reaction at the invasive front had a significant positive association with LVI, suggesting a role in tumour aggressiveness. This highlights the possibility that the tumour–stroma interaction plays a role in early tumour spread.

Keywords: Tumour border, PTC, Lymph node, Metastasis, LVI

Poster Presentations: Open Category

PP 19

Variations in the epidemiology of congenital hypothyroidism in the Asian population

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Background: Congenital Hypothyroidism (CH) is an endocrine disorder of thyroid hormone production. With early diagnosis and treatment, permanent neurodevelopment impairment can be prevented. Epidemiology of CH varies markedly across different populations and geographic regions, influenced by genetic, environmental, nutritional, and health-care related factors.

Objective: This review aimed to explore the epidemiological patterns of CH in different Asian countries, highlighting possible causes for variation and its implications for public health.

Methods: Population-based newborn screening studies, screening programme summaries reporting incidence or prevalence of CH in Asian countries were accessed for the period of 2000-2025 (PubMed, Google Scholar and open-accessed databases). Case reports, small case series lacking denominators, studies not reporting incidence, those from non-Asian populations without a separate Asian subgroup were excluded. From the included studies; country/region, study years, sample size, number of CH cases, epidemiological factors, screening method, diagnostic/confirmation criteria (cutoffs used), and permanent vs. transient CH, reported were extracted.

Results: Reported incidence ranged with higher rates (1:1031-1:650) in countries such as India, Iran, Turkey, Sri Lanka and China, and lower rates (1:3000-1:7500) in parts of Central Asia. These variations were due to iodine imbalance, parental consanguinity, maternal thyroid disease, prematurity, and differences in TSH cutoff values or sample timing. Established newborn screening (NBS) systems (Japan, South Korea, Taiwan, China) showed improved detection of transient CH due to lower TSH thresholds; partial or absent screening (Pakistan, Nepal, Indonesia, Cambodia) resulted in under-diagnosis and delayed treatment. Environmental and demographic factors including urbanisation, ethnicity, birth weight, and sex also influenced the reported epidemiological incidences.

Conclusions: The variations in CH prevalence rates across the continent reflected the success of public health interventions and screening programmes. Continued focus on expanding access to care, improving screening coverage, and raising awareness will be key to reducing the burden of CH in the Asian population.

Poster Presentations: Open Category

PP 20

Associations of emotional wellbeing and mood, sleep quality, and social connectedness with glycaemic control among patients with type 2 diabetes mellitus

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Background: Lifestyle factors such as emotional well-being and mood, sleep quality, and social connectedness are increasingly recognized as important determinants of health outcomes in individuals with type 2 diabetes mellitus (T2DM). Understanding their relationship with glycemic control may support a more comprehensive approach in diabetes management.

Objective: To assess the association of emotional well-being and mood, sleep quality, and social connectedness with glycemic control among adult patients with T2DM.

Methods: A cross-sectional study was conducted among adult patients with T2DM attending to the diabetes and endocrine clinic, National Hospital, Galle using a structured self-administered questionnaire. Emotional well-being and mood were assessed using a four-category scale and dichotomized into negative and positive mood for analysis. Sleep quality was categorized into three categories as poor, moderate and good based on self-reported perception. Social connectedness was measured using an eight-item format rated on a six-point Likert scale and categorized into low, moderate, and high levels. Glycemic control was assessed by HbA_{1c} levels and categorized as good (HbA_{1c} < 7.0%), and poor (HbA_{1c} ≥ 7.0%) control. Associations between lifestyle factors and glycemic control were analyzed using chi-square test.

Results: Among 381 patients, 282 (74.0%) were females. The age ranged from 18 to 83 years. Only 23.6% had good quality sleep, 56.5% had positive emotional well-being and mood, and 31.9% had healthy social connectedness. Good glycemic

control was significantly associated with positive mood and good sleep quality ($p < 0.01$). However, there was no statistically significant association between social connectedness and glycemic control ($p = 0.13$).

Conclusions: Maintaining good sleep quality, positive emotional well-being, and mood plays a role in glycemic control among patients with T2DM. These findings highlight the importance of holistic management of the patient, integrating the assessment of lifestyle factors and their appropriate management into routine diabetes care to promote optimal metabolic outcomes in the patient.

Keywords: Diabetes mellitus, glycemic control, emotional wellbeing and mood, sleep quality, social connectedness

Poster Presentations: Open Category

PP 21

Beyond newborn screening: A narrative review of genetic mutations driving congenital hypothyroidism

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Background: Congenital hypothyroidism (CH) remains the most common endocrine disorder identified through newborn screening worldwide, and in many cases, it is linked with genetic mutations that affect the thyroid gland development or its function. Hence, these mutations play a major role in both thyroid dysgenesis and dyshormonogenesis. With these advances, the rapid expansion of genetic testing platforms now enables more accurate identification and enhances the understanding of CH aetiology.

Objective: This review aimed to explore the global prevalence and diversity of genetic mutations associated with CH in neonates.

Methods: This narrative review was conducted using published studies from databases PubMed, BASE, and Europe PMC, from the years 2010 to 2025. The studies were selected based on relevance, focusing on human populations with CH, reported frequency of gene mutations, screening methodologies, clinical characteristics, and the role of genetic tests especially, whole exome sequencing (WES) in identifying new mutations.

