Perinatal Society of Sri Lanka

FOUNDED 2001

Towards healthier mothers and newborns

24th ANNUAL SCIENTIFIC CONGRESS 2025

PERINATAL SOCIETY OF SRI LANKA

"Beyond Numbers: Advancing Quality to Transform Perinatal Outcomes"

PROGRAMME & ABSTRACTS

2nd & 3rd October 2025
Hotel Galadari, Colombo
Sri Lanka

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CONTENT

MESSAGE FROM THE CHIEF GUEST

It gives me immense pleasure to extend my best wishes for the 24th Annual Scientific Congress of the Perinatal Society of Sri Lanka. As a multi-disciplinary professional organization which works towards achieving continuous improvement in the quality of perinatal care in the country, I am very pleased that the Perinatal Society of Sri Lanka has organized their scientific congress this year under the theme of "Beyond Numbers: Advancing Quality to Transform Perinatal Outcomes".

Advancing the quality of perinatal care will undoubtedly create lasting impacts, for the survival as well as lifelong health of mothers and babies in the country. This congress signifies the commitment of the Perinatal Society of Sri Lanka towards reaching the highest standards of practice.

Bringing together professionals, researchers, and policymakers committed towards ensuring safe and evidence-based care for the mothers and newborns, I think this congress would be an ideal platform to exchange knowledge and learn from each other.

I am positive that this scientific congress will foster collaborations, inspire innovative strategies and contribute to strengthen the health system, paving the way for continuous improvements in perinatology and enhanced quality of care.

I wish to congratulate the organizers of this scientific congress for their tireless efforts and wish this congress would mark another milestone towards the improvement of perinatal care in the country.

Dr. Asela Gunawardena
Director General of Health Services
Ministry of Health

MESSAGE FROM THE GUEST OF HONOUR

The Perinatal Society of Sri Lanka is unique compared to other Professional Societies in the country or in the Region as it brings the concept of multidisciplinary approach to perinatal care, bringing together the continuum of promotive, preventive, curative care and follow up care for mothers and infants.

The Society's contributions to policies and programmes for improving perinatal care is well recognized. While Sri Lanka has achieved the SDG targets related to maternal, neonatal and child health and its achievement are above what is commensurate with its income level, it still has few miles to go. In this context the theme chosen for this year's conference 'Beyond numbers: Advancing Quality to Transform Perinatal Outcomes' is very appropriate. Despite the high-quality coverage, the continuing problem of preventable maternal, neonatal and under five mortality and stillbirths point to the need to improve quality of services.

With fewer births in Sri Lanka, improving perinatal outcomes is critical not only in terms of survival but also thriving physically, mentally and emotionally, thus contributing to human capital development.

I wish the conference all success and hope for an outcome that will further contribute to survival of mothers, newborns and infants and help the children thrive.

Dr. Saramma Thomas Mathai
International Consultant RMNCH
Former Regional Team Coordinator and Maternal Health Advisor
UNFPA Asia Pacific Regional Office

MESSAGE FROM THE PRESIDENT PERINATAL SOCIETY

It is with great pride and pleasure that I extend my warmest greetings to all participants of the 24th Annual Scientific Congress of the Perinatal Society of Sri Lanka. Over the past decades, the Society has stood as one of the leading professional organisations committed to improving perinatal outcomes in our country. The strength of our Society lies in the collaboration among the three main disciplines: Community Medicine, Obstetrics and Gynaecology, and Neonatology/Paediatrics, working together as one team to achieve shared goals. By ensuring the highest standards of care for mothers throughout pregnancy and childbirth, and for newborns in their earliest days, we pave the way for healthier generations.

The theme for this year, "Beyond numbers: advancing quality to transform perinatal outcomes," reflects our collective vision to go beyond statistics and focus on meaningful improvements in the quality of care. As part of this, the Society has organised a pre-congress workshop for nurses and midwives, along with a comprehensive scientific programme featuring panel discussions, symposia, and lectures by experts in the field. We are also proud to provide a platform for over 70 oral and poster presentations, showcasing valuable research that will guide practice and policy in perinatology.

As President of the Perinatal Society of Sri Lanka, it is my privilege to warmly invite all colleagues, researchers, and professionals to actively participate in this academic session. Let us share knowledge, exchange experiences, and strengthen our commitment to advancing perinatal health in Sri Lanka.

I extend my sincere appreciation to the Council, past Presidents, members of the Society, our dedicated office staff, and all others whose tireless efforts have made this event possible. I also gratefully acknowledge the support of our development partners, including UNICEF, WHO, and UNFPA, as well as our valued collaborators in continuous professional development, for their unwavering encouragement and collaboration.

Together, let us continue to strive for excellence in perinatal care and ensure a healthier future for mothers and children in Sri Lanka.

Dr. J. Harendra Dassanayaka
President, Perinatal Society of Sri Lanka
Consultant Community Physician
Epidemiology Unit
Ministry of Health
Sri Lanka

MESSAGE FROM THE CONGRESS CHAIR

It is with great pleasure that we welcome you to the Annual Scientific Congress 2025 of the Perinatal Society of Sri Lanka, held under the timely and compelling theme *'Beyond Numbers: Advancing Quality to Transform Perinatal Outcomes.'* This event unites clinicians, scientists, researchers, policymakers, and allied health professionals with a shared goal: to enhance the quality of maternal and newborn care in Sri Lanka and beyond.

For decades, our nation has made steady progress in lowering maternal and neonatal mortality rates. However, numbers alone cannot encompass the full scope of perinatal health. Behind each statistic is a mother's experience and a newborn's opportunity at life. The challenge we face is to ensure every birth is not only safe but also respectful, dignified, and supported by systems that maintain the highest standards of care.

This year's congress covers a wide range, spanning clinical advances in neonatology and obstetrics, nutrition, emergency preparedness, diabetes during pregnancy, artificial intelligence, and the valuable lessons we learn from "near misses." This variety highlights that perinatal health is not limited to a single discipline but is a shared duty across the healthcare system, demanding ongoing collaboration, innovation, and compassion.

As we navigate complex realities from resource constraints to the pressures of emerging technologies and climate-driven health challenges, we must reaffirm our commitment to equity, accountability, and quality. We hope that this congress will not only deepen scientific dialogue but also generate practical pathways for implementation, bridging research with everyday practice, and global standards with local needs.

We sincerely thank our colleagues, sponsors, and partners who have made this event possible. Most importantly, we recognise the dedication of all health professionals working tirelessly for mothers and newborns. Together, let us move beyond simply counting lives saved to ensuring that every life receives the best possible start.

Dr Surantha Perera
Scientific Chair
President, SLMA
Past President, PSSL

MESSAGE FROM THE SECRETARY PERINATAL SOCIETY

It is my utmost pleasure and honour to welcome all the delegates to the 24th Annual Scientific Congress of the Perinatal Society of Sri Lanka (PSSL). Moving forward in line with the vision of the PSSL 'to be actively committed towards achieving continuous improvement in the quality of healthcare for mothers and infants', we gather here today, to support advancing the theory and practice of perinatology to promote maternal, foetal, and neonatal well-being in Sri Lanka.

The Scientific Congress this year is organized under the theme "Beyond Numbers: Advancing Quality to Transform Perinatal Outcomes", highlighting the importance of focusing on broader qualitative aspects including patient experience. Quality of care plays a crucial role in perinatology in improving health outcomes by reducing preventable maternal and newborn mortality and morbidity. Safe, effective, timely, efficient, equitable, people-centred, and integrated services will lead to better experiences for mothers and their newborns.

This congress will pave the way for healthcare professionals of different specialties, as well as researchers, to share their knowledge, clinical experience, research findings, and innovative approaches with each other, for the ultimate benefit of the mothers and their newborns in enhancing the quality of care provided to them, ensuring their right to health, dignity, and equity.

This year's programme has been enriched with a keynote address, an oration, symposia, plenaries and a panel discussion by eminent international and local speakers renowned in their respective specialties, as well as oral and poster presentations, undoubtedly encouraging constructive dialogue and sustained collaborations directed towards enhancing the quality of perinatal care in the country.

I take this opportunity to express my most sincere gratitude to all who have tirelessly contributed for making this event a success through their dedication and continued support. I extend my grateful appreciation to all the members of the Council of PSSL, our eminent speakers, chairpersons and judges, collaborators in Continuous Professional Education and well-wishers, our event organizer Ms. Eroshini Samarasinghe and her team, our Office Secretary Miss Sandali Withanage and all those who have supported, guided, and encouraged us in this endeavour. My appreciation also goes to all the delegates at the Congress, whose participation gives us much encouragement to work towards our vision. I wish this congress would be a fruitful and memorable experience for you.

Once again, I welcome all of you to this insightful and impactful congress, which would be a valuable opportunity for learning, engagement, and networking.

I wish all the success for this congress to be a useful platform for professional development, collaboration, and meaningful transformation for the improvement in perinatal care.

Warm regards,

Dr. Nimali Wijegoonewardene
Secretary - PSSL
Specialist in Community Medicine
Senior Lecturer, Faculty of Medical Sciences, University of Sri Jayewardenepura

MESSAGE FROM THE EDITOR

It is with great pleasure that I present this abstract book for the Annual Academic Sessions of the Perinatal Society of Sri Lanka. This compilation reflects the collective scholarship, dedication, and innovation of our members and collaborators, who continue to push the boundaries of perinatal care in our country and beyond.

The theme of this year's sessions, ***"Beyond Numbers: Advancing Quality to Transform Perinatal Outcomes"*** highlights a vital shift in our approach to maternal and newborn health. While data and statistics are essential in tracking progress, true impact lies in the quality of care we deliver.It is in the lived experiences of mothers and babies, in the systems we strengthen, and in the compassion with which we practice that lasting transformation is achieved.

This abstract book captures the diversity of thought and research that underpins this vision. Each contribution is a step toward building safer, evidence-based, and more equitable perinatal care. As editor, I am deeply grateful to all authors, reviewers, and contributors whose work has enriched this collection.

I hope that these proceedings not only inform but also inspire continued dialogue, collaboration, and innovation as we strive to transform perinatal outcomes in Sri Lanka and the region.

Dr. Nimesha Gamhewage
Editor - PSSL
Consultant Neonatologist

Perinatal Society of Sri Lanka

Council Members - 2025

Standing from Left to Right **- Prof. Sachith Mettananda, Dr. Jithma Ruwini Fonseka, Dr. Nimesha Gamhewage, Dr. Dilani Dehigama, Dr. Dilusha Atukorale, Dr. Asiri Hewamalage, Dr. Nethmini Thenuwara, Dr. Gayani Gunawardena, Dr. Himali Herath, Dr. Shamitha Dassanayake, Dr. Nalin Gamaathige, Dr. Chandana Jayasundara**

Seated from Left to Right **- Dr. Chandima Sirithunga, Dr. Ruwan Silva** *(Treasurer)*, **Prof. Dulani Gunasekara** *(SLJPM Editor in Chief)*, **Dr. Surantha Perera** *(SLJPM Managing Editor)*, **Dr. Sudath Senaratne** *(Immediate Past President)*, **Dr. Harendra Dassanayaka** *(President)*, **Dr. Kaushalya Kasthuriarachchi, Dr. Sandhya Doluweera, Dr. Kapilani Withanaarachchi, Prof. Rasika Herath, Dr. Nimali Wijegoonawardene** *(Secretary)*, **Dr. Indunil Piyadigama**

Absent: Prof. Ruwanthi Perera, Dr. A. Sritharan

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Dr. Jithma Ruwani Fonseka
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Dr. Nethmini Thenuwara
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Dr. Kaushalya Kasturiarachchi
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Dr Chandima Siritunga
Director of Maternal and Child Health
Family Health Bureau

Dr. Shamitha Dassanayake
Consultant Physician

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24th ANNUAL SCIENTIFIC CONGRESS 2025

2nd & 3rd October 2025 - Program Layout

2nd October 2025	• **Pre congress Scientific Session for Nurses and Midwives** *Galadari Hotel, Colombo.*
2nd October 2025	• **Inauguration of the Perinatal Society of Sri Lanka** *Galadari Hotel, Colombo.*
3rd October 2025	• **Annual Scientific Congress** *Galadari Hotel, Colombo.*
3rd October 2025	• **Annual Scientific Sessions - Prof. Indrajee Amarasinghe Oration** *Galadari Hotel, Colombo.*

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PRE-CONGRESS SCIENTIFIC SESSIONS OF THE PERINATAL SOCIETY OF SRI LANKA

FOR NURSES AND MIDWIVES

02nd October 2025, at Galadari Hotel, Colombo

PROGRAMME OF PRE-CONGRESS SCIENTIFIC SESSION

	Hall A	Hall B
7.00 – 7.45 am	**Registration (& Pretest)**	
7.45 – 9.00 am	**Oral presentations** Chairpersons: Dr. Asiri Hewamalage, Dr. Dilusha Atukorale	
9.00 - 9.30 am	**Keynote speech** Chairperson: Dr. Harendra Dassanayaka **Continuous professional development (CPD)** Dr. Kaushalya Kathriarachchi (Consultant Community Physician)	
9.30 - 10.00 am	**Refreshment break**	
10.00 -11.15 am	**Leaving No One Behind: Ensuring Every Baby's Best Start through Baby-Friendly and Mother-Friendly Care** Chairpersons: Emeritus Prof. Dulani Gunasekara Dr. Dilusha Atukorale • **Introducing the Mother-Friendly concept Mother-Friendly is Baby-Friendly: How Labour Care Improves Breastfeeding Outcomes** Dr. Ruwan Silva Consultant Obstetrician and Gynaecologist • **Every Drop Counts: Making Breast Milk Work for Preterm Babies** Prof. Nishani Lucus, Professor in Neonatology • **From Birth to Bonding: Golden Hour Care as a BFHI Game-Changer (20 min)** Dr. Surantha Perera, Consultant Paediatrician • **Closing the gaps: Lessons from the National MBFHI survey** Dr. Nethmini Thenuwara, Consultant Community Physician	**Ensuring optimal Antenatal and postnatal care for mothers** Chairpersons: Dr. Dammika Rowel Dr. Chandima Siritunga • **Addressing maternal social and emotional well-being in the field setting** Dr. Asiri Hewamalage , Consultant Community Physician • **Improving labor outcomes: labor care guide and partogram for postpartum care provision, Use of MEOWS Chart and Identification of high-risk postpartum conditions** Dr Sudath Senaratne Consultant Obstetrician and Gynaecologist • **Postpartum Family Planning: Is the current counselling practice correct?** Dr. Indunil Piyadigama Consultant Obstetrician and Gynaecologist and Senior lecturer in Obstetrics
11.15 – 12.30 pm	**Nurturing and Caring for Our Tiny Fighters: Integrating Compassion, Innovation, and Quality Improvement to Achieve Better Outcomes** Chairpersons: Prof. Ruwanthi Perera Dr. Nalin Gamaathige • **The MNCU Model: Keeping Mothers and Babies Together for Better Survival and Bonding** Dr. Kapilani Withanarachchi , Consultant Paediatrician • **Supporting Mothers in the NICU through Family Centered Care:** Dr. Jithma Fonseka, Consultant Neonatologist • **Small Acts, Big Impact: Evidence-Based Success Stories in Neonatal Quality Improvement** Dr. S. Hassan, Consultant Neonatologist and Senior Lecturer in Paediatrics & Neonatology	**Managing Disease Conditions in pregnancy and in the postnatal period** Chairpersons: Dr. Sudath Senaratne Dr. Chinthana Perera • **Managing antenatal Infections** Dr. Chinthaka Banagala, Consultant Obstetrician and Gynaecologist • **Common Medical disorders in antenatal Period: GDM & hypertension** Dr. Shamitha Dassanayake, Consultant Physician • **Mental Health conditions in Pregnancy and during postnatal period** Dr. Luckshika Amarakoon, Consultant Psychiatrist and Senior Lecturer in Psychiatry

12.30 - 1.30 pm	**Lunch**		
1.30 – 2.15 pm	**Maternal and Perinatal Death Surveillance and Response (MPDSR)** Chairperson: Dr. Kapila Jayaratne Dr. Harendra Dassanayaka, Consultant Community Physician Dr. Gayani Gunawardena, Consultant Community Physician		
2.15 – 4.00 pm	**Core Clinical Skills in Preterm Stabilization and Safe Transport (practical session)** Dr. Sandhya Doluweera Dr. Kapilani Withanarachchi Dr. Dilusha Atukorala Dr. Dilani Dehigama Dr. Jithma Fonseka Dr. Nimesha Gamhewage Participants: Nurses of Neonatal Units	**Addressing emergencies in the labour room (practical session)** Dr. Indunil Piyadigama Dr. Ruwan Silva Participants: Nurses and Midwives of Obstetric Units	**Caring for the mother and newborn baby in the field - identifying danger signs (practical session)** Dr. Nethmini Thenuwara Dr. Kumudini Cooray Dr. Sudath Senaratne Participants: Field Healthcare Providers
4.00 – 4.15pm	**Tea (& Post-test)**		

FACULTY - PRE-CONGRESS SCIENTIFIC SESSION

Dr. Kaushalya Kathriarachchi
Consultant Community Physician

Dr. Ruwan Silva
Consultant Obstetrician & Gynaecologist

Prof. Nishani Lucus
Professor in Neonatology

Dr. Surantha Perera
Consultant Paedaitrician

Dr. Nethmini Thenuwara
Consultant Community Physician

Dr. Asiri Hewamalage
Consultant Community Physician

Dr. Sudath senaratne
Consultant Obstetrician & Gynaecologist

Indunil Piyadigama
Consultant Obstetrician & Gynaecologist

Dr. Kapilani Withanarachci
Consultant Paediatrician

Dr. Jithma Fonseka
Consultant Neonatologist

Dr. S. Hassan
Consultant Neonatologist

Dr. Chinthaka Banagala
Consultant Obstetrician & Gynaecologist

Dr. Shamitha Dassanayake
Consultant Physician

Dr. Luckshika Amarakoon,
Head of the Department of Psychiatry
Faculty of Medical Sciences
University of Sri Jayewardenepura

Dr. J. Harendra Dassanayaka
President-PSSL

Dr. Gayani Gunawardane
Consultant Community Physician

Dr. Sandya Doluweera
Consultant Paediatrician

Dr. Dilusha Athukorala
Consultant Paediatrician

Dr. Dilani Dehigama
Consultant Neonatologist

Dr. Nimesha Gamhewage
Consultant Neonatologist

Dr. Kumudini Cooray
Consultant Paediatrician

Symposium 01

Leaving No One Behind: Ensuring Every Baby's Best Start through Baby-Friendly and Mother - Friendly Care

Introducing The Mother-Friendly Concept
Mother-Friendly is Baby-Friendly: How Labour Care Improves Breastfeeding Outcomes

Dr Ruwan Silva
Consultant Obstetrician and Gynaecologist

Mother-friendly labor care is an approach that prioritizes the physical, emotional, and psychological well-being of the mother during childbirth. This model of care emphasizes respectful maternity care, informed decision-making, minimal medical intervention, continuous labor support, and the promotion of skin-to-skin contact immediately after birth. Research increasingly supports that such practices not only improve maternal satisfaction and reduce birth-related complications but also have a profound impact on breastfeeding outcomes.

One of the critical factors in successful breastfeeding initiation and continuation is the early mother-infant bond. Mother-friendly labor care facilitates this bond by promoting immediate and uninterrupted skin-to-skin contact, which helps regulate the newborn's temperature, heart rate, and breathing, while also stimulating maternal oxytocin release. Oxytocin is essential for both uterine contractions and milk ejection, thereby supporting early lactation. Furthermore, a supportive birthing environment where the mother feels safe, empowered, and respected can significantly reduce stress and anxiety, which are known to interfere with milk production and let-down reflexes.

Continuous labor support, such as the presence of a midwife or doula, also positively influences breastfeeding success by reinforcing maternal confidence and providing immediate assistance with latch and positioning postpartum. Additionally, minimizing unnecessary medical interventions—like routine separation of mother and baby, early cord clamping, or elective cesarean deliveries—preserves the natural hormonal and physical processes critical to initiating breastfeeding.

In conclusion, mother-friendly labor care creates optimal conditions for early and sustained breastfeeding by fostering an environment of trust, connection, and physiological support. Implementing this care model across maternity settings can lead to higher rates of exclusive breastfeeding, longer breastfeeding duration, and overall improved maternal and infant health outcomes. Integrating these practices into standard obstetric care is a key step toward promoting holistic, evidence-based maternity care that honors both mother and baby.

Every Drop Counts: Making Breast Milk Work for Preterm Babies

Prof. Nishani Lucus
Professor in Neonatology, Department of Paediatrics
Faculty of Medicine, University of Colombo
Consultant Neonatologist, De Soysa Hospital for Women, Colombo
Internationally board-certified lactation consultant IBCLC

Each drop of mother's breast milk makes a positive influence on the outcome of each preterm baby. All preterm babies, irrespective of how early they are born or how sick they are should receive their mother's colostrum as soon as it is available. Every mother makes milk to suit the individual needs of their baby. Own mother's breast milk provides optimal nutrition, decreases risk of infection, decreases the risk of cancer, mproves gut health, reduces the risk of necrotising enterocolitis in addition to decreasing the lifetime risk of coronary heart disease, hypertension, diabetes, obesity and other immune mediated disease.

Every preterm baby should receive the first drop of colostrum within the first 6 hours of birth, at least within the first 24 hours. Responsive feeding should be initiated according to baby's hunger cues. Mothers should be supported to express breast milk immediately after birth, i.e., within the first 2 hours. Antenatal expression can also be done when it is certain that the baby is going to be born in the next few hours. Early milk expression within the first 2 hours of birth ensures high volume breastmilk production. This will limit the need for parenteral nutrition for the first 2-3 days of life, minimising complications and helping the baby to achieve full feeds early, resulting in better growth and a shorter hospital stay. It is usual to have only 1-2 drops of breast milk initially. Skilled hospital staff should support and empower mothers to express breast milk every 2-3 hours. Expression should continue at night, as prolactin production is highest around 2-3am,

Integrating parents into the provision of care, immediate and frequent skin to skin care for as long as possible helps to increase the supply of breast milk, getting the mother to visit the baby frequently, or providing her baby's photographs and frequent visits and updates by the neonatal team in case the mother is unable to visit the baby (receiving intensive care) helps to achieve adequate expressed breast milk volumes.

Health staff should be vigilant about the volume of breast milk expressed by the mother at each session. Breast milk volumes show a steadfast increase if expressed every 2-3 hourly, using correct technique. Breast should be emptied every 2-3 hours to increase the volume of breast milk. Decrease in expressed breast milk volumes would warrant a closer look at maternal mental health, expression technique, support received by the health care staff, frequency of expression, not expressing breast milk at night, which need to be looked into and supported accordingly.

All preterm babies should receive their own mother's breast milk, lets make sure we all do our part to make this a reality for all preterm babies.

Mother-Baby-Friendly Hospital Initiative (MBFHI): Assessment in specialist hospitals with maternity care in Sri Lanka, 2024

Dr. Nethmini Thenuwara
Consultant Community Physician

Facilities providing maternity and newborn services should support to breastfeed successfully, saving governments money while saving lives via 'Baby Friendly Hospital Initiative' (BFHI)' including mother-friendly practices during labour. Assessment of MBFHI was conducted among 83 specialist hospitals in

2024. Availability of Lactation Management Centres, Mother Baby Units, immediate skin to skin care(SS), offering breastfeeding support and coordinating discharge were commendable. However, adherence to breastfeeding code, staff training, antenatal education, prolong SS, demand feeding and mother friendly practices need to be improved. Regular monitoring of MBFHI status will enable facilities to improve their pratices.

Symposium 2

Ensuring optimal Antenatal and postnatal care for mothers

Improving labor outcomes: labor care guide and partogram for postpartum care provision, Use of MEOWS Chart and Identification of high-risk postpartum conditions

Dr. Sudath Senaratne
Consultant Obstetrician & Gynaecologist

The integration of structured clinical tools such as the Labor Care Guide (LCG), partogram, and Modified Early Obstetric Warning System (MEOWS) chart has significantly enhanced maternal outcomes in post-partum care. The LCG and partogram facilitate real-time monitoring of labor progression, enabling timely interventions and reducing the incidence of prolonged labor and associated complications. Their use promotes standardized decision-making, improving communication among care teams and ensuring adherence to evidence-based practices. Postpartum, the MEOWS chart serves as a critical surveillance tool, allowing early detection of physiological deviations that may signal life-threatening conditions such as sepsis, hemorrhage, or hypertensive crises. By systematically tracking vital signs and clinical parameters, MEOWS empowers healthcare providers to escalate care promptly. Additionally, the proactive identification of high-risk postpartum conditions—based on antenatal history, labor events, and early postpartum indicators—has led to targeted monitoring and individualized care plans. Collectively, these tools have contributed to a reduction in maternal morbidity and mortality, shortened hospital stays, and improved patient satisfaction. Their implementation underscores the importance of structured, data-driven approaches in obstetric care, fostering a culture of safety and responsiveness in maternal health services. Continued training and integration of these tools into routine practice are essential for sustaining and scaling these improvements.

Postpartum Family Planning: Is the current counselling practice correct?

Dr. Indunil Piyadigama
(MBBS, MD, MRCOG)

Postpartum Family Planning (PPFP) is a critical component of maternal and newborn health, reducing the risks of closely spaced pregnancies, maternal complications, and adverse neonatal outcomes. Despite clear evidence and World Health Organization (WHO) recommendations supporting timely counselling and the use of safe contraceptive methods in the postpartum period, gaps persist in current practice. In many settings, counselling is limited to the immediate postnatal ward, with insufficient emphasis during the antenatal period, limited partner involvement, and variable information on available methods. This often leads to missed opportunities and continuation of unmet contraceptive needs.

This lecture will review the evidence base for postpartum contraceptive options, including immediate postpartum intrauterine device (IUD) insertion, progestin-only methods, lactational amenorrhea, and the appropriate timing of combined hormonal methods. It will critically examine current counselling practices in Sri Lanka and globally, highlighting strengths and deficiencies. Strategies to improve service delivery—such as structured antenatal counselling, standardized job aids for health workers, and integration of family planning into routine maternal and child health services—will also be discussed. The session aims to empower nurses and midwives to provide accurate, timely, and client-centred contraceptive counselling that supports informed choice, improves uptake, and enhances the quality of postpartum care

Symposium 3

Nurturing and Caring for Our Tiny Fighters: Integrating Compassion, Innovation, and Quality Improvement to Achieve Better Outcomes

Supporting Mothers in the NICU through Family Centered Care

Dr. Jithma Fonseka
Consultant Neonatologist

Family-centered care (FCC) in neonatal intensive care units (NICUs) was initiated 3 decades ago to promote a respectful response to individual family needs and values. It encourage parental participation and decision- making for their infants.

FCC primary function of early caregiver involvement is ensuring newborn infant emotional closeness and survival. The burst of norepinephrine during the birth and stabilization along with other neurotransmitters facilitates learning their mother's odor and approaching primary caregiver.
Disturbances in these regulations may have various effects on the infant's cognitive and emotional development.

The available evidence has proven FCC implementation has shorter length of hospital stay , reduce hospital re-admissions and increase rates of breast milk provision while assuring positve impact on infant physical health and neurodevelopment .

There is a need for further Strengthening in involvement, coordination and effective communication between the medical teams and parents to create a supportive and friendly environment in neonatal intensive care units. This will also enable to identify risk mothers and neonates who required social/ psychological support . Assistance to mothers in decision making about their infant's care can be well explored with family focused care

Small Act, Big Impact: Evidence Based Success Stories in Neonatal Quality Improvement

Dr. M.H. Sharmy M Hassan
Consultant Neonatologist
Senior Lecturer in Paediatrics & Neonatology
Faculty of Medicine, University of Moratuwa

Neonatal care in resource-limited settings presents unique challenges, where even small gaps in safety and quality can result in significant adverse outcomes. Teaching Hospital Badulla, located in Sri Lanka's Uva Province, faced these realities as the only tertiary-level neonatal intensive care unit serving a large peripheral population. Recognizing the urgent need to strengthen safety and improve outcomes, a series of low-cost, high-impact quality improvement initiatives were implemented over the past three years.

This lecture will share the journey of transforming neonatal care through a comprehensive bundle of interventions. Key components included hypothermia prevention strategies under the "This is Us" project, early initiation of breastfeeding with "First Drop First Hope," structured hand hygiene audits, neonatal life support training, improved drug safety protocols, and the re-establishment of a neonatal retrieval and transport service. These initiatives were reinforced through continuous data collection, staff retraining, and close collaboration with peripheral hospitals.

The process was not without barriers. Staff shortages, communication challenges, and resource limitations often hindered progress. However, successes were driven by committed teamwork, data-driven decision making, and iterative feedback through Plan-Do-Study-Act cycles. Importantly, these practices are now embedded into standard operating procedures, ensuring sustainability and resilience despite staff turnover. Partnerships with provincial health services have further extended the reach of these practices into surrounding facilities, creating a wider culture of neonatal safety.

The outcomes of this collective effort include improved thermoregulation, reduced rates of infection, enhanced feeding practices, and a measurable reduction in neonatal mortality and morbidity. Beyond clinical improvements, the initiative fostered a culture of ownership, accountability, and innovation among the neonatal team.

Through this lecture, participants will gain insights into how peripheral NICUs can achieve excellence despite resource constraints. The experience from Badulla demonstrates that determination, collaboration, and simple but well-structured interventions can bridge safety gaps and provide every newborn with the best possible start in life. The lessons learned are replicable across similar settings worldwide, making this initiative a model for safe and sustainable neonatal care.

Symposium 4

Managing Disease Conditions in pregnancy and in the postnatal period

Managing antenatal Infections

Dr. Chinthaka Banagala
Consultant Obstetrician and Gynaecologist

Antenatal infections remain a critical issue even in Sri Lanka, despite the country's successes in public health, and pose serious risks to both pregnant women and their unborn children.

Effective management of these infections is critical to reducing pregnancy-related complications, adverse neonatal outcomes, and long-term sequelae. Various infectious agents can affect pregnant women, with some capable of crossing the placental barrier and causing congenital infections or pregnancy loss.

Among the most concerning are viral infections such as **chickenpox, rubella, influenza**, and **hepatitis B**, as well as **sexually transmitted diseases (STDs)** including **HIV** and **syphilis**. These infections can lead to a spectrum of maternal complications—ranging from mild febrile illness to severe pneumonia, hepatic failure, or immunosuppression—and fetal consequences such as miscarriage, stillbirth, intrauterine growth restriction, congenital malformations, preterm birth, and neonatal death.

