Perinatal Society of Sri Lanka

FOUNDED 2001

Towards healthier mothers and newborns

22nd ANNUAL SCIENTIFIC CONGRESS 2023

Perinatal Society of Sri Lanka

"Respectful Perinatal Care through Governance, Enhanced Quality of Care and Parental Understanding"

PROGRAMME & ABSTRACTS

01st - 06th September 2023

Galadari Hotel & Cinnamon Grand, Colombo, Sri Lanka.

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Sri Lanka.

CONTENT

MESSAGE FROM THE GUEST OF HONOUR

take this opportunity to express my sincere appreciation and good wishes at the occasion of the 22nd Annual Scientific Sessions of the Perinatal Society of Sri Lanka.

As a multi-disciplinary professional organization working towards achieving continuous improvement in the quality of healthcare for mothers and infants through various strategies, I am delighted that the PSSL has considered creating awareness on the Robson Ten Group Classification System, which enables all perinatal events and outcomes (including caesarean sections rates) to be studied and compared.

It is a great personal privilege to be invited to take an active part in your Annual Scientific Congress and to meet as many of you as possible. I believe that this may only be the beginning of a long and fruitful relationship.

I wish the Perinatal Society of Sri Lanka all the success for their Annual Scientific Congress and believe that it would take forward its activities in line with the year's theme of Respectful Perinatal Care with Good Governance, Clinical Quality and Support for Better Parenting.

Professor Michael Robson
Consultant Obstetrician and Gynaecologist
The National Maternity Hospital, Dublin, Ireland

MESSAGE FROM THE PRESIDENT PERINATAL SOCIETY

2023 has been a challenging year. The Perinatal Society of Sri Lanka has put forth an interesting program that will support with new thinking to improve perinatal health outcomes despite the prevailing economic downturn in the country. The Council has worked hard to also synthesize some of the on going work of the Society into the Scientific program. Noteworthy are the ongoing work on Low birth weight analysis, cesarean section, Improving parental understanding , neonatal care training including respectful care and development of performance indicators capturing quality of care for use at institutional level.

At my induction earlier on this year, I shared intent for PSSL activities through a conceptual framework where Governance, Clinical quality and parental understanding can be harmonized to deliver respectful care. The same theme is portrayed in the agenda of the scientific program this year.

The Council and past presidents and the membership has extended valuable support and all our Development partners have honored our intentions to bring forward this agenda for professional advancement. Several international resource persons are also contributing to the program which highlight important aspects of perinatal care. Their presence has made it possible to have several pre congress activities that add further value. This years program is further enriched through inclusion of a space for public, giving opportunities to gather more knowledge on ongoing work to improve parental understanding. The space would also provide opportunity for public – professional interaction.

The National Maternal & Child health Program and Perinatal Society of Sri Lanka works together with other professional colleges and we are hopeful that the program also gives opportunity for advocacy for further advancement in national health programs. I am thankful to the Director General health Services for supporting the program and for enabling participation of the membership.

It is with much pleasure that I give this message and I am hopeful that full benefit of the scientific program will be realized . I thank the Scientific Program Chair for the magnificent task undertaken and the support given by the Council to design and deliver this program.

Dr. Susie Perera
President - PSSL
Consultant Community Physician

MESSAGE FROM THE CONGRESS CHAIR

The Perinatal Society of Sri Lanka has had a productive year in 2023 amid the economic turmoil that engulfed people's lives and our country. We did not give up on our quench for new knowledge. We continued to organise academic activities to uplift our country's standards of perinatal care, visiting many institutes in the provinces, reaching out and helping professionals, building confidence among the mothers, and caring for their newborn babies.

This year's Annual Scientific Congress will be held at Cinnamon Grand Hotel and Pre-Congress for nurses and midwives at Hotel Galadari, Colombo. We are fortunate to have eminent speakers from local and international institutions who will enlighten participants with new knowledge.

This year pre congress events showcase progressive interventions that national programs can be further strengthened with. Two events need specific mention are the workshops on Robsons Ten group classification and the Neonatal retrieval. We intend to have a rich dialogue that will lead to the much envisaged improvements in clinical procedures and institutional set ups that support these changes.

Most foreign speakers will join physically, a key achievement in the post-COVID world that tilted the balance for digital interactions, changing communication norms.