Results: Globally, approximately 48% of CH cases have a genetic aetiology. Mutations in *DUOX2* remain the most frequently reported variants, with 28–68% of prevalence. Other important causative genes include *TPO*, *TG*, *DUOXA2*, *PAX8*, and *TSHR*. Many associated mutations followed an autosomal recessive inheritance pattern. The newborn screening had greatly improved early detection of CH. Adding genetic testing enhanced the diagnosis and helped distinguish between transient and permanent CH.

Conclusions: CH demonstrated a diverse and complex genetic basis. Nearly half of CH cases had a genetic basis, with mutations in *DUOX2* being the most frequently reported so far. Therefore, identifying specific genetic mutations not only clarifies disease mechanisms but also helps to understand the severity of the condition and duration of the treatment.

Keywords: Congenital hypothyroidism, genetic mutations, newborn screening,

Poster Presentations: Open Category

PP 22

Medication types, associated factors and outcomes of medication overdose among patients admitted to National Hospital Galle

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Background : Medication overdose is a significant global health problem associated with high morbidity and mortality. Despite the growing burden, local data on overdose patterns and outcomes remain limited.

Objective : This study aimed to describe the epidemiological patterns, clinical outcomes, and management approaches of medication overdose among patients admitted to the National Hospital, Galle (NHG).

Methods : A retrospective cross-sectional study was conducted among patients admitted to the Emergency Treatment Unit (ETU) of NHG from February 2023 to January 2025. Data were extracted from bed head tickets with ethical approval. Data were analysed using SPSS version 27.0. Descriptive statistics were used to summarise findings, and correlations were examined between selected variables.

Results : A total of 110 patients were included. The mean age (SD) was 24 (7) years, with a female predominance (60.4%). The majority of overdoses were intentional (84.5%), while 9.1% were accidental. Analgesics were the most frequently ingested drug group (74.5%), predominantly paracetamol (n=78, 77.2%). Fifty-six percent of all patients were managed with supportive care alone, while 44% received an antidote. Gastric decontamination was performed in 52% of the patients. A weak positive correlation was noted between delay in presentation to the ETU and duration of hospital stay ($r = 0.03$). Inward psychiatric referrals were made for 82% of patients. Of the 78 patients with paracetamol poisoning, 44 received N-acetylcysteine (NAC). Adverse reactions to NAC were observed in five patients, including three cases of anaphylaxis. Prothrombin time/international normalised ratio (PT/INR) was the most frequently deranged liver function test (27%), showing a weak positive correlation with total ingested paracetamol dose ($r = 0.12$). No patients developed acute liver failure or required liver transplantation.

Conclusion : Medication overdose was most common among young females following intentional ingestion of analgesics, particularly paracetamol. Early presentation to the hospital and appropriate management contributed to favourable clinical outcomes.

Keywords : Medication overdose, paracetamol, antidote, NAC

Poster Presentations: Open Category

PP 23

Prognostic value of psammoma bodies in papillary thyroid carcinoma; a single centre study

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Background: Papillary thyroid carcinoma (PTC), the thyroid malignancy is associated with an excellent prognosis, though a minority exhibits aggressive behaviour. There are established histopathological prognostic factors but the prognostic significance of psammoma bodies (PBs) in PTC remains unclear.

Objective: To evaluate the prognostic relevance of PBs in surgically treated PTC patients at the National Hospital, Galle.

Methods: This descriptive cross-sectional study included all PTC cases diagnosed histologically at the Department of Pathology, Faculty of Medicine, University of Ruhuna from January 2019 to December 2023. Histopathology slides were reviewed to assess PTC subtype, presence of PBs (intratumoral and extra-tumoral), lympho-vascular invasion (LVI), extrathyroidal extension (ETE) and lymph node metastasis and for staging. Associations between PB status and key prognostic parameters were analysed.

Results: A total of 124 PTC patients were included (mean age: 43.67±12.53 years, female: 91.1% (113/124)). The conventional PTC accounted for 90/124 (72.6%). PBs were present in 42/124 (33.9%), and 11/42 (26.2%) of them had extra-tumoral PBs. LVI was observed in 20/124 (16.1%), and 12/20 (60%) of them had PBs. Lymph node metastasis was evident in 12/124 (9.6%), with PBs present in 7/12 (58.3%). ETE was identified in 6/124 (4.8%). Most patients were in T1 (91.9%) and Stage I. The presence of PBs showed a significant positive association with tumor size/T stage ($p=0.016$) and LVI ($p=0.007$). Extra-tumoral PBs demonstrated a significant positive association with LVI ($p=0.006$) and nodal metastasis ($p<0.001$). No significant association was found between PBs and lymph node metastasis ($p=0.176$) or ETE ($p=0.361$).

Conclusions: The presence of PBs in the PTC has a significant positive association with LVI and T stage. When the PBs were extra-tumoral, it was positively associated with both LVI and nodal metastasis. These findings highlight the importance of identifying and reporting both intra-tumoral and extra-tumoral psammoma bodies as they are associated with adverse prognosis in terms of lymph node metastasis.