Knowledge, early identification, and timely treatment of antenatal infections are fundamental to preventing these complications. Routine antenatal screening programs, including serological testing for HIV, syphilis,

and hepatitis B, along with vaccination strategies for rubella, influenza, and varicella (preconceptionally), play a pivotal role in reducing disease burden. Furthermore, implementing infection control practices, safe sexual behaviors, and ensuring high vaccination coverage among women of reproductive age remain essential public health strategies.

For Sri Lanka, antenatal infections pose variable but real risk to maternal and fetal health. The country has made commendable progress—such as eliminating vertical transmission of HIV and syphilis, achieving hepatitis B control, and dramatically reducing rubella/CRS—but gaps remain, especially for varicella susceptibility and influenza. A public health approach that emphasizes knowledge dissemination, routine screening, preventive vaccination, and timely treatment/intervention, integrated within the maternal health services, is essential to protect both mothers and children and to sustain current gains.

Common Medical disorders in antenatal Period: GDM & hypertension

Dr. Shamitha Dassanayake
Consultant Physician

Medical disorders in pregnancy is rising parallel to the steep rise in Non Communicable diseases among general population. In Sri Lanka Heart Diseases has become the number one cause for Maternal Mortality but Hypertension and Diabetes has become the leading causes of morbidity causing serious consequences for the mother and the baby.

In a view of achieving the target of " Having a Healthy Baby", pre pregnancy counselling and screening for Medical disorders specially for Hypertension and Diabetes play a major role. Addressing the issues of longterm medications and changing to non teratogenic medications should be done before the conception. Mothers who are already diagnosed Diabetes and Hypertension before pregnancy or even after pregnancy should have a thorough understanding about expected complications and consequences for both baby and the mother during pregnancy and post partum period.

Every pregnant mother with above diseases should manage with " Whole patient Care " concept by using both Pharmocological and Non pharmacological methods with Multi-disciplinary team approach. Addressing psycho social issues have a major impact on disease control while stressing about sleep, diet and exercises.

Nurses engage in Maternal Care in both hospital setting as well as in field level have a major role to play in achieving targets of Maternal mortality and morbidity as well as Perinatal Morbidity and Mortality. It is important to highlight the Team Effort reaching the ultimate target of delivering a healthy Baby to the nation for a brighter future.

Mental Health conditions in Pregnancy and during postnatal period

Dr. Luckshika Amarakoon
Consultant Psychiatrist
Senior Lecturer in Psychiatry
University of Sri Jayewardenepura.

Mental health conditions during pregnancy and the postnatal period represent a major public health concern, with significant implications for maternal well-being, infant development, and family functioning. Globally, up to one in five women experience a diagnosable mental health disorder during this time, making perinatal mental health a priority in clinical practice. The spectrum of conditions is broad. During pregnan-

cy, depressive disorders are most common, affecting approximately 10–15% of women, followed by anxiety disorders. Bipolar disorder and schizophrenia carry high risks of relapse during pregnancy, especially if treatment is interrupted. Eating disorders and substance use disorders may complicate antenatal care and pose risks to fetal growth and maternal health.

In the postnatal period, the prevalence of mental illness remains high, with depressive and anxiety disorders being particularly prominent. Postpartum depression affects about 10% of mothers and is associated with impaired bonding, developmental delays in infants, and increased risk of suicide, a leading cause of maternal mortality. Postpartum anxiety, often under-recognized, can manifest with intrusive thoughts, excessive worry, or somatic symptoms. Postpartum psychosis, though rare (1–2 per 1000 births), is a psychiatric emergency characterized by hallucinations, delusions, and severe mood disturbance. Adjustment disorders and exacerbations of personality disorders may also arise in response to the psychosocial challenges of motherhood.

Risk factors across both periods include prior psychiatric illness, lack of social support, intimate partner violence, obstetric complications, and socioeconomic adversity. The impact of untreated maternal mental illness extends beyond the individual, increasing risks of preterm birth, low birth weight, difficulties in infant attachment, and later emotional and behavioral problems in children.

Recognition of perinatal mental health conditions requires integrated care between obstetric, psychiatric, and primary care services, along with culturally sensitive screening, early intervention, and evidence-based treatment. Psychological therapies, social support interventions, and careful use of psychotropic medications form the cornerstone of management. Addressing mental health during pregnancy and postpartum is therefore essential to improving outcomes for mothers, infants, and families

Maternal and Perinatal Death Surveillance and Response (MPDSR)

Dr. J. Harendra Dassanayaka
Consultant Community Physician

Dr. Gayani Gunawardena
Consultant Community Physician

Maternal and perinatal mortality remain key indicators of a health system's performance, reflecting not only clinical care but also broader social determinants. Sri Lanka has made remarkable progress in reducing maternal and neonatal deaths over the past decades with the maternal mortality rate currently at 25 per 100,000 live births and neonatal mortality at 7.2 per 1000 live births. However, preventable deaths still occur, often linked to delays in care, systemic gaps, or missed opportunities for timely intervention. The Maternal and Perinatal Death Surveillance and Response (MPDSR) system provides a structured approach to identifying, reviewing, and responding to these deaths.

MPDSR is a continuous cycle of surveillance, audit, and response aimed at understanding the medical, social, and health system factors contributing to maternal and perinatal deaths. By combining quantitative data with qualitative insights from healthcare teams and communities, the system enables actionable recommendations to prevent future deaths.

The process begins with the identification and notification of potential maternal and perinatal deaths at both hospital and field levels. For maternal deaths, postmortems are mandatory to ensure accurate cause-of-death determination. Subsequently, detailed investigations are conducted through both field death investigations and institutional death reviews. These cases are then further evaluated at the national level through desk reviews by panels of multidisciplinary specialists organized by the Family Health Bureau. Recent quality improvement initiatives, such as the introduction of the Confidential Enquiry into Maternal Deaths (CEMD) process, aim to further enhance the rigor and effectiveness of MPDSR in reducing preventable deaths.

For the perinatal deaths, hospitals conduct monthly perinatal death reviews with expert teams. Perinatal death investigation reports from the field and hospitals are monitored through special surveillance, and national desk reviews are conducted by the Family Health Bureau.

Confidentiality and a non-fault-finding approach are strictly maintained in all the reviews. To strengthen follow-up and implementation of recommendations made by maternal and perinatal death reviews, MPDSR committees are being established at institutional level across Sri Lanka. By promoting accountability, learning, and continuous improvement, MPDSR plays a vital role in eliminating preventable maternal and perinatal deaths and offers lessons for other low- and middle-income countries.

Core Clinical Skills in Preterm Stabilization and Safe Transport (practical session)

At the Precongress Sessions for nurses and midwives, there will be a practical session conducted by neonataologists and paediatricians.

The target audience is nurses working in NICU's and postnatal wards, both in the government and private sector.

There will be 3 stations (30 minutes each) with 30-35 participants in each station, manned by two eminent neonatologists/ paediatricians and assisted by 1-2 trained nursing officers.

Station 1 is aimed at "Stabilizing a Preterm Baby at birth" which will be conducted by Dr. Dilani Dehigama and Dr. Dilusha Atukorale

Station 2 will be on "Stabilization of a Preterm Baby in the NICU". Resource persons for this would be Dr. Sandya Doluweera and Dr. Jithma Fonseka.

Station 3 will demonstrate "Transporting a critically sick newborn" and will be conducted by Dr. Kapilani Withanarachchi and Dr. Nimesha Gamhewage.

The groups will rotate among the 3 stations and all 3 stations will run as real time scenarios.

There will be active engagement of the participants during the demonstration and ample time for Q and A. Aim of this workshop will be to demonstrate the near ideal way of managing a preterm at delivery, safe transport and continuous care at the NICU, and to identify and trouble shoot practical problems encountered in day to day practice.

OP 01: KNOWLEDGE AND PERCEPTION OF EXPANDED NEWBORN SCREENING AMONG PREGNANT WOMEN ATTENDING ANTENATAL CLINICS AT CASTLE STREET WOMEN'S HOSPITAL IN SRI LANKA

De Silva, NCA[1], Wimalawansa, SAUS[1], De Silva, KPD[1], Gunathunga, HL[1], De Silva, MRLK[1], Perera ACH[1],Upeksha, SHD[1]
[1]Faculty of Nursing, KIU, Sri Lanka

Introduction
Expanded newborn screening (ENS) is a vital public health intervention enabling early detection and treatment of genetic and metabolic conditions in neonates. Understanding pregnant women's knowledge and perception of ENS is crucial for ensuring informed participation and improving neonatal health outcomes

Objectives
This study aimed to assess the knowledge and perception of expanded newborn screening among pregnant women attending antenatal clinics at Castle Street Women's Hospital, Sri Lanka.

Methodology
A descriptive cross-sectional study was conducted among 264 pregnant women selected using simple random sampling. Data were collected via a pretested structured questionnaire in Sinhala, Tamil, and English. Descriptive and inferential statistics were analyzed using SPSS version 25, with Chi-square tests used to assess associations between variables. Ethical approval was obtained from the KIU Ethics Review Committee.

Results
Among the 264 pregnant women surveyed (mean age = 26.99 ± 5.08 years), 98.5% were aware of expanded newborn screening (ENS), and 91.7% supported its routine inclusion in prenatal care. The overall mean knowledge score was 4.36 (SD = 0.54), with high awareness of detectable disorders (mean = 4.53, SD = 0.571) and confidence in discussing ENS with healthcare providers (mean = 4.53, SD = 0.571). A significant association was observed between knowledge level and education ($\chi^2 = 11.76$, $p = 0.019$). Positive perceptions were common, with 92.4% agreeing ENS is essential for early detection, though 65.1% expressed concerns about cost (mean = 4.50, SD = 0.610) and 76.5% noted cultural influence on acceptance (mean = 4.40, SD = 0.536). Perception scores were significantly associated with interest in ENS information ($\chi^2 = 13.24$, $p = 0.011$) and residential area ($\chi^2 = 10.87$, $p = 0.029$).

Conclusion
While pregnant women demonstrated good knowledge and positive attitudes towards ENS, financial concerns and cultural beliefs may impact acceptance. Targeted educational initiatives and culturally sensitive communication are essential to enhance awareness and uptake of ENS in Sri Lanka.

OP 02 : AWARENESS AND ATTITUDES REGARDING BREASTFEEDING AMONG ANTENATAL MOTHERS ATTENDING A SELECTED ANTENATAL CLINIC IN SRI LANKA

Madhushanthi, ABH[1], Sanjeewani, HGD[1], Ravihari, MAD[1], Chandrakanthi, KVPA[1], Samaraweera, SMDM[1], Perera ACH[1],Upeksha, SHD[1]
[1]Faculty of Nursing, KIU, Sri Lanka

Introduction
Breastfeeding is a critical public health intervention with proven benefits for both mother and child. Despite high breastfeeding initiation rates in Sri Lanka, exclusive breastfeeding (EBF) for six months remains suboptimal. Understanding antenatal mothers' awareness and attitudes is essential for improving breastfeeding practices.

Objectives
This study aimed to assess the knowledge, attitudes, and practices (KAP) regarding antenatal exercises among pregnant mothers attending General Hospital, Kandy.

Methodology
A descriptive cross-sectional study was conducted among 200 pregnant mothers who were beyond 20 weeks of gestation and attending antenatal clinics at General Hospital, Kandy. Data were collected using an interviewer-administered structured questionnaire. Analysis was done using SPSS version 26.0 with descriptive statistics. Ethical approval was obtained from the KIU Ethics Review Committee.

Results
The study sample was mainly aged 25–34 years (83.7%) and educated at least up to Advanced Level (89%). Regarding knowledge, 95.9% were familiar with "antenatal exercise," and over 90% recognized benefits like reduced gestational diabetes (90.3%), hypertension (93.0%), and improved fetal development (96.9%). Attitudinally, 97.2% valued exercise in pregnancy, though 76.6% had fetal safety concerns. Cultural acceptance was reported by 92.8%, and 97.8% believed it supports postnatal recovery. Practically, 98.45% engaged in antenatal exercises—mainly breathing/relaxation (48.05%) and walking (17.1%). While 74.05% received professional guidance, only 49% exercised more than twice weekly. Significant associations were noted between age and cultural beliefs ($r=0.125$), help-seeking ($r=0.131$), and exercise benefits ($r=0.085$); occupation also correlated with cultural acceptance ($p=0.036$) and belief in symptom relief ($p=0.042$). Overall, participants showed high knowledge, positive attitudes, and strong practice levels, influenced by age and occupation.

Conclusion
Pregnant women at General Hospital, Kandy, showed good awareness and positive attitudes toward antenatal exercises, though some held safety misconceptions. Strengthening education through healthcare providers and integrating culturally appropriate guidance into routine care can enhance safe practices and maternal outcomes.

OP 03 : KNOWLEDGE, ATTITUDE AND PRACTICES REGARDING ANTENATAL EXERCISES AMONG PREGNANT MOTHERS ATTENDING A SELECTED HOSPITAL IN SRI LANKA

Udeshika, BMK[1],Kumari, GAMMS[1], Abeyrathna, BWGVLK[1], Jinarajawansha, HRTM[1], Wijethunga, MGTP[1], Perera ACH[1], Upeksha, SHD[1]
[1]Faculty of Nursing, KIU, Sri Lanka

Introduction
Antenatal exercise contributes significantly to maternal and fetal health, aiding in the prevention of complications such as gestational diabetes and hypertension. Despite these benefits, the extent of knowledge, attitudes, and actual practices among pregnant women remains uncertain in many regions of Sri Lanka.

Objectives
This study aimed to assess the knowledge, attitudes, and practices (KAP) regarding antenatal exercises among pregnant mothers attending General Hospital, Kandy.

Methodology
A descriptive cross-sectional study was conducted among 200 pregnant mothers who were beyond 20 weeks of gestation and attending antenatal clinics at General Hospital, Kandy. Data were collected using an interviewer-administered structured questionnaire. Analysis was done using SPSS version 26.0 with descriptive statistics. Ethical approval was obtained from the KIU Ethics Review Committee.

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Conclusion
Pregnant women at General Hospital, Kandy, showed good awareness and positive attitudes toward antenatal exercises, though some held safety misconceptions. Strengthening education through healthcare providers and integrating culturally appropriate guidance into routine care can enhance safe practices and maternal outcomes.

OP 04 : EXPLORING FOOD FREQUENCY PATTERNS AND MICRONUTRIENT INTAKE AMONG ANTENATAL MOTHERS IN A SELECTED HOSPITAL, SRI LANKA

Nilmini, APGN[1], Dilrukshi, AOMGC[1], Rathnayaka, RMND[1], Sanjeewani, HMT[1], Abeysekara, DM-BCN[1], Perera ACH[1],Upeksha SHD[1]
[1]Faculty of Nursing, KIU, Sri Lanka

Introduction
Maternal nutrition plays a critical role in fetal development and pregnancy outcomes. In Sri Lanka, a significant number of pregnant mothers lack dietary diversity, resulting in inadequate micronutrient intake. This study explores food frequency patterns and micronutrient intake among antenatal mothers in a selected hospital in Sri Lanka.

Objectives
To assess food frequency patterns and micronutrient intake, and to identify the relationship between these variables among antenatal mothers.

Methodology
A descriptive cross-sectional study was conducted among 167 antenatal mothers in their first and second trimesters attending clinics and wards at District General Hospital, Ampara. Data were collected through a pre-tested, interviewer-administered questionnaire. The questionnaire assessed sociodemographic data, food frequency patterns, and micronutrient intake. Data analysis was performed using SPSS version 27, applying descriptive and inferential statistics. Ethical approval was obtained from the KIU Ethics Review Committee.

Results
Out of the 167 antenatal mothers studied, the majority were aged 21–30 years (46.9%) and Sinhala (45.7%). Regarding food frequency patterns, 87 (52.1%) reported consuming meat or chicken 2–3 times per week, and 94 (56.3%) consumed dairy daily. However, only 32 (19.2%) met the recommended intake of fruits and vegetables (≥2–3 servings/day). Whole grain consumption at least once daily was reported by 89 (53.3%) mothers. In terms of micronutrient intake, only 79 (47.3%) took folic acid supplements in early pregnancy, while 72 (43.1%) had undergone hemoglobin testing. Among those tested, 31 (43.1%) were found to be anemic (Hb < 11 g/dL). A significant association was found between daily consumption of meat/fish and adequate iron intake ($\chi^2 = 6.78$, $p = 0.009$), and between folic acid supplementation and education level ($\chi^2 = 10.21$, $p = 0.037$). Fruit and vegetable intake was positively associated with higher socioeconomic status ($\chi^2 = 8.94$, $p = 0.030$).

Conclusion
A significant proportion of antenatal mothers demonstrated inadequate dietary diversity and micronutrient intake, with statistically significant associations observed between nutritional practices and sociodemographic factors such as education and income.

OP 05: KNOWLEDGE, ATTITUDE, PRACTICES, AND ASSOCIATED FACTORS REGARDING THE NEW BORN CARE AMONG POSTNATAL MOTHERS IN POSTNATAL WARDS IN COLOMBO SOUTH TEACHING HOSPITAL (CSTH) SRI LANKA

Lihinikaduwa DN[1], Perera TMR[2]

[1]Department of Nursing and Midwifery, Faculty of Allied Health Sciences, University of Sri Jayewardenepura,

[2]Department of Paediatrics, Faculty of Medical Sciences, University of Sri Jayewardenepura

Introduction

Essential Newborn Care (ENC) comprises evidence-based interventions crucial for newborn survival, particularly during the early neonatal period. These include thermal protection, hygienic cord care, early initiation of breastfeeding, immunization, and danger sign identification. Despite Sri Lanka's overall progress in maternal and child health, early neonatal mortality remains a challenge.

Objectives

This study aimed to assess the knowledge, attitudes, and practices (KAP) regarding ENC among postnatal mothers at Colombo South Teaching Hospital (CSTH) and identify associated socio-demographic and obstetric factors.

Methodology

A descriptive cross-sectional study was conducted among 272 postnatal mothers at CSTH. Data were collected using a structured, interviewer-administered questionnaire developed through literature review. It covered socio-demographics and KAP on ENC. Data were analyzed using SPSS version 26, applying descriptive statistics and chi-square tests to explore associations.

Results

Most mothers (49.6%) were aged 20–29 years; 84.2% attended at least one antenatal clinic. While attitudes toward ENC were generally positive, significant gaps were seen in knowledge and practices. Although 89% recognized the need for warm clothing, only 22% practiced kangaroo care. Only 54.8% initiated breastfeeding within the first hour, and 57% reported proper cord care. Higher maternal education, frequent antenatal sessions, and multiparity were associated with better ENC practices.

Conclusion

Although attitudes were favorable, knowledge and practices on ENC were inadequate in key areas such as thermal care and early breastfeeding.

OP 06: ANXIETY AND DEPRESSION AMONG POST-NATAL MOTHERS ATTENDING A SELECTED HOSPITAL IN KEGALLE DISTRICT IN SRI LANKA

Kariyawasam, K.H.A.Y[1]., Aberathne, P.G.I.U[1]., Senarathna, P.K.N[1]., Rathnayaka, G.C.S[1]., Ranaweera, T.R.D.P[1]., Jayanatha, P.P.D[1]
[1]Faculty of Nursing, KIU, Sri Lanka

Introduction
Post-natal mental health disorders, particularly anxiety and depression, significantly impact the well-being of mothers, infants, and the broader community. Psychologically disturbed mothers may struggle with self-perception, functional capacity, and coping with daily responsibilities. These mental health challenges often remain undetected and untreated, posing risks not only to the mother but also to the child's development and family dynamics. Postpartum depression and anxiety are increasingly recognized as important public health concerns, warranting early identification and preventive strategies.

Objectives
This study aimed to assess the levels of anxiety and depression among post-natal mothers attending Karawanella Base Hospital in the Kegalle District of Sri Lanka.

Methodology
A descriptive cross-sectional study was conducted among 150 postnatal mothers at Karawanella Base Hospital using a random sampling method. Data was collected through validated interviewer-administered tools: the Edinburgh Postnatal Depression Scale (EPDS) to evaluate depression and the Postpartum Specific Anxiety Scale (PSAS) to assess anxiety. Data was analyzed using descriptive and inferential statistics (Chi-square, Pearson correlation)

Results
The mean age of the participants was 28.2 ± 4.2 years. Of them, 88 (58.7%) were nulliparous and 76 (50.7%) had undergone cesarean delivery. The mean score on the Edinburgh Postnatal Depression Scale (EPDS) was 10.8 ± 3.1, with 21 mothers (14%) exhibiting clinically significant depressive symptoms. The Postpartum Specific Anxiety Scale (PSAS) revealed a mean score of 85.6 ± 19.4, with 15.3% (n=23) scoring above the clinical threshold (≥112), indicating significant postpartum anxiety. Depression scores were significantly higher among mothers who had cesarean sections ($p = 0.011$), and younger mothers reported more depressive symptoms ($r = –0.215$, $p = 0.012$). A moderate positive correlation was observed between anxiety and depression scores ($r = 0.38$, $p < 0.01$), suggesting a notable comorbidity between the two conditions.

Conclusion
Postpartum depression and anxiety were identified as prevalent concerns among mothers in the Kegalle District, with 14% showing depressive symptoms and 15.3% experiencing significant anxiety. The findings underscore the need for routine mental health screening and targeted interventions, particularly for younger mothers and those undergoing cesarean deliveries.

OP 07: FACTORS RELATED TO ANEMIA AMONG PREGNANT WOMEN ATTENDING ANTE NATAL CLINIC IN DISTRICT GENERAL HOSPITAL, HAMBANTOTA

Marasinghe N.V[1], Gunathilaka A.M.K.M[1], Renuka N.G.N[1], Liyanage T.C.G[1], Wickramasinghe Y.M[1], Nimesha P[1] ,.Kanchana K.T.G[1], Thilakarathna H.M.C.R.K[1].
[1]Faculty of Nursing, KIU, Sri Lanka

Introduction
Anemia during pregnancy remains a major public health challenge in developing countries, particularly in Asia and Africa. The World Health Organization (WHO) defines anemia as Hb below 11.0 g/dL. In Sri Lanka, the prevalence of anemia among pregnant women is approximately 29%, representing a significant burden with consequences such as low birth weight, stillbirth, preterm delivery, miscarriages, and maternal mortality.

Objectives
This study aimed to describe the socio-economic, obstetric, and nutritional characteristics of anemic pregnant women attending antenatal clinics at District General Hospital (DGH), Hambantota

Methodology
A descriptive cross-sectional study was conducted among 150 pregnant women with hemoglobin levels <11 g/dl, attending antenatal clinics at DGH Hambantota. Participants were recruited using convenient sampling. Data was collected using a structured interviewer-administered questionnaire covering demographic, socio-economic, obstetric, and nutritional factors. Frequency and percentages were calculated to summarize participant characteristics.

Results
- Among 150 pregnant women majority were over 30 years of age (52%), while 21.3% were below 25 years. Most were unemployed (73.3%) and from low-income households, with 52% reporting a monthly income below Rs. 20,000. Most women were in their third trimester (65.3%) and 46% were third parity with 29.3% reporting a birth interval of less than two years. Anemia was present in 15.3% of first pregnancies, and 16% had a history of miscarriage. Nutritional patterns revealed inadequate intake of animal-source foods (61.3% consumed less than twice weekly) and high tea consumption (42.6% consumed more than four cups daily). Although iron, folic acid, and vitamin C supplement use was high (>85%), only 66% correctly separated iron and calcium intake. Overall, anemia was prevalent with low income, high parity, short birth intervals, low animal-source food intake, and frequent tea drinking, underscoring the need for targeted health education and dietary interventions during antenatal care

Conclusion
The study provided a profile of anemic pregnant mothers in Hambantota, highlighting the prevalence of modifiable nutritional practices as well as socioeconomic vulnerabilities. Although all subjects were anemic, differences in age, parity, and dietary habits reveal key areas for targeted care. Strengthening health education on nutrition, reducing negative dietary practices such as excessive tea consumption, and enhancing access to protein- and iron-rich foods could improve maternal outcomes. Future research is recommended to statistically test predictors and inferences.

Towards healthier mothers and newborns

PERINATAL SOCIETY OF SRI LANKA

24th ANNUAL SCIENTIFIC CONGRESS 2025

3rd October 2025

INAUGURATION

6.00 pm	GUESTS TAKE THEIR SEATS
6.30 pm	CEREMONIAL PROCESSION
6.35 pm	NATIONAL ANTHEM
6.40 pm	LIGHTING OF THE OIL LAMP
6.50 pm	WELCOME ADDRESS **Dr. Harendra Dassanayaka** President, Perinatal Society of Sri Lanka
7.05 pm	ADDRESS BY THE GUEST OF HONOUR **Dr. Saramma Thomas Mathai** International Consultant RMNCH Former Regional Team Coordinator and Maternal Health Advisor UNFPA Asia Pacific Regional Office
7.25 pm	ADDRESS BY THE CHIEF GUEST **Dr. Asela Gunawardena** Director General of Health Services Ministry of Health and Mass Media
7.40 pm	ORATION OF THE PERINATAL SOCIETY OF SRI LANKA ***"Understanding Low Birth Weight and Beyond : Insights from the Sri Lanka Low Birth Weight Study"*** **Professor Sachith Mettananda** Professor of Paediatrics, University of Kelaniya
8.35 pm	VOTE OF THANKS **Dr. Nimali Wijegoonewardene -** Honorary Secretary, Perinatal Society of Sri Lanka
8.40 pm	CULTURAL EVENT
9.00 pm	PROCESSION LEAVES THE HALL
9.10 pm	FELLOWSHIP

Oration of the Perinatal Society of Sri Lanka

Understanding Low birth Weight and Beyond: Insights from Sri Lanka Low Birth Weight Study

Low birth weight (LBW), defined as weight at birth less than 2500g, continues to pose challenges to health-care systems worldwide. Despite improvements in antenatal care, many countries, including Sri Lanka, have failed to reduce the prevalence of LBW. This is partly due to the lack of understanding of the composition and risk factors of LBW.

We conducted the Sri Lanka Low Birth Weight Study, an island-wide multi-centre study over two months in 2023 to describe the prevalence, composition, determinants and risk factors of LBW in Sri Lanka. All live newborns from thirteen hospitals representing all nine provinces and different tiers of specialist hospitals in Sri Lanka, covering 20% of live births in the country, were studied.

Of the total 9130 neonates, 20.4% had LBW. The prevalence of prematurity was 10.9%, while that of small for gestational age (SGA) was 20.0%. Overall, 30.7% newborns were small vulnerable neonates with LBW, prematurity, or SGA. Of the LBW neonates, approximately two-thirds were SGA, and one-third were premature. The mean birth weight of neonates steadily increased even after reaching 'term' from 37 to 41 weeks. Maternal short stature, low BMI, and inadequate weight gain during pregnancy were significant modifiable risk factors for both prematurity and SGA.

The secondary analysis of data from the Sri Lanka Low Birth Weight Study showed that the assisted pregnancy rate of the cohort was 1%. Assisted pregnancies were significantly associated with adverse neonatal outcomes of prematurity, LBW, admission to neonatal intensive care units and death within the first day of life. Thus, assisted pregnancies should be identified as a risk group to provide more intense antenatal follow-up and arrange delivery at specialised centres with adequate neonatal facilities.

Further secondary analysis revealed that over one-fifth of 'term' neonates of the Sri Lanka Low Birth Weight Study were delivered at 37 weeks, of which 61% were delivered by caesarean section. Delivery at 37 weeks was associated with poorer neonatal outcome, with higher incidences of LBW, perinatal asphyxia, resuscitation at birth, and admission to NICU compared to neonates born at or after 38 weeks. Therefore, planning elective delivery at or after 38 weeks, rather than at 37 weeks, would have a significant positive impact on neonatal outcomes.

Professor Sachith Mettananda
MBBS, MDPaed, DPhil(Oxon), FRCPCH, FRCP, FRCPE, FNASSL
Professor of Paediatrics - University of Kelaniya
Consultant Paediatrician - Colombo North Teaching Hospital

Professor Indrajee Amarasinghe Oration

A Sri Lankan solution for safer births: Implementing Culturally-Appropriate Labour Companionship

Compelling evidence confirms that continuous labor support yields significant improvements in both maternal and perinatal outcomes. A comprehensive meta-analysis of 35 randomized controlled trials (Jayasundara et al., PLOS ONE 2024) demonstrated that labor companionship reduces the risk of low 5-minute Apgar scores (RR 1.52, 95% CI 1.05–2.20), decreases cesarean delivery rates (RR 1.43, 95% CI 1.20–1.71), and shortens labor duration (SMD 0.30, 95% CI 0.18–0.41). Importantly, familiar companions from the mother's social network proved particularly effective in reducing tocophobia (RR 1.73 vs 1.34 for unfamiliar companions), highlighting the value of emotional connection and cultural alignment.

In Sri Lanka, a randomized controlled trial (Senanayake et al., SLJOG 2013) revealed that women accompanied by female labor companions experienced significantly higher maternal satisfaction (mean LAS-10 scores: 56.10 in educated companion group vs 45.93 in control group, $p<0.05$) and improved establishment of breastfeeding within the first 12 hours (mean feeds: 6.03 vs 5.0, $p<0.05$). The study also noted a favorable trend toward a reduced need for labor augmentation (43.3% vs 70% in controls), though this did not reach statistical significance.

Despite these demonstrated benefits and national policy support since 2011, implementation remains suboptimal. A survey of obstetricians (Senanayake et al., BMC Pregnancy Childbirth 2017) found that 58.8% did not permit labor companions, primarily citing infrastructure limitations (80%) and high workload volumes (55%). Concerning knowledge gaps, they were identified, with less than 50% of practitioners aware of evidence supporting reduced analgesia requirements, lower instrumental delivery rates, and improved psychological outcomes associated with labor companionship.

We propose a culturally informed, scalable model for Sri Lanka that integrates female relatives as labor companions, supplemented by structured antenatal education that focuses on both practical and emotional support techniques. This approach requires minimal infrastructure modification while leveraging existing social structures and cultural practices. Implementation should include multidisciplinary training programs that emphasize the maternal and perinatal benefits of labor support, community awareness initiatives to empower women and families, and policy reinforcement through monitoring and evaluation frameworks. This evidence-based strategy represents a cost-effective intervention to enhance maternal experience, improve neonatal outcomes, and advance Sri Lanka's progress toward respectful, equitable maternity care.