There will be two orations, one keynote speech, eight symposiums, two plenaries, three panel discussions, one interactive session, two workshops and one webinar during the three days of the Annual Scientific Sessions proceedings. In addition, the Pre-congress for Nurses and Midwives will consist of two plenaries, two symposiums and three master classes. This helps us address a wide array of topics and strike a finer balance between the art of practice and knowledge in science.

We hope for a successful Annual Congress this year, which meets the demands of the modern world through greater leaps in scientific advances. This new knowledge will help us reorient our country's approach to perinatal care.

Dr. Surantha Perera
Chair of the Scientific Committee
Consultant Paediatrician

Perinatal Society of Sri Lanka

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Standing from Left to Right **- Dr Chandana Jayasundara, Dr Nimesha Gamhewage, Dr Himali Herath, Dr.Dilusha Atukorale** *(Immediate Past Secretary)*, **Dr. Deepal Nawarathne, Professor Sachith Mettananda, Dr Prabath Randombage, Dr Harendra Dassanayake** *(Assistant Treasurer)*, **Dr Nimali Wijegoonewardene** *(Assistant Secretary)*, **Dr Dilani Dehigama, Dr Amila Chandrasiri, Dr Sandya Doluweera, Professor Sampatha Goonewardena** *(Editor)*

Seated from Left to Right **- Dr. Ruwan Silva** *(Treasurer)*, **Dr Nishani Lucas, Dr Kaushalya Kasturiarachchi, Dr Surantha Perera** *(SLJPM Managing Editor)*, **Dr L.P.C Saman Kumara (Immediate Past President), Dr Susie Perera (President), Professor Dulani Gunasekera** *(SLJPM Editor in Chief)*, **Dr U.D.P Ratnasiri, Dr W.M Palitha Bandara, DrT Kadotgajan, Dr Asiri Hewamalage *(Secretary)***

Absent **- Dr Kapilani Withanaarachchi, Dr Indunil Piyadigama,**

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Senior Medical Administrator

Perinatal Society of Sri Lanka
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22nd ANNUAL SCIENTIFIC CONGRESS 2023
01st to 06th September 2023 - Program Layout

1st September 2023	• **Pre Congress Scientific Session for Nurses and Midwives** *Galadari Hotel, Colombo.*
3rd September 2023	• **Webinar on Challenging Scenarios on Neonatal Retrieval** *Via - Zoom*
4th September 2023	• **Pre Congress Session on Robson Ten Point Classification System** *Galadari Hotel, Colombo.*
4th September 2023	• **Pre Congress Workshop on Neonatal Retrieval** *Galadari Hotel, Colombo.*
4th September 2023	• **Inauguration and the Oration of the Perinatal Society of Sri Lanka** *Cinamon Grand Colombo*
5th September 2023	• **Annual Scientific Congress Day 1 and Prof. Indrajee Amarasinghe Oration** *Cinamon Grand Colombo*
6th September 2023	• **Annual Scientific Sessions Day 2 and closing ceremony** *Cinamon Grand Colombo*

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Towards healthier
mothers and newborns

PRE-CONGRESS SCIENTIFIC SESSIONS

OF THE

PERINATAL SOCIETY OF SRI LANKA (PSSL)

FOR NURSES AND MIDWIVES

1st September 2023, at Galadari Hotel, Colombo

PROGRAMME OF PRE-CONGRESS SCIENTIFIC SESSION

Enhancing Perinatal Care: Empowering Nurses and Midwives

7.30 am – 8.30 am	**Oral presentations**	
8.30 am - 9.00 am	**Plenary I**	**Promoting reflective practices to improve quality of perinatal care** Dr. Susie Perera
9..00 am- 10.30 am	**Symposium I** **New WHO labour care guide**	**Respectful supportive care-** Dr. Chandana Jayasundara **Foetal and maternal monitoring** Dr. Chinthaka Banagala **Labour progression and action plan** Prof. T. Kadotgajan
10.30 am – 11.00 am	**Tea / viewing of posters**	
11.00 am – 11.30 am	**Plenary II**	**Birth defects-Screening, Intervention, and Follow up** Dr. Kapila Jayaratne
11.30 am – 1.00 pm	**Symposium II** **Care of the newborn**	**Nutrition of preterm** Dr. Dilani Dehigama **Red flags in early post-natal period** Dr. Nalika Menike **Care in the field setting for high-risk babies** Dr. Hemali Jayakody
1.00 pm – 1.45 pm	**Lunch/ Viewing Posters**	
1.45 pm- 3.45 pm	**Select the master Class of your choice**	
3.45pm- 4.15 pm	**TEA**	
4.15 pm -5.00 pm	**Leadership and mentoring**	