Keywords: Papillary thyroid carcinoma, psammoma bodies, lymph node metastasis, lympho-vascular invasion

Poster Presentations: Open Category

PP 24

Evaluation of *in vitro* antiurolithiatic potential of *Moringa oleifera* Lam.

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Background : Lithiasis has been identified as one of the causes of acute and chronic renal failure. *Moringa oleifera* Lam. (Murunga) is commonly used by the ayurvedic medical practitioners in the treatment of urolithiasis.

Objectives : This study aimed to evaluate the *in vitro* effects of aqueous, ethanol, and hexane extracts of *M. oleifera* bark on calcium oxalate (CaC₂O₄) crystallisation, nucleation, aggregation, and crystal growth, and the key events in urolithiasis.

Methods : Ethanolic and hexane extracts were prepared by keeping them in a shaking water bath for two days followed by filtration and rotary evaporation. Aqueous extracts were prepared by soaking the dried plant materials in water followed by refluxing for two hours and rotary evaporation. Three extracts of each plant were assessed for their anti-crystallisation properties using standard crystallisation assays namely nucleation, growth and aggregation, with cystone as the reference drug. Optical density of reaction mixtures was measured spectrophotometrically, percentage inhibitions were calculated, and all assays were performed in triplicate. Crystal morphology was examined under light microscopy.

Results : All three extracts exhibited inhibitions against nucleation, aggregation, and growth of CaC₂O₄ crystals in varying degrees. Microscopic analysis revealed a shift towards CaC₂O₄ dihydrate crystal formation compared to CaC₂O₄ monohydrate crystals. A noticeable reduction in the number of crystals in the tubes treated with plant extracts was also observed compared to cystone treated groups.

Ethanol and hexane extracts demonstrated significantly higher inhibitory effects than cystone ($p \leq 0.05$). The ethanolic extracts showed the most potent inhibition in the nucleation assay at 1000 µg/ml (63.55±0.57%). In the aggregation assay, hexane extract had the highest inhibition at 250 µg/ml (48.60±0.26%). However, significant inhibition in the growth assay was only seen with the ethanolic extracts at 1000 µg/ml (70.26±0.57%).

Conclusions : These findings exert the *in vitro* antiurolithiatic potential of *Moringa oleifera* Lam., particularly its ethanolic extract exhibited the most pronounced inhibition of crystal nucleation and growth.

Keywords; Aggregation, calcium oxalate, *Moringa oleifera* Lam, nucleation, urolithiasis

Poster Presentations: Open Category

PP 25

Incidental isolation of *Aspergillus* species from oral samples of cancer patients and healthy individuals in Galle, Sri Lanka

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Background: *Candida* chrome agar (CCA) is widely used for selective isolation and presumptive differentiation of *Candida* species from clinical samples. During a study investigating oral *Candida* colonisation among cancer patients, unexpected growth of filamentous fungi was observed on CCA. These isolates were subsequently identified as *Aspergillus* species. The oral cavity is not a typical reservoir for *Aspergillus*, and its presence may indicate transient colonisation, environmental exposure, or potential risk of invasive disease in susceptible individuals.

Objective: To identify filamentous fungi incidentally isolated during an oral *Candida* screening study and to explore possible sources of their occurrence by comparing findings between cancer patients and a matched healthy control group.

Methods: Oral swabs and rinse samples were collected from 170 cancer patients attending the oncology unit of the National Hospital, Galle, and 170 healthy individuals from the Bope-Poddala MOH area (control group). The inclusion of a control group enabled comparison of incidental fungal recovery between immunocompromised and healthy populations. Samples were cultured on CCA for *Candida* isolation. Filamentous fungal colonies observed on CCA were subcultured and identified using Sanger bidirectional sequencing, with species-level confirmation by BLAST analysis against NCBI and UNITE databases. Direct microscopy was not performed, and repeat cultures were not obtained.

Results: Three *Aspergillus* isolates were recovered from the total sample population (n = 340). One isolate (*A. flavus*) was obtained from a healthy male (65 years) with a betel-chewing habit, and one isolate (*A. niger*) from a healthy female (33 years)

without a betel-chewing habit. One isolate (*A. aculeatus*) was recovered from a male cancer patient (40 years) with no history of betel chewing. Thus, two isolates were identified in the control group and one in the cancer patient group. Filamentous fungal growth was observed along the inoculation lines on the primary culture. In addition, *Aspergillus* was recovered from both oral swab and rinse samples of the same individual, supporting that the isolates were derived from the clinical specimens rather than incidental environmental contamination.

Conclusions: The detection of *Aspergillus* species in the oral cavity, though incidental, is clinically significant. In immunocompromised individuals, especially cancer patients, oral colonisation may serve as a marker of environmental exposure and could represent a potential precursor to invasive aspergillosis. These findings emphasise the importance of recognising atypical fungal growth on chromogenic media when considering its implications for patient monitoring and infection risk assessment.

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Keywords: *Aspergillus*, aspergillosis, Candida chrome agar, oral microbiome

Poster Presentations: Open Category

PP 26

Status of Anxiety, depression and stress among adolescents in selected child care institutions in Galle District

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Background: Adolescence is the phase of life between childhood and adulthood, from ages 10 to 19. It is the most unique stage of human development which lays the foundation for the future well-being and good mental health.