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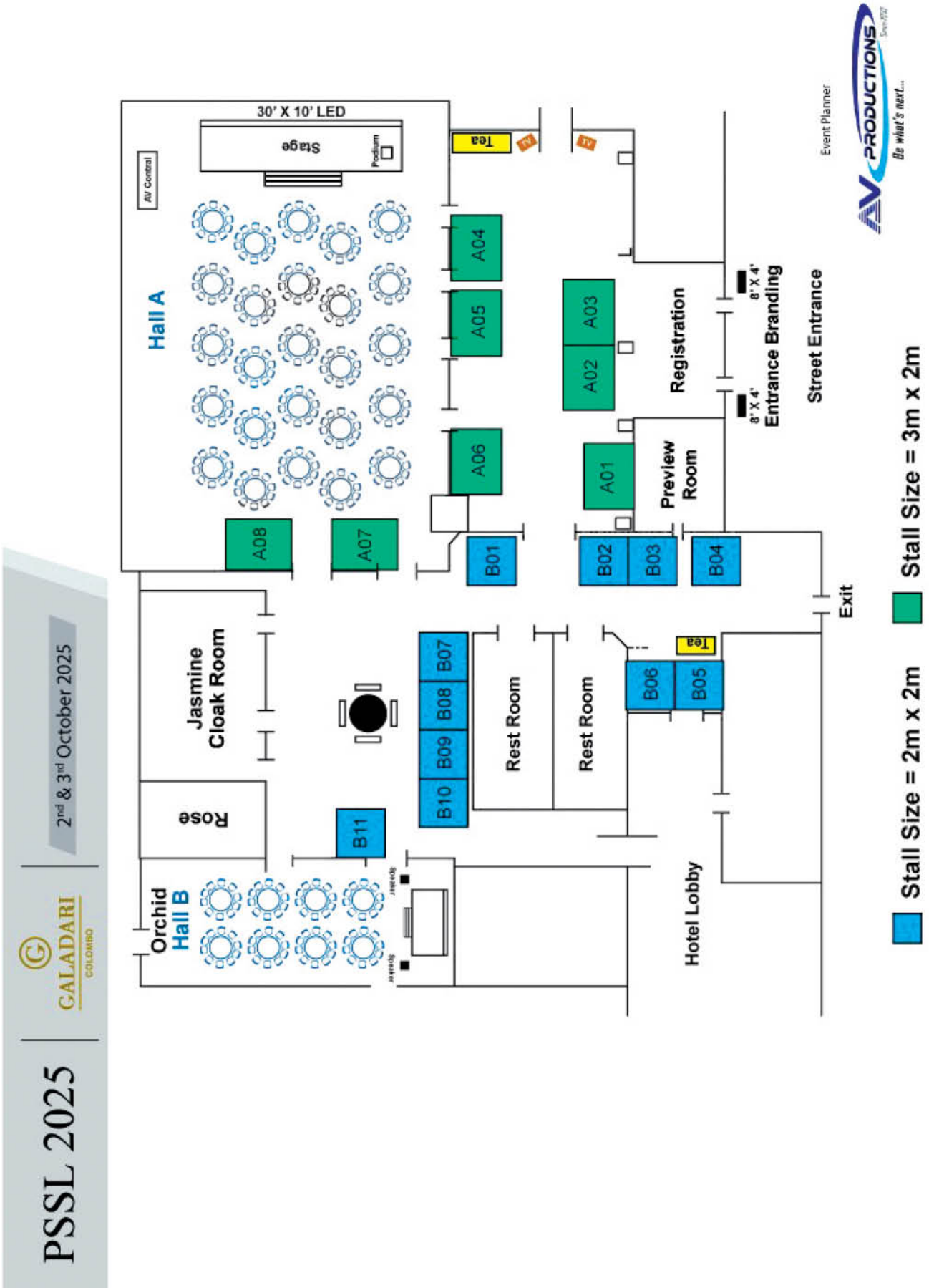
FLOOR PLAN


PSSL 2025
GALADARI
COLOMBO
2nd & 3rd October 2025
Event Planner
AV PRODUCTIONS
Be what's next...
30' X 10' LED
Stage
Podium
AV Control
Hall A
Tea
A04
A05
A06
A08
A07
B01
A03
A02
A01
B02
B03
B04
Registration
Preview Room
8' X 4'
Entrance Branding
Street Entrance
Exit
Jasmine Cloak Room
B07
B08
B09
B10
Rest Room
Rest Room
B06
B05
Tea
Rose
B11
Orchid Hall B
Hotel Lobby
Stall Size = 3m x 2m
Stall Size = 2m x 2m

Perinatal Society of Sri Lanka

FOUNDED 2001

Towards healthier mothers and newborns

24th ANNUAL SCIENTIFIC CONGRESS 2025

PERINATAL SOCIETY OF SRI LANKA

"Beyond Numbers: Advancing Quality to Transform Perinatal Outcomes"

03rd October at Galadari Hotel, Colombo

PROGRAMME OF ANNUAL SCIENTIFIC CONGRESS

3rd October 2025 at Hotel Galadari, Colombo

7.00 am -8.00 am	**Registration and Poster Presentation**	
8.00 am - 8.30 am	**Keynote speech** Chairperson: Dr. Surantha Perera Antenatal antibiotics: goods, bads and ugly **Professor Ranjan Kumar** Past President – FAOPS	
8.30 am - 9.15 am	**Professor indrajee Amarasinghe Oration** "A Sri Lankan solution for safer births: Implementing Culturally -Appropriate Labour Companionship" **Professor Chandana Jayasundara** Professor in Obstetrics and Gynaecology	
9.15 am - 9.40 am	**Refreshment Break and Poster Presentation**	
	Hall A	**Hall B**
9.40 am - 10.40 am	**Symposium 1** **Learning from Near misses: Strengthening systems for safer maternal and newborn care** Chairpersons: Dr. Chithramalee De Silva Dr. Sanath Akmeemana o **Near misses in maternal care** Professor Hemantha Senanayake Emeritus Professor of Obstetrics & Gynaecology o **Near misses in newborn care** Dr. Nalin Gamaathige Consultant Neonatologist o **Maternal and perinatal death surveillance and response system** Dr. Harendra Dassanayaka Consultant Community Physician	**Symposium 2** **Nourishing beginnings: Optimizing nutrition of mother and baby** Chairpersons: Professor Sachith Mettananda Dr. Abner Daniel o **Reaching Every Mother-Baby Pair: Key Findings from Sri Lanka's National BFHI Assessment 2024** Professor Dulani Gunasekara Emeritus Professor of Paediatrics o **Optimizing maternal nutrition for better neonatal outcomes how evidence is incorporated in the antenatal care package** Dr. Sanjeewa Godakanda Consultant Community Physician o **Intergenerational focus of maternal malnutrition** Dr. Manojl Gamage Consultant Nutrition Physician
10.40 am - 11.40 am	**Symposium 3** **Clinical Challenges and Advances in Neonatal Care** Chairpersons: Dr. Medha Weerasekera Dr. Sandya Doluweera o **Neonatal Sepsis and Antibiotic Stewardship** Professor Ruwanthi Perera Professor in Paediatrics o **Respiratory Distress in preterm Newborns – (Advances in surfactant therapy, CPAP, and mechanical ventilation strategies.)** Dr. Nimesha Gamhewage Consultant Neonatologist and Senior Lecturer in Paediatrics o **Neuroprotection in the Newborn: Translating Science into Clinical Practice** Professor Jithangi Wanigasinghe Professor in Paediatric Neurology	**Symposium 4** **Enhancing Perinatal Outcomes Through Emergency Preparedness** Chairpersons: Professor Sanath Lanerolle Dr Indunil Piyadigama o **Instrumental delivery** Professor Chandana Jayasundara Professor in Obstetrics and Gynaecology o **Interpretation of CTG** Professor Mohammed Rishad Professor in Obstetrics and Gynaecology o **Strengthening Emergency Preparedness to Prevent Excess Perinatal Deaths (Ensuring resilience in maternal and newborn care during crises through proactive planning and system readiness)** Dr. Udari Mambulage Consultant Community Physician

11.40 am – 12.10 pm	**Plenary 1** Chairperson: Dr. Kapilani Withanarachchi o **Optimizing preterm care** Dr. Dilani Dehigama Consultant Neonatologist	**Plenary 2** Chairperson: Professor Rasika Herath o **Foetal anomalies and Artificial Intelligence** Professor Tiran Dias Professor of Obstetrics and Gynaecology
12.10 pm – 1.30 pm	**Oral presentations** –Panel 1 Chairperson: Dr. Himali Herath	**Oral presentations** –Panel 2 Chairperson: Professor Ruwanthi Perera
1.30 pm – 2.30 pm	**Lunch**	
2.30 pm – 3.30 pm	**Symposium 5** **Comprehensive Approaches to Diabetes in Pregnancy: Clinical Challenges, Neonatal Outcomes, and Follow-up Care** Chairpersons: Dr. Kaushalya Kasturiaratchi Dr. Nalin Gamaathige o **Optimizing Glycaemic control during pregnancy** Dr. Shamitha Dassanayake - Consultant Physician o **Gestation diabetes mellites: A pragmatic approach to overcome challenges** Dr. Sudath Senaratne - Consultant Obstetrician and Gynaecologist o **Approach to the newborn of a diabetic mother** Dr. Kapilani Withanaarachchi - Consultant Paediatrician o **Extended care beyond the hospital** Dr. Nethmini Thenuwara - Consultant Community Physician	
3.30 pm – 4.00 pm	**Panel discussion 1** **Guidelines vs. Ground Reality: Striking the Balance Between Standardization and Flexibility.** Moderator: Dr. Susie Perera **Panelists:** Dr. Surantha Perera - Consultant Paediatrician Dr. Harendra Dassanayaka - Consultant Community Physician Professor Ranjan Kumar - Past President FAOPS Professor Rasika Herath - Professor in Obstetrics and Gynaecology Dr. Chandima Siritunga - Director – Maternal and Child Health	
4.00 pm – 4.20 pm	**Refreshment break**	
4.20 pm – 5.00 pm	**Awarding of certificates and concluding remarks**	
	End	

FACULTY - ANNUAL SCIENTIFIC CONGRESS

Prof Ranjan Kumar
Past President- FAOPS

Prof. Chandana Jayasundara
Professor in Obstetrics & Gynaecology

Prof. Hemantha Senanayake
Emeritus Professor of Obstetrics & Gynaecology

Dr. Nalin Gamaathige
Consultant Neonatologist

Dr. Harendra Dassanayaka
President, Perinatal Society of Sri Lanka
Consultant Community Physician

Prof. Dulani Gunasekara
Emeritus Professor of Paediatrics

Dr. Sanjeeva Godakanda
Consultant Community Physician

Dr. Manoji Gamage
Consultant Nutrition Physician

Prof. Ruwanthi Perera
Professor in Paediatrics

Dr. Nimesha Gamhewage
Consultant Neonatologist

Prof. Jithangi Wanigasinghe
Professor in Paediatric Neurology

Prof. Mohommad Rishard
Professor in Obstetrics & Gynaecology

Dr. Udari Mambulage
Consultant Community Physician

Dr. Dilani Dehigama
Consultant Neonatologist

Prof. Tiran Dias
Professor of Obstetrics & Gynaecology

Dr. Shamitha Dassanayake
Consultant Physician

Dr. Sudath Senaratne
Consultant Obstetrician & Gynaecologist

Dr. Kapilani Withanaarachchi
Consultant Paediatrician

Dr. Nethmini Thenuwara
Consultant Community Physician

Dr. Susie Perera
Senior Consultant - World Health Organization

Dr. Surantha Perera
Consultant Paediatrician

Prof. Rasika Herath
Professor in Obstetrics & Gynaecology

Dr. Chandima Siritunga
Director - Maternal and Child Health

Keynote Speech

The Good, the bad , and the ugly of Antenatal antibiotis.

Professor Ranjan Kumar Pejaver.
FRCP,FRCPCH(UK), FIAP,FNNF
Bangalore,INDIA

Antibiotics are one of the most important medical innovations. They save lives when used appropriately. But, inappropriate usage leads to potentially untreatable resistant infections and long-term health problems in children and adults.A recent assessment predicted that without restrictions, global antibiotic use will increase three-fold by 2030. Unless we all work together to reduce antibiotic overuse, we could be assigning our children to a future of chronic ill health. Current estimates suggest that >60% of pregnant women are given some type of antibiotic during antenatal period and Intrapartum stage. We have under appreciated the long-term adverse effects of early antibiotic exposure in the antenatal period.

Both clinical and subclinical chorio amnionitis are much more common in preterm than term delivery. It seemed therefore logical that antibiotics might have a positive role in the treatment of preterm labour. However, antibiotic treatment in the context of preterm labor with intact membranes has been shown ineffective in preventing either preterm birth or neonatal morbidity-mortality . GBS, intrapartum rapid PCR should be the gold standard when deciding to systematically screen GBS in pregnant women. does not preclude the fact that around 20%–30% of fetuses will receive antibiotics prior to delivery. If our objectives are to prevent GBS early neonatal sepsis as well as in utero antibiotic administration, then the solution will be to develop a GBS preventive vaccine. Co-amoxiclav is the commonly used antibiotic for prevention of GBS. Co-amoxiclav increases the risk of NEC in preterm babies.(ORACLE I)Antibiotic use in the first and third trimester of pregnancy, wheezing in children aged ≤18 months. Development of resistance in the offspring to antibiotics used in the antenatal and intrapartum period has been frequently observed

Antenatal Antibiotic (AAB)Exposure Affects Enteral Feeding, Body Growth, and Neonatal Infection in Preterm Infants. AAB exposure affects the enteral feeding process and results in neonatal infection. The effects on body growth vary by the exposure level of AAB and GA of infants. (<34 weeks)Antibiotics during pregnancy can alter the mother's microbiome and therefore the microbial profile her baby acquires. This may increase the risk of infection in childhood.The association between antibiotics in early childhood and obesity is clearer.Antibiotic use in early childhood, and particularly the first 12 months of life, is linked to gastrointestinal diseases such as Crohn's and coeliac disease. Other childhood inflammatory diseases, including juvenile idiopathic arthritis have shown a similar association.

The Good: Genuine indications ie severe respiratory, GU infections during pregnancy should receive AB and the mother's health protected. The Bad:Rampant use of antenatal and intrapartum antibiotics, empirical use of antibiotics. Cesaerean sections without definite indications. Giving prophylactic antibiotics to cover the procedure. Scant consideration of materno, fetal and neonatal microbiomata dysbiosis. The ugly : AAB causing EOS, NEC, neonatal resistance to antibiotics.AAB Exposure affecting Enteral Feeding, Body Growth & Neonatal Infection in Preterm Infants.

Prenatal exposure to antibiotics causing wheezing in infancy. Obesity, G I Diseases and juvenile arthritis. seen in infants born to mothers who received antibiotics. We the doctors involved in the management of mothers and the infants should use caution when we decide to start antibiotics. Avoid antibiotics but do not evade.

Symposium 01

Learning from Near misses: Strengthening systems for safer maternal and newborn care

Maternal near-misses and maternal deaths

Prof Hemantha Senanayake
MS FRCS Ed FRCOG
Emeritus Professor of Obstetrics and Gynaecology

Maternal near misses (MNM), defined as women who survive life-threatening complications during pregnancy, childbirth, or within 42 days of termination of pregnancy. They are an indicator of maternal health care quality and a tool for quality improvement, specially in settings where maternal deaths are infrequent. Unlike with maternal mortality, global NMM data are not available freely. These data have the potential to help reduce preventale maternal mortality.

Review of MNM have unique advantages, since providers see them as "good saves", rather than “bad deaths”, making them less intimidating for review. There are up to 13 MNMs for every MM, and these entities have commonalities. Systematic recording of near misses strengthens data collection and policy formulation, enabling targeted training, resource allocation, and development of national guidelines.

To further reduce maternal mortality, Sri Lanka could integrate near miss reviews into routine hospital practice, enhance multidisciplinary audit meetings, and strengthen community-hospital linkages for early detection of high-risk pregnancies. By shifting the focus from mortality alone to survival after severe complications, the health system can ensure continuous quality improvement, ultimately safeguarding maternal lives and advancing toward the Sustainable Development Goals.

Sri Lanka has a system for reporting and central collation of MNMs, but this is not being utilized to its full potential. The reports are incomplete, making their interpretation difficult. There is a need to strengthen the filing of MNM. Even then, useful information can be extracted. In a review of 54 women with obstetric hemorrhage, 32 of whom underwent an unplanned hysterectomy, only five had had a balloon tamponade done as part of the management. This indicates a need to reinforce skills required for a balloon tamolnade, which is a simple, low cost, highly effective intervention.

In the Sri Lankan setting, near-miss reviews can complement existing maternal death audits.

Symposium 02

Nourishing beginnings: Optimizing nutrition of mother and baby

Reaching Every Mother–Baby Pair: Key Findings from Sri Lanka’s National ‘Baby Friendly Hospital Initiative’ BFHI Assessment

Prof. Dulani Gunasekara
Emeritus Professor of Paediatrics

Since the launch in Sri Lanka in 1992, this is the first nationwide review done to assess the compliance of hospitals to the BFHI. The review was done by assessing if the hospitals conformed to the ***‘Ten Steps to Successful Breast Feeding’.*** Eighty three hospitals offering specialist maternity and newborn services, were recruited. Data was collected electronically through a custom made Smart App.

Overall adherence of hospitals to the ***'Ten Steps'*** was satisfactory, but there were violations; Some hospitals still accepted gifts and samples from milk food companies and allowed their representative to communicate with hospital staff. Only 25% hospitals had a monitoring system to monitor their adherence to the above. Many hospitals documented local purchase of infant formula, but the indications were not known. Except in Teaching Hospitals(TH), less ***than 35%*** of relevant clinical staff had received ***any training*** on breast feeding(BF) support, with only 12% having attended the recommended ***'40 hour BF counseling course***'. Even in TH, only a total of 47% staff were trained.

In mothers, overall knowledge of BF was very good. However, although nearly 100% attended antenatal clinics, health education(HE) regarding BF was not received by 21%; of these, 18% of mothers said they did not know the availability of such HE.

Most mothers(87%) received Skin to Skin(SS) contact with their baby within one hour of birth, but only for 5-10 minutes(59% mothers); in the 13% who did not receive timely SS, majority did not know why it was delayed. Most mothers were satisfied by the BF support they received from postnatal staff. Nearly all babies were exclusively BF, but 59%of mothers were advised by postnatal staff to BF their baby every three hours, with 20 minutes on each breast. Only in 78% of hospitals, mothers with babies in NICU/SCBU knew how to hand express breast milk correctly. Mothers in most hospitals 'roomed in' with their babies continuously, but less than 2/3 of hospitals gave an opportunity for mothers to give Kangaroo Mother Care to their babies in the neonatal unit. In 93% hospitals, mothers knew the adverse effects of using pacifiers and bottle feeds; these were not used in 96% of hospitals; surprisingly, 3 hospitals still used pacifiers, bottles and teats. Majority of mothers were well informed about post discharge BF support, most being referred to the PHM, but information regarding Lactation Management Centers was only disseminated by 69% of hospitals.

Optimising maternal nutrition for better neonatal outcomes: how evidence is incorporated in the antenatal care services in Sri Lanka

Dr. Sanjeewa Godakanda
Consultant Community Physician

Background

Maternal nutrition is a critical determinant of pregnancy and neonatal outcomes. Adequate nutritional intake and supplementation during pregnancy reduce the risk of low birth weight, preterm birth, intrauterine growth restriction, and perinatal morbidity. In Sri Lanka, maternal malnutrition and micronutrient deficiencies have historically posed challenges which are risk factors for adverse birth outcomes. Despite progress in maternal health, the country continues to experience sluggish improvement of low birth weight and neonatal mortality rates in the backdrop of maternal malnutrition. In order to address this issue, Sri Lanka has progressively strengthened its antenatal care (ANC) services to integrate evidence-based nutritional interventions.

Evidence-based programmatic practices :

Evidence has strongly shaped maternal nutrition strategies in Sri Lanka's ANC services. Screening of nutritional status through measurement of BMI at booking visit and weight gain monitoring across trimesters reflect recognition of undernutrition as a predictor of LBW. Large-scale survey data and global evidence informed the adoption of supplementation policies. Universal iron–folic acid supplementation was introduced based on global evidence of its effectiveness in reducing anaemia and neural tube defects. The recent introduction of multiple micronutrient supplement expands beyond this traditional focus to a range of positive outcomes including reduced low birth weight. The recent changes in the calcium supplementation was added in line with global trials showing reductions in preeclampsia and maternal morbidity, and its integration into ANC reflects evidence-based adaptation.

Dietary counselling is a central element of the ANC services, with evidence from qualitative studies show-

ing that cultural practices, food taboos, and economic barriers shape maternal diets. Public health midwives, trained in nutrition counselling, provide individualised guidance, showcasing evidence that community-level engagement improves adherence. Programme reviews also identified gaps in compliance with supplementation, leading to innovations such as blister packaging of iron–folic acid tablets and strengthening behaviour change communication. Importantly, local evidence indicating that maternal anaemia is not primarily due to iron deficiency has shifted the policy dialogue. Recent studies show iron deficiency prevalence as low as 2–3% among pregnant women, highlighting the role of other factors such as infections, haemoglobinopathies, and other micronutrient deficiencies. This recognition has spurred discussions on refining supplementation protocols and investing in etiological studies to guide future interventions.

Conclusions

Sri Lanka's ANC services demonstrate how evidence is systematically incorporated to optimize maternal nutrition for better neonatal outcomes. National surveys, operational research, and global trial data have all influenced supplementation policies, weight monitoring, and counselling strategies. While the country has achieved near-universal ANC coverage, persistent challenges include suboptimal adherence to supplements, limited dietary diversity, and a double burden of malnutrition, with rising rates of overweight and gestational diabetes. Moving forward, evidence-based refinements should include differentiated approaches for undernourished versus overweight mothers, integration of nutrition-sensitive social protection measures, and expanded research into non–iron deficiency anaemia. Strengthening monitoring systems and ensuring policy responsiveness will be crucial to sustaining gains.

Intergenerational Focus of Maternal Malnutrition

Dr. Manoji Gamage
Consultant Nutrition Physician

Maternal malnutrition remains a pervasive public health challenge with profound implications that transcend individual health, impacting future generations. This presentation underscores the critical importance of an intergenerational perspective in addressing maternal malnutrition, emphasizing its role not only in maternal and neonatal health outcomes but also in shaping long-term societal well-being. Malnutrition during pregnancy-whether under nutrition or micronutrient deficiencies-can induce adverse fetal programming, predisposing offspring to a spectrum of health issues such as stunting, metabolic disorders, and cognitive impairments. These early-life vulnerabilities often perpetuate a cycle of malnutrition and poor health across generations, highlighting the necessity for a holistic, life-course approach.

The intergenerational transmission of malnutrition is influenced by various biological, socio-economic, and environmental factors. Epigenetic modifications resulting from maternal nutritional status can alter gene expression in offspring, thereby affecting their growth, development, and disease susceptibility. Conversely, the nutritional status of adolescent girls and women of reproductive age significantly determines pregnancy outcomes and the health trajectory of future generations. Addressing maternal malnutrition requires integrated strategies that encompass preconception care, optimal antenatal nutrition, and postpartum support, alongside broader socio-economic interventions aimed at alleviating poverty and food insecurity.

Healthcare professionals, especially clinicians involved in maternal and child health, play a pivotal role in early identification and management of malnutrition. Emphasizing the importance of routine screening, nutritional counselling, and community-based interventions can mitigate intergenerational transmission pathways. Furthermore, fostering multidisciplinary collaborations and strengthening health systems are essential for sustainable progress.

Adopting an intergenerational lens in tackling maternal malnutrition is vital for breaking the cycle of malnutrition and promoting healthier future generations.

Symposium 03

Clinical Challenges and Advances in Neonatal Care

Neonatal sepsis and antibiotic stewardship

Prof. Ruwanthi Perera
MBBS, DCH, MD(Paed), FRCPCH, FSLCPaed
Professor in Paediatrics
University of Sri Jayewardenepura

Neonates, especially those in intensive care units are infected with microbes or at risk of developing bacterial and fungal sepsis due to immature immune systems or numerous interventions. To overcome this as well as the indefiniteness of the clinical picture of a well and a septic neonate, antibiotics are commenced at a lower threshold. This practice will lead to development of antibiotic resistance as well as alteration of the microbiome of the newborn leading to a cascade of adverse outcomes in short as well as long terms. Evidence is mounting that antibiotic treatment of mothers in pregnancy may have immediate and long-term consequences for neonates.

Adverse effects of antibiotic use is numerous and still evolving. Development of microbial resistance is an emerging global crisis. Antimicrobial resistance is postulated to be responsible for about 30% of deaths due to neonatal sepsis in middle and low-income countries. Alteration of the gut microbiome paves the pathway to increasing risk of allergies, obesity, malignancies as well as non-communicable diseases. There will be an adverse effect on the development of the immune system. Adverse effects of antibiotics result in hepato, renal, nephro and oto toxicities in neonates.

Antibiotic stewardship programs are crucial to ensure appropriate antibiotic use in newborns. Antibiotic stewardship is a coordinated program that promotes the appropriate use of antimicrobials, improves patient outcomes, reduces microbial resistance and decreases the spread of infections caused by multidrug resistant organism. Stewardship involves a multidisciplinary team implementing strategies like decision making algorithms, therapeutic drug monitoring and timely discontinuation of antibiotics to balance the need for effective treatment with the avoidance of unnecessary exposure. Balancing treatment and stewardship is crucial. Sepsis in neonates requires rapid, appropriate antibiotic therapy to improve outcomes and reduce mortality and establishing a diagnosis carefully using diagnostic tools and evidence based clinical decision making is mandatory.

Respiratory distress in preterm newborns

Dr. Nimesha Gamhewage
MBBS, MD, DCH, MRCPCH
Consultant Neonatologist, Colombo South Teaching Hospital
Senior Lecturer in Paedaitrics,
University of Sri Jayewardenepura

Respiratory distress in preterm newborns is predominantly due to surfactant deficiency and structural lung immaturity, predisposing to atelectasis, hypoxemia, and escalating oxygen requirements. Current guidelines recommend stabilization on continuous positive airway pressure (CPAP) from birth with careful oxygen titration, reserving intubation only for rescue therapy. Surfactant administration should be considered in some infants. Multiple methods of surfactant delivery exist, while less-invasive surfactant delivery (LISA/MIST) during spontaneous breathing on CPAP has demonstrated reductions in MV need, pneumothorax, chronic lung disease, and mortality.

Non-invasive respiratory support has gained popularity due to its lung protective effects. Early CPAP lowers intubation rates, while nasal intermittent positive-pressure ventilation (NIPPV) improves extubation success compared with CPAP alone.

When mechanical ventilation is unavoidable, lung-protective modes are recommended. Volume guarantee (VG) ventilation, compared with pressure-limited ventilation, significantly reduces hypocarbia, pneumothorax, severe intraventricular hemorrhage (IVH), and the combined outcome of death or BPD. Beyond pulmonary outcomes, these strategies support brain protection.

In conclusion, a comprehensive approach integrating early NIV, gestation-specific thresholds for surfactant, VG ventilation when intubation is required, and less-invasive surfactant delivery reduces both chronic lung disease and adverse neurodevelopmental outcomes in preterm infants.

Neuroprotection in the Newborn: Translating Science into Clinical Practice

Dr. Jithangi Wanigasinghe
MBBS, MD, DCH, MPhil, FRCPCH
Professor in Paediatric Neurology
Department of Paediatrics
University of Colombo

Newborns are uniquely susceptible to neurological injury, and developing strategies for neuroprotection is a critical priority in neonatal medicine. The immature brain is highly plastic yet exquisitely vulnerable to metabolic stress, hypoxia–ischaemia, and disordered electrical activity. Among these insults, seizures represent the most common neurological emergency in the neonatal period. While overt seizures may be clinically apparent, a substantial proportion in preterm infants are subclinical, detectable only through continuous electroencephalographic monitoring. These silent events often go unrecognized, yet accumulating evidence indicates that recurrent electrographic seizures contribute independently to long-term neurodevelopmental impairment. Early and accurate detection, coupled with timely initiation of anti-seizure therapy, is therefore essential to limit excitotoxic injury and optimize outcomes.

Similarly, neonatal hypoglycaemia is one of the most frequent metabolic disturbances in early life. Even transient or unrecognized episodes of low blood glucose can disrupt cerebral energy metabolism, with early consequences such as cerebral visual impairment and later risks including refractory occipital lobe epilepsy. Effective prevention requires vigilant screening, early nutritional support, and prompt intervention.

The World Health Organization's Intersectoral Global Action Plan on Epilepsy and Other Neurological Disorders (IGAP) emphasizes the need for coordinated, multidisciplinary strategies to reduce the burden of neurological disease. Collaborative efforts between neonatologists, neurologists, and allied health professionals are essential to translate scientific discoveries into clinical practice, ensuring that advances in seizure management and metabolic protection are realised as meaningful reductions in neonatal neurodisability in Sri Lanka.

Symposium 04

Enhancing Perinatal Outcomes Through Emergency Preparedness

Instrumental delivery

Professor DMCS Jayasundara
Professor in Obstetrics and Gynaecology
University of Colombo
Consultant Obstetrics and Gynaecology
De Soysa Hospital for Women, Colombo

Background:
Instrumental vaginal delivery remains a vital obstetric intervention, accounting for 10–15% of births worldwide. When performed appropriately, it can expedite delivery and prevent serious maternal and neonatal complications. However, in emergency situations, the window for safe and effective intervention is narrow. Poor preparedness, inadequate training, and system delays can quickly transform a potentially safe instrumental delivery into a life-threatening event for both mother and child. In the context of global efforts to improve perinatal outcomes, strengthening emergency preparedness in instrumental delivery is crucial.

Objective:
This presentation aims to highlight the importance of structured emergency preparedness in instrumental vaginal delivery, outline core components of readiness, and propose strategies to enhance safety through training, teamwork, and systems-based approaches.

Content:
Preparedness begins with decision-making—selecting the right patient, assessing pelvic adequacy, and confirming fetal position before attempting forceps or vacuum application. Equally critical is team readiness. Obstetricians, anaesthetists, midwives, and paediatricians must function as a coordinated unit, with clear role allocation and rapid communication. Paediatricians' involvement is particularly vital, as neonates delivered instrumentally have a higher likelihood of requiring immediate resuscitation.

The presentation will review common emergency scenarios, including failed vacuum extraction necessitating urgent caesarean, shoulder dystocia following instrumental delivery, postpartum haemorrhage, and neonatal compromise. Using evidence and illustrative case examples, the presentation will emphasize the importance of simulation training and regular drills, which have been shown to improve response times and reduce adverse outcomes.