Master class I- Neonatal Life Support

1.45 pm – 2.45 pm	**Lecture 1-The transition from fetal to neonatal circulation** Dr.Kaushalya Gomez **Lecture 2. Newborn heart and lung** Dr.Priyanga Dematawa **Lecture 3. NLS algorithm** Dr. Jithma Fonseka
2.45 pm -3.45 pm	**Demonstration on manikins** Dr. Nimesha gamhewage, Dr. Kapilani Withanarachchi **Normal resuscitation** **Challenging scenarios**
3.45pm-4.15pm	**TEA**

Master Class II- Early neurodevelopment interventions

1.45 pm – 2.45 pm	**Lecture 1- Responsive parenting** Dr. Asiri Hewamalage **Lecture 2- Care for posture and movement disorders** Dr. Jayathri Jagoda **Lecture 3- Sleep physiology in newborns** Dr. Ridma Jayarathna
2.45 pm -3.45 pm	**Demonstration of videos and teaching points on development delay** Dr. Piyara Rathnayake , Dr. Himali Jayaweera
3.45pm-4.15pm	**TEA**

Master Class III – Obstetric Emergencies

1.45 pm – 2.45 pm	**Lecture 1- Obstetrics hemorrhage (APH/ PPH)** Dr. Achintha Dissanayake **Lecture 2- Emergencies in hypertensive disease** Dr. Indunil Piyandigama **Lecture 3- Puerperal Sepsis** Dr. Prabath Randombage
2.45 pm -3.45 pm	**Demonstration of videos on obstetrics emergencies** Dr. U D P Rathnasiri, Dr. Ruwan Silva **Teaching points** **Giving feedbacks**
3.45pm-4.15pm	**TEA**

FACULTY - ANNUAL PRE-CONGRESS SCIENTIFIC SESSION

Dr. Susie Perera

Dr. D.M. Chandana Jayasundara

Dr. Chinthaka Banagala

Prof. T. Kadotagajan

Dr. Kapila Jayarathne

Dr. Dilani Dehigama

Dr. Nalika Manike

Dr. Hemali Jayakody

Dr. A. K. S. Gomez

Dr. Priyanga Dematawa

Dr. Jithma Fonseka

Dr. Nimesha Gamhewage

Dr. Kapilani Withanarachchi

Dr. Asiri Hewamalage

Dr.a Jayathri Jagoda

Dr. Ridma Jayarathna

Dr. Piyara Rathnayake

Dr. Himali Jayaweera

Dr. Achintha Dissanayake

Dr. Indunil Piyadigama

Dr. Prabath Randombage

Dr. U.D.P. Ratnasiri

Dr. Ruwan Silva

ABSTRACTS - PRE-CONGRESS SCIENTIFIC SESSION

Plenary 1

Promoting reflective practices to improve quality of perinatal care

Dr. Susie Perera
Consultant Community Physician

Reflection is thinking about what you do. From a very structured, guideline, resource dependent and clinician lead service environment, the time taken for other service quality improvement practices often take a secondary place. Advancing health systems increasingly recognize the care provider's inputs other than from the primary capacity/training on the subject. There is an expanding knowledge that reflective practices must be combined into day-to-day clinical practice to further improve quality of care.

Reflective practices can range from self-reflection, team reflections and to formal clinical audits. Clinical audits too can be made to capture self-reflections. It is important that simple methods are adopted in general care to be reflective.