Objective: Since the studies done on institutionalised adolescents are limited, present study was conducted to assess the psychological status of institutionalised adolescents in Galle district.

Methods: A descriptive cross-sectional study was conducted in child care institutions (n=12) in Galle district enrolling 320 subjects. The age range of the subjects was 10–19 years and 60.6% (n=194) were females. Psychological status was assessed using a validated Sinhala version of Depression Anxiety and Stress Scale (DASS 21). This scale consists of three components and each of the components contains 7 items with a total of 21 points. Severity of different entities was categorised as normal, mild, moderate, severe and extremely severe according to the score obtained. Data were analysed using SPSS version 26.0.

Results: Among the participants (response rate: 90%), 70% (n=224) had some degree of depression varying from mild to extremely severe and only 30% (n=96) of subjects were normal. Anxiety was present in 51.9% (n=166) of the subjects. Of the study participants, 30.3% (n=97) had stress.

Conclusions: The majority of the subjects had some degree of depression and half of the adolescents in this sample had anxiety. Therefore, more attention should be paid to the psychological well-being of adolescents and counseling sessions may be arranged for needy children to make their lives better.

Keywords: Institutionalized adolescents, DASS 21, psychological Status, child care institutions

Poster Presentations: Open Category

PP 27

Factors affecting lecture attendance: Perspectives of academic staff at the Faculty of Medicine, University of Ruhuna

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Background: Lecture attendance has declined globally despite its known academic and professional benefits.

Objective: This study aimed to assess perspectives of the academic staff on factors influencing lecture attendance to guide strategies aimed at improving student attendance.

Methods: A cross-sectional observational study was conducted among academic staff using a self-administered online questionnaire. The questionnaire collected demographic data and assessed perceptions of student-related and lecturer-related factors affecting lecture attendance, which were identified by investigators based on relevant literature and academic experience, using a 5-point Likert scale. Data were analysed descriptively, and comparisons were made among pre-clinical, para-clinical, and clinical staff.

Results: Of the 101 academic staff members, 38 (37.6%) responded. Most respondents were male (55%), aged over 44 years (60.5%), had ≥ 10 years of teaching experience (68.4%), and were senior lecturers or above (78.9%). Participants represented pre-clinical (31.6%), para-clinical (47.4%), and clinical (21.1%) departments. A high proportion of respondents agreed or strongly agreed that lectures scheduled close to examinations negatively affected attendance (92.1%). Other student-related factors perceived to negatively influence attendance included tiredness (89.5%), non-compulsory lectures (86.8%), clashes with clinical activities (81.6%), availability of “kuppi” classes (78.9%), reliance on peer learning (73.7%), and extracurricular commitments (65.8%).

Teaching-related factors perceived to positively influence attendance included clear teaching style and explanations (94.7%), inclusion of examination-relevant content (92.1%), interactive teaching methods (86.8%), subject expertise (81.6%), and recommendations by senior students (63.2%). Pre-clinical staff were less likely to agree that lectures scheduled near examinations contributed to absenteeism compared to para-clinical and clinical staff ($p < 0.05$), while pre-clinical and clinical staff more frequently identified late attendance as a contributing factor ($p < 0.05$).

Conclusions: While the modest response rate may limit generalisability, scheduling

issues, particularly lectures held close to examinations, and teaching quality, including clarity, interactivity, and examination relevance, were perceived as major determinants of student lecture attendance by academic staff. Targeted strategies addressing curriculum scheduling and teaching practices are likely to improve lecture attendance.

Keywords: medical education, lecturer perceptions, lecture attendance, teaching style

Poster Presentations: Undergraduate Category

SPP 01

Migration intention and attitudes towards overseas employment among doctors in post-crisis Sri Lanka: Evidence from a tertiary hospital

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Background: Migration of medical doctors poses a threat to Sri Lanka's health care system, particularly following the economic crisis in 2022.

Objective: This research aims to describe attitudes and preferences regarding migration for employment among doctors working at the National Hospital Galle (NHG).

Methods: A cross-sectional study was conducted among 255 medical doctors of different designations and levels of experience at NHG. Data were collected in May 2025, using a pre-tested self-administered questionnaire assessing migration intention, attitude, job satisfaction, and suggested retention strategies.

Results: Overall, 36% of doctors express willingness to migrate for employment, while 30% were undecided, and 34% reported no intention. The majority (56%) were dissatisfied with their job, mainly due to inadequate salary and insufficient rest. Attitude towards migration did not differ significantly by gender or marital status (all $p < 0.05$), but was significantly associated with the monthly income ($p > 0.05$). The intention to migrate was significantly associated with age, designation, and monthly income (all $p < 0.001$). Younger doctors, those in early career stages, and low-income earners showed higher migration intentions (all $p < 0.001$). The most cited reasons for migrating were better income, improved quality of life, and better prospects for children. Australia was the most preferred destination. Key retention measures suggested were higher remuneration, enhanced professional development opportunities, and improved workplace facilities

Conclusions: Doctors' intention to migrate was substantial, with nearly two thirds either willing to or undecided. The findings highlight the urgent need for comprehensive retention strategies addressing financial security, career progression, and overall well-being to safeguard the sustainability of the Sri Lankan health care workforce.