At the systems level, preparedness relies on standardized protocols, functional equipment checklists, and dedicated emergency trolleys. Audits and feedback loops ensure continual quality improvement. Communication strategies such as SBAR handovers enhance clarity during crises. Importantly, engaging families through informed discussions fosters trust and shared decision-making even in emergencies.

Interpretation of CTG

Prof. Mohammad Rishad
Professor in Obstetrics and Gynaecology

Cardiotocography (CTG) remains one of the most widely used tools for intrapartum fetal monitoring, yet its interpretation continues to present significant challenges. Incorrect interpretation of CTG traces may

lead to two major consequences: unnecessary caesarean sections when benign patterns are misclassified as pathological, and adverse neonatal outcomes when hypoxia is not recognized in time. A balanced and systematic approach to CTG interpretation, incorporating baseline heart rate, variability, accelerations, and the nature of decelerations, is essential. Clinicians must evaluate the overall pattern rather than overreacting to isolated findings. Training in structured interpretation not only reduces the risk of intrapartum fetal compromise and subsequent neonatal morbidity but also minimizes avoidable surgical intervention. Therefore, accurate CTG interpretation plays a critical role in improving perinatal outcomes while supporting rational obstetric decision making.

Strengthening Emergency Preparedness to Prevent Excess Perinatal Deaths (Ensuring resilience in maternal and newborn care during crises through proactive planning and system readiness)

Dr. Udari Mambulage
Consultant Community Physician

Sri Lanka has made significant progress in reducing maternal and perinatal mortality over the past decades through a strong public health infrastructure and widespread availability of maternal and newborn health (MNH) services. However, recent emergencies, including the COVID-19 pandemic, economic instability, and climate-induced disasters, have exposed system vulnerabilities and the areas that need strengthening to prevent preventable perinatal deaths.

To safeguard these gains, it is imperative to embed robust emergency preparedness mechanisms within the current service delivery framework. This includes the integration of the minimal service package into national and subnational disaster preparedness and response plans, development of facility and district-level emergency response protocols, and capacity building of healthcare workers in emergency readiness. Ensuring the uninterrupted availability of life-saving maternal and newborn interventions, such as skilled birth attendance, neonatal resuscitation, and emergency obstetric care during crises, is critical.

Additionally, strengthening supply chain resilience, maintaining functional referral systems, and enhancing real-time data use for decision-making are essential components. Community-based approaches and engagement of Public Health Midwives (PHMs) and field-level teams can further ensure service continuity, particularly in vulnerable and hard-to-reach populations.

By institutionalising emergency preparedness within Sri Lanka's maternal and child health programme, the health system can remain responsive and adaptive, minimizing excess perinatal mortality and ensuring equitable access to quality care during emergencies.

Symposium 05

Comprehensive Approaches to Diabetes in Pregnancy: Clinical Challenges, Neonatal Outcomes, and Follow-up Care

Optimizing Glycaemic control during pregnancy

Dr. Shamitha Dassanayake
Consultant Physician

The prevalence of Diabetes among pregnant mothers are in rising trend with parallel to the world pandemic. The maternal mortality of Sri Lanka has changed over riding the direct causes by Indirect causes.

Already diagnosed patients with Diabetes needs to optimize their glycemic control pre pregnancy while actively screening for both Macrovascular and microvascular complications. Every female with fertility wishes needs to screen for diabetes prepregnancy in a view of detecting Pre Diabetic mothers as well as high risk pregnancies.

Gestational diabetes also in rise and needs to continue the screening tests among pregnant mothers. Elderly primi, Multiple pregnancies, mothers who have undergone Artificial reproductive techniques should be under continues surveillance.

Achieving glycemic control during pregnancy play a major role for better outcomes of both baby and the mother even though its challenging.

Every pregnant mother should have a whole patient care concept with multi disciplinary team approach. Pharmocological Management is limited to Insulin and Metformin. Medical Nutritional therapy needs to highlight in achieving glycemic control while addressing Psycho-social issues. Early referral for psychiatric assessment have a major benefit. Having a good comfortable sleep and regular exercises needs to be stressed.

Health Education starting from pre pregnancy counselling should be implemented in each level of care. Pregnant mothers should have a clear understanding of expected complications and outcomes for both bay and the mother. Self Glucose monitoring should be encouraged. Every mother with Diabetes need to have a comprehensive knowledge about Hypoglycemia – symptoms and how to manage in a hypoglycemic event outside the hospital.

Emerging evidence suggest treating Vitamin D during pregnancy have major beneficial effects including Diabetes in Pregnancy but currently evidence are limited.

Optimizing Glycemic control in pregnancy is a team effort and every step needs to take to achieve the target of delivering a healthy baby for the nation.

Approach to the newborn of a diabetic mother

Dr. Kapilani Withanaarachchi
Consultant Paediatrician
NICU
National Hospital Galle

Gestational diabetes mellitus (GDM) is a condition characterized by glucose intolerance with onset or first recognition during pregnancy. It poses significant short- and long-term health risks for both the mother and the fetus. Neonates born to mothers with GDM are particularly vulnerable to a range of complications due to intrauterine exposure to hyperglycemia. These include macrosomia, neonatal hypoglycemia, respiratory distress syndrome, hyperbilirubinemia, and increased risk of birth trauma. Moreover, emerging evidence suggests long-term consequences such as increased susceptibility to obesity, insulin resistance, and type 2 diabetes in childhood and adulthood. The pathophysiology primarily involves fetal hyperinsulinemia triggered by maternal hyperglycemia, which promotes excessive fetal growth and metabolic imbalances. Early diagnosis, glycemic control during pregnancy, and postnatal monitoring are crucial in reducing neonatal morbidity and mortality associated with GDM. This abstract underscores the importance of interdisciplinary prenatal care and long-term follow-up to mitigate the neonatal impact of gestational diabetes.

Extended Care Beyond the Hospital for Diabetes in Pregnancy

Dr. Nethmini Thenuwara
Consultant Community Physician

Care beyond the hospital for diabetes in pregnancy is crucial for optimum maternal and neonatal outcomes and focuses on home-based self-management, community support, and long-term risk reduction. Sustained care is ensured for consistent lifestyle management which comprises of a healthy diet, exercise and self-monitoring of blood glucose to keep levels in target range as well as compliance to medication, emotional support and regular fetal monitoring via comprehensive ongoing support by a multidisciplinary healthcare team with interventions delivered before and during pregnancy, postpartum period and in long term. Early initiation and breastfeeding of newborn and inculcating healthy lifestyle will ensure the well-being of both mother and baby. Field health staff play a major role in care beyond the hospital.

Plenary 01

Optimizing preterm care

Dr. Dilani Dehigama
Consultant Neonatologist

Prematurity is a major cause of neonatal morbidity and mortality. An estimated 15 million babies are born as preterm every year (5- 18%). Care of the baby, mother and family around the time of an extremely preterm birth is one of the most challenging aspects of perinatal medicine.

Threshold for fetal viability has progressively lowered over time and survival rate of extremely preterm infants was increased with the development of obstetric and neonatal care.
Extreme preterm birth should be managed in a maternity facility co-located with a designated neonatal intensive care unit. If life sustaining treatment for the baby is anticipated, pregnancy and delivery should be managed with the aim of optimising the babies condition at birth and subsequently.

Maternal administration of antenatal corticosteroids before anticipated preterm birth is one of the most important interventions to minimize the neonatal complications like surfactant deficient lung disease, intracranial haemorrhage, necrotizing enterocolitis and death. Intrapartum antibiotic prophylaxis and Magnesium sulphate when indicated are the other antenatal measures proven to be beneficial to the preterm neonate. At the time of delivery, optimal cord management should be practised whenever possible to improve the neonatal outcomes.

''Golden Hour'' of neonate is defined as the first hour of postnatal life in both preterm and term babies and all evidence-based interventions should be practised during this critical time. The neonatal team should focus on thermoregulation, respiratory management and Oxygen titration during this initial stabilization period. Caffeine treatment, non-invasive modes of ventilation, volume targeted ventilation are the other important aspects in respiratory management of an extreme preterm neonates. Maternal breast milk should be initiated as early as possible as it has many beneficial effects to the extreme preterm neonate

Neonatal care unit should offer developmental supportive care for preterm babies and should focus on minimizing pain and stress. Kangaroo mother care, which is a standard care for preterm and low birth weight babies should be initiated early as possible and aimed for maximum possible duration per day.

Parents expecting the birth of an extreme preterm infant should have an opportunity to meet both obstetric and neonatal care providers to receive accurate information. Following preterm birth, families should be well supported and parents should be educated on feeding, warning signs and safe home care. Babies need to be assessed regularly at clinics for neurodevelopment assessment, growth monitoring and timely interventions.

Plenary 02

Foetal anomalies and Artificial intelligence

Prof. Tiran Dias
Professor of Obstetrics and Gynaecology

Early and accurate detection of fetal anomalies is central to improving perinatal outcomes and guiding parental decision-making. Conventional ultrasound remains the cornerstone of prenatal diagnosis, yet it is limited by operator dependency, image quality, and the subtlety of certain structural abnormalities. Artificial intelligence (AI), particularly through machine learning and deep learning algorithms, is emerging as a powerful adjunct in fetal medicine. AI has shown promise in automating image acquisition, standardizing biometric measurements, and identifying complex anomalies such as congenital heart disease, neural tube defects, and skeletal dysplasias with enhanced accuracy. Beyond diagnosis, AI tools can support clinical decision-making, reduce interobserver variability, and facilitate training for less experienced practitioners. While challenges remain such as data privacy, algorithm validation, and the need for human oversight. AI offers the potential to transform prenatal screening and anomaly detection. This presentation explores current evidence, applications, limitations, and the future integration of AI into fetal anomaly detection.

OP 01 : KNOWLEDGE, PERCEPTION AND BARRIERS REGARDING KANGAROO MOTHER CARE AMONG NURSES IN LEVEL III NEONATAL UNITS IN SRI LANKA.

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Introduction
Kangaroo mother care (KMC) is early, continuous and prolonged skin- to-skin contact between mother and the baby, ideally with exclusive breast feeding. It is an evidence-based approach to provide care in premature and low birth weight newborns. Commencing KMC immediately after birth has shown in enhancing the survival in preterm and low birth weight babies.

Hence the concept of mother neonatal care unit (MNCU) is evolving and there is a plan to start a trial in Sri Lanka. The success of KMC is dependent on the knowledge, attitudes and perception among health care workers in neonatal care.

Objectives
To describe the knowledge, perception and barriers regarding kangaroo mother care among nurses in level III neonatal units in Sri Lanka and to assess the associated factors for the level of knowledge.

Methodology
This descriptive cross-sectional study includes 390 nurses who works in level III neonatal units in Sri Lanka. Eleven hospitals were selected by simple random sampling. Data collected by a validated self-administered questionnaire. A voluntary participation was ensured. Descriptive data illustrated as numbers and percentages. Associated factors were analysed with multivariate logistic regression.

Results
The response rate was 99.7%. Among the 390 nurses, only 28.7% had good while 6.7% had poor knowledge regarding KMC. Majority of nurses (54.4%) have identified the fear among parents as a barrier to start KMC. The inadequacy of the time spent by the parents inside the intensive care unit is also identified as a barrier (46.4%). Majority (75.9%) stated that they need further training on KMC. There is a significant association between the hospital (p=0.004), place of work (p=0.03) and the work experience in neonatal care (P=0.04) and the level of knowledge.

Conclusion
Arranging more training programs targeting all nurses involved in newborn care is recommended which will result in enhancement of knowledge regarding KMC. The establishment of MNCU will be helpful to improve the time spent by the parents with their baby to provide KMC.

OP 02 : DEVELOPMENT OF EARLY POSTPARTUM DEPRESSIVE SYMPTOMS AND ITS ASSOCIATION TO NEGATIVE CHILDBIRTH EXPERIENCE AMONG MOTHERS ADMITTED TO A TERTIARY CARE CENTRE IN GALLE.

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Introduction

Postpartum depression (PPD) is a common, yet underdiagnosed, condition that creates a negative environment for the mother and the child. Early-onset PPD is defined as depression with an onset within four weeks after giving birth. The reported prevalence of early PPD symptoms in Sri Lanka ranges from 7.8% to 15.5%

Objectives

The study aimed to identify factors which influence early PPD symptoms and ascertain their association with childbirth experience.

Methodology

A descriptive cross-sectional study was conducted at the postnatal wards of Teaching Hospital Mahamodara from December 2023 to March 2024. A sample of 420 postpartum mothers who had delivered a live baby in the last 72 hours was recruited for the study with systematic random sampling. Mothers with a history of depression/psychological disorder or currently suffering from a psychiatric illness were excluded from the study. A self-administered questionnaire designed by the investigators based on literature and expert opinion was employed to assess factors affecting PPD. Early PPD symptoms and a childbirth experience were assessed with the validated Sinhala versions of the Edinburgh Postnatal Depression Scale and the Childbirth Experience Questionnaire. Data was analyzed with the Statistical Package for Social Sciences version 27.

Results

Early postpartum depressive symptoms were present among 11.7% postpartum mothers and a negative childbirth experience was present among 6.9% mothers. Admission to the Premature Baby Unit ($p<0.001$), presence of breastfeeding problems ($p<0.001$), presence of delivery complications ($p<0.012$), unpleasant memories during the delivery ($p=0.010$) and living without husband following discharge ($p=0.004$) were found to be significantly associated with development of early PPD symptoms. A significant weak positive correlation was observed between negative childbirth experience and early PPD symptoms ($r = 0.245$, $p <0.001$)

Conclusion

One in ten mothers in the early postpartum period is positive for early PPD symptoms. The factors affecting early PPD symptoms were related to complications during the perinatal period, unpleasant childbirth experience, and spousal support. It is recommended to provide a broader education on PPD during the antenatal sessions, to prepare mothers' mental status for the challenges in the delivery and to screen postpartum mothers before discharge following the delivery.

OP 03 : COMPOSITION AND DETERMINANTS OF BIRTH WEIGHT IN TERM NEWBORNS

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Introduction
Birth weight is determined by many factors, and low birth weight (LBW) is an important determinant of short- and long-term outcomes of a newborn.

Objectives
To describe the distribution of birth weight of term newborns and to describe the prevalence, composition and determinants of LBW among term newborns at Colombo North Teaching Hospital (CNTH), Ragama, Sri Lanka.

Methodology
A descriptive cross-sectional study was conducted at the University Obstetric and Paediatric Units of CNTH, Sri Lanka. Consecutive term newborns delivered at the unit in June-July 2025 were recruited after obtaining informed consent from mothers 24-48 hours after birth. Stillborn, conjoined twins, premature neonates and newborns with uncertain gestational ages were excluded. Data on socio-demographics, medical details, antenatal ultrasonography (done after 32 weeks), and birth weight were gathered. Multivariable logistic regression was used to test for independent associations. Ethical approval was obtained from the Sri Lanka College of Paediatricians.

Results
A total of 266 term neonates (Males-52.3%) were recruited; 236 (89%) with completed data were included in this analysis. None had congenital abnormalities or features of intrauterine infections. The mean birth weight was 2904+SEM27g (range: 1845-4050g). 37 (15.7%) newborns had LBW (birth weight <2500g), 36 (15.3%) were small for gestational age (SGA, birth weight <10th percentile for gestation) and 40 (16.9%) had fetal growth restriction (FGR, diagnosed by antenatal ultrasonography). Of the LBW neonates, 27/37 (73.0%) were SGA and 18/37 (48.6%) had FGR, whereas 7/37 (18.9%) were neither SGA nor had FGR. Of the 27 neonates who had LBW with SGA, only 15/27 (55.6%) had FGR. Pregnancy-induced hypertension was independently associated with LBW (OR:5.58, 95%CI:1.15-27.0, $p<0.05$) and SGA (OR:4.59, 95%CI:1.06-19.1, $p<0.05$.)

Conclusion
Approximately 20% of term LBW neonates were neither SGA nor had evidence of FGR, suggesting normal intrauterine growth. Additionally, nearly 50% of neonates who were both LBW and SGA did not show signs of FGR, indicating that they were likely constitutionally small rather than growth restricted. Therefore, a large proportion of term LBW neonates does not require extensive evaluation to identify a pathological cause.

OP 04 : ASSESSING ADHERENCE TO NEONATAL BASIC AIRWAY MANAGEMENT AND MASK VENTILATION GUIDELINES IN A LEVEL 3 NEONATAL UNIT IN COLOMBO, SRI LANKA

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Introduction
While most neonates transition smoothly to extra-uterine life, approximately 10% require basic stabilization and 5% need positive pressure ventilation (PPV). Timely initiation of PPV is critical for compromised neonates. However, evidence shows persistent errors, such as airway obstruction and mask leaks, even among experienced providers, emphasizing the need for ongoing skill assessment and reinforcement.

Objectives
To assess adherence to neonatal basic airway and mask ventilation guidelines via simulation, evaluate baseline performance, provide structured feedback, implement targeted education, and measure improvement after six weeks.

Methodology
This prospective clinical audit involved 53 healthcare workers from Labour rooms, Operating theatres, neonatal intensive care unit and special care baby unit at DeSoysa Maternity Hospital. Participants performed simulated neonatal resuscitation scenarios, evaluated by three trained assessors using a standardized checklist covering essential airway and ventilation skills. Following baseline assessment, participants received immediate feedback with demonstration and hands-on correction. A follow-up assessment was conducted six weeks later using the same methodology.

Results
Baseline: Competency was suboptimal across all domains. Neutral head positioning was correctly performed by 50.9%, double-handed jaw thrust by 11.3%, and oral airway insertion by 22.6% (with only 5.7% selecting correct size). Mask size selection was adequate in 75.5%, but correct C&E grip in only 28.3%. For Neopuff use, appropriate oxygen flow was set by 67.9%, setting Peak Inspiratory Pressure (PIP) by 41.5%, and Positive End Expiratory Pressure (PEEP) by 37.7%. Only 11.3% delivered correct inflation breaths and 5.7% performed effective ventilation breaths. No participant demonstrated full competency.

Post-intervention: Of the 45 re-assessed, marked improvements were seen: neutral head position (90%), jaw thrust (54.5%), oral airway insertion (100%), and size selection (72.7%). Mask size selection improved to 100%, C&E grip to 63.6%, and correct oxygen flow settings to 100%. Setting PIP and PEEP reached 81.8%. Correct inflation and ventilation breaths improved to 72.7% and 45.4%, respectively. Full domain competency rose from 0% to 27.2%.

Conclusion
Baseline skills in neonatal airway and ventilation management were inadequate. Targeted simulation-based education with feedback significantly enhanced performance. Regular, structured training and reassessment are essential to maintain competency and improve neonatal outcomes. Future research should examine long-term skill retention and optimal training frequency.

OP 05 : "FROM BLIND RISK TO BRIGHT VISION": A QUALITY IMPROVEMENT INITIATIVE ON OXYGEN TARGETING TO REDUCE TREATMENT-REQUIRING RETINOPATHY OF PREMATURITY (ROP)

Keywords: Retinopathy of Prematurity, Oxygen Saturation Targeting, Preterm Infants, Quality Improvement

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Introduction

Retinopathy of Prematurity (ROP) is a leading cause of avoidable blindness in premature infants, with excessive or unregulated oxygen exposure being a key contributing factor. Evidence suggests that maintaining oxygen saturation (SpO_2) between 90–95% can reduce the risk of severe ROP without compromising overall outcomes. This Quality Improvement (QI) project was implemented as part of a 10-part neonatal care bundle at the NICU, Teaching Hospital Badulla, Sri Lanka.

Objective

To reduce the incidence of treatment-requiring ROP among preterm infants less than 32 weeks gestation and/or under 1500 grams by implementing structured oxygen saturation targeting protocols.

Methods

This mixed-method QI project included retrospective data collection from January 2022 to August 2023 and prospective data collection from January to December 2024. The Plan-Do-Study-Act (PDSA) intervention phase was conducted between September and December 2023. All preterm infants <32 weeks and/or <1500 g admitted to the NICU were included, excluding those with major congenital anomalies, deaths within the first 72 hours, or incomplete ROP follow-up. The QI interventions involved titration of oxygen from birth to maintain SpO_2 between 90–95%, setting alarm limits accordingly, using saturation target charts and stickers, staff training sessions, and weekly monitoring with histogram (generated by the bed side monitors) audits.

ROP screening was performed by a consultant ophthalmologist using indirect ophthalmoscopy beginning at 4 weeks of postnatal age. Treatment-requiring ROP was defined as Stage III or higher, or presence of plus disease. Treatment modalities included laser photocoagulation or intravitreal anti-VEGF injections based on disease severity and zone of involvement.

Results

In 2022, among 128 eligible infants, 18 (14.1%) developed ROP requiring treatment. During 2023 (January to December), 134 infants were assessed and 16 (11.9%) required treatment. Following implementation of the QI intervention, in 2024, only 2 out of 146 infants (1.4%) required treatment. The mean gestational age for infants in the 2024 cohort was 29 weeks, with an average birth weight of 1.1 kg.

Conclusion

Structured oxygen saturation targeting led to a substantial decline in treatment-requiring ROP among high-risk preterm infants. This QI approach is feasible and effective in improving neonatal outcomes in resource-limited NICU settings.

OP 06 : "FROM UNCERTAINTY TO EMPOWERMENT": A QUALITY IMPROVEMENT INITIATIVE TO STRENGTHEN FAMILY - CENTERED NEONATAL CARE AT TH - BADULLA NICU USING THE EMPATHIC-N FRAMEWORK

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Introduction

Admission of newborns to the NICU can be an emotionally distressing experience for families, particularly for mothers of preterm or low birth weight infants. Structured parental education, daily communication, and promotion of Kangaroo Mother Care (KMC) have been shown to reduce parental anxiety, foster bonding, and improve care outcomes. However, these strategies were inconsistently practiced. This Quality Improvement (QI) project, conducted at Teaching Hospital Badulla, aimed to enhance parental satisfaction and involvement through a structured education and communication model guided by the EMPATHIC-N framework, as part of a broader 10-part QI bundle to improve care for preterm neonates

Objectives

To improve parental satisfaction and confidence in neonatal care through daily structured education, consistent updates, and promotion of early KMC, measured using a simplified EMPATHIC-N tool.

Methodology

A pre-post intervention study was conducted at TH Badulla NICU over six months. In September–October 2023, a baseline assessment was conducted among 85 postnatal mothers with babies admitted to NICU. A structured parental education program was implemented in November–December 2023, including daily teaching sessions on hygiene, danger signs, and newborn care. KMC was promoted as a core component of parental involvement. Staff received communication training and daily parent update charts were introduced. Post-intervention assessment was conducted in January–February 2024 among 80 mothers using a translated 10-item short-form EMPATHIC-N questionnaire.

Results

KMC initiation in stable infants within 48 hours increased from 47% at baseline to 86% post-intervention. Daily updates were documented in 93% of infant records. Mean parental satisfaction scores improved from 3.1 to 4.6 on a 5-point Likert scale, with 95% of mothers reporting feeling more informed, confident, and emotionally connected to their infant's care.

Conclusion

This structured, culturally tailored QI initiative successfully enhanced parental engagement and satisfaction in NICU care. The EMPATHIC-N framework provided a practical, parent-centred measure to guide and assess improvement. This low-cost, replicable model has the potential to be scaled across other regional NICUs to promote safe, family-centered care.

OP 07: PREPARE TO PROTECT: A QUALITY IMPROVEMENT PROJECT TO ENHANCE ANTENATAL CORTICOSTEROIDS AND MAGNESIUM SULFATE USE IN PRETERM DELIVERIES

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Introduction

Antenatal corticosteroids and magnesium sulphate ($MgSO_4$) are proven to improve outcomes in preterm neonates. Corticosteroids reduce respiratory and neurological complications, while $MgSO_4$ offers neuroprotection and lowers the risk of cerebral palsy when administered prior to early preterm delivery. Despite strong international guidelines, inconsistent administration persists in real-world settings due to logistical and systemic challenges. This project was conducted at Teaching Hospital Badulla as part of a broader 10-part quality improvement (QI) bundle to enhance care for preterm neonates.

Objectives

The objective was to improve the rate of appropriate antenatal corticosteroid and $MgSO_4$ administration in mothers delivering before 34 weeks of gestation. Specifically, the project aimed to increase corticosteroid use from 59.3% to over 80%, and $MgSO_4$ administration (bolus ± infusion) from 41.6% to over 70%, using a structured intervention strategy.

Methodology

A retrospective audit from January to June 2023 revealed that 57 out of 96 eligible mothers (59.3%) received a full course of antenatal corticosteroids, and 40 (41.6%) received a $MgSO_4$ bolus, while only 32 (33.3%) received both bolus and infusion. A QI intervention was implemented from September to December 2023 using PDSA cycles. Key actions included multidisciplinary staff education, protocol development, a bundled checklist for preterm labour management, and SBAR-based communication. Appropriateness was defined as a full course of corticosteroids with the last dose administered within 24 hours before delivery, and $MgSO_4$ administration (bolus ± infusion) within 24 hours of delivery. Prospective data were collected from January to December 2024. Exclusion criteria included stillbirths, major congenital anomalies, and out born transfers. A total of 180 preterm deliveries were analysed post-intervention.

Results

Post-intervention, corticosteroid use increased to 88.9% (160/180). $MgSO_4$ administration rose to 84.4% for bolus (152/180) and 77.7% for bolus plus infusion (140/180). Reasons for non-administration included late maternal presentation and rapid labour progression.

Conclusion

The "Prepare to Protect" QI initiative significantly improved timely administration of antenatal corticosteroids and $MgSO_4$. Bundled protocols, staff training, and simplified workflows contributed to sustainable adherence in the care of preterm deliveries within a peripheral tertiary care setting.

OP 08 "WAIT A MINUTE": A FEASIBILITY-BASED QI INITIATIVE TO IMPROVE DELAYED CORD CLAMPING IN PRETERM INFANTS

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Introduction

Delayed cord clamping (DCC) in preterm infants is a simple, evidence-based intervention associated with significant improvements in neonatal outcomes. Systematic reviews and meta-analyses show that DCC can reduce hospital mortality and transfusion needs.

Objectives

To increase the rate of delayed cord clamping (≥60 seconds) in preterm infants less than 34 weeks gestation at NICU - TH Badulla from a baseline average of 25% (measured between January and June 2023) to at least 75% by the end of the intervention period (September 2023 to December 2024).

Methodology

Among 284 eligible preterm infants, 34 were excluded due to clinical contraindications. The final analysis included 250 infants, with a median gestational age of 30 weeks and a median birth weight of 1240 g (range: 480–1750 g). By the end of the intervention period in 2024 (January to December), the overall annual rate of delayed cord clamping (≥60 seconds) increased to 80.2%, a substantial improvement from the baseline average of 25% recorded between January and June 2023.

In caesarean section deliveries, the DCC ≥60 seconds rate rose significantly from 13% (Jan–Jun 2023) to 70.1% (Jan–Dec 2024). In vaginal deliveries, it improved from 40% to 94.4% over the same period. Additionally, the proportion of infants receiving DCC for at least 30 seconds reached 85.5% in caesarean sections and 97.2% in vaginal deliveries during 2024. Sterility limitations during caesarean births restricted PEEP delivery; devices like LifeStart™, available in developed settings, may overcome this barrier.

Results

KMC initiation in stable infants within 48 hours increased from 47% at baseline to 86% post-intervention. Daily updates were documented in 93% of infant records. Mean parental satisfaction scores improved from 3.1 to 4.6 on a 5-point Likert scale, with 95% of mothers reporting feeling more informed, confident, and emotionally connected to their infant's care.

Conclusion

This feasibility-focused QI project significantly improved DCC rates in preterm infants. Even in low-resource settings, simple, structured strategies can make "waiting a minute" a life-saving act.

OP 09: PREVALENCE AND PERCEPTION OF PREGNANCY-RELATED LOW BACK AND PELVIC GIRDLE PAIN: IMPACT OF AN EDUCATIONAL INTERVENTION IN SRI LANKA

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Introduction

Pelvic girdle pain(PGP) and low back pain(LBP) affect pregnant women, impacting mobility, quality of life, and mental well-being. Despite their prevalence, awareness and evidence-based self-management remain limited.

Objectives

Evaluate knowledge, prevalence, and the impact of an educational intervention among pregnant mothers on PGP and LBP.

Methodology

A cross-sectional audit was conducted using an interviewer-administered questionnaire among pregnant women attending antenatal clinics at Gampaha hospital. The study involved a pre-audit knowledge and prevalence assessment, followed by a structured educational intervention comprising verbal instruction and a printed handout. One-on-one sessions covered the causes, symptoms, and management of pelvic girdle and low back pain in pregnancy. A post-education audit was conducted to assess changes in knowledge, beliefs, and confidence. Responses were analyzed.

Results

Mean age of the sample was 30 ± 5.7years (range 17-41 years) with the mean gravidity, parity and number of children being 2.52, 2.06 and 1.07. 54 pregnant mothers from 9weeks+4days to 39weeks+5days were assessed with the mean value for period of amenorrhea being 30weeks+3days which comes under the third trimester.

94.4% and 42.6% of participants complained of experiencing lower back pain and pelvic pain respectively during past 1 week with a mean pain score of 4.37, but it only mildly interfered with their daily activities.

Following an educational intervention, knowledge regarding pregnancy-related low back and pelvic pain markedly improved. Mean correct responses for general knowledge increased from 52.6% to 92.2%, while awareness of preventive measures rose from 68.4% to 97.7%. 75.9% of participants identified pelvic girdle pain as the area around the pubic bone, buttocks or lower hips which was 100% after the education session. Only 48.1% of participants identified pelvis being more relaxed and increased in biomechanical stress as the reason for the pelvic girdle pain being often more severe in the third trimester which increased upto 100%. All the participants stated that they're more confident after the session.

Conclusion

Despite high prevalence of PGP and LBP in pregnancy, knowledge gaps remain significant. This audit demonstrates that targeted education substantially improves understanding and confidence, underscoring the need to integrate routine pain education into antenatal care to empower mothers and promote functional well-being.

OP 10: ENHANCING NEONATAL CARE THROUGH MULTISTAKEHOLDER COLLABORATION: INSIGHTS FROM A STAKEHOLDER DRIVEN QUALITY IMPROVEMENT INITIATIVE IN SRI LANKA

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Introduction

Parents of neonates admitted to NICUs often experience high levels of stress, anxiety, and depression, which can hinder their involvement in care. The Empowering Parents of Newborns in the NICU (EPiN-ICU) study is a multinational initiative assessing parental mental health and participation in NICU care across Italy, Brazil, Tanzania, and Sri Lanka. While international data has highlighted the magnitude of this problem, evidence from Sri Lanka has been limited.