It is important to encourage the use of reflection at care giving levels, and be recognized as a quality improvement practice. Reflections can be done at any point of care eg. At parent crafting sessions, antenatal care sessions, admission of a patient, ward encounter, at the labor room, after delivery, at breastfeeding counseling, when the baby is in the NICU, at the time of discharge. When reflections are shared within teams and discussed they form a powerful understanding for quality improvement in perinatal care. The leadership becomes vital in setting up such processes and transformations in basic training programs and inclusion to continuous professional development need strong consideration

Symposium I - New WHO labour care guide

Supportive Labour Care

Dr. Chandana Jayasundara
(MBBS (Kelaniya, Sri Lanka), MD (Obs and Gyn), MRCOG (UK)
Senior Lecturer in Obstetrics and Gynaecology, Faculty of Medicine, University of Colombo.
Consultant Obstetrician and Gynaecologist, De Soysa Hospital for Women, Colombo

The WHO Labour Care Guide (LCG) revolutionizes childbirth experiences by prioritizing women's well-being and their infants. This tool, aligned with WHO recommendations, integrates evidence-based clinical care across diverse settings, extending its reach to non-clinical practices that amplify positive childbirth encounters. The LCG encompasses key sections, starting with admission data and labor specifics, followed by the cornerstone: supportive care. Supportive care embodies the right to respectful maternity care, including labor companionship, pain relief tactics, oral fluid intake, and optimizing posture. Supportive care, vital for all pregnant women, commences during active labor's first stage. Companionship eases birthing through effective communication, emotional support, and relaxation techniques. Pain relief strategies encompass pharmacological and non-pharmacological options, while hydration via oral fluids sustains well-being. Posture's significance surfaces with diverse positions offering comfort, pain management, and facilitation of labour progression. Documentation ensures continuous evaluation of supportive care, aligning with care quality, safety, and communication standards. Thus, the WHO LCG empowers women's childbirth experiences through evidence-based and supportive care, elevating maternity standards and infant well-being

Fetal and Maternal Monitoring

Dr. Chinthaka Banagala
Senior Lecturer in Obstetrics and Gynaecology
Department of Obstetrics and Gynaecology
Kotelawala Defense University

Partogram was first developed to provide finite referral criteria for midwives working in peripheral clinics who needed to refer women in labour to tertiary centres1. In early 1990s World Health Organization (WHO) recommended it as a routine tool for displaying the progress of labour. After 2018, WHO developed a new labour care guide, a user manual and a new partogram based on new evidence2.

Partogram should be commence when a woman is in established labour with 2 or more contractions per 10 minutes or when inducing labour with artificial rupture of membranes with or without oxytocin infusion. While main differences when compared to the previous partogram, is in the labour progression section, there few alterations to the maternal and fetal monitoring sections as well3. New WHO partogram has a separate section for monitoring of the second stage of labour. However, this section was included in 2013 to the national partogram of Sri Lanka by the MOH and Family Heath Bureau4. Current SLCOG guideline on normal labour management provides essential information on proper labour monitoring5.

The frequency and method of maternal and fetal observations remain the same. For low risk women in spontaneous onset labour, routine admission CTG, and continuous CTG monitoring is not recommended2. They should be rather monitored using intermittent auscultation. Hand-held doppler devices are recommended over pinard stethoscope for fetal monitoring in labour5. Fetal heart rate should be monitored for a minimum of one minute duration immediately after a contraction. Fetal monitoring frequency increases as the labour advances. Usage of MEOWS chart is recommended as the main monitoring tool in the immediate postpartum period6.

References:

1. Philpott RH, Castle WM. Cervicographs in the management of labour in primigravidae. The alert line for detecting abnormal labour. JObstetGynaecol Br Commonw1972;79:592–8.
2. WHO Labour Care Guide: User's Manual. Geneva: World Health Organization; 2020
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4. https://platform.who.int/docs/default-source/mca-documents/policy-documents/guideline/LKA-MN-32-01-GUIDELINE-2013-eng-NATIONAL-GUIDELINE-FOR-MATERNALCARE.pdf
5. https://slcog.lk/management-of-normal-labour/
6. Labour progression and action plan

Labour progression and action plan

Prof.T. Kadotgajan
MBBS (Sri Lanka), MS (Sri Lanka), FSLCOG (Sri Lanka), DOWH (Ireland), MRCP (Ireland), FRCOG (England) Clinical Professor of Obstetrics and Gynaecology
Consultant Obstetrician and Gynaecologist
Castle Street Hospital for Women

The WHO Labour Care Guide is a tool that aims to support good-quality, evidence-based, respectful care during labour and childbirth, irrespective of the setting or level of health care. This manual has been devel-

oped to help skilled health personnel to successfully use the WHO Labour Care Guide. The recent changes in the diagnosis of abnormal progress of labour are clearly dealt in the new labour guide that has replaced the old partogram. A thorough understanding of the such new changes is important in order to achieve a reduction in the number of emergency cesarean sections performed for lack of progress. As such, this lecture is aimed to provide the necessary inputs to the targeted participants.