Poster Presentations: Undergraduate Category

SPP 02

Prevalence and associated factors for psychoactive substance use behavior among patients diagnosed with mental health illnesses attending the psychiatric unit at National Hospital, Galle

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Background : Psychoactive Substance use among patients diagnosed and managed with mental health illnesses is a significant public health issue since it makes the treatments more difficult due to poor adherence leading to reduced response and raise the risk of recurrence and increased morbidity and mortality. Despite the growing global evidence, local data from Sri Lanka remains limited.

Objectives : The purpose of this study was to evaluate the prevalence and associated factors for psychoactive substance use among patients diagnosed and managed with mental health illnesses attending the psychiatric unit of National Hospital Galle.

Methods : 200 patients chosen by systematic random sampling method participated in a cross-sectional study. A pretested, interviewer-administered questionnaire was used to gather data and assessed using validated Sinhala version of the WHO ASSIST tool. Prevalence and usage patterns were estimated using descriptive statistics and relationships between socio-demographic characteristics and substance use were evaluated using chi-square tests at a significance level of $p < 0.05$

Results : Among the participants, the majority were male (92%) and were aged between 26–50 years (61%). Alcohol (85%) and tobacco products (81.5%) were the most commonly used substances, followed by cannabis (42.5%). Daily or almost daily use was reported by 41.5% for tobacco and 12.5% for alcohol. Most of them experienced addiction, functional impairment, and substance use related health or social issues. Daily or almost daily health, social, legal or financial problems are reported by 10.5% of the participants with tobacco use and 3% with alcohol use. Functional impairment of daily activities with tobacco use is 8.5% while 3% with alcohol use.

Conclusions : Alcohol and tobacco are the most prevalent psychoactive substances among the patients diagnosed with and managed with mental health illnesses. The results highlight the need for the integrity of routine mental health care with screening for psychoactive substance use and targeted therapy, in order to improve clinical outcomes and reduce the combined burden of mental health diseases and substance use in Sri Lanka.

Keywords : Prevalence, Psychoactive substances, associated factors, Mental health illnesses

Poster Presentations: Undergraduate Category

SPP 03

Medical undergraduates' perceptions of the shadow house officer program during the medicine professorial clerkship at the Faculty of Medicine, University of Ruhuna

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Background : Many Medical Faculties include a Shadow House Officer (SHO) training for medical undergraduates (MU). The impact of the SHO training for MU has not been evaluated in the Faculty of Medicine, University of Ruhuna (FoMUoR).

Objective : To describe the final year Ruhuna MU perceptions and experience of the SHO programme.

Methods : A descriptive cross-sectional study was conducted among 41st and 42nd batches, MU FoMUoR. A pre-designed pre-tested, semi-structured questionnaire was used as the study instrument. A Scoring system was used to assess the Confidence Level(CL) before and after SHO period. Mean differences were calculated before and after SHO period. Challenges faced and methods to improve the SHO programme were obtained using open-ended questions.

Results : A total of 298 medical students participated, with 60.7% (n=181) from the 42nd batch and 39.3% (n=117) from the 41st batch. The sample consisted of 67.4% females (n=201) and 32.6% males (n=97). MU spent more than 70 hours in clinical activities during SHO training (74.1%). 84.3% perceived that SHO training was an important preparation for internship. Significant improvements occurred in mean CL in writing referral letters, investigation forms, diagnosis cards, prescriptions, documenting daily status, taking concise relevant histories, presenting summarized-histories during ward rounds, looking for specific clinical signs, maintaining a professional doctor patient relationship, performing relevant procedures expected of house officers, working as a member of the team, managing medical emergencies, formulating problems lists, providing instruction to patients, monitoring patients to detect their response to treatment and owning responsibility for individual patient care. All above aspects showed a statistically significant level of improvement in confidence levels (P<0.01).

A total of 214 responses were obtained regarding challenges faced by participants. Time management was the most frequently reported challenge (24.3%, n=52), followed by heavy workload (20.1%, n=43) and high stress (14.9%, n=32).

Responses regarding recommendations to be incorporated into the SHO period totaled 202. Of these the most frequently suggested improvement was making a less stressful environment (21.3%, n=43) No changes were expected in 38 responses (18.8%). The need for an orientation programme and more exposure to procedures (14.3%, n=29) were highlighted.

Conclusions : The study reiterates that the SHO program at FoMUoR is an effective learning experience improving the students' confidence levels to function as interns. It can be further strengthened by addressing the challenges specified.

Key words : Shadow house officer training, medical undergraduates, medical professorial training, medical education, undergraduate perception, confidence level.

Acknowledgements : Our sincere gratitude is extended to our research supervisors, Professor T.P. Weerarathna, Dean and senior professor in Medicine, Faculty of Medicine, University of Ruhuna and Dr. Avindra Jayawardene, Head, Medical Education Unit, Faculty of Medicine, University of Ruhuna, for giving us the valuable opportunity to conduct this research.

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Poster Presentations: Undergraduate Category

SPP 04

Socio-economic impact of leptospirosis after hospital discharge in National Hospital, Galle

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Background : The recovery process from leptospirosis requires more than medical treatment to achieve full recovery. Research shows that post-discharge outcomes, including psychosocial health and treatment adherence, and social reintegration, depend heavily on social and economic conditions.