Objectives

To evaluate parental mental health and participation in NICU care in Sri Lanka and to identify context-specific interventions through multistakeholder collaboration.

Method

A mixed-method, four-phase study was conducted at De Soysa Maternity Hospital and Colombo South Teaching Hospital.

Phase 1: Baseline survey of 300 mothers using the Parental Stressor Scale: NICU, EPDS, STAI, and IPP-NICU.

Phase 2: International collaboration meetings to review local findings and propose interventions.

Phase 3: Stakeholder workshop with neonatologists, nurses, parents, administrators, and journalists using nominal group technique to generate and prioritize recommendations.

Phase 4: Family Centered Care (FCC) training workshop for NICU staff to enhance skills in parental engagement and communication.

Results

Phase 1 revealed that 94.3% of mothers experienced at least one psychological condition, while 59% reported concurrent stress, anxiety, and depression. Parental involvement was low (mean IPP-NICU score 13/30), with only 13% scoring >20.

Phase 2 grouped interventions under four themes: parental empowerment, caregiver training, policy development, and infrastructure improvements.

Phase 3 stakeholder discussions identified priorities across five domains: parental engagement and commu-

nication, psychosocial and emotional support, capacity building of health workers, infrastructure and environment, and policy/governance. Recommendations included daily parental updates, peer support groups, integration of mental health screening, improved waiting facilities, and establishment of breast milk banks.

Phase 4 demonstrated significant improvements ($p<0.05$) in staff perceptions of parental involvement, cultural sensitivity, communication, and staff roles following FCC training.

Conclusions

Maternal psychological distress in Sri Lankan NICUs is alarmingly high, with limited parental involvement in newborn care. Stakeholder-driven, context-specific interventions, combined with health worker training, are urgently needed to transform NICU culture and support both parents and infants.

OP 11 : PREVALANCE OF NEONATAL SAFEGUARDING ISSUES IN A TERTIARY CARE MATERNITY HOSPITAL IN COLOMBO

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Introduction
Safeguarding vulnerable neonates is a critical component of holistic care in neonatal medicine. Safeguarding responsibilities are currently carried out by neonatal medical staff, who arrange case conferences and attend legal proceedings in addition to their other clinical duties. The absence of a dedicated safeguarding team has led to a heavy strain on the neonatal medical team.

Objectives
To describe the prevalence of safeguarding issues in a tertiary care maternity hospital in Sri Lanka

Methodology
A retrospective review was conducted in the university neonatal unit at De Soysa Hospital for Women, Colombo from 01.01.25 – 13.08.25. Case conferences were organized for neonates suspected to have safeguarding issues. All neonates born to mothers with illicit substance abuse were monitored for neonatal abstinence syndrome (NAS). All case conferences conducted during the study period were included in this study. All case conference minutes are saved in the unit computer. Data was extracted from these minutes. Descriptive statistics were used via MS Excel.

Results
There were 19 neonates who had safeguarding issues during the study period amongst 1500 births. There were 4 teenage pregnancies, where the youngest mother was 16 years. All mothers except two were unmarried (89%). Multiple partners were seen in 10 mothers (53%). All mothers were from poor socioeconomic backgrounds. Illicit drug use was present in 42% (8) where urine toxicology was positive in 37% (3). (NAS) features were documented in (4/8) 50% of babies. Domestic violence was seen & nearly half (42%) of mothers had a history of imprisonment. While 79% were free of psychiatric illness, 10% had low IQ, 5% history of self-harm, and 5% experienced postpartum depression. Parenting capacity was considered poor in (11) 57% of cases. Antenatal care was poor or absent in 79%, and 58% reported poor family support. Half of these babies were handed over to probation care (53%), whereas the others were handed over to the family under supervision and handover with assistance (47%).

Conclusion
Safeguarding issues were seen in over 1in 100 babies during the past 7.5 months. Safeguarding of neonates is an emerging issue that needs to be addressed urgently.

OP 12 : MATERNAL STRESS, DEPRESSION, ANXIETY, AND PARTICIPATION IN CARE IN NEONATAL SEMI-INTENSIVE AND INTENSIVE CARE UNITS: RESULTS OF A CROSS-SECTIONAL STUDY IN TWO SRI LANKAN HOSPITALS

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Introduction
Mothers of neonates needing admission to neonatal units are at elevated risk for psychological morbidity when their infants require neonatal intensive care. There is a dearth of data regarding the Sri Lankan context.

Objectives
We assessed the prevalence and factors associated with maternal depression, anxiety and stress when their neonate's required admission to neonatal units.

Methodology
A cross-sectional study was conducted at two tertiary hospitals in Sri Lanka, from November 2023 to September 2024. Ethical clearance was obtained from Ethics review committee, Faculty of Medicine, Colombo. Mothers of neonates admitted to either NICU or Semi intensive care unit for ≥48 hours were recruited. Depression was assessed using the Edinburgh Postnatal Depression Scale (EPDS), anxiety via the State-Trait Anxiety Inventory (STAI), and stress using the Parental Stress Scale (PSS-NICU). Maternal engagement was measured with the Index of Parental Participation in NICU (IPP-NICU).

Results
Three hundred mothers participated, with a median age of 30 years. All were married, predominantly Sinhala (66.3%), and had secondary or higher education. Infants had a median birth weight of 2335 g (IQR 1430–2990), 25% were born before 32 weeks, and 78.3% required NICU admission.

94.3% of mothers experienced at least one condition, and 59% experienced depression, anxiety, and stress simultaneously. EPDS ≥9 was observed in 87% (median 15, IQR 11–18), with 17.6% scoring ≥20. State anxiety occurred in 77.7%, while 96.7% displayed trait anxiety, mostly mild. Maternal involvement scores were low (mean IPP-NICU 13.81, SD 4.95), with only 13% scoring ≥20 (maximum mark:30); engagement in "technical tasks" was minimal. Analyses revealed protective effects of active involvement: mothers with IPP-NICU ≥20 had lower stress (aOR 0.27, 95% CI 0.12–0.59, p=0.001) and lower state anxiety (aOR 0.32, 95% CI 0.14–0.72, p=0.005). Depression was less frequent among mothers whose infants were in semi-intensive care compared to NICU (aOR 0.29, 95% CI 0.12–0.68, p=0.004).

Conclusion
These results highlight the exceptionally high burden of psychological distress in mothers in NICU and underscore the value of promoting active maternal engagement in care. Targeted interventions supporting maternal participation may reduce their psychological burden.

PP 01 : CHARGE SYNDROME PRESENTING WITH FATAL OUTCOME IN EARLY NEONATAL PERIOD: A CASE REPORT

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Introduction

CHARGE syndrome is a rare genetic disorder characterized by Coloboma, Heart defects, Atresia of the choanae, Retardation of growth, Genital abnormalities, and Ear anomalies. We present a case of a newborn with CHARGE syndrome who succumbed to 72 hours of life due to multiple congenital anomalies.

Case Presentation

An infant was born at 36 weeks gestation to a 26-year-old multipara mother via normal vaginal delivery who has had antenatal ultrasound brain evidence of Holoprosencephaly. Birth weight was 2.065 kg (<3rd percentile). The infant presented with respiratory distress immediately after birth, requiring intubation. Physical examination revealed bilateral colobomas, low-set malformed ears, bilateral choanal atresia, apparent micrognathia, abnormal faces, limb anomalies, ambiguous genitalia and imperforated anus. Echocardiogram revealed large peri membranous VSD, moderate PDA, small ASD and severe pulmonary hypertension. Ultrasound brain showed absent corpus callosum and single ventricle that suggestive of Holoprosencephaly. Despite aggressive respiratory support and medical management, clinical condition deteriorated rapidly. Multiple apnoeic episodes occurred which was complicated by worsening of cardiac functions. The neonate died at 72 hours of life due to cardiorespiratory failure.

Conclusion

This case highlights the severe entity of the CHARGE syndrome spectrum, where multiple congenital anomalies led to early mortality. The combination of choanal atresia, complex cardiac defects and Holoprosencephaly significantly contributed to the poor prognosis. Early recognition and multidisciplinary management are crucial, though some cases may prove fatal despite intervention. This case adds to the literature on severe presentations of CHARGE syndrome in the neonatal period.

PP 02: CONGENITAL EPULIS/NEUMANN'S TUMOUR: A CASE REPORT OF A RARE NEONATAL TUMOUR

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Introduction

Congenital epulis (CE), also known as congenital granular cell tumour/Neumann's tumour/Congenital myoblastoma, is a rare benign soft tissue lesion that occurs almost exclusively in the alveolar ridges of newborns. The lesion typically presents as a pedunculated mass attached to the gingival mucosa, most commonly on the maxillary alveolar ridge. CE predominantly affects female neonates with a female-to-male ratio of 8:1. Although its aetiology remains unclear, the tumour is considered non-neoplastic and has an excellent prognosis with no reported recurrences after surgical excision.

Case Presentation

A term female neonate born by normal vaginal delivery and at birth while neonatal examination found to have a mass arising from hard palate. The mass measured approximately 1.3× 1.0 × 0.5 cm and was attached to the maxillary anterior alveolar ridge by a short pedicle. The lesion had a smooth surface, firm consistency, and pink coloration. It interfered with feeding but did not cause respiratory distress. Prenatal ultrasound scans were normal. The infant was otherwise healthy with no other congenital anomalies. The lump was excised with diathermy under local anaesthesia on the second week of life. The mass was removed completely with minimal bleeding. Histopathological examination revealed large granular cells with abundant eosinophilic cytoplasm and small, centrally located nuclei confirming the diagnosis of congenital epulis. Post surgically there were not any complications and feeding difficulty also settled.

Conclusion

This case highlights the typical presentation of congenital epulis and confirms the effectiveness of early surgical management. The lesion's characteristic histological appearance and female predilection were consistent with previous reports. Despite its alarming appearance, CE follows a benign clinical course with excellent outcomes after simple excision. Early diagnosis facilitates prompt intervention and prevents feeding difficulties in neonates.

PP 03: ADHERENCE TO NEONATAL INTEGRATIVE DEVELOPMENT CARE MODEL IN LEVEL 4 NEONATAL INTENSIVE CARE UNIT AT - GERMAN SRILANKA FRIENDSHIP HOSPITAL FOR WOMEN, GALLE

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Introduction
Neurodevelopmental care in the NICU is critical for the long-term outcomes of preterm and critically ill infants. Recent studies highlight the importance of early interventions, including appropriate sensory stimulation, positioning, promoting bonding, and family-centered care, to promote healthy brain development and minimize the risk of neurodevelopmental delays.

Objectives
To check the use of neurodevelopmental care practices in the NICU (e.g., positioning, sensory management, kangaroo care, etc.), Family-centered care and parental involvement, and also the role of NICU staff in providing and supporting neurodevelopmental care.

Methodology
This is a prospective study and the data was collected, through direct observation by paediatric registrars during the period of 2 months (from 01/02/2025 to 31/03/2025) which incudes, 5 days per week and 2 shifts per day (morning and evening). All neonates admitted to the NICU, including premature infants and term infants with significant medical or surgical conditions was included. Compliance rate was calculated by (number of times the standard indicators were met/total number of data) X 100.

Results
Protected sleep (93.3%), Positioning and Handling (91.7%), Family centered care (71.25%), Light reduction (33.3%), Sound reduction (37.5%), Protection from noxious odours (81.6%), Skin protection (90%), minimizing stress and pain (41.6%), Optimizing nutrition (80%), Temperature and touch (100%) compliance noted.

Conclusion
Major consideration was needed on light & noise reduction, family centered care and reducing stress & pain. Minor consideration needed on smell and nutrition.

Limitations such as, Low carder to NICU – both nursing and medical officers; limited human resource in some occasions; difficulty in adherence to some practices in emergency situations (e.g. cluster care / minimal handling) and different perceptions of clinical approach (e.g. stable baby for a consultant may not look as stable baby for a nursing officer) was noted.

Recommendations such as regular awareness sessions regarding NDC for all staff members, managing critically ill / preterm neonates separately from the term / non-critical neonates, and hanging posters regarding each aspects of neurodevelopment care in the unit was given.

PP 04: CONTRASTING NEONATAL OUTCOMES IN MCDA TWINS WITH TWIN-TWIN TRANSFUSION SYNDROME: A CASE REPORT

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Introduction
Twin to Twin transfusion syndrome (TTTS) is a severe complication of Monochorionic diamniotic (MCDA) pregnancies, caused by vascular anastomosis within a shared placenta. This leads to significant hemodynamic imbalance between the donor and recipient twins, often leading to complex perinatal outcomes. We present a case with classical TTTS presentation requiring extensive neonatal interventions.

Objectives
To highlight the neonatal presentations of TTTS, management strategies for the problems noted in affected twins and the importance of early detection and postnatal planning in managing the MCDA pregnancies.

Case Presentation
MCDA Twin boys were delivered at 35 weeks of gestation via EL. LSCS due to weight discordance. Twin 1 – the donor twin weighed 2.3Kg and was severely pale at birth with a Hemoglobin of 4.5g/dl. He was in severe respiratory distress, necessitating immediate intubation and Ventilatory support, and urgent blood transfusion was done. Twin 2 – the recipient twin had a significantly lower birth weight of 1.5kg and had marked plethora with hemoglobin of 26g/dl and had moderate distress. Chest X-Rays revealed cardiomegaly in both twins, and both were started on anti-failure regimens.

On Day 2 of life, both neonates developed significant hyperbilirubinemia. Twin 1 responded well to triple phototherapy, while Twin 2 was refractory to intensive phototherapy and required two cycles of partial exchange transfusions to reduce the bilirubin to safe levels.

Results
Both twins showed gradual improvement with appropriate supportive care. Ventilatory support was weaned off for twin 1, and cardiac failure signs resolved. Both were found to have periventricular leukomalacia (PVL), a known complication of TTTS. By Day 14 of life they were discharged in stable condition with Follow – up planned at the Well Baby Clinic.

Conclusion
This case highlights the classic hemodynamic and hematological disparities seen in TTTS, along with the diverse neonatal management challenges it poses. Prompt recognition, intensive support management including Ventilation, anti-failure therapy, phototherapy and exchange transfusion were critical in ensuring positive outcomes. Regular ante natal monitoring in MCDA pregnancies and early neonatal intervention remain essential to improve the survival and long-term health in TTTS affected twins.

PP 05: ASSESS DEGREE OF ADHERENCE TO GOLDEN HOUR PROTOCOL WHEN MANAGING PREMATURE BABIES IN NICU AT GERMAN SRILANKA FRIENDSHIP HOSPITAL FOR WOMEN, GALLE – A Clinical Audit.

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Introduction
"Golden hour" of neonatal life is defined as the first hour of post-natal life in both preterm and term neonates. This concept in neonatology has been adopted from adult trauma where the initial first hour of trauma of trauma management is considered as "golden hour". The neonatal management in the first hour of life have an important effect on both immediate and long-term outcomes of all neonates. Preterm birth is the greatest contributor of infant death and is also a leading cause of long-term disabilities in children throughout the world. Infants born very preterm (<32 weeks) are at high risk of prematurity related mortality and morbidity. Prime objective of golden hour is to use evidence-based interventions and treatment for better neonatal outcome, importantly for extremely low gestational age neonates.This practice has markedly reduced the neonatal hypothermia, hypoglycemia, intraventricular hemorrhage, bronchopulmonary dysplasia and retinopathy of prematurity. The purpose of this study to assess the adherence to standard interventions of golden hour.

Objectives
To assess compliance to golden hour protocol for preterm babies who are admitted into NICU, German Sri Lanka Friendship Hospital For Women, Galle.

Methodology
Observational prospective study was conducted in the NICU-GSFHW. Babies who were less than 34 weeks and 34 weeks of gestation were included to the study. Data were collected by standard data collection form with the help of medical officers who are working at this unit. Optimal cord management, prevention of hypothermia ,prevention of hypothermia, delivery room CPAP and respiratory stabilization, screening of hypoglycemia, commencement of nutritional support and initiation of intravenous antibiotics were assessed during this study.

Results
Total of 30 premature babies were assessed during this period. Among these babies only 13 (43.3%) compliance to optimal cord management. All the babies who were less than 32 weeks of gestation delivered into plastic bag and all babies covered with head cap. Out of 30 babies only 5 (16.7%) with optimal temperature, 46.6% with cold stress and 36.6% with moderate hypothermia. All babies were received delivery room CPAP and respiratory support during transfer to NICU. Only 11 (36.7%) babies admitted to NICU within 30 minutes. Out of 30 babies only 9 (30%) babies were met criteria and received surfactant therapy. 18 (60%) babies were screened for hypoglycemia with in golden hour, among these babies only 5 (16.7%) developed hypoglycemia.8 (26.7%) babies were initiated parenteral nutrition with golden hour and only 2 (6.7%) were received enteral feeding within golden hour. There was delay in initiation of antibiotics , 24 babies were received antibiotics after 60 minutes of golden hour.

Conclusion
The concept of "Golden hour" is for the better outcome of neonates and this study shows need to improve the few standards.

PP 06: FROM MYTHS TO PRACTICE: TRANSFORMING BREASTFEEDING SUPPORT IN NEONATAL CARE; QUALITY IMPROVEMENT

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Introduction
District General Hospital Mullaitivu is a level 2 neonatal unit with 70-100 deliveries a month. We conducted a quality improvement project to improve breast feeding statistics.

Objectives
To improve the knowledge on breast feeding among health Care Workers(HCW), To increase the number of HCW had breast feeding training, To reduce the number of newborns with feeding problems

Methodology
Conducted quality improvement audit at DGH Mullaitivu SCBU (Sept 2024–May 2025). Collected baseline data on newborn feeding problems and HCW breastfeeding knowledge. Delivered bilingual training sessions (Sinhalese and Tamil) for HCWs. Implemented practice changes: reduced mother–baby separation, adjusted weighing schedules, separate feeding assessment area. Involved HCWs in ward rounds and breastfeeding assessments. Performed follow-up audits to track feeding outcomes and knowledge improvements. Analysed data using descriptive statistics and chi-square tests for group comparisons

Results
From August to October 2024, 23–24% had weight loss; 18–19% had poor feeding technique in September and October 2024.

The audit showed only 4(19%) of HCW had a training in breast feeding. 52% and 48% of HCW believed that the baby should be forced to the breast after birth and should be fed in a strict schedule respectively. Another 57% believed the feed should last exactly 30 minutes.

Following the interventions, the number of admissions with weight loss were 12(15%), 7(9%) and 1(2%) for the next three months. The percentage of babies with feeding problems were 9(11%), 10(13%) and 6(11%) for the same period.

There were 20(53%) of HCW with breast feeding training. We compared trained and untrained HCWs. Those without training were more likely to believe babies should be weighed before the first feed (67% vs 30%, $p = 0.053$), fed by the clock (61% vs 25%, $p = 0.05$), and that each feed should last 30 minutes (78% vs 40%, $p = 0.04$).

Conclusion
This initiative showed that practical, low-cost interventions—such as staff training, reducing mother–baby separation, and team-based care—can significantly improve breastfeeding outcomes. The rise in trained HCWs led to better knowledge and reduced newborn feeding issues.

PP 07: A NEWBORN WITH BECKWITH-WIEDEMANN SYNDROME: A CASE REPORT

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Introduction

Beckwith-Wiedemann Syndrome (BWS) is a rare genetic overgrowth disorder characterized by a wide spectrum of clinical features. The classical triad includes exomphalos, macroglossia, and macrosomia. Other associated findings may include hemihyperplasia, neonatal hypoglycaemia, embryonal tumors (e.g., Wilms tumor, hepatoblastoma), visceromegaly, renal anomalies, ear creases or pits, and hearing loss. Due to the increased risk of childhood cancers, early diagnosis and regular tumor surveillance are crucial. Here, we reported a case clinically diagnosed with Beckwith wiedemann syndrome admitted for surgical repair of exomphalos.

Case Presentation

A baby boy with an uncomplicated antenatal history, except for maternal steroid-resistant nephrotic syndrome, was delivered at 39 weeks of gestation via emergency caesarean section due to lack of progression of labour. The anomaly scan had revealed a cystic lesion arising from the right adrenal gland. The baby weighed 4100 grams at birth and had normal APGAR scores.On examination, exomphalos at the umbilical region, macroglossia, a left earlobe crease, and macrosomia were noted. The baby underwent surgical repair of the exomphalos and was admitted to the neonatal intensive care unit for post-operative care. During the stay, blood investigations and capillary blood sugar monitoring were carried out, and intravenous antibiotics were initiated. The antibiotic course was extended due to a surgical site infection.

A clinical diagnosis of Beckwith-Wiedemann syndrome was made. An abdominal ultrasound and follow-up plans were arranged prior to transfer to the ward. While in the ward, the abdominal scan and hearing test were both reported as normal. The baby was discharged after parental counselling, with clinical follow-up arranged for screening of embryonal tumors and monitoring of growth and child development.

Conclusion

This case highlights the importance of recognizing clinical features of BWS, especially in resource-limited settings where genetic confirmation may not be feasible. Regular abdominal ultrasounds and alpha-fetoprotein (AFP) monitoring are recommended for early detection of associated malignancies.

PP 08: RIGHT START, SAFE START:ENHANCING EARLY ONSET NEONATAL SEPSIS MANAGEMENT IN DGH MULLAITIVU

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Introduction
Early onset neonatal sepsis (EONS) is the systemic response to proven or suspected infection within the first 72 hours of life. It has a high global mortality. District General Hospital (DGH) Mullaitivu is a level II neonatal unit with an average 100 deliveries a month. We conducted a clinical audit to assess the use of the national guideline on neonatal care issued by the Family Health Bureau in 2020.

Objectives
To assess compliance with the guideline , To assess the common symptoms of EONS, To assess the common risk factors for EONS

Methodology
The study was conducted as a clinical audit. Permission was obtained from the hospital director. The initial data was gathered on all babies treated for EONS by reviewing clinical records from August-September 2024. We introduced the proforma in November and reaudited from January-March 2025. The confidentiality was maintained at all times. Data analysed using Microsoft excel.

Results
There were 10 and 26 babies in first and second cycles, respectively. We noticed 100% compliance in performing pre-antibiotic blood cultures, repeating CRP in 18 hours and starting recommended antibiotics in both cycles. However, 3(30%) in first cycle and 3(12%) in second cycle were started on antibiotics without meeting the criteria. Prelabour rupture of membranes lasting more than 18 hours the most common risk factor in the first audit compared to foetal distress in the second audit. Respiratory distress was noted in 80% and 54% of babies in first and second audits respectively. Completing the proforma was 80-85%.

Conclusion
Good understanding noted in certain aspects of the guideline adherence (pre-antibiotic blood culture, appropriate antibiotics and repeating CRP). Initial high rates of improper antibiotic commencement may indicate inadequate knowledge on the guideline or lack of an appropriate tool. However, with the use of the proforma, the rates have significantly come down. This indicates the importance of simple proformas in enhancing medical practices.

PP 09: NEONATAL SEPSIS – EARLY IDENTIFICATION AND MANAGEMENT: A QUALITY IMPROVEMENT INITIATIVE IN THE SPECIAL CARE BABY UNIT (SCBU) AT DGH MULLAITIVU, A SECONDARY CARE HOSPITAL IN SRI LANKA

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Introduction
Neonatal sepsis is a major cause of morbidity and mortality in neonates, particularly in low-resource settings. Early identification and prompt, standardized management are critical to improving outcomes. This Quality Improvement (QI) initiative was conducted in the Special Care Baby Unit (SCBU) at DGH Mullaitivu to enhance compliance with national and international sepsis management protocols

Objectives
The primary objective was to evaluate and improve adherence to neonatal sepsis protocols, focusing on early recognition, timely antibiotic administration, structured screening, documentation accuracy, report availability, and parental engagement.

Methodology
A retrospective audit was conducted on neonates treated for suspected sepsis over two Plan-Do-Study-Act (PDSA) cycles: November 2024–January 2025 (Cycle 1, n=24) and February–April 2025 (Cycle 2, n=31). Data sources included bed head tickets, drug charts, and screening checklists. In December 2024, a structured sepsis screening tool and revised drug chart were introduced. Complementary interventions included staff education, clinical posters, and multidisciplinary discussions to address delays and systemic gaps.

Results
Cycle 2 demonstrated significant improvements: screening tool usage increased from <50% to 83.8%, and documentation of parental communication rose from 54.2% to 96.7%. The number of lumbar punctures increased, reflecting improved adherence to diagnostic guidelines. While antibiotic administration within one hour remained generally consistent, poor time documentation persisted. Blood culture collection before antibiotic initiation remained at 100% in both cycles. However, delays in culture report turnaround times were noted, prompting collaborative efforts with laboratory services. Signature compliance on drug charts showed modest improvement but remained suboptimal.

Conclusion
The use of structured tools, targeted education, and system-level interventions enhanced adherence to neonatal sepsis management protocols. Continued QI cycles, focused documentation training, and strengthened cross-departmental collaboration are essential to sustain and further improve outcomes in neonatal sepsis care

PP 10: IMPROVING THE IDENTIFICATION, MONITORING, AND MANAGEMENT OF NEONATAL JAUNDICE IN THE SCBU AND POSTNATAL WARD: A QUALITY IMPROVEMENT INITIATIVE

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Introduction
Neonatal jaundice (NNJ) is a common yet potentially serious condition if not identified and treated promptly. This Quality Improvement (QI) project aimed to evaluate current practices in NNJ management, identify gaps, and implement targeted interventions in the Special Care Baby Unit (SCBU) and postnatal ward.

Outcome Measures:
Primary outcomes included time from identification of jaundice to bilirubin testing, time from diagnosis to initiation of phototherapy, and compliance with local and NICE guidelines. Secondary outcomes included improved staff knowledge and reduced readmission rates.

Methodology
A QI initiative was conducted involving 62 neonates treated for jaundice between February and May 2025, focusing on gestational age, jaundice onset, phototherapy regimen, feeding methods, sepsis screening, and follow-up. A staff survey assessed knowledge and practices related to NNJ. Based on initial findings, key interventions were introduced:
1.A simplified jaundice screening tool.
2.Educational sessions on bilirubin nomograms and local and NICE guidelines.
3.Efforts to reduce delays in bilirubin testing and phototherapy initiation addressing the practical issues.

Results
Most neonates were term (82%) and of normal birth weight (65%), with jaundice onset typically between 24 hours and 7 days. Single phototherapy was sufficient in 61% of cases; no exchange transfusions or IVIG treatments were required. Documentation, feeding practices, and parental education were identified as areas needing improvement. Survey results showed that 76.9% of respondents were nurses. While 58.3% correctly identified the age-in-hours nomogram as the appropriate tool, 23.1% reported delays in initiating phototherapy, and 8.3% expressed low confidence in managing NNJ. 83.3% of staff reported following existing NNJ protocols. Hands-on experience and formal teaching were strongly supported for confidence-building.

Conclusion
The QI initiative highlighted strengths in early intervention and follow-up, while identifying gaps in documentation, guideline familiarity, and timely management. Educational interventions and protocol standardization are ongoing to enhance care quality and outcomes

PP 11: COMBATING PERSISTENT PULMONARY HYPERTENSIVE CRISIS: SURVIVAL AGAINST THE ODDS

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Introduction
Persistent pulmonary hypertension (PPHN) of the newborn is a life-threatening condition characterized by elevated pulmonary vascular resistance, resulting in right to left shunting and severe hypoxaemia. Despite advancements in care, severe PPHN and pulmonary hypertensive crisis remains a clinical challenge with high morbidity and mortality.

Case Presentation
A male neonate was delivered via elective cesarean section at a gestational age of 37 weeks, with a birth weight of 2.16 kg. The APGAR scores were 10 at both 1 and 5 minutes. The baby was born to a mother with gestational diabetes mellitus managed with dietary modification. At 3 hours of life, the neonate developed significant respiratory distress and cyanosis, necessitating intubation and mechanical ventilation with high ventilatory settings. Initial ABG showed severe acidosis (pH 7.16, pCO_2 66, pO_2 29, BE -9.5). A provisional diagnosis of severe PPHN was made based on profound hypoxemia and differential cyanosis, which was confirmed by echocardiogram.

He was retrieved to a tertiary level NICU and ionotropic support with dopamine, dobutamine, adrenaline, and milrinone was initiated sequentially to maintain systemic blood pressure and enhance right ventricular function. Inhaled nitric oxide (iNO) was administered for 72 hours, with sildenafil. He was supported with high frequency oscillatory ventilation (HFOV) using 100% FiO_2 during pulmonary hypertensive crisis. Neuroprotective strategies were followed and serial cranial ultrasounds were normal.The baby was extubated on day 7, but oxygen was administered until day 10. The baby had a normal neurological examination on discharge at day 21 and at 6 months, 1 year follow up confirming normal neurodevelopmental milestones, without hearing or visual impairment.

Conclusion
This case highlights the successful recovery of a neonate with severe PPHN and pulmonary hypertensive crisis managed with four inotropes. Timely intervention, careful monitoring, and supportive care contributed to the favorable outcome without neurological sequelae. Despite absence of ECMO (Extracorporeal Membrane Oxygenation), early recognition, appropriate escalation of care, and neuroprotective strategies were key to better outcome.

PP 12: AN EXTREME CASE OF CAUDAL REGRESSION SYNDROME

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Introduction

Caudal regression syndrome (CRS)is a rare congenital abnormality affecting caudal region. The incidence varies between 1to 5 per 100,000 live births. The spectrum of CRS ranges from isolated asymptomatic coccygeal aplasia to absent, sacral, lumbar, and thoracic vertebrae with associated severe neurological impairment. The aetiology is unknown but higher prevalence is noted among babies born to mothers with diabetes accounting for 16% of the cases.

Case Presentation

A baby boy was born at 32 weeks of gestation with a birth weight of 1025 grams at birth via an emergency caesarean section due to maternal hypertension. It was diagnosed to have sacral agenesis on the antenatal scan. The pregnancy was an unplanned and mother has not taken pre-conceptional folic acid. Baby was born in a good condition and was admitted to NICU due to prematurity and very low birth weight. His length was 30 cm (very well below the 3rd centile) with upper segment measuring 25 cm and head circumference was 29 cm. Furthermore, multiple congenital abnormalities were noted. An encephalocele measuring 2cm x 2 cm noted on occipital region. The face was asymmetric with flat occiput and low posterior hair line. Malformed right auricle and left side preauricular tag were noted. He had short neck, and his upper limbs were normal. The lower limbs were dysplastic with contractures at bilateral hip joints and knee joints. His X- ray spine shows complete absence of distal vertebrae from T11 downwards with dysplastic T9 and T10. His CT brain shows meningo-encephalocele measuring 1.5 x 1.5 x 1.3 cm communicating with the cisterna magna through the bony defect at occipital bone and mild prominence of bilateral lateral ventricles. Ultrasound abdomen revealed multicyclic dysplastic right kidney measuring 3.4 x 1.8 cm and normal left kidney measuring 2.5 x 1.6 cm with mild pelvi-calyceal fullness. Cardiac assessment revealed small mid-muscular ventricular septal defect and fenestrated interatrial septum. His all the blood work up was within normal limits. He was managed in a multidisciplinary team.