Plenary 2

Birth Defects - Screening, Intervention, and Follow up

Dr. Kapila Jayaratne
Family Health Bureau - Ministry of Health Sri Lanka

Sri Lanka reports impressive MCH indices on par with developed countries. With high antenatal care (99%), institutional deliveries (100%) and care for sick newborns, the country reports a stillbirth rate of 6.1 per 1000 births and an infant mortality rate of 8.2 per 1000 live births. Birth defects (BD) as an entity has assumed a priority area over the past few years.

The Sri Lankan component of WHO Multi-country survey on Maternal & Newborn Health (2011) reported an "at birth prevalence" of BD 1.8% (5000–6000 cases). Leading BD categories were cardiac malformations (27.7%), limb abnormalities (23.6%) and cleft lip/palate (11.6%). Recent analyses of national feto-infant mortality data (2019) incriminate BD for 26% of stillbirths and 40% of infant deaths.

Antenatal mothers are screened ultra-sonically for anomalies and in specific cases for metabolic and genetic disorders (coverage >90%). A structured neonatal examination is performed before discharge (99%). National Newborn screening programme covers congenital hypothyroidism, congenital deafness, and critical congenital heart diseases. Selective screening programmes are executed for thalassemia, congenital rubella and syphilis. Systematic school medical inspections conducted island-wide also capture missed BD cases.

A web-based National Birth Defects Registry (NBDR) including government and private sector hospitals (n=131) has been in place since 2019 with the objective to count birth defects, strengthen care and formulate preventive strategies. The case capture period is conception up to 2 years of age. Total number of cases reported to NBDR from 2019-2022 was 2069.

Free medical and surgical treatment is available for babies with BDs at all government sector hospitals. Reconstructive surgeries are done for all cleft/lip cases. A long waiting list is noted for surgical interventions for children with heart diseases. Rehabilitation care is given under a national program for children with special health needs which needs to be restructured.

A multitude of BD prevention strategies are adopted; Rubella vaccination coverage >95%. Strong health education campaign covers better-prepared pregnancies, consanguineous marriages, avoidance of pregnancy >35 years of age, periconceptional folic acid, teratogenic risks etc. A preconception care package is implemented. Tobacco, alcohol and drug use among women is less due to cultural implications. Micronutrient food fortification programme includes only iodized salt.

Symposium 2 : Care of the Newborn

Nutrition of preterm

Dr D. M. K. Dehigama
Consultant Neonatologist
Teaching Hospital Mahamodara

As survival rates for preterm improve, more emphasis is being placed on optimizing nutrition. Preterm infants have low nutrient content and higher nutrient requirement than full term infants. Suboptimal nutrition in the early neonatal period contributes to postnatal malnutrition and growth defects especially in the smallest most immature infants. Delay in introduction of enteral feeds can also result in reduced resistance to infection. The challenge in preterm nutrition is to establish safe enteral feeding considering relevant risk factors.

The aim of a parenteral/enteral nutrition is to ensure adequate growth. In order to match the fetal growth along the 50th centile, the very low birth weight infant needs to gain weight at 15- 30g per day. Mother's own milk is the first choice of feeding for all babies. Every baby should receive colostrum on the first day of life, preferably within first 6 hours and milk volume should be adjusted routinely once daily.

Babies who cannot coordinate sucking, swallowing and breathing effectively (less than 32 weeks) need tube feeds. Orogastric tubes are preferred in preterm babies who are receiving noninvasive breathing support.

Identification of high-risk babies is important as it change the time of commencement of feeds and rate of milk advancement. Necrotizing enterocolitis, gastric perforation, congenital abnormalities affecting the gut are contraindication to start enteral feeds. In is important to start feeds cautiously in babies with hypotension, in utero growth restriction and absent/ reserves end diastolic flow.

Preterm infants require supplemental vitamin D, folic acid and Iron. Supplementation with multivitamins and folic acid can be commenced once full volume of feeds is established and supplemental iron at third week of life.

Monitoring the growth using a preterm growth chart is important and ensure baby grows along the birth trajectory.