Objectives : The research aims to understand the social and psychological challenges that affect people and their families during leptospirosis recovery and how socio-economic status affects recovery progress and post-discharge care participation.

Methods : A descriptive cross-sectional study was conducted among 103 adult patients diagnosed with leptospirosis at National Hospital, Galle. Participants were selected using convenience sampling. Data were collected one month after discharge via telephone and data were collected using a pre-tested interviewer-administered questionnaire. Recovery status was assessed using an Activities of Daily Living (ADL)-based score, categorised as satisfactory or unsatisfactory recovery. Financial burden was evaluated using: Catastrophic Health Expenditure (CHE) ($\geq 10\%$ of monthly income) Financial Hardship Score (FHS) (range 0–13; ≥ 6 indicating high burden) Psychological impact was measured using a composite Psychological Impact Score (PIS) (range 0–20; ≥ 10 indicating significant impact). Social impact was assessed using a Social Impact Score (SIS) (range 0–20). Data on occupational outcomes, healthcare utilisation, and post-discharge experiences were also collected.

Results : The majority of participants were male (87.4%) and engaged in manual or agricultural occupations. At one month post-discharge, 63.1% reported persistent symptoms, commonly dyspnoea on exertion, arthralgia, and myalgia. Satisfactory recovery based on ADL was observed in 54.4% of patients. Follow-up attendance was low (30.1%), and 3.9% required readmission. Approximately half returned to their

previous occupation, although many reported reduced work performance or required additional sick leave. Financial burden was substantial, with 52.4% experiencing income loss and 74.8% incurring catastrophic health expenditure. High financial hardship (FHS ≥ 6) was present in 33.9% of participants. Psychological impact (PIS ≥ 10) was observed in 18.5% of patients. A statistically significant association was found between recovery status and psychological impact ($p = 0.049$), while the association between financial burden and recovery was not significant

Conclusions and recommendations : Recovery from leptospirosis depends on medical treatment, patients' psychosocial status and the financial status. Post-discharge care should integrate mental health services with social support, practical help for accessibility to health care services and medication assistance to optimise recovery. The study observes consistent patterns across variables, supporting these relationships. Recommendations for standard psychosocial assessments to guide referrals to mental health and social services, reduced rehabilitation costs, and provide medication subsidies to support economic recovery. Formal gradual return-to-work plans, and community partnerships are essential. Galle area needs research-based post-discharge care models that link medical follow-up to rehabilitation and social services while promoting extended studies of combined post-discharge interventions.

Keywords : Leptospirosis, Post-discharge recovery, Psychosocial impact, Financial burden

Acknowledgements : Our sincere gratitude is extended to our research supervisor, Professor Fonseka C.L, Professor in Medicine, Faculty of Medicine, University of Ruhuna, for giving us the valuable opportunity to conduct this research.

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Poster Presentations: Undergraduate Category

SPP 05

Knowledge, attitudes, and practices of pre-clinical medical students of the Faculty of Medicine, University of Ruhuna, on the usage of analgesics for dysmenorrhea

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Background : Dysmenorrhea adversely affects the physical and psychological well-being of women. Despite its high burden, management remains suboptimal, largely due to cultural taboos, inadequate knowledge, and misconceptions regarding analgesic use.

Objective : To assess knowledge, attitudes, and practices related to analgesic use for dysmenorrhea among pre-clinical medical students at Faculty of Medicine, University of Ruhuna.

Methods : A descriptive cross-sectional study was conducted among all pre-clinical students in 2025 using a self-administered questionnaire. Data on sociodemographic characteristics, dysmenorrhea prevalence, pain severity (using a 10-point numerical rating scale), management methods, and attitudes toward analgesic use were analysed.

Results : Of 163 participants (mean age 22±1 years; 85.3% Buddhists), 144 (88.3%) reported dysmenorrhea, with the most having moderate pain intensity (56.9%). Analgesic use was significantly associated with pain severity ($p < 0.05$). Among those affected, 61.8% used analgesics, most commonly paracetamol (94.3%) and mefenamic acid (30.3%). Most (55.6%) used analgesics as self-medication, while 29.2% did so on advice of their mothers. Only 9.2% used the correct dose at the correct frequency until pain was relieved, while 34.4% took the correct dose only once. Nearly all participants (96.0%) also adopted non-pharmacological measures such as bed rest (32.9%) and hot beverages (26.6%). Dysmenorrhea reduced concentration ability on studies and limited daily activities in 84.2%, and led to lecture absenteeism in 39.6%. Misconceptions regarding dysmenorrhea were prevalent, with 28% believing that menstrual pain should be endured without medication and 25.2% considering it an inevitable physiological phenomenon.

Conclusions : Dysmenorrhea is highly prevalent among pre-clinical medical students and negatively impacts on their academic and daily activities. Misconceptions contribute to inappropriate use of analgesics. Interference of dysmenorrhea with academic activities highlights the need for urgent remedial measures. Targeted educational interventions are warranted to enhance awareness, promote safe pain management, and improve the overall quality of life of affected students.

Keywords: Analgesics, Dysmenorrhoea, Medical students, Pain

Poster Presentations: Undergraduate Category

SPP 06

Nutritional status, dietary practices and associated factors among patients with chronic kidney disease attending National Hospital Galle

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Background: Chronic kidney disease (CKD) is a major non-communicable disease in Sri Lanka which is characterised by loss of renal function, with multiple complications and a high morbidity and mortality. Metabolic changes, loss of appetite and dietary restrictions can affect the nutritional status of CKD patients, often leading to malnutrition.