Discussion

Caudal regression syndrome (CRS) consists of absence of a portion of the caudal spine with varying degree of associated neurologic, orthopaedic and urologic deficits. The vertebral defects range from absent coccyx to sacral or lumbar agenesis and in an extreme case, last intact vertebrae are T11 or T12 as in the case presented. Extensive vertebral regression results in more severe deficits. The defect is considered to occur due to impaired development of mesoderm during the fourth to seventh week of embryogenesis. Hyperglycaemia during organogenesis exert teratogenic effects by negatively impacting the DNA Structure. However, in our set up genetic studies were not carried out due to unavailability of resources. Environmental factors such as hypoxia, retinoic acid, radiation and alcohol exposure have been found to play a role in development of CRS. Detrimental effects of folate deficiency on neural tube formation is a well-known cause, and it may have contributed to this patient.Prognosis depends on the degree of involvement of the vertebrae, spinal cord, and the associated malformations of kidneys and the heart. Long-term follow up should be aimed at assessing growth, development, other associated abnormalities and psychological support to parents.

PP 13: A CASE REPORT OF NEONATAL ABSTINENCE SYNDROME FOLLOWING MATERNAL POLYSUBSTANCE USE AND MENTAL HEALTH TREATMENT DEFAULT.

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Introduction

Neonatal Abstinence Syndrome (NAS) is a complicated withdrawal condition occurring in newborns exposed to opioids or other psychoactive substances during pregnancy. The symptoms of NAS can be broad and involve various organ systems, but the main symptoms are due to neuroregulatory dysfunction. Symptoms usually appear within 24 to 96 hours after birth. These symptoms create serious challenges for health care workers as they are broad and the effects can be long-lasting. Though the world incidence has risen recently, the precise incidence and prevalence of NAS in Sri Lanka are not readily available in the provided search results.

Case Report

A female neonate with a birthweight of 2.300kg delivered via assisted vaginal delivery at 37+6weeks. The mother of baby;29 years, G3C1P1, experienced two miscarriages before. Serum electrolytes including calcium and blood sugar levels were checked on day one of life as the baby developed jitteriness and poor feeding in the postnatal ward. Despite normal values, persisting symptoms prompted further inquiry into the maternal history which revealed that she has a six-years history of polysubstance use, predominantly heroin during pregnancy and self-medicated during withdrawal episodes with gabapentin, benzodiazepines and etc. She was referred to psychiatrist by VOG in her second trimester and diagnosed as of emotionally unstable personality disorder and treated with promethazine, sertraline, and olanzapine which was defaulted in one month.

Baby was moved to the Premature Baby Unit (PBU) immediately and Modified Finnegan Score is used to quantify the severity of NAS. Pharmacological and other supportive treatment were provided at PBU for 14 days.

Discussion and Recommendation

The complicated nature of NAS in a neonate exposed to multiple substances during pregnancy is illustrated by this case. Factors like untreated mental illness and unsupervised medications increase the risk of NAS. Despite national decline in NAS rates, cases like this highlight ongoing challenges in follow-up and care delivery. Regular screening for mental health issues and substance abuse is crucial, and early identification and consistent scoring of NAS symptoms is vital for improved outcomes.

PP 14: POLAND SYNDROME: A RARE CASE REPORT

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Introduction

Poland syndrome is a rare congenital anomaly associated with partial or complete absence of unilateral pectoralis major muscle and frequently associated with other manifestations such as absence or hypoplasia of ipsilateral breast, multiple rib abnormalities, and unilateral hand syndactyly. The spectrum of clinical manifestation is variable and not all are present in a single case. The estimated global incidence of Poland syndrome varies across studies, ranging from 1 in 10,000 to 1 in 100,000 and observed more frequently in males, affecting the right side of the body more than the left. However, there remains a lack of nationally published epidemiological data specific to this condition in Sri Lanka. The etiology although not well understood, is thought to be due to disruption of blood flow in subclavian artery and its branches during embryogenesis.

Case Report

A term female neonate with a birth weight of 2.430kg was delivered via elective LSCS due to breech presentation. APGAR was normal at birth. After 1hour, baby developed respiratory distress with a RR -100bpm, PR-154/min and SpO2 – 97%. VBG revealed respiratory acidosis and HHHFNCO2 was started. CXR revealed absence of R/S upper ribs (2nd to 5th), hypoplastic 6th and 7th ribs, lower thoracic and upper lumbar hemivertebrae and scoliosis. Additionally, general examination revealed right-sided 3 accessory nipples and reduced muscle mass in R/anterior chest wall. Cardiovascular examination was normal. These clinical and radiological findings were consistent with Poland syndrome, further supported by ultrasound showing a smaller right-sided pectoralis major muscle. baby was discharged with orthopedic, cardiology and cardiothoracic referrals as outpatient.

Discussion and Recommendations

A pure presentation of Poland syndrome is illustrated in this case. This highlights the importance of anomaly scan that will help to preplan management and counsel parents. Postnatally, advanced imaging and a multidisciplinary team approach including cardiothoracic, cardiology, orthopedic, developmental pediatric and plastic surgical specialties will be required. For optimization of care, physical therapy may be prescribed to overcome limitations of movements with time. It is crucial to address functional, developmental, aesthetic and psychological concerns in long term follow up.

Key words: Poland syndrome, Pectoralis major, multidisciplinary

PP 15: LATE ONSET E. COLI SEPTICAEMIA PRESENTING AS ACUTE LIVER FAILURE; A CASE REPORT

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Introduction

Acute liver failure (ALF) in neonates is incidentally rare. The commonest cause is septicemia secondary to Escherichia coli, Staphylococcus aureus or Herpes simplex. With massive hepatic necrosis, mortality may be >70% without liver transplantation. Here, we report a success story of a Sri Lankan baby with neonatal ALF due to E. coli septicaemia who recovered completely without requiring liver transplantation.

Case Presentation

A 3-week-old baby boy presented with recent onset of jaundice, dark color urine, and pale stools. Poor weight gain was noted since birth. There was a recent history of poor sucking, lethargy, and intermittent irritability with high high-pitched cry. He was born at term with a birth weight of 3040g to healthy non-consanguineous parents. Both antenatal and immediate perinatal periods were unremarkable. There was no family history of early neonatal deaths. Examination revealed a severely dehydrated and moderately icteric baby with no dysmorphic features. Hemodynamic parameters were unstable with prolonged capillary refill time and feeble pulses. He was tachypneic with normal saturation, and 2cm hepatomegaly was noted on abdominal examination.

Full blood count revealed: white cell count- 35.8 × 109/L (neutrophils- 80.5%, lymphocytes- 14.5%), platelet count- 85 × 109/L, haemoglobin – 15.8g/dL. Liver functions showed direct hyperbilirubinaemia of 171 micromole/L, significant transaminitis (AST- 5848 IU/L, ALT- 3799 IU/L) and deranged clotting (INR-3.9). Severe lactic acidosis was evident in the blood gas with normal capillary blood sugar and electrolytes. Blood culture was positive for Escherichia coli. Lumbar puncture was withheld. USS brain, abdomen and KUB were normal. EEG was in favor of diffuse cerebral insult.

The baby was managed with intravenous antibiotics for 21 days and supportive care for acute liver failure. The baby showed complete recovery within 2 weeks without requiring liver transplantation.

Conclusion

The key strategy in septic newborns with associated coagulopathy would be identifying them as having acute liver failure. Here, we highlight the importance of early identification and early aggressive treatment of septicaemia in neonates to improve survival from associated acute fulminant liver failure.

PP 16: AN INFANT PRESENTING WITH HYPOVOLAEMIC SHOCK DUE TO LARGE CHYLOTHORAX FOLLOWING PDA LIGATION

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Introduction

Chylothorax is a rare complication of cardio-thoracic surgeries due to a damaged thoracic duct or major lymphatic vessels. Chylothorax usually presents within one week following surgery. We present a rare case of an infant presenting with circulatory insufficiency and respiratory distress due to a large left sided chylothorax 21 days after the ligation of a patent ductus arteriosus (PDA).

Case Report

A 39-day old baby, first twin of an IVF pregnancy, born at 32 weeks of gestation with a birth weight of 1.76 kg, presented with poor feeding and reduced activity for 3 hours' duration. He has undergone PDA ligation 3 weeks ago. On admission, he was in severe respiratory distress and clinical shock. After establishment of IV access, he was resuscitated with multiple normal saline boluses up to 30ml/kg and started on iv dopamine infusion. IV cefotaxime and metronidazole were started as aspiration pneumonia was suspected. As the respiratory distress persisted and oxygen saturation dropped, the baby was intubated and ventilated. Chest x-ray (Which became available 3 hours after admission) showed massive left sided pleural effusion with collapsed left lung which was later confirmed by ultrasound scan of chest. 80 ml of fluid with milky white appearance was aspirated with ultrasound guidance. Analysis of the fluid revealed the presence of cholesterol and triglycerides, confirming that it was chyle. He was transferred to Cardio-Thoracic ICU (CT-ICU) at Lady Ridgeway Hospital (LRH). There, he was initially managed with a formula containing medium chain triglycerides (MCT) to reduce the formation of chyle, failing which he was later treated with total parenteral nutrition. As continuous chyle leakage was observed and repeated aspirations had to be done, a left sided intercostal tube was placed. Later, Video Assisted Thoracoscopy (VATS) was performed which was converted into left thoracotomy with diathermy of lymphatics and pleurodesis. Patient was discharged from LRH one month after the surgery and is currently thriving well.

Discussion

Chylothorax due to a damaged thoracic duct following cardio-thoracic surgery usually manifest within the first week after surgery, and it is extremely rare to present in 3 weeks with shock. Clinical features together with radiological evidence raises the possibility of chylothorax, which can be confirmed by USS guided aspiration and biochemical analysis of the fluid. It is usually managed with dietary modifications aimed at reducing the formation of chyle, failing which surgical intervention is needed. Pleurodedis is considered the last resort to prevent repeated chylothorax.

PP 17: GLUTARIC ACIDURIA TYPE 2 IN THE NEONATAL PERIOD: EARLY CLUES AND DIAGNOSTIC CHALLENGES

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Introduction

Glutaric aciduria type 2 (GA2) or multiple acyl-CoA dehydrogenase deficiency is a rare autosomal recessive disorder of fatty acid and amino acid metabolism. The neonatal form is often severe, presenting with hypoglycaemia, metabolic acidosis, and multi-organ dysfunction. Early diagnosis is challenging due to its non-specific presentation and clinical overlap with neonatal sepsis. We report a case of neonatal-onset GA2 diagnosed during evaluation for persistent metabolic acidosis.

Case Presentation

A term neonate born following an uncomplicated pregnancy and delivery, with no need for resuscitation at birth, developed respiratory distress at 22 hours of life. He required supplemental oxygen but remained hemodynamically stable and initial sepsis workup was negative. On day 7 of life, he deteriorated with lethargy, poor feeding, and progressive respiratory distress. Arterial blood gas revealed severe metabolic acidosis (pH 7.10, lactate 17 mmol/L) with an elevated anion gap of 28. He required mechanical ventilation and was empirically treated for possible neonatal sepsis with broad spectrum antibiotics without any significant clinical improvement.

Further evaluation revealed an elevated cerebrospinal fluid (CSF) lactate of 6.8 mmol/L and a serum ammonia level of 139 µmol/L. In view of persistent acidosis and elevated serum and CSF lactate, a metabolic disorder was suspected. Urine organic acid analysis by gas chromatography mass spectrometry showed a pattern consistent with multiple acyl-CoA dehydrogenase deficiency. His acylcarnitine and amino acid profiles were normal. A muscle biopsy showed features of myopathy. Although his serum troponin I was elevated at 36 ng/L, the echocardiography did not reveal cardiomyopathy.

Conclusion

This case highlights the diagnostic challenge of neonatal GA2, which can mimic common neonatal conditions such as sepsis. Persistent metabolic acidosis with elevated lactate and ammonia should prompt early metabolic evaluation. Early recognition and supportive management may improve outcomes in this otherwise potentially fatal condition.

PP 18: UNUSUAL CASE OF NEONATAL SACCHAROMYCES CEREVISIAE ENDOCARDITIS IN ASSOCIATION WITH NON-IMMUNE HYDROPS FETALIS AND BILATERAL CHYLOTHORAX

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Introduction

Endocarditis due to fungal pathogens in neonates remains exceedingly rare, especially outside the context of extreme prematurity or profound immunosuppression. While Candida species are the most frequently implicated organisms, Saccharomyces cerevisiae commonly found in probiotics and is rarely isolated in neonatal bloodstream infections. Its occurrence in the setting of non-immune hydrops fetalis (NIHF) and congenital chylothorax is virtually unreported and represents a diagnostic and therapeutic challenge.

Case Discussion

We describe a preterm neonate, delivered at 32 weeks with birth weight of 2Kg, with prenatal ultrasonographic findings indicative of hydrops, including fluid in both pleural cavities, abdominal free fluid, and soft tissue swelling. The infant required immediate respiratory support, including intubation and surfactant therapy. Bilateral chylous effusions were confirmed after drainage, and nutritional therapy was tailored with medium-chain triglyceride (MCT)-rich formula alongside octreotide infusion.

By the third week of life, unresolved pyrexia despite broad-spectrum antimicrobials prompted further evaluation. Blood cultures yielded S. cerevisiae, resistant to fluconazole. Echocardiography showed a sizable mass (7 × 4.5 mm) at the junction of the inferior vena cava and right atrium. Amphotericin B was introduced and continued for six weeks, with gradual reduction in lesion size.

No clinical or phenotypic features suggested an underlying genetic syndrome. Comprehensive biochemical and immunological evaluations, including thyroid and liver panels, CSF analysis, and immunoglobulin profiling, were unremarkable. The baby was discharged home on Day 85 in stable condition, exclusively breastfed, and with appropriate developmental follow-up arranged.

Conclusion

To our knowledge, this is the first documented case from Sri Lanka of neonatal endocarditis due to S. cerevisiae in a background of NIHF and chylothorax. The report underscores the importance of timely recognition of atypical fungal pathogens in neonates with prolonged sepsis and invasive lines. Early imaging, precise microbiological diagnosis, and tailored antifungal treatment are essential for survival in such rare and severe infections.

PP 19: STUDY OF NEONATES WITH IMPERFORATE ANUS AND ASSOCIATED VACTREL ANOMALIES AT A SINGLE SURGEON MANAGED TERTIARY CARE REFERRAL CENTRE

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Introduction
Anorectal malformations are spectrum of congenital anorectal abnormalities resulting due to malformation of uro-rectal septum and anal pit during embryonal period. World incidence is 1:4000 in live births. VACTREL group of anomalies are associated in >25% of instances. Data of all neonates with congenital anorectal malformation at the pioneering single surgeon managed neonatal surgical unit of Colombo North Teaching Hospital Ragama analysed. This centre is the tertiary care referral centre for surgical neonates in Sri Lanka's most densely populated Gampaha District and caters to Sri Lanka's largest Foetal Medicine and Maternity Unit managing pregnant mothers with antenatal concerns.

Objectives
Study the range of anatomical spectrum, birth details, associated VACTREL anomalies and surgical details of the study population.

Methodology
Data collected retrospectively from clinical records and author's personnel operations log book. Study period:2021.11.01-2025.06.30.

Results
Study included Thirteen neonates: 6 males and 7 females.

All 3 boys with high-imperforate anus (High 1-3) were pre-term, low birth weights (LBW) born vaginally (NVD). High-1 with recto-vesical fistula underwent laparotomy and posterior-sagittal-anorectoplasty (PSARP). His coccyx was absent. High 2 & 3 had recto-urethral fistula. High-2 with tracheo-oesophageal-fistula underwent thoracotomy for repair and defunctioning colostomy at birth followed by PSARP. High-3 with cardiac disease (pink TOF) and single kidney having undergone colostomy awaits PSARP. Two LBW, NVD boys with low-imperforate anus had primary anoplasty. One was a preterm having cyanotic heart disease.

One NVD, term, LBW boy with intermediate-type imperforate anus had colostomy and reconstruction. Five girls had low-imperforate anus. Four were pre-term, LBW, NVD babies. Pathological spectrum included: 4 vestibular-fistula and 1 perineal-fistula. One with vestibular-fistula having cyanotic heart disease succumbed before surgery. Others had successful reconstructions. Three small VSDs and one limb anomaly (radial hypoplasia) identified among the 4 neonates with vestibular-fistula.

One with intermediate type imperforate anus having anal-atresia underwent reconstruction. She was term, LBW, NVD syndromic baby.

A baby with cloacal anomaly underwent defunctioning-colostomy at birth and awaits reconstruction. She has hemi-facial microsomia.

Conclusion
This study analysed data of predominately pre-term and LBW neonates of both sexes having full spectrum of anorectal anomalies. A wide range of associated VACTREL anomalies were also identified.

PP 20: SIRENOMELIA (MERMAID SYNDROME): A RARE AND LETHAL CONGENITAL MALFORMATION

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Introduction

This is a rare and lethal congenital malformation characterized by the fusion of the lower extremities, representing the most severe form of caudal regression syndrome. It is global incidence ranges from 0.8- 1 cases per 60,000- 100,000 deliveries, with a male to female ratio of 2.7- 3.1. Most affected fetus dies in utero or immediately postnatally.

The exact etiology of sirenomelia is unknown, but implicated factors include maternal diabetes , genetic susceptibility, and vascular hyper perfusion. Pathological mechanisms involve defects in early vascular development, anomalies in mesodermal cell migration and potentially excessive retinoic acid secretion or reduced bone morphogenetic protein signaling.

Associated anomalies are extensive, commonly affecting the genitourinary and gastro intestinal system. Typical findings include pelvic- sacral dysplasia, varied genital malformations, total renal agenesis, absence of the bladder, urethral and rectal atresia, and imperforated anus. A single umbilical artery(dual venous structure) is also characteristic. Facial anomalies such as sunken nasal bridge , low set ears, cleft palate, and cleft lip may also be present.

Case presentation

A 24-week-old male fetus (350 macerated) diagnosed with sirenomelia following in utero demise. They were not done the anomaly scan due to defaulted clinic follow-up . Macroscopic examination revealed conjoin lower extremities, forming a single limb with fused feet and toes, a sunken nasal bridge , low set ears, cleft palate and cleft lip. The penis was observed in the anal region alongside an imperforated anus. Notably there was total renal agenesis and the ureters, bladder, urethra and rectum were absent . the umbilical cord contained one artery and one vein. Based on macroscopic appearance the corresponded to Type 4 or sympus monopus in the stocker and Heifetz classification. He was born to a mother who was 34 years old prime after 6 years of primary subfertility and was a known patient with poorly controlled diabetes mellitus. She had severe oligohydramnios's antenatally.

Discussion

Anomaly scan at 18- 24 weeks of gestation is crucial for high risk pregnancies for early diagnosis, of rare lethal congenital cases. Documentation of such complex cases is essential for enhancing clinical recognition and understanding of this kind of devastating conditions, facilitating appropriate counselling and management.

PP 21: ENTEROVIRAL MENINGITIS COMPLICATED BY CARDITIS IN A TWO WEEKS OLD NEONATE

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Introduction

Enteroviruses are among the most common causative agents of viral meningitis in children, particularly in neonates and infants. The prognosis is typically favourable, with the majority of cases resolving without long-term complications. However, in rare instances, enteroviral infections may be associated with cardiac involvement, including myocarditis, pericarditis, or both.

Case Presentation

We report the case of a 2-week-old neonate who presented to the emergency department with a one-day history of high-grade fever and a two-day history of increased sleepiness and reduced activity. There were no respiratory, gastrointestinal, or urinary symptoms, and feeding remained adequate. No rashes or abnormal movements were noted by the parents.

A full septic workup was initiated in accordance with NICE and local guidelines, and intravenous antibiotics were commenced. Cerebrospinal fluid (CSF) analysis via BioFire PCR confirmed the presence of enterovirus. With negative blood and urine cultures, antibiotics were discontinued, and supportive care was continued. The infant showed clinical improvement and was scheduled for discharge.

However, on the day of discharge, he developed brief, self-resolving episodes of desaturation. Though clinically stable otherwise, the possibility of viral myocarditis was considered. Further evaluation revealed significantly elevated cardiac biomarkers (Troponin I: 237 ng/L; NT-proBNP: 3716 pg/mL). An ECG was suggestive of myocarditis, and echocardiography raised concerns of mild myocardial involvement.

The infant was managed conservatively with close monitoring, serial cardiac biomarker assessments, and daily clinical reviews. Over the following five days, cardiac markers showed a downward trend, and the patient remained clinically stable. He was discharged home with plans for outpatient follow-up in one week.

Conclusion

This case highlights the importance of considering rare but serious complications such as myocarditis in neonates with enteroviral meningitis. Vigilant clinical monitoring, even during recovery, is crucial to identify and manage potential complications early, ensuring optimal outcomes.

PP 22: MULTISYSTEM CONGENITAL ANOMALIES: A CASE REPORT OF NEURAL TUBE DEFECT WITH CARDIAC AND RENAL MALFORMATIONS

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Introduction

Neural tube defects are sometimes associated with malformations of other organ systems. There are syndromic associations and several other associations have been described in the literature. Here we present a rare case of coexisting neural tube defect, renal anomaly and cardiac defect.

Case Presentation

A female newborn was delivered via elective caesarean section at a period of gestation of 37 weeks and 4 days with a birth weight of 2300g. Mother was 40 years old and had not taken periconceptional folic acid as this was an unplanned pregnancy. Antenatal history was complicated with polyhydramnios, ultrasonographic findings of hydrocephalus and breech presentation. At birth child was found to have an unruptured meningomyelocele at the thoracolumbar region. There were bilateral low-set ears, left-hand deformity and left-sided periauricular skin tag. An ultrasonography of the abdomen revealed a left-sided absent kidney with hypertrophy of the right kidney. Contrast-enhanced Computed Tomography of the brain showed symmetrically and grossly enlarged bilateral lateral ventricles, causing thinning of cerebral parenchyma with dilatation of the third ventricle. The fourth ventricle was not dilated and the proximal aqueduct was narrowed. An echocardiogram revealed a small ostium secundum atrial septal defect with septal hypertrophy. The baby had normal hematological and biochemical investigation results. An external ventricular drainage was inserted to relieve the hydrocephalus. No neurosurgical intervention was planned for the neural tube defect as her lower limbs were non-functioning and poor prognosis. However child passed away at the age of one month due to severe sepsis.

Conclusion

Neural defects occur worldwide, ranging from 1-10 per 1000 live births and sometimes they are associated with defects of other systems. 1-8% of them are associated with defects of genitourinary system. In our case, the mother is an elderly one and she has not taken periconceptional folic acid, leading to increased risk for neural tube defects. But she didn't have any other diseases like diabetes, which may lead to congenital anomalies. However, we were not able to identify a syndromic association compatible with this. It is always important to suspect multiple organ system involvement when we come across a congenital birth defect.

PP 23: KNOWLEDGE, ATTITUDES, PRACTICES AND PERCEIVED BARRIERS ON SERVICE PROVISION FOR CLIENTS ON DOMESTIC VIOLENCE AMONG FIELD PUBLIC HEALTH MIDWIVES IN GAMPAHA DISTRICT AND ASSOCIATED FACTORS FOR SELECTED PRACTICES

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Introduction
Sri Lanka is a country with prevailing domestic violence. Involvement of Public Health Midwife in prevention and management of domestic violence is crucial. Yet Public Health Midwife has been the first contact health personnel in service provision for survivors of domestic violence, it is the time to evaluate knowledge, attitudes, practices and perceived barriers on service provision for clients on domestic violence among field Public Health Midwives.

Objectives
To describe knowledge, attitudes, practices and perceived barriers on service provision for clients on domestic violence among field Public Health Midwives in Gampaha district and associated factors for selected practices.

Methods
A descriptive cross-sectional study was conducted among 441 Public Health Midwives chosen using the stratified random sampling method in Gampaha district. A self-administered questionnaire was used after pre-testing. The knowledge, attitude, practices scores were calculated using SPSS software and frequencies were described. Perceived barriers were described as frequencies. Associated factors were analyzed using odds ratios and chi square test to assess the statistical significance at level $p < 0.05$

Results
About 62.6% (n=276) of the study sample had good knowledge on domestic violence. The majority 71.7% (n=316) of the study sample had good attitudes on domestic violence. But only 31.7% (n=140) had good practice. Nearly 53.3% (n=235) were good in selected practices. Less than 50 years of age (OR= 0.6, 95% CI=0.4-0.9, p= 0.014), been supervised related to service provision at monthly conference (OR= 1.6, 95% CI= 1.1-2.4, p= 0.012) were the significant associations with selected practices in the study.

Conclusions
Knowledge and attitude on domestic violence were satisfactory though the total practices on domestic violence were poor. Nearly half of the participants were good in selected practices.

Keywords: Domestic violence, practices, field Public Health Midwife.

PP 24: HARLEQUIN PHENOMENON IN A DAY-OLD NEONATE MIMICKING ACUTE LIMB ISCHEMIA: A CASE REPORT

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Introduction

Harlequin phenomenon is characterized by a sudden and transient erythema of one half of the body with simultaneous pallor of the contralateral half. This benign vascular phenomenon is seen in approximately 10% of newborns, most commonly on day 02 to day 52 of life and is thought to be due to immature hypothalamic control of the autonomic nervous system. Although harmless, it can be mistaken for serious vascular or neurologic conditions. Symptoms are precipitated by heat or stress. Usually, no treatment is needed for this condition.

Case Presentation

A day-old male neonate, second child born to non-consanguineous parents, was delivered at 38 weeks of gestation via normal vaginal delivery. There was no significant antenatal history. The baby was managed for presumed sepsis due to less activity and poor sucking. He developed a sudden onset of pallor of the right lower limb. Peripheral pulses were palpable, and the baby was not hypothermic. Complete system examination was normal. Full blood count, C-reactive protein levels and other sepsis workup were unremarkable. Thrombophilia screening was normal. The ultrasound and doppler study of the right lower limb showed normal arterial and venous flow. The discoloration resolved spontaneously within a one-hour duration without any intervention. Based on clinical evaluation and after exclusion of vascular or thrombotic pathology, a diagnosis of 'Harlequin phenomenon' was made.

Conclusion

The Harlequin phenomenon should be considered in the differential diagnosis of sudden asymmetric color changes in neonates. However, it is always important to exclude pathological reasons before establishing the diagnosis. Proper clinical examination and non-invasive clinical parameters are the mainstay of evaluating these kinds of scenarios. Awareness of this benign condition can prevent unnecessary interventions and anxiety.

PP 25: A NEONATE WITH A COMPLEX CARDIAC VASCULAR ANOMALY AND A FACIAL HAEMANGIOMA: A CASE REPORT ON A RARE CO-OCCURRENCE.

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Introduction

A double aortic arch with an atrophic proximal left arch is a rare vascular anomaly. Infantile haemangiomas are benign vascular tumours commonly encountered in Paediatric Dermatology practice. We report a rare case of coexisting facial haemangioma and a double aortic arch in a neonate.

Case presentation

A 33-day-old baby girl with an uncomplicated perinatal history was transferred to tertiary care due to right-sided facial and neck swelling with stridor. On examination, the child had right-sided facial and neck swelling, which was suggestive of a haemangioma, a systolic murmur and stridor. Her blood investigations were unremarkable. Echocardiogram revealed a double aortic arch with an atretic proximal left arch and bilateral superior vena cava.

Contrast Enhanced Computed Tomography with aortogram revealed an incomplete double aortic arch with atrophic left proximal segment(Type 4) with anomalous origins of the right common carotid artery and right subclavian arteries, causing mild compression on the oesophagus and right-sided parotid infantile haemangioma. Fibro-optic laryngoscopy showed laryngomalacia without any external compression.

The haemangioma was treated with propranolol. Division of the left aortic arch and re-anastomosis of the left aortic arch to the ascending aorta was done and it was followed by division of the atretic segment of the aorta between the two carotid arteries. The stridor improved with weight gain. The child recovered well after the surgical procedures and is thriving well now.

Conclusion

A double aortic arch accounts for 50% of vascular rings in children. However, there is minimal literature on the coexistence of a double aortic arch with facial haemangioma in a child. So haemangiomas warrant further investigations for associated serious vascular anomalies in children.

PP 26: CONSERVATIVE MANAGEMENT AND ELECTIVE DELIVERY IN A MONOCHORIONIC DIAMNIOTIC TWIN COMPLICATED BY TWIN REVERSED ARTERIAL PERFUSION (TRAP) SEQUENCE – A CASE REPORT.

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Introduction

Twin Reversed Arterial Perfusion (TRAP) sequence is a rare severe complication unique to monochorionic twin pregnancies, wherein a malformed acardiac twin is perfused retrogradely by a structurally normal pump twin via abnormal placental vascular anastomoses. The pump twin is at risk of high-output cardiac failure, polyhydramnios, and intrauterine death. We report a case managed conservatively without fetal intervention, highlighting the role of Doppler surveillance and limitations posed by inability to estimate acardiac twin weight.

Case Report

A 31-year-old gravida 3 para 2 woman was referred at 17+6 weeks with a monochorionic diamniotic (MCDA) twin pregnancy complicated by TRAP sequence. Ultrasound revealed an acardiac twin with gross malformations including absent head and upper limbs, precluding reliable weight estimation. This limited calculation of the acardiac/pump twin weight ratio—a key prognostic marker, as a ratio >1 increases pump twin risk. Serial fetal growth and Doppler assessments (umbilical artery and ductus venosus) were used to monitor hemodynamics. Despite progressive growth discordance and worsening polyhydramnios, the pump twin showed no cardiac compromise or hydrops.

The pregnancy was further complicated by gestational diabetes mellitus and iron deficiency anemia, managed with dietary intervention and transfusion. Due to worsening maternal discomfort from polyhydramnios, therapeutic amnioreduction was performed at 33 weeks. At 34+4 weeks, an elective cesarean section was done. A live female infant weighing 1.44 kg in cephalic presentation and a stillborn acardiac twin were delivered. Postpartum course was uneventful.