Red Flags in Early Post natal period

Dr K. A. Nalika Menike
Consultant Neonatologist
N H Kandy

Global number of newborn deaths have declined from 5 million in 1990 to2.4 million in 2019. The greatest risk of death lies within the first 28 days. In 2019, 47% of all deaths under 5 years occurred during the neonatal period, where 1/3rd occurred on the day of birth & ¾th during the first week of life.

Most of the infant deaths occurring within the first 28 days of life result from lack of quality and skill in the care at birth and rest of the neonatal period.

Our aim is to provide good quality antenatal care, skilled care at birth,postnatal period & special care for sick & small babies.
The essential newborn care package has fulfilled the above requirements by

1. Training all delivery staff with Neonatal life support.

2.Providing appropriate thermal protection.
3.Infection prevention esp. hygienic umbilical cord care.
4. Early exclusive breast feeding.
5.Assesment for serious health problems (Awareness on red flag signs in the newborn.
6.Preventive measures eg: vitamin k,BCG vaccine ,checking SPO2 etc.

Since most deliveries in our country take place in the hospital setting, achieving above standards should not be difficult. Higher literacy rate among parents would it make it easier too.

Master class I- Neonatal Life Support

Lecture 1 : The transition from fetal to neonatal circulation

Dr. Kaushalya Gomez
MBBS (Kel) MD (Paediatrics)
Consultant Neonatologist
District General Hospital Gampaha

The transition from fetus to neonate is a critical time of physiological adaptation. Careful assessment is needed during transition to ensure that proper interventions are initiated at appropriate time. The transition from fetal to neonatal life requires complex physiological and anatomical changes that should occur in relatively short time period. Here the maternal dependent fetus becomes an independent life. Fetal circulation is a shunt dependent circulation. It consists of three shunts, namely the ductus venosus, ductus arteriosus and foramen ovale. And also, fetus has high pulmonary vascular resistance with relatively hypoxic pulmonary environment and low systemic vascular resistance. As the fetus begins its transition to post-natal life, gas exchange will be transferred from the placenta to the lungs, the fetal circulatory shunts will close and the left ventricular output will increase.

Lecture 2 : Newborn heart and lungs

Dr. (Mrs). Priyanga Dematawa
Lecturer / Consultant in Neonatal and Perinatal Medicine
Department of Pediatrics
Faculty of Medicine
University of Peradeniya.

Neonatal heart and lungs are not the miniature version of those of adults in their morphology and function. At the time of delivery, there is a rapid transition and adaptation from intrauterine life to extrauterine life. A smooth transition at birth is needed for the proper functioning of the heart and lungs. Both congenital and acquired disease conditions of the neonatal lung and the heart affect the neonate, needing initial management in an intensive care unit. Premature neonates too need variable lengths of stay in neonatal intensive units due to immature hearts and lungs which struggle to meet the demands of gas exchange after birth. Modern neonatal practices have improved the outcomes for both term and preterm infants, but many risk factors have been identified for the development of chronic lung disease of prematurity (CLD), including oxygen toxicity, infection, and barotrauma and volutrauma caused by mechanical ventilation. To improve the long-term outcomes of both term and premature infants, it is crucial to comprehend the fundamentals of anatomy and physiology, the effects of diseases and their management on developing heart and lungs, as well as nursing strategies to minimize the negative effects of management on developing heart and lung.

Lecture 3 : NLS ALGORITHM

Dr. Jithma Fonseka
Consultant Neonatologist

The NLS algorithm provides clear practical instruction in the resuscitation of babies at and immediately after birth. It is designed for all health workers, regardless of their discipline or status, who may be called upon to resuscitate a new born baby. It aid for logical and Systematic approach to resuscitation of the term and preterm infant at birth. This algorithm published on Resuscitation Council UK (RCUK) New born Life Support(NLS) Guidelines, based on International Liaison Committee on Resuscitation (ILCOR) 2020 ,Consensus on Science and Treatment Recommendations (CoSTR) 2019 and 2020] and European Resuscitation Council Guidelines . The skills applicable in NLS algorithm are anticipating problems at birth with proper handling of equipment ,airway management, and delivery of chest compressions with obtaining umbilical venous access when indicated. It also provides a framework for succinct recording , effective communication and team work .