Objective: To assess the nutritional status, dietary practices and associated factors among patients with CKD attending the National Hospital Galle (NHG).

Methods: A cross-sectional study was conducted among 260 patients with CKD, recruited from nephrology ward and clinic of the NHG. An interviewer administered questionnaire, anthropometric measurements and clinical records were used to collect data. Mid-upper arm circumference (MUAC) was used to categorise nutritional status to exclude the effect of oedema. Chi-square test was used to determine the associations between variables at a significance level of 0.05.

Results: Mean age (SD) of the sample was 61.4 (11.24) years and 52.7% were males. Overall nutritional status was unsatisfactory in 65% patients, with 16.5% being severely undernourished (MUAC \leq 18.9 cm). However, adherence to dietary guidelines was satisfactory in 60.4%. Poor nutritional outcomes were significantly associated with low educational status ($p=0.036$), but not with the age, gender, income or CKD stage. Reduced appetite (61.2%) was the most common barrier to dietary adherence, followed by lack of knowledge (35.4%) and financial problems (31.2%).

Conclusions: Malnutrition remains common among patients with CKD. Level of education is a key determinant of nutritional status and poor appetite is the main barrier to adherence to dietary recommendations. Individualised and affordable diet plans and upgraded patient education are recommended to improve the nutritional status of CKD patients.

Keywords: Chronic kidney disease, nutritional status, dietary practices, malnutrition, Sri Lanka

Poster Presentations: Undergraduate Category

SPP 07

Prevalence of chronic widespread pain and its associated factors among fishermen in Hikkaduwa Divisional Secretariat area

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Background : Fishermen are a relatively unexplored group of the population in Sri Lanka. However, there's positive research evidence for the prevalence of chronic widespread pain (CWP) and its associated factors in other parts of the world.

Objective : To determine the prevalence and associated factors of CWP among fishermen in the Hikkaduwa Divisional Secretariat area.

Methods : A descriptive cross-sectional study was conducted among a convenient sample of 135 fishermen in Dodanduwa and 171 fishermen in Hikkaduwa fisheries harbours using an interviewer-administered questionnaire. The questionnaire mainly consisted of questions which were selected based on presumed factors and presumed influences such as demographic data, data on occupational factors, basic background information on deep sea fishing, physical demands and working conditions, impact on daily life activities, medical treatment and health management, physical pain, medical seeking patterns and substance usage. The data were analysed using SPSS.

Results : Most participants were from Hikkaduwa (55.9%) and others were from Dodanduwa (44.1%). All were males. Most of them were aged 35-44 years. The prevalence of CWP was 15.7%. According to our study findings statistically significant risk factors for getting CWP were daily work duration more than 8 hours (P=0.001), number of years engaged in fishing more than 20 (p<0.001), age 45 - 64 (p=0.004), perceived weather affecting pain (p=0.004), hours in difficult posture (P=0.035) and engagement in deep sea fishing (p=0.001). While perceived weight, weight load, engagement in net fishing, number of months engaged in fishing per year was not significant. Regarding the socioeconomic impact due to CWP, absence of work (p<0.001), illicit drug usage (p=0.034), muscle problems affecting work performance (p<0.001), modification in their work activities due to muscle pain

($p < 0.001$), effect on day to day activities ($p < 0.001$) and usage of medical care ($p < 0.001$) were statistically significant, but not the use of substance for pain relief.

Conclusions : CWP was reported in 15.7% of participants, most commonly affecting the back, followed by shoulders, knees, soles, and wrists. Significant risk factors for CWP included number of years engaged in fishing, older age, difficult posture and engagement in deep sea fishing, while weight load, engagement in net fishing were not significant. CWP caused significant impact on absenteeism from work, reduced performance, illicit drug usage, but not to the use of substances for pain relief.

Keywords : Chronic widespread pain, Fishermen in Sri Lanka, Deep sea fishing, Hikkaduwa

Poster Presentations: Undergraduate Category

SPP 08

Prevalence and risk factors of carpal tunnel syndrome among third trimester pregnant mothers attending the antenatal clinic German Sri Lanka Friendship Maternity Hospital, Karapitiya.

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Background : The prevalence of carpal tunnel syndrome (CTS) is a growing concern during pregnancy. This study evaluated the prevalence of CTS among pregnant mothers attending the antenatal clinic of German - Sri Lanka Friendship Maternity Hospital (GSFMH).

Objective : Identification of prevalence, severity and associated risk factors of CTS among third-trimester pregnant women attending the antenatal clinic of GSFMH.

Methods: A descriptive cross-sectional study was conducted among 298 third-trimester pregnant women using convenience sampling. Data were collected using a validated questionnaire derived from the Boston Carpal Tunnel Questionnaire to assess symptom severity and functional status. Standardized physical examinations were performed using tests such as Tinel's sign, Phalen's manoeuvre, Hand elevation test and Durkan's test. Further, analysis was performed using Statistical Package for the Social Sciences (SPSS) and MS Excel. We used non-parametric methods such as Kruskal-Wallis test and Mann-Whitney test and descriptive analysis for the statistical analysis.