Discussion

Early diagnosis and individualized monitoring are crucial in TRAP. Although acardiac twin weight could not be estimated, Doppler indices helped safely prolong pregnancy. Preserved ductus venosus and umbilical artery waveforms indicated adequate cardiac function of the pump twin.

Conclusion

Conservative management with serial growth and Doppler assessments is a viable option in TRAP cases with stable pump twin hemodynamics. Challenges such as inability to estimate acardiac twin weight require vigilant surveillance. Further studies are needed to refine risk stratification and intervention timing.

PP 27: A TWIN WITH ECTODERMAL DYSPLASIA; CASE REPORT

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Introduction

Ectodermal dysplasia is rare heterogenous group of disorders with defects in the two or more tissues derived from the embryonic ectoderm. The affected structures are the skin and its appendages such as hair follicles, eccrine glands, sebaceous glands, nails and the teeth. The incidence is 1 per every 100, 000 live births. There about 180 different forms have been described but two common forms are X-linked recessive hypohidrotic ectodermal dysplasia and hidrotic ectodermal dysplasia.

Case Presentation

Dichorionic-diamniotic twins were born to a 29-year-old primi mother by an emergency caesarean section at 37 weeks of gestation due to pregnancy induced hypertension. Both twins were born in good conditions with APGAR of 9 and 10 at 1 and 5 minutes respectively. Twin 1 was a girl with a birth weight of a 2300 grams. The affected twin was the second twin who is a boy and weighted 2010 grams. The clinical features were obvious at birth with absent scalp hair, and dry scaly skin. There was no nail hypoplasia. There was a strong family history of ectodermal dysplasia where maternal aunt's son is affected. The baby had feeding concerns at the beginning and after establishing breast feeding baby was discharged home on day 7.

Discussion.

Ectodermal dysplasia (ED) is a rare heterogenous non- progressive disorders characterized by abnormal development of two or more embryonic ectodermal tissues. The hair manifestations range from sparse, short, fine, dry, to complete absence of hair and decreased density of eyebrows. The patient in this report has absent scalp hair, eye brows and eye lashes.

Management of ED depends on the affected organ and early intervention is of paramount importance to an effective and successful management. Parents should be advised to maintain adequate hydration during neonatal period and infancy. Skin care should be provided my means of frequent application of emollients and frequent baths to maintain moisture. Early dental treatment under the care of an orthodontist is essential to enhance the appearance of the teeth. 3% minoxidil has recently been attempted to promote hair growth in ectodermal dysplasia patients. Mortality in children with anhidrotic ED can reach up to 30% in the first year of life due to chest infections, failure to thrive and hyperthermia.

Conclusion

ED is a group of disorders that affect the skin, exocrine glands, teeth, and hair. Affected patients should me managed under the care of a paediatrician, dermatologist an orthodontist and other providers for better outcome.

PP 28: A RARE CASE OF INTRADIPLOIC HEMATOMA IN AN INFANT

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Introduction

Intradiploic hematoma is an accumulation of blood within the diploe between the tabula interna and externa of the skull. It is a very rare entity according to the literature. Mild trauma leading to accumulation of blood within the diploic space is the main causative factor. Here we present a case of intradiploic hematoma in a male infant from Sri Lanka.

Case Presentation

A newborn male infant who had a prolonged, difficult vaginal delivery with a birth weight of 2720g was found to have a large anterior fontanelle and prominent left parietal bone. An ultrasound scan of the brain was performed on day 16 of life, and it revealed a cystic lesion in the left lateral ventricle measuring 4cm into 4cm. A Contrast-Enhanced Computed Tomography (CECT) of the brain was followed, and it showed widening of the diploic space measuring 3cm in length and 0.5cm in maximum width in the left parietal bone with material of varying density within the space without calcifications. The report concluded that its appearance was suggestive of an intradiploic hematoma. That cystic lesion noted on ultrasonography was suggestive of an Arachnoid cyst. He was regularly followed up with Occipito-frontal circumference (OFC) monitoring and for the features of raised intracranial pressure. His OFC follows along the centile and has normal neurodevelopmental trajectory. He is awaiting Magnetic Resonance Imaging of the Brain to decide on further neurosurgical interventions.

Conclusion

Intradiploic hematomas have been described as an infrequent entity in the literature, and there are minimal case reports on it. The etiology is usually trauma during the delivery. The prolonged difficult labour might have predisposed the patient to develop this condition. It is generally diagnosed as calcified or ossified cephalhematoma. Neurosurgical evaluation is recommended, and surgical intervention is the usual management because intradiploic hematomas do not resolve spontaneously.

PP 29: A CASE OF MULTI-SYSTEM INFLAMMATORY SYNDROME IN NEONATES PRESENTING WITH TONGUE NECROSIS

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Introduction

Multisystem Inflammatory Syndrome in the Newborn (MIS-N) was commonly noticed during the COVID-19 pandemic. It has a higher mortality rate if not detected and treated early. In the early stages of the pandemic, there was no established definition for this condition. Pawar et al. were the first to identify MIS-N as a distinct post-infectious, immune-mediated syndrome in infants born to mothers infected with SARS-CoV-2 during pregnancy, distinguishing it from cases acquired postnatally. Suggested pathogenic mechanisms are transplacental transfer of maternal antibodies and vertical transmission of maternal infection resulting in antibody production in the fetus, which initiates a cascade of inflammatory responses. Classic MIS-N presents within the first week of birth, mostly between days 1–3. To diagnose MIS-N, the age of the baby should be less than 28 days, with laboratory evidence of SARS-CoV-2 in the mother, and both clinical and laboratory criteria should be fulfilled in the baby while no criteria for an alternative diagnosis are present.

Here, we report a case of MIS-N that presented with severe birth asphyxia and progressive tongue necrosis noted within the first day.

Case Report

This baby girl was delivered to healthy, non-consanguineous parents at 38+2 weeks of gestation by emergency LSCS due to reduced fetal movements and a poorly reactive CTG at a private hospital. It was a primi pregnancy with no complications other than gestational diabetes mellitus, which was controlled with dietary modifications. The baby did not cry at birth, and the Apgar scores were 3, 7, and 8 at 1, 5, and 10 minutes, respectively. She was resuscitated at birth, requiring 2 cycles of inflation breaths and elective intubation. A blood gas analysis done on admission showed mild metabolic acidosis (pH 7.24, BE –3.3). High inflammatory markers were noted in the first blood sample taken at 1 hour of birth: CRP 100, with neutrophil leukocytosis, thrombocytopenia, and more than a tenfold rise in AST and ALT, with INR >3. The baby developed convulsions with secondary generalization at 18 hours of birth. She was transferred to a government hospital on day 2 for continuation of management.

Bluish discoloration of the tip of the tongue was noted at 12 hours of birth, which rapidly progressed over the next 2–3 days. Evidence of perinatal hypoxia was noted on a day-1 brain ultrasound (USS) scan. Bilateral adrenal hemorrhages were seen in USS, and echocardiography showed a small patent ductus arteriosus with moderate persistent pulmonary hypertension (PPHN). The baby required multiple anti-epileptics to control seizures. The mother's SARS-CoV-2 RNA RT-PCR was positive, while the baby's test was negative on postpartum day 3. The baby's ESR was 4, LDH 3900, D-dimer 5000, and ferritin 460. CSF showed markedly high proteins without pleocytosis. Both the baby and mother were negative for Covid antibodies. Mycoplasma antibodies were negative.

The baby required plasma and platelet transfusions to correct hematological abnormalities. Neonatal hypoglycemia was noted, with the lowest CBS of 30 mg/dL, requiring 15% dextrose infusion to maintain blood glucose. All blood cultures were negative since birth, and the mother had no clinical evidence of SARS-CoV-2 or other infections. Broad-spectrum antibiotics were given to cover sepsis. Though not meeting

criteria for cooling, we continued cranial function monitoring since admission, **which showed minimal tracer activity.**

Intravenous methylprednisolone and immunoglobulin were given by day 3. Inflammatory markers gradually decreased, and respiratory support was weaned off. However, there was worsening of brain ultrasound findings by day 5, with periventricular white matter echogenicity and cyst formation.

The baby had a 42-day hospital stay, during which the anterior two-thirds of the tongue accidentally sloughed off. At discharge, although hemodynamically stable, she was noted to have cramped synchronization in General Movement Assessment, predicting poor neurological outcome in the future.

Discussion

According to the largest case series published of MIS-N so far, various clinical presentations have been described, with cardiovascular manifestations being the most common. No documented cases of tongue necrosis have been noted in the literature. Tongue necrosis is associated with systemic vasculitic diseases, but no cases have been reported so far in newborns.

This case highlights the importance of being vigilant for atypical presentations of MIS-N in an era where COVID-19 infection is mostly asymptomatic.

PP 30: CASE SERIES OF NEONATAL EXTRAVASATION INJURY: NEED OF EARLY IDENTIFICATION AND TIMELY INTERVENTION

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Introduction

Intravenous cannulation is often essential in NICU/SCBU care for administering fluids, nutrition, and medication. However, extravasation injury is a frequent iatrogenic complication. We present three neonatal cases: two related to 10% dextrose drips and one to calcium-containing dextrose drip. All progressed to significant tissue damage, including necrosis and scarring. International guidelines describe grading systems and management strategies. Non-surgical approaches include analgesia, cold compresses, and dressings, while surgical options include hyaluronidase injections, saline flush-out, liposuction, or excision. In Sri Lanka, no standardized protocol currently exists, and local prevalence data are lacking.

Case 1

A 30-week baby (gestational age decided clinically) weighing 1.3 kg was born after an unplanned, unfollowed pregnancy via NVD and admitted to the NICU for respiratory support. The baby was started on 10% dextrose. Extravasation of the drip was noted about 3 hours later, with redness and marked swelling in the lower limb. This progressed to blistering, necrosis, and ulceration by day 2. Unfortunately, the baby passed away on day 7 of life due to severe sepsis.

Case 2

A term baby, born at 36+6 weeks via NVD with a birth weight of 2.49 kg, was admitted on day 9 with 17% weight loss for IV fluid administration. The baby was started on a 10% dextrose drip with expressed breast milk and continued for 2 days. Extravasation occurred, later leading to necrosis that required regular surgical follow-up

Case 3

This baby was born via EM/LSCS as a breech in labor and required resuscitation at birth, with Apgar scores of 7, 9, and 10 at 1, 5, and 10 minutes respectively. The baby was admitted to SCBU for observation due to respiratory distress and was started on IV calcium. Extravasation resulted in massive necrosis of the hand, later replaced by scar tissue. The child is now 1 year old

Discussion

Extravasation injury is defined as the accidental infiltration of a solution from a dislodged cannula into the subcutaneous tissue. The extent of tissue damage depends on factors such as osmolality, tissue toxicity, vasoconstrictor properties, infusion pressure, and the anatomical characteristics of the site. If not detected early, it may lead to severe tissue damage or even compartment syndrome requiring amputation. Common sites of injury include the dorsum of the hand and foot, the antecubital fossa, and the ankle, which are frequent sites for cannula insertion. Preterm and low birth weight babies are particularly prone to injury due to their small-caliber vessels. Cannulas placed near joints and in the lower limbs are more susceptible to dislodgment due to movement.

Extravasation agents can be classified as vesicants, irritants, or neutral solutions. Clinical presentation ranges from early signs such as pain, swelling, and erythema to later complications including blistering, ulceration, and eventual scarring.

Severity has been classified by Loth and Eversmann as mild, moderate, or severe. Mild and moderate injuries typically involve small-volume extravasation with local inflammation but without blistering. Severe injury results from large-volume extravasation, leading to marked swelling, blistering, and ulceration. Severe cases warrant prompt active intervention and often surgical management.

Conclusion

These cases highlight the importance of vigilance during IV infusions. Neonatal extravasation injuries can lead to serious cosmetic and functional consequences. Early detection, proper grading, and timely treatment are essential. Developing national guidelines and structured follow-up in Sri Lanka is urgently required.

PP 31: CONGENITAL MYOTONIC DYSTROPHY IN A NEONATE: A CASE REPORT

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Introduction

Myotonic dystrophy (DM) is an autosomal dominant disorder with a global incidence ranging from 1 in 20,000 to 1 in 100,000. Three genetic types are described, with DM1 (type 1) most often associated with the congenital form. It affects multiple organ systems, predominantly striated muscle. Congenital DM1, usually maternally transmitted, presents antenatally with polyhydramnios and reduced fetal movements. Affected newborns typically exhibit hypotonia, respiratory and feeding difficulties, and sometimes contractures. Classic myotonia and EMG findings may be absent in neonates, making genetic testing for CTG repeat expansion the diagnostic gold standard. Differential diagnoses include amyoplasia, congenital myasthenia, and spinal muscular atrophy.

Case Report

We report a male infant born at 37 weeks to a 32-year-old primigravida with hypothyroidism and gestational diabetes. Polyhydramnios was noted antenatally. At birth, the baby had low Apgar scores (4, 5, 5), hypotonia, poor respiratory effort, and required invasive ventilation for 7 days. Additional findings included bilateral cryptorchidism, mild ventriculomegaly, and small ASD and PDA. CPK was normal; karyotype confirmed 46,XY. He was discharged on day 22 with improved tone and feeding, and referred for multidisciplinary care. On maternal examination, myopathic facies and grip/percussion myotonia were noted. EMG confirmed maternal myotonia, while the infant's EMG was negative. At 4 months, the baby showed partial head control and ongoing hypotonia, with continued therapy and genetic counseling for the family.

Discussion and Conclusions

Congenital DM1 is the most severe DM phenotype, often presenting prenatally with polyhydramnios and postnatally with hypotonia, facial weakness, and respiratory compromise. Mortality in severe cases is high, though gradual motor improvement may occur. Cognitive and motor delays are common. Diagnosis relies on detecting CTG repeat expansions in the DMPK gene, with anticipation leading to more severe disease in successive generations. This case highlights the importance of considering congenital DM1 even with mild neonatal symptoms and underscores the role of family screening and early intervention.

PP 32: CASE REPORT: NEONATAL DENGUE HAEMORRHAGIC (DHF) FEVER FOLLOWING VERTICAL TRANSMISSON

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Introduction

Vertical transmission of dengue virus is increasingly recognised in endemic areas. Neonatal presentations range from mild febrile illness to severe dengue haemorrhagic fever (DHF) or dengue shock syndrome (DSS). Transmission typically occurs transplacentally during maternal viremia near delivery. Neonatal DHF requires high clinical suspicion, especially in term infants born to mothers with peripartum dengue infection.

Case presentation

A term (38 weeks+4 days) neonate, with a birth weight of 3150g, born to a mother who got Dengue fever 3 days prior to delivery & later developed DHF, developed fever on days 4 and 5 of life and was admitted to Special Care Baby Unit on day 6 with severe thrombocytopenia (30,000/mm^3). Fever had resolved, but ultrasound revealed plasma leakage—bilateral pleural effusions, pericholecystic fluid, and hepato-renal free fluid. Dengue NS1 antigen was positive.

She was managed as neonatal DHF. Platelets dropped to a nadir of 9,000/mm^3. Despite no clinical bleeding and a normal cranial ultrasound, two prophylactic platelet transfusions were given after discussion with haematology. Liver enzymes were mildly elevated (AST 87 U/L; ALT 18.7 U/L), CRP was normal, and leukopenia was noted early in the illness.

Management was mainly supportive with vigilant fluid monitoring. Empirical IV antibiotics (Crystalline Penicillin and Gentamicin) were initiated after blood cultures. The infant remained haemodynamically stable throughout.

Discussion

This case highlights vertically transmitted dengue with classic secondary-phase features: defervescence, capillary leak, and thrombocytopenia. The early onset and NS1 positivity support intrauterine transmission. While guidelines advise against platelet transfusion in the absence of bleeding in DHF, neonatal physiology warrants individualised decisions due to their higher risk of intracranial haemorrhage.

Conclusion

In dengue-endemic areas, neonates presenting with fever, thrombocytopenia, or fluid leakage should be evaluated for vertical transmission. Neonatal DHF can present within the first week of life and requires timely supportive care. Although platelet transfusions neither prevent severe bleeding nor hasten its resolution in adults with DHF, we opted to transfuse in this case due to the neonate's significantly low platelet count (<20,000/mm^3) and higher risk of intracranial bleeding in this vulnerable group. Early diagnosis and close monitoring remain key to favourable outcomes.

PP 33: EARLY-ONSET NEONATAL CHIKUNGUNYA: DIAGNOSTIC AND CLINICAL INSIGHTS FROM A CASE REPORT

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Introduction

Chikungunya virus (CHIKV) is an arthropod-borne RNA virus of the Alphavirus genus within the Togaviridae family. Neonatal CHIKV infection is rare and may be congenital or acquired, with vertical transmission risk increasing during the peripartum period. Congenital infection typically presents within the first week with fever, poor feeding, apnea, encephalopathy, hyperpigmented rash, and limb edema. Acquired infection presents after 3–7 days with similar features. Diagnosis is confirmed by detecting viral RNA via RT-PCR or through IgM and IgG serology. Neonates with encephalopathy often have poor long-term neurocognitive outcome while other manifestations are reversible. Treatment is mainly supportive.

Case Presentation

A female neonate was delivered via emergency cesarean section at 36 weeks due to preterm labor with breech presentation (birth weight 2.75 kg). The mother experienced fever and back pain one day before delivery, developing a brownish hyperpigmented nose rash (Chik Sign) postpartum. The neonate remained well until day 5, when she developed poor sucking, decreased activity and apnoea requiring NICU admission for non-invasive ventilation. Subtle seizures required intravenous antiepileptics. Cranial ultrasound was unremarkable. EEG showed frontal epileptic focus. Investigations revealed elevated CRP (15 mg/L), thrombocytopenia (nadir 23 × 10^9/L), negative blood cultures, and a viral infection pattern. By day 9, a macular hyperpigmented rash appeared on the upper chest and face, later generalizing. CHIKV RNA was detected via RT-PCR on day 10, while mother's CHIKV IgM and IgG were negative on day 35. Management included antiepileptics, platelet transfusions, hydration, antibiotics, and physiotherapy. The neonate was discharged on day 28 with exclusive breastfeeding, normal sucking and swallowing coordination, normal septic screen and platelet count, and a long-term neurological follow-up plan. After 3 months baby had improved blood counts, improving hyperpigmented rash and good weight gain. Neurologically had a good head control but on antiepileptics due to persistent EEG changes.

Conclusion

In regions affected by CHIKV epidemics, a high index of suspicion is required to identify Neonatal Chikungunya in neonates presenting with convulsions, thrombocytopenia, and apnea, enabling timely diagnosis and management. Long-term neurodevelopmental follow-up is crucial for the early detection of neurological sequelae

PP 34: SUCCESSFUL DELAYED INTERVAL DELIVERY OF DICHORIONIC DIAMNIOTIC TWINS WITH FAVORABLE OUTCOME OF BOTH TWINS.

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Introduction

The global incidence of twin births has increased significantly since 1980, now estimated at 12 per 1,000 live births, largely due to advances in assisted reproductive technologies. Twin pregnancies are associated with a higher incidence of preterm birth (57.4%) compared to singletons. Delayed interval delivery (DID) is a rare obstetric intervention aimed at prolonging gestation for the second twin following pre-viable delivery of the first. Survival of both twins following DID is exceedingly rare, with limited cases documented in the literature.

Case Report

This successful delayed interval delivery of dichorionic diamniotic (DCDA) twins occurred in a resource-constrained tertiary care facility in Sri Lanka. The mother, with a history of four previous second-trimester miscarriages due to cervical insufficiency, underwent prophylactic cervical cerclage. At 25 weeks of gestation, preterm labour resulted in the spontaneous vaginal delivery of the first twin (birth weight 580g). The umbilical cord was ligated in situ while the second twin and placenta remained in utero. Stringent maternal monitoring, infection control, and tocolysis were employed to prolong the pregnancy. After a latency period of 52 days, the second twin was delivered via spontaneous vaginal delivery at 32 weeks of gestation, weighing 1.8 kg.

The first twin required NICU care for extreme prematurity, including surfactant therapy, mechanical ventilation, and management of neonatal sepsis, apnea, coagulopathy, and bronchopulmonary dysplasia. Nutritional rehabilitation was established with Donor breast milk with consent. The infant was discharged after 95 days at 1.6 kg with normal neurodevelopment. The second twin, admitted to the SCBU for routine care and feeding, was discharged at 34 weeks corrected gestational age in good health.

Conclusion

This case demonstrates the feasibility and clinical benefit of delayed interval delivery in DCDA twin pregnancies, even in resource-limited settings. Success requires rigorous maternal monitoring, infection prevention, and specialized neonatal care. This report contributes valuable evidence to the sparse literature on delayed interval delivery with dual twin survival, representing the longest inter-delivery interval documented in the local literature.

PP 35: FROM BREAKDOWN TO BREAKTHROUGH: REACTIVATION OF NEONATAL RETRIEVAL SERVICES THROUGH QUALITY IMPROVEMENT IN UVA PROVINCE.

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Introduction

Safe and timely transport of critically ill newborns from peripheral hospitals to tertiary-level neonatal intensive care units (NICUs) is a critical aspect of neonatal care. Dedicated neonatal retrieval teams staffed by professionals skilled in newborn stabilization significantly reduce transport-related risks. In resource-limited regions like Uva Province, Sri Lanka, such services are often disrupted due to staff shortages, logistical challenges, and lack of structured coordination. This project was conducted at TH-Badulla as part of a broader 10-part quality improvement (QI) bundle to enhance care for preterm neonates.

Objective

To reactivate the neonatal retrieval and transport service at TH Badulla using a QI approach, aiming to improve safety and reduce hypothermia during neonatal transfers.

Methods

Beginning in September 2023, a multidisciplinary QI team launched a structured initiative using the Model for Improvement and four Plan–Do–Study–Act (PDSA) cycles. Key challenges identified included inadequate staff availability, poor inter-hospital communication, lack of thermal protection during transfer, and absence of trained personnel accompanying newborns. Interventions included staff reallocation, targeted training for doctors, nurses, and ambulance crews, introduction of thermal equipment (e.g., pre-warmed incubators, wraps), and standardized communication using ISBAR protocols. Coordination with peripheral hospitals was enhanced via a dedicated WhatsApp group and structured referral documentation.

Results

During the 2024 calendar year, a total of 31 neonatal transfers were facilitated. These included 16 preterm retrievals from peripheral hospitals, 8 term transfers for surgical or subspecialty care, and 7 long-distance transfers to Colombo using referral ambulances supported by local hospital staff. On average, 2–3 transfers occurred per month. The proportion of neonates presenting with hypothermia on NICU admission decreased significantly following QI implementation. All post-intervention transfers were accompanied by trained personnel, and documentation compliance exceeded 90%.

Conclusion

Reactivation of the neonatal retrieval service through targeted QI efforts addressed critical safety and logistical gaps in neonatal transport across Uva Province. This initiative significantly improved thermal outcomes and care continuity, offering a scalable model for similar settings in low- and middle-income countries.

PP 36: A CASE OF FETAL VARICELLA SYNDROME WITH COLONIC ATRESIA.

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Introduction

Fetal varicella syndrome (FVS) is a rare complication of intrauterine varicella-zoster virus (VZV) infection during the first 20 weeks of pregnancy. It causes a range of anomalies, including skin scars, tissue hypoplasia in dermatomal patterns, microcephaly, eye and central nervous system defects, and urogenital or gastrointestinal abnormalities. Colonic atresia is an uncommon gastrointestinal manifestation of FVS.

Case Presentation

A male neonate was born at 38 weeks, weighing 2350 grams. Maternal history revealed primary varicella infection at 13 weeks, treated with oral acyclovir. Postnatally, the baby showed skin scarring along the left ophthalmic nerve (trigeminal nerve) and dermatomal pattern consistent with T3 on the left side. The right hand was hypoplastic; ocular examination was normal. Serology showed positive VZV IgG, while IgM and PCR tests were unavailable to perform.

On day two, the neonate developed intermittent biliary vomiting. Contrast studies were inconclusive, leading to an exploratory laparotomy, which revealed colonic atresia involving the descending and sigmoid colon. The proximal bowel was dilated, necessitating an ileostomy and biopsy sampling. Baby is currently on total parenteral nutrition (TPN) with plans for further surgical management. He also exhibited poor sucking and swallowing reflexes.

Discussion

Maternal viremia results in fetal VZV infection, with the virus remaining latent in dorsal root ganglia. Reactivation causes neuronal destruction and characteristic skin scars, limb hypoplasia, and bladder denervation. Gastrointestinal anomalies, while rare, include duodenal stenosis, Meckel diverticulum, small left colon syndrome, jejunoileal atresia, and colonic strictures or atresia. The pathogenesis of colonic atresia involves injury to the enteric plexus from VZV, leading to poor blood vessel development and ischemic injury, which results in intestinal atresia. While dermatologic anomalies and colonic atresia have been reported with spinal cord atrophy in fetal varicella syndrome, this neonate's spine was normal.

Conclusion

This case highlights colonic atresia as a rare presentation of FVS, underscoring the importance of early diagnosis and a multidisciplinary approach for optimal management.

PP 37:CLINICAL OUTCOMES OF HIGH-ORDER MULTIPLE PREGNANCIES FOLLOWING IVF: A CASE SERESE FROM A TERTIARY CARE CENTER

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Abstract
Background: High-order multiple pregnancies (triplets or more) have become more common with the increasing use of assisted reproductive technologies (ART), particularly in vitro fertilization (IVF). (1) but associated with significant maternal and neonatal morbidity.

Objective
To evaluate maternal and neonatal outcomes of three high-order pregnancies following IVF.

Methods
A retrospective case series of three high-order IVF pregnancies (1 triplet, 1 tri chorionic triplet, and 1 quadruplet pregnancy) managed at a tertiary care center.

Results
All pregnancies were complicated by obstetric and neonatal morbidities, including placenta previa, hypertensive disorders, uterine rupture, neonatal sepsis, and preterm deliveries. Two cases required emergency cesarean delivery before 34 weeks, and one resulted in intrauterine and early neonatal demise of all fetuses.

Conclusion
High-order IVF pregnancies carry substantial risk and necessitate multidisciplinary antenatal monitoring, early intervention, and intensive postpartum care.

Introduction
Natural high-order pregnancies are rare. High-order multiple pregnancies (triplets or more) have become more common with the increasing use of assisted reproductive technologies (ART), particularly in vitro fertilization (IVF)(1) (2). Despite advances in obstetric care, such pregnancies are associated with significant maternal and fetal risks including preterm birth, hypertensive disorders, placental abnormalities, and neonatal complications (3). Not only the maternal and fetal complications, high order pregnancies associated with invariably increased number of hospital admissions causing dislocations in family, social and economic life of the woman and her family (4). Careful antenatal surveillance, timely interventions, and multidisciplinary management are essential to reduce the maternal, fetal and neonatal morbidity and mortality. Meanwhile it is still controversial, fetal reduction has been commonly reported (5) (6).This case series presents three high-order IVF pregnancies managed at a tertiary care facility, highlighting the spectrum of complications and outcomes.

Case Presentations

Case 1: Triplet Pregnancy with Major Placenta Previa and Uterine Rupture
A 38-year-old G4P0 with a history of three prior first-trimester miscarriages (two spontaneous, one IVF) conceived triplets through IVF. She had a background of anterior wall myomectomy and was diagnosed with dichorionic tri amniotic pregnancy, GDM, major placenta previa, hypothyroidism, recurrent UTIs,

and vaginal candidiasis. At 30+4 weeks, she was admitted for fetal monitoring and developed bilateral leg cellulitis. At 32+6 weeks, she experienced APH and underwent emergency cesarean section for uterine rupture, delivering three live infants. All neonates were admitted to NICU with RDS and sepsis. The mother underwent subtotal hysterectomy and right salpingo-oophorectomy. Postpartum recovery was prolonged due to wound sepsis.

Case 2: Tri chorionic Tri amniotic Triplets with Fetal Demise and Severe Preeclampsia

A 36-year-old G2P0 with 8 years of secondary infertility conceived triplets via IVF and was on cervical cerclage. She had hypertension, hypothyroidism, and was on enoxaparin and aspirin. She was admitted at 24+3 weeks for hypertension. After initial stabilization, she was readmitted at 29 weeks with worsening blood pressure and one intrauterine fetal demise. Emergency LSCS was performed at 29+1 weeks, delivering two live neonates and one macerated fetus. Postpartum, the mother developed sepsis and was managed appropriately. The neonates were treated for prematurity and sepsis, with prolonged NICU stay.

Case 3: Quadruplet Pregnancy with Chorioamnionitis and Neonatal Loss

A 36-year-old primigravida with 18 years of primary infertility conceived quadruplets via IVF. She presented at 15 weeks with threatened miscarriage and was managed conservatively. At 16+1 weeks, she was readmitted with severe abdominal pain, PV bleeding, and signs of chorioamnionitis. She was diagnosed with severe sepsis and pus discharged through the cervical os. After removal of the cerclage, all four fetuses were delivered, with one briefly live and others demised. Retained placenta necessitated suction evacuation. The mother was treated for sepsis with intravenous antibiotics and discharged in stable condition.

Table 1: Summary of Maternal and Neonatal Outcomes

Case	Maternal Age	Type of Pregnancy	GA at Delivery	Delivery Mode	Neonatal Outcome	Maternal Complications
1	38	Dichorionic Triamniotic Triplets	32+6	EM-LSCS	All live, NICU, sepsis	Uterine rupture, hysterectomy, sepsis, ICU stay
2	36	Trichorionic Triamniotic Triplets	29+1	EM-LSCS	2 live, 1 IUFD, NICU	Preeclampsia, postpartum sepsis
3	36	Trichorionic Quadriamniotic Quadruplets	16+1	Miscarriage	1 transiently live, others demised	Chorioamnionitis, retained placenta, sepsis

Discussion

This case series illustrates the complex and high-risk nature of high-order IVF pregnancies. The maternal complications observed include uterine rupture, hypertensive disorders, postpartum hemorrhage, sepsis, and surgical morbidity. Neonatal outcomes were severely affected by extreme prematurity and infections, which all the live fetuses needed NICU admission and prolonged hospital stay with management for severe prematurity and neonatal sepsis.

The decision to continue high-order pregnancies without selective reduction often results in significant morbidity (5) (6). These findings align with existing literature, which supports the importance of individualized counseling on the risks and potential benefits of fetal reduction (7).