Master Class II- Early neurodevelopment interventions

Lecture2:Care for posture and movement disorders / cerebral palsy

Dr. Jayathri Sandalekha Jagoda
(MBBS MD)
Consultant in Rheumatology and Rehabilitation
Lady Ridgeway Hospital

Human brain has the highest capacity to recover from an insult in first few years of life. Therefore early detection and early interventions are crucial in managing cerebral palsy. Child's active participation rather than passive stimulation proved to be most effective. There are nine recognized domains identified to pay attention in order to get the optimum outcomes in early interventions.

Lecture3: Sleep physiology in newborns

Dr. Ridma Jayarathna
Paediatric Respiratory Consultant

Sleep is an active neurophysiological process and a primary function of the developing brain. The physiological parameters including brain activity, muscle tone and cardiorespiratory functions vary during the wake and sleep. Circadian (process C) and homeostatic (process S) synchronize the physiological changes with the environment and the ultradian rhythm determines the timing and duration of sleep. The circadian rhythm is not fully developed at birth. Neonates and infants have the unique character of preponderance to active sleep with frequent transitions which evolve with neuronal maturation. The adult type precise electroencephalographic features are not seen until 6 months of age whilst the sleep durations and sleep architecture evolve further with age. Qualitative changes in the sleep has a pivotal role in memory consolidation and possessing sensory stimuli to reinforce critical adaptations to the extra-uterine life. The neuronal immaturity, physiological mal-adaptations or non-neurological diseases including upper airway obstructions could manifest as potentially fatal sleep related breathing disorders in neonates.

Dr. Pyara Ratnayake
Pediatric neurologists
Lady Ridgeway hospital for children

Humans are the most advanced species in the chain of evolution. Neuroscience has amply explained the evolutionary advantages offered to the human species with regards to neurological and cognitive development. Neuroscience also helps us plan how to utilize this knowledge to maximize the potential of a human new born and infant. Cortical visual impairment and cognitive development delay are common components of many children with developmental delay , specially cerebral palsy and will be addressed during the talk with practical guides as how best to translate the knowledge of neuroscience into practice.

Master Class III – Obstetric Emergencies

Lecture 1 : Tackling obstetric haemorrhage : Can we do better?

Dr. Achintha Dissanayake
Consultant Obstetrician and Gynaecologist
Kotelawala Defence University Hospital

Obstetric haemorrhage is a leading cause of maternal mortality and morbidity worldwide. In Sri Lanka, obstetric haemorrhage remains one of the leading causes of direct maternal deaths. Obstetric haemorrhage includes antepartum haemorrhage (APH) and postpartum haemorrhage (PPH). Main causes of antepartum haemorrhage include placenta previa, placental abruption, morbidly adherent placenta, vasa previa, cervical trauma, polyps and unexplained. Primary PPH which occurs within 24 hours of delivery can be caused by uterine atony, retained tissue, trauma and coagulopathy. Secondary PPH may be caused by endometritis and retained tissue.

Bundle approach to obstetric haemorrhage is a novel approach to improve outcomes in obstetric haemorrhage. It encompasses 1) readiness in every unit, 2) recognition and prevention in every patient, 3) response for every haemorrhage and 4) reporting with system learning after every haemorrhage. Adopting these measures as health care workers at individual hospitals will enable to improve the morbidity and mortality due to haemorrhage.

Readiness includes having a haemorrhage cart with supplies, checklist, and instruction cards along with immediate access to haemorrhage medications, a response team to call when help is needed (anaesthetist, transfusion specialist etc.), massive transfusion protocols, unit guidelines and drills. Recognition and prevention include an assessment of haemorrhage risk on every patient along with accurate estimation of blood loss and the active management of the third stage of labour.

Visual estimation of blood loss charts and shock index can be used to increase detection. Every haemorrhage warrants an appropriate response with resuscitation whilst communicating appropriately with patient and staff. In APH delivery may need to be expedited and assessment of fetal well being is important. In PPH uterotonics, tranexamic acid along with uterine massage will be the first response bundle. In refractory PPH uterine balloon tamponade, transfer to theatre with compression sutures may be required. Monitoring with modified early warning score charts, high dependency care are essential followinga massive haemorrhage. Finally, multidisciplinary review of serious haemorrhages for system issues along with regular audits will improve outcomes.

Lecture 3 : Puerperal sepsis

Dr Prabath Randombage
Consultant Obstetrician and Gynaecologist
Base Hospital, Medirigiriya
MBBS, MD, MRCOG(UK), GESEA Diploma in Gynaecological Endoscopy (France)

Despite significant advances in medical management and antimicrobial therapy, sepsis in the puerperium remains an important cause of maternal death in Sri Lanka as well as globally.

Puerperal sepsis is defined as sepsis developing after birth until 6 weeks postpartum. There are 3-tier definitions for sepsis related conditions: Sepsis, Severe sepsis, and Septic shock. Sepsis may be defined as infection plus systemic manifestations of infection; severe sepsis may be defined as sepsis plus sepsis-induced organ dysfunction or tissue hypoperfusion. Septic shock is defined as the persistence of hypoperfusion despite adequate fluid replacement therapy.

Postpartum women are vulnerable to rapidly evolving severe sepsis, with the genital tract being the most frequent source in particular the uterus, resulting in endometritis. Multiple risk factors for maternal sepsis have been identified including prolonged spontaneous rupture of membranes, vaginal trauma, caesarean section, wound haematoma and retained products of conception. Work out to identify non- genital causes can be done by head-to-toe approach.

Sepsis is the commonest cause of postpartum fever. Disease progression may be rapid and therefore, a high index of suspicion is necessary. The lecture covers the recognition of febrile bacterial illness in the postpartum period, symptoms, and signs other than fever, investigations to diagnose and characterise sepsis and management strategies. The UK Sepsis Trust action tool, the 'Sepsis Six' bundle is a useful memory aid for initiating investigations and treatment, ideally within the first hour since contact with the patient. Observations of all vital signs should be recorded on a modified early obstetric warning score (MEOWS) charts frequently. Moreover, the multidisciplinary team input involving consultant Obstetrician and Anaesthetist is paramount in reducing morbidity and mortality. Als0, 3-point scale called q-SOFA for predicting mortality among patients with suspected infections, where one can be used as a screening tool also will be highlighted.

WEBINAR ON CHALLENGING SCENARIOS IN NEONATAL RETRIEVAL

3 September 2023 | 7.00 pm to 9.00 pm

Surfactant deficiency lung disease
Dr. Saman Kumara

Duct-dependent cardiac lesion
Dr. Surendra Bisht, India

Neonatal ventilation and HFOV
Dr. Manoj VC, India

Meconium aspiration and nitric oxide therapy
Dr. Surantha Perera

Hypotension
Dr. Nimesha Gamhewage

Necrotizing enterocolitis and intestinal perforation
Dr. Dilani Dehigama

Diaphragmatic hernia
Dr. Kapilani Withanarachchi

MODERATORS

Dr. Kosala Karunaratne
President, Sri Lanka College of Paediatricians

Dr. Susie Perera
President, Perinatal Society of Sri Lanka

FACULTY - WEBINAR ON CHALLENGING SCENARIOS IN NEONATAL RETRIEVAL

Dr. Surendra Bisht
India

Dr. Manoj C V
India

Dr. Saman Kumara

Dr. Surantha Perera

Dr. Nimesha Gamhewage

Dr. Kapilani Withanarachchi

Dr. Dilani Dehigama

Dr. Kosala Karunaratne

Dr. Susie Perera

Prof. Michael Robson

Perinatal Society of Sri Lanka –2023

PRE-CONGRESS

ON ROBSON TEN GROUP CLASSIFICATION SYSTEM

09.00 am - 09.30 am
Background | Routine data collection | Principles of classification

09.30 am - 09.50 am
Q&A

09.50 am - 10.20 am
Presenting the data | Interpreting the data

10.20 am - 10.40 am
Q&A

10.20 am - 10.40 am
Tea

11.00 am - 11.30 am
Validating a caesarean section rate
The future use of the Ten Group Classification System

11.30 am - 12.30 pm
Presentation of local data

12.30 am - 12.45 pm
Concluding remark

All consultants & post graduate trainees in obstetrics are welcome!


Dr.U.D.P. Ratnasiri


Dr.M. Dissanayake


Dr.C. Jayasundara


Dr.S. Perera

04 SEPTEMBER

09.00 - 01.0 PM @ Hotel Galadari - Colombo

Scan me

WORKSHOP