Results: The prevalence of CTS was 22.1%. A 14.4% of participants reported wrist pain while 25.8% reported numbness. Physical examination findings were positive in 22.5%, supporting the prevalence estimation. Higher BMI, diabetes, housework participation, and prior history of having CTS in a previous pregnancy were statistically significantly related to CTS and not associated with maternal age, gestational age, thyroid disease, arthritis, or prior formal diagnosis of CTS. Most cases were mild severity (68.9%), while 31.1% were Moderate. No severe cases of CTS identified. .

Conclusions: More than 20% of pregnant women were found to have CTS based on clinical assessment. CTS in pregnancy is primarily a clinical diagnosis, established using characteristic symptoms and supportive clinical signs. Routine investigations are generally unnecessary, as this is typically benign and self-limiting. Nerve conduction studies are not routinely recommended and reserved for cases with severe symptoms, atypical features, or diagnostic uncertainty where confirmation would influence management.

Keywords: Carpal tunnel syndrome, pregnancy, prevalence, risk factors

Poster Presentations: Undergraduate Category

SPP 09

Prevalence, associated factors of low back pain, and its association with the level of physical activity among pregnant women attending antenatal clinics at a tertiary care maternity hospital, Galle

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Background : Low back pain (LBP) is a common complication of pregnancy, especially during the second and third trimesters, which significantly reduces the quality of life of pregnant women.

Objective : The study aimed to assess the prevalence and factors associated with LBP and determine its association with the level of physical activity among pregnant women attending antenatal clinics at a tertiary care maternity hospital in Galle.

Methods : A descriptive cross-sectional study was conducted at the antenatal clinics of German Sri Lanka Friendship Hospital for Women, among 255 pregnant women selected with systematic random sampling. Data were collected using self-administered questionnaires, including a visual analogue pain scale and the validated Sinhala version of the global physical activity questionnaire (GPAQ). Data were analysed using Chi-square and Pearson correlation using SPSS software 26.

Results : The mean age of the pregnant women was 29 years (SD±5.06). The majority were unemployed (62.7%), multigravida (62.4%) and in the second trimester (40.4%). Low back pain was present among 16.9% of pregnant women with 86.3% having pain in the lumbosacral region. Nearly half (54.1%) of the women engaged in moderate physical activity, with 97.6% engaging in unstructured physical activities. Presence of LBP was significantly associated with the number of children, gravidity, trimester, history of miscarriages, current weight, pre-pregnancy body mass index, physical activity level, and history of LBP. A weak but statistically significant positive correlation was observed between physical activity level and severity of LBP ($r=0.191, p=0.002$).

Conclusions : The prevalence of LBP was low but notable among pregnant women, with over half engaging in moderate physical activity. A weak positive link between physical activity and LBP suggests that unstructured activities may contribute to LBP. Incorporating LBP screening, structured exercises, weight optimisation, and posture education into antenatal care could enhance maternal outcomes and improve health.

Keywords: Physical activity, global physical activity questionnaire (GPAQ), low back pain, pregnancy

Poster Presentations: Undergraduate Category

SPP 10

Prevalence of surgical site infections and its associated factors among mothers who had undergone lower segment Caesarean section at the German-Sri Lanka Friendship Hospital for Women, Galle

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Background : Surgical site infections (SSIs) have emerged as one of the most prevalent complications following Caesarean section and are leading to high morbidity and extended hospital stay. Establishing their prevalence, causative organisms and factors involved is crucial to improve treatment and preventive interventions in resource limited settings.

Objective : To determine the prevalence, causative agents, and associated factors of surgical site infection (SSI) in mothers who had undergone lower segment Caesarean section (LSCS), at German-Sri Lanka Friendship Hospital for Women (GSLFHW), Galle.

Methods : This cross-sectional study was conducted among 251 mothers who underwent LSCS in GSLFHW. Data were obtained via medical records, microbiological reports, and an interviewer-administered questionnaire. Chi-square test was used to determine the associations ($p < 0.05$) using SPSS version 26.0.

Results : The prevalence of SSIs among mothers who underwent LSCS was found to be 11.6%. The majority of infections manifested four days after surgery. The most common pathogen found was *Staphylococcus aureus*, including methicillin-resistant strains. Antibiotic susceptibility testing revealed that *Staphylococcus aureus* isolated were resistance to clindamycin, erythromycin, and fluoroquinolones, but remained sensitive to co-trimoxazole, fusidic acid, and vancomycin. A longer hospital stay ($p = 0.001$) and a higher number of previous Caesarean surgery ($p = 0.03$) were significantly associated with SSIs. There was no significant correlation with anaemia, diabetes, hypertension, body mass index (BMI), and the type or duration of surgery.

Conclusions : The prevalence of SSIs among mothers who underwent LSCS was 11.6% in this setting. Prolonged hospital stay and multiple Caesarean sections showed significant associations. This highlights the importance of optimising perioperative care, minimising unnecessary hospitalisation, and strengthening infection prevention strategies to reduce the burden of SSIs and improve maternal outcomes.

Keywords : Surgical site infections, lower segment Caesarean section, *Staphylococcus aureus*, maternal morbidity

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