Our series also emphasizes the necessity of a multidisciplinary team including obstetricians, neonatolo-

gists, anesthesiologists, endocrinologists, and intensivists for optimal care.
Because of the high rate of difficulties, it is imperative that embryo transfer procedures be regulated. The American Society for Reproductive Medicine (ASRM) and ESHRE recommend limiting embryo transfers based on maternal age and embryo quality to reduce high-order pregnancies (8).

In countries with less stringent regulation or in private sectors driven by success rates, patients may undergo multiple embryo transfers, increasing HOP incidence. To lower these avoidable consequences, more policy implementation, increased public knowledge, and uniform IVF guidelines are required (9) (10).

Conclusion

High-order multiple pregnancies following IVF are associated with a high risk of severe maternal and neonatal complications. Early identification of risk factors, vigilant antenatal monitoring, and timely delivery planning are critical. A multidisciplinary approach and consideration of fetal reduction should be part of preconception counseling in IVF programs as well as proper regulations in IVF centers.

PP 38: HERNIA OF THE UMBILICAL CORD-RARE CONGENITAL ABNORMALITY.

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Introduction

Hernia of the umbilical cord (HC)is a rare congenital anomaly may see in antenatal scans but not always. This happens due to failure of retuning of the mid gut during involution phase of physiological midgut herniation during fatal development. Unlike gastroschisis, omphalocele hernia of the cord is less severe. The sac contains small portion of the bowel, peritoneum, normally it appears in the base of the umbilical cord. Early recognition and appropriate surgical management are essential to prevent complications such as bowel ischemia or atresia. Here, we report a case of hernia of the umbilical cord diagnosed at birth, highlighting the clinical features, surgical management.

Case Presentation and Management

Baby A is a term baby boy delivered to nonconsanguineous healthy parent, his antenatal, and immediate postnatal period is unremarkable. He delivered virginally nil resuscitation needed.

On examination found to have swelling of the base of the umbilical cord ,and the cord fix at the apex of the sac, some bowel part can be seen clearly through the sac. Other examination is unremarkable.
We kept a considerable length of the cord from the defect and clamp and cut the cord.

We arranged ultrasound scan which revealed sac contain omentum with omental fat and small part of small bowel.

We took surgical opinion, plan of management was to conservative management, keep the hernial cover intact and keep it moist. We applied local antibiotic cream. Positioning the stump in a way that gravitational force will pull the hernia into abdominal cavity. Baby was exclusively breast fed on demand.

Hernia involute with the time without any surgical procedure.

Discussion

Hernia of the umbilical cord (HC), though it is rare, is an important clinical entity that requires careful assessment to differentiation it from omphalocele and gastroschisis which carries series of other associated abnormalities. HC is differentiated from small omphalocele by the insertion of the cord into the sac itself, often at the apex of the hernial sac in HC but often displaced in the omphalocele and sac of the HC the is very thin but in omphalocele the sac is thick, and it contain peritoneum and amnion. HC often a benign condition with favourable outcome. There are some rare associations with intestinal atresia, volvulus, malrotation, Meckel's diverticulum, cloacal anomalies, and very rarely chromosomal defects. Early recognition, clinical, radiological, surgical evaluation is very important in management of these babies to reduce the risk of complications and to improve long-term outcome.

PP 39: STUDY ON CATHETER RELATED BLOOD STREAM INFECTIONS IN NEONATES ADMITTED TO A LEVEL 111 NEONATAL INTENSIVE CARE UNIT

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Introduction
Umbilical vein catheterization is a lifesaving procedure in critically ill neonates. Umbilical venous catheters (UVC) are frequently the first choice for vascular access especially in very low birth weight infants as it provides easy and fast access. Among various short- and long-term complications associated with UVCs, catheter-related blood stream infections (CRBSI) are an important complication.

Several risk factors have been identified for the development of CRBSIs, and indwelling time of the CVCs is the most important of all.

Objectives
1. To determine the incidence of CRBSIs in term and preterm neonates.
2. To determine the safe duration of umbilical venous catheter use, without developing CRB SIs in term and preterm neonates.
3. To determine the organisms causing CRBSIs in term and preterm neonates.

Method
Prospective case- control study. All term and preterm neonates who are on umbilical venous catheters for more than five days were included in the study.

Sample Size was calculated using unmatched Case-Control Study by Fleiss method. The number calculated was 266, including both cases and controls. The study was conducted from 1st of April 2019 until the desired numbers are fulfilled. The ethical approval was obtained by the Ethics review committee of Sri Jayewardenepura General Hospital.

Results
268 newborns were enrolled and 28 were excluded as they did not fulfil the inclusion criteria. Hence, 240 newborns were included where 67% was boys. 156 (65%) neonates were positive for CRBSI and the commonest organism isolated was coagulase negative staphylococcus aureus (CoNS). Mean dwelling time was 8.9 among neonates who were positive for CRBSI and 8.5 for those who are negative. There was no significant difference between the dwelling time was noted between two groups (95% CI -0.54 to 1.38).

Conclusions
Incidence of CRBSI is 65% and dwelling time does not increase the risk of developing CRBSI. The commonest organism is CoNS.

PP 40: HYPERPIGMENTATION IN A NEONATE: A CLUE TO DIAGNOSE CHIKUNGUNYA IN A RESOURCE- LIMITED SETTING; A CASE REPORT SERIES

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Introduction

Neonatal chikungunya is a re-emerging disease in Sri Lanka; yet often misdiagnosed as neonatal sepsis due to the particular neurotropism of the chikungunya virus. Post-inflammatory response triggered by the virus increases intraepidermal retention of melanin, leading to characteristic hyperpigmentation as described in the previous literature. Here, we report 2 babies presenting with similar dermatological manifestations in the subacute phase, which aids in the clinical diagnosis of chikungunya infection.

Case Presentations

First case - A term baby boy with normal birth weight presented with fever and excessive crying on day 11 of life. There was a history of recent viral infection in multiple family members, suggestive of Chikungunya. Examination revealed a flushed, irritable baby with hepatomegaly and normal haemodynamic parameters. He had lymphocytosis, thrombocytopenia (99×109/mm3), elevated transaminases (AST- 766 IU/L and ALT- 122 IU/L) with negative septic screen including Dengue NS1 Antigen, normal coagulation profile and renal functions. Hepatomegaly without ascites was noted ultrasonically. He was managed with empirical intravenous antibiotics for 10 days.

Second case: A baby boy was born at term with normal birth weight to a mother who had intra-partum fever. He developed fever on day 3, followed by refractory seizures on day 7 requiring intravenous midazolam infusion and ventilatory support. Examination revealed jaundice, skin mottling and hepatomegaly. Investigations showed normal septic screen, lymphocytosis, thrombocytopenia (80×109/L), transaminitis (AST- 196 IU/L) and deranged renal functions (Creatinine- 138 micromoles/L). CSF analysis was normal with negative HSV PCR. Ultrasound scan brain was normal. The baby completely recovered with intravenous antibiotics and supportive care.

Both babies developed generalized hyperpigmentation with characteristic perioral distribution called "Brownie nose" or "chik sign' in the subacute phase. In the first baby, chikungunya IgM antibody became positive on day 10 of the illness. However, in this resource poor setting serology was not performed in the second baby.

Conclusion

The characteristic post-inflammatory hyperpigmentation is an important physical sign to diagnose chikungunya in resource-limited settings where serological confirmation is not always cost-effective. This case report series highlights the importance of having a high index of clinical suspicion to diagnose neonatal chikungunya in a symptomatic neonate.

PP 41: AUDIT OF DRUG CHART DOCUMENTATION AND PRESCRIBING ACCURACY IN THE PAEDIATRIC INTENSIVE CARE UNIT, NATIONAL HOSPITAL, GALLE

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Introduction
Accurate and precise drug chart documentation is crucial in Pediatric Intensive Care Units, as critically ill children receive multiple high-risk medications. Incomplete, unclear, or illegible prescriptions will lead to problems with medication safety and errors, compromising patient safety. Strict adherence to established prescribing standards ensures accuracy, clarity, and accountability in drug administration for optimal patient outcomes. This audit was conducted to evaluate current prescribing practices in our unit to identify areas for improvement.

Objectives
1. Assess the accuracy, completeness, and legibility of drug chart documentation against national standards.
2. Identify common documentation errors.
3. Recommend interventions to improve prescribing practices.

Methods
A retrospective audit was conducted using the data collected from April to July 2025 in the PICU, National Hospital, Galle. 55 drug charts were reviewed, covering "once only" medications, antibiotics, and routine drugs. Each prescription entry was clearly assessed against criteria in national standards, including patient details, allergy status, diagnosis, drug name, dose, route, frequency, prescriber's signature, and legibility. Compliance percentages were calculated, and common errors were identified.

Results
For "once only" medications, compliance was high for drug name, dose, and route (100%) and legibility (98.9%), but allergy status was recorded in only 30% of cases. For antibiotics, allergy status and indication documentation were notably low (26% and 10%, respectively), with prescriber signatures recorded in only 6%. For routine drugs, compliance was 92.9% for basic details and 93.9% for drug name, but per-kilogram dosing of medications was missing in 20.7% and prescriber signatures in 18.9% of prescriptions.

Conclusion
While legibility and core prescription details were generally well-maintained, significant deficiencies were observed in documenting allergy status, antibiotic indications, per-kilogram dosing, and prescriber signatures. Targeted interventions—such as redesigning charts to include dedicated fields, enforcing mandatory documentation protocols, and providing prescriber training—are recommended. A re-audit is planned after three months to assess the effectiveness of these measures.

PP 42: BEYOND THE BASICS: TRANSFORMING KNOWLEDGE AND PERCEPTIONS TO ACHIEVE WORLD HEALTH ORGANIZATION TARGETS FOR KANGAROO MOTHER CARE – A QUALITY IMPROVEMENT PROJECT AT CASTLE STREET HOSPITAL, COLOMBO

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Introduction
Kangaroo Mother Care (KMC) is a globally recommended, low-cost intervention for preterm and low birth weight infants. The World Health Organization (WHO) advises providing KMC for at least eight hours per day to maximize its benefits.

Objective
To extend the duration of KMC to ≥8 hours per day for eligible neonates within a six-week period from 15 June 2025 to 31 June 2025.

Methods
Despite prior audits and interventions, the majority of eligible babies in our unit received <6 hours of KMC daily. We adopted a new approach focusing on knowledge, perceptions, and perceived barriers among nurses and mothers: globally known factors influencing KMC implementation. Eligible neonates were defined as those with gestational age <37 weeks or birth weight <2500 g. A structured, self-administered questionnaire assessed knowledge, perceptions, and barriers among nurses and mothers already practicing KMC. Data were analyzed by the audit team. Interventions were designed using the Plan–Do–Study–Act (PDSA) model to address identified gaps. These included small-group education sessions for nurses with live demonstrations, integration of routine care into KMC sessions, active involvement of medical staff, and infrastructure modifications to overcome physical barriers.

The primary quantitative outcome measured was the mean KMC hours /day/ baby.

Results
Thirty mothers and thirty-six nurses participated. While mothers generally demonstrated adequate knowledge, notable gaps remained in their understanding of correct KMC positioning (33.3%) and the ability to continue routine care during KMC (50%). Among nurses, although 78% had adequate basic knowledge, key deficiencies were identified in areas critical for counselling parents. The most common barrier reported by mothers was back pain (39%), whereas nurses cited safety concerns, time constraints, and perceived maternal fatigue—though mothers largely denied feeling exhausted or fearful. Following the interventions, the WHO target was met: within six weeks, over 60% of eligible infants received at least 8 hours of KMC daily, compared with the baseline, where 60% received less than 6 hours.

Conclusion
Refining KMC practices by addressing knowledge gaps and barriers among mothers and healthcare providers led to improved KMC duration, better compliance with WHO standards, enhanced neonatal outcomes, and supported the long-term adoption of extended KMC

PP 43: ASSESSMENT OF HAND HYGIENE COMPLIANCE AMONG HEALTHCARE WORKERS IN THE NICU AT CASTLE STREET HOSPITAL FOR WOMEN – JULY 2025

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Introduction
Hand hygiene remains the cornerstone of infection prevention in Neonatal Intensive Care Units (NICUs), where newborns are at high risk of healthcare-associated infections. Following a sepsis outbreak in the NICU at Castle Street Hospital for Women (CSHW), an audit of hand hygiene compliance was conducted to assess current practices among healthcare personnel and to identify opportunities for strengthening infection prevention measures.

Objectives
To evaluate hand hygiene compliance among healthcare workers in the NICU and assess the impact of targeted educational interventions.

Methods
Hand hygiene practices, encompassing both handwashing and hand sanitization, were evaluated over a two-week period in July 2025 using the World Health Organization's "Five Moments for Hand Hygiene" framework. A total of 300 opportunities were observed across different staff categories: nursing officers, doctors, and supportive staff. Compliance was defined as the proportion of correctly performed hand hygiene actions relative to the number of observed opportunities.

Following the initial audit, tailored staff education and awareness programs were conducted, and a reaudit was performed two weeks later.

Results
The baseline audit revealed an overall hand hygiene compliance rate of 50.7% (152/300), with compliance rates of 57.3% (63/110) among doctors, 46.9% (85/181) among nurses, and 44.4% (4/9) among other staff. Compliance was highest before touching a patient (75%), while the lowest adherence was observed after contact with the patient, surroundings or body fluids. Hand hygiene practices prior to aseptic procedures too showed room for improvement relative to recommended standards.

After the implementation of educational sessions and reinforcement measures, the reaudit showed marked improvement with an overall compliance of 95% (285/300). Compliance reached 95% among both doctors (105/110) and nurses (172/181), meeting the WHO targets of 90-100%, while supportive staff showed an improvement to 60% (5/9).

Conclusion
This study illustrates the effectiveness of structured audits combined with educational interventions in strengthening hand hygiene practices in NICUs. The notable improvement following targeted interventions emphasizes the importance of sustained monitoring and regular training, particularly in settings where workload pressures and limited accessibility to hand hygiene resources may pose challenges.

PP 44: CONGENITAL CYTOMEGALOVIRUS INFECTION PRESENTING WITH HYDROCEPHALUS, VENTRICULITIS, MASSIVE HEPATOSPLENOMEGALY, AND LEUKEMOID BLOOD PICTURE IN A 5-WEEK-OLD INFANT

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Introduction
Congenital cytomegalovirus (CMV) infection is the most common congenital viral infection worldwide, which causes a variable clinical spectrum ranging from asymptomatic to severe multi-organ involvement. Neurological manifestations such as microcephaly, periventricular calcifications, and sensorineural hearing loss are well recognized; however, presentation with hydrocephalus, ventriculitis, and hematological abnormalities mimicking hematological malignancy is uncommon.

Case Presentation
A 5-week-old male infant, born at term to a healthy 41-year-old mother with an unremarkable antenatal history except for two febrile upper respiratory tract infections during the first trimester, presented with progressive head enlargement, irritability, and feeding difficulties since 3 weeks of age and was evaluated for persistent thrombocytopenia since birth at the local hospital. There was no history of seizures. On examination, he was alert with a head circumference rise of 8cm from birth value, a bulging anterior fontanelle, and sutural separation. Massive hepatosplenomegaly was evident, without lymphadenopathy. Neurological assessment revealed central hypotonia; hearing and visual assessments were normal for age.

Full blood count revealed marked leukocytosis (WBC count >50000), anemia, and thrombocytopenia. The blood picture showed a leukemoid reaction without blasts.

Cranial ultrasound and MRI brain demonstrated marked hydrocephalus with evidence of ventriculitis. CMV PCR from urine and serum was positive, confirming congenital CMV infection. TORCH screening was negative for other agents.

Supportive management included Ventriculoperitoneal shunt insertion and early developmental interventions. Antiviral therapy with oral valganciclovir commenced after multidisciplinary discussion. The child showed stabilization of head growth and marked improvement in Full Blood Count reports in a few weeks. Hepatosplenomegaly persisted but gradually reduced.

Conclusion
This case is a rare presentation of congenital CMV infection with hydrocephalus, ventriculitis, and a hematological profile mimicking leukemia. Recognition of such atypical manifestations is crucial for timely diagnosis and initiation of antiviral therapy, which may improve neurological and systemic outcomes. Early neuroimaging and CMV testing should be considered in infants with unexplained hydrocephalus, even in the absence of other manifestations. Multidisciplinary care remains crucial for long-term developmental monitoring.

PP 45: FAVOURABLE PERINATAL OUTCOME FOLLOWING MATERNAL CONCURRENT HSV AND VZV ENCEPHALITIS IN LATE PREGNANCY

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Background
Maternal central nervous system infections during pregnancy can have significant perinatal consequences, including preterm birth and neonatal morbidity. Concurrent Herpes Simplex Virus (HSV) and Varicella Zoster Virus (VZV) encephalitis is exceptionally rare and presents unique management challenges for optimising both maternal and neonatal outcomes.

Description
A 27-year-old primigravida at 35+5 weeks presented with respiratory symptoms, later complicated by delirium. Workup revealed mitral stenosis and focal EEG changes suggestive of encephalitis. While awaiting neuroimaging and cerebrospinal fluid (CSF) analysis, she experienced preterm prelabour rupture of membranes and delivered a healthy female infant vaginally with assistance (birth weight 2.355 kg). CSF PCR confirmed HSV-1 and VZV co-infection. Maternal treatment included intravenous acyclovir for 21 days and intramuscular dexamethasone for 14 days, with clearance of infection on follow-up CSF. Neonatal assessment was unremarkable, and no antiviral therapy was required.

Discussion
The decision to proceed with delivery was driven by spontaneous onset of labour rather than maternal infection status. Reassuring fetal surveillance throughout the maternal illness allowed avoidance of iatrogenic preterm delivery. Close neonatal monitoring ensured early detection of possible complications, though none developed. This highlights the potential for favourable neonatal outcomes even in the context of severe maternal CNS infection, provided timely diagnosis and multidisciplinary coordination.

Conclusion
Concurrent HSV and VZV encephalitis in pregnancy is exceedingly rare. With vigilant fetal monitoring, prompt maternal treatment, and coordinated perinatal care, healthy neonatal outcomes are achievable despite significant maternal morbidity.

PP 46: A STUDY OF PATIENT PARAMETERS, MANAGEMENT AND OUTCOME OF CONGENITAL DIAPHRAGMATIC HERNIAS AT A SINGLE SURGEON MANAGED TERTIARY CARE REFERRAL CENTRE

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Introduction
Congenital diaphragmatic hernia(CDH); the Bochdalek-type, results when pleuro-peritoneal membrane and diaphragm fail to develop in-utero. Intra-abdominal contents herniate into thorax through the defect causing increased intrathoracic pressure, pulmonary-hypertension, lung hypoplasia and respiratory-insufficiency. Degree of pulmonary hypertension determines the chances of survival. Pre-operative respiratory optimisation is essential for post-operative survival.

Data of all neonates with CDH at the pioneering, single-surgeon managed, tertiary care neonatal surgical referral centre composed of the two SCBUs of Colombo North Teaching Hospital Ragama(CNTH) analysed from 2022.01.17-2025.07.18.

As per surgical guidelines, all patients had pre-operative respiratory stabilisation beyond 24 hours.

Objectives
To assess the prevalence, patient parameters, disease severity and outcome of neonates with CDH at the tertiary care neonatal-surgical referral centre for Sri Lanka's most densely populated Gampaha District.

Method
Data collected retrospectively from clinical records and author's personnel operations log book.

Results
Nineteen neonates with CDH were studied. All were born at CNTH. Eleven underwent surgery and 9 were sent home. Four were born via Caesarean Section. Period of gestations(POG) of the eleven undergoing surgery ranged from 34/52-40/52 with mean 36.8/52. Birth weights (BW) ranged from 1.68kg-2.78kg with mean 2.32kg. Of the nine survivors, 2were operated after 24 hours of ventilation and stabilisation. 6/9 were ventilated between 24-48 hours. One with severe pulmonary-hypertension was ventilated for 96 hours. Of the 2/11 non-survivors of surgery, one ventilated for 96 hours had near cardiac-arrest during anaesthesia and survived 1 day. Second baby with maternal pyrexia developed near cardiac arrest pre-operatively and was operated on 8/365. She survived for 2/52 and succumbed to sepsis. POG of non-operated neonates ranged from 34/52-40/52 with mean 36.8/52. Their BW ranged from 1.68kg-2.78kg with mean 2.32kg. One of them had heart failure and another had genetic anomaly. Six of the eight with severe pulmonary hypertension had respiratory-failure despite supportive therapy. NO was available only when last baby with CDH was born. He succumbed despite NO therapy.

Conclusion
This cohort had predominantly pre-term, low BW neonates. Pre-operative ventilation and supportive therapy beyond 24 hours facilitated respiratory-stability in the majority. More advanced therapy such as ECMO facility might have improved survival of some of the non-survivors with CDH.

PP 47: QUALITY IMPROVEMENT AUDIT OF UVC PRACTICES IN A TERTIARY CARE NICU

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Introduction

Umbilical venous catheters (UVCs) are essential in neonatal intensive care units (NICUs), offering immediate postnatal vascular access for resuscitation, medication, and parenteral nutrition—especially in critically ill or preterm infants. Despite their clinical utility, UVCs carry significant risks, including catheter-associated bloodstream infections (CABSIs), venous thrombosis, and extravasation-related complications such as hepatic or cardiac injury. Correct practices of UVC care include strict aseptic technique during insertion, correct catheter tip positioning, routine monitoring for signs of infection or malfunction, timely removal when no longer clinically indicated and proper documentation. Studies have documented fatal extravasation events and wide practice variability, underscoring the importance of standardized protocols for UVC care practices.

Methods and results

This prospective clinical audit was conducted over three months in 2025 at the German Sri Lanka Friendship Hospital for Women (GSFHW), evaluating 25 neonates with UVCs in accordance with accepted guidelines. Compliance was highest in infection control practices (97.6%), followed by insertion technique (79.5%) and removal /documentation (64.6%). However, UVC maintenance (59.2%) and staff training (46%) showed substantial gaps.

Conclusion

In conclusion, while key aseptic measures are largely upheld, inconsistencies in daily handling, documentation, and professional preparedness pose risks to neonatal safety. To improve outcomes, this audit recommends establishing a dedicated vascular access team, reinforcing regular education and competency assessments, standardizing documentation protocols, introduce a simple but mandatory UVC documentation template for insertion and removal, maintenance checks, monitor and audit staff knowledge and conducting a follow-up audit to ensure continuous quality improvement in UVC care.

PP 48: ANTIBIOTIC STEWARDSHIP IN NEONATAL OSTEOMYELITIS: A CASE OF SUCCESSFUL TREATMENT WITH ORAL ANTIBIOTICS

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Introduction

Osteomyelitis is an inflammation of the bone caused by an infecting organism. It is usually caused by microorganisms that enter the bone hematogenously. The most frequently isolated organism in neonates with osteomyelitis is Staphylococcus aureus, which is responsible for up to 70% to 90% of the cases. In neonates, the incidence ranges from one to three cases for every 1000 hospital admissions.

Case presentation

17 days old baby girl, born to non –non-consanguineous parents, presented with fever, poor feeding, irritability and right-side knee joint swelling for three days duration. On examination baby was febrile and there was a swollen, tender right side knee joint with reduced movements. Patient had elevated CRP, positive blood culture for methicillin resistant staphylococcus aureus and there was a Brodie abscess on distal femur in the x-ray. Joint aspiration culture was sterile. Baby was diagnosed with osteomyelitis of right femur and treated with intravenous vancomycin for 14 days and then discharged with oral linezolid for four weeks duration. Patient was reviewed at the clinic for routine assessment. After completion of 6 weeks of antibiotics patient had no residual symptoms and biochemical investigations were normal with improved x-ray findings.

Conclusion

Although acute osteomyelitis is rare in neonates, it might result in severe sequelae such as joint destruction and growth failure. Therefore, neonatal osteomyelitis requires prompt antibiotic treatment. Short course of intravenous therapy with a subsequent shift to oral administration in uncomplicated cases appears to be effective and safe. Also, it reduces the need for multiple cannulations, parent's anxiety, risk of secondary infections and other complications associated with prolong hospital stay while improving the compliance for the treatment.

PP 49: FETUS IN FETU DIAGNOSED ANTENATALLY: A RARE CASE REPORT

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Introduction

Fetus in fetu (FIF) is a rare congenital anomaly typically results from aberrant embryogenesis in monozygotic diamniotic twins, whereby a malformed parasitic twin becomes incorporated within the body of the host twin. It has an incidence of 1 in 500000 births. Distinguishing FIF from teratomas is essential due to the differing management and prognostic implications and the diagnosis of FIF rests on identifying organized fetal structures within the host, especially vertebral elements. We report a case of FIF diagnosed antenatally.

Case Presentation

A primigravida mother delivered a female neonate at 38+6 weeks with a birth weight of 2.86 kg by elective lower segment cesarean section (EL/LSCS). Her antenatal ultrasonography at 36 weeks revealed a large intra-abdominal cystic mass (7×5 cm) containing structures consistent with fetal parts, including partial lower limbs, pelvic bone, and segments of spine.

The Apgar scores of the neonate were 9, 10, and 10 at 1, 5, and 10 minutes respectively and she was referred for further evaluation by a multidisciplinary team as postnatal ultrasonography confirmed the presence of a cystic abdominal mass with identifiable fetal parts.

Excision of fetus in fetus anomaly was done on day 02 of life and large amount of straw color fluid filled sac with partially developed fetal tissue (hip, bilateral lower limbs and spine) with placental tissue were noted during the surgery. The samples were sent for histology.

Serum alpha fetoprotein levels were normal and neonate was discharged on day 7 of life after arranging clinic follow up for postoperative monitoring.

Conclusion

FIF is being recognized more frequently nowadays because of routine imaging and the most common location is the retroperitoneum. Following confirmation of the diagnosis in the neonate, complete surgical excision should be performed and the excised FIF sent for detailed pathologic investigation. This case emphasizes the significance of prenatal imaging in identifying rare congenital anomalies like FIF as early diagnosis allows coordinated delivery planning, immediate postnatal assessment, and timely surgical intervention. Although most of FIFs are benign, given rare reports of malignant transformation complete excision and histopathological evaluation are crucial.

PP 50: CASE REPORT: FATAL CONGENITAL MYOPATHY PRESENTING WITH NEONATAL RESPIRATORY DISTRESS AND HYPOTONIA

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Introduction

Congenital myopathies are rare inherited muscle disorders that often present in the neonatal period with hypotonia and respiratory compromise. Early recognition is crucial but challenging due to nonspecific clinical features and the need for specialized diagnostic testing.

Case Report

A term female neonate was born via normal vaginal delivery to a 22-year-old primigravida mother who had polyhydramnios at third trimester. Immediately after birth, the infant presented with mild respiratory distress and generalized hypotonia. APGAR scores were 6 and 10 at 1 and 5 minutes respectively. On day two the neonate developed convulsions and over next two weeks the neonate had persistent respiratory distress which worsen on day 16 of life requiring immediate intubation and mechanical ventilation due to respiratory failure. Multiple extubating attempts over the following weeks were unsuccessful, with the infant consistently developing respiratory distress requiring reintubation. Standard investigations including chest radiography, echocardiography, and basic metabolic panels were unremarkable. Given the persistent ventilator dependence and failed extubating attempts, ENT consultation was obtained, and a muscle biopsy was performed to investigate the underlying cause of hypotonia. Subsequently, a tracheostomy was performed at day 33 of age to facilitate long-term ventilatory support. The muscle biopsy results revealed histopathological features consistent with congenital myopathy, including fibre size variation, central nuclei, and structural abnormalities such as absent central core or nemaline rods. Following tracheostomy, the infant showed improved respiratory status with satisfactory spontaneous breathing through the tracheostomy. The child was discharged home on tracheostomy care without mechanical ventilation. Tragically, the patient died at home 5 days post-discharge.

Conclusion

This case highlights the challenging diagnosis of congenital myopathy in neonates presenting with respiratory failure. The muscle biopsy provided crucial diagnostic information that confirmed the underlying pathology, allowing for appropriate counselling regarding prognosis and palliative care planning for the family.

PP 51: NEONATAL HYPERTHYROIDISM PRESENTING WITH PERSISTENT TACHYCARDIA AND EARLY CARDIOMYOPATHY: A CASE REPORT

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Introduction

Neonatal hyperthyroidism is a rare condition, most commonly caused by the transplacental passage of thyroid-stimulating antibodies from mothers with Graves' disease. It may present with subtle signs in the neonatal period and can lead to serious complications if not identified early. We report a case of a neonate with persistent tachycardia and early signs of cardiomyopathy secondary to maternal autoimmune thyroid disease.

Case Presentation

A two-week-old female infant was admitted for the third time since birth with grunting, loose stools, intermittent irritability, and sustained tachycardia exceeding 200 bpm. She was born at 38+5 weeks via induced vaginal delivery for meconium-stained liquor. Initial postnatal observations were unremarkable. The mother had prolonged rupture of membranes and received intravenous antibiotics during labour, with no maternal fever or GBS colonization.

Maternal history included Graves' disease and natalizumab treatment for multiple sclerosis. She had undergone thyroidectomy and was on levothyroxine, but her TSH receptor antibodies remained elevated throughout pregnancy. Natalizumab therapy was continued during the antenatal period.

On examination, the infant was afebrile and intermittently unsettled, with a soft systolic murmur at the upper left sternal edge. There was no hepatomegaly. ECG showed sinus tachycardia up to 220 bpm with right ventricular dominance and strain pattern. Echocardiography revealed a structurally normal heart with good function (fractional shortening 44%) and a small patent foramen ovale, cardiac chambers were not dilated. Troponin was elevated at 88 ng/L, and BNP was markedly raised at 4584 pg/mL. Thyroid function tests showed suppressed TSH and elevated free T4, both of which had been normal previously. Anti-thyroid antibodies were positive in the infant.

A diagnosis of neonatal hyperthyroidism with early tachycardia-induced cardiomyopathy was made. The infant was started on propranolol and monitored closely. Her clinical status and thyroid function improved, and propranolol was gradually weaned off.

Conclusion

This case highlights the need to consider neonatal thyrotoxicosis in infants with persistent tachycardia, particularly in those born to mothers with autoimmune thyroid disease. Early recognition and treatment are essential to prevent cardiac complications. Routine thyroid screening should be considered in at-risk neonates, even if the mother is clinically euthyroid.

COLLABORATORS IN CONTINUOUS PROFESSIONAL EDUCATION

- Ninewells Hospital
- Technomedics International (Pvt) Ltd
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- Emerchemie
- George Steuart Health (Pvt) Ltd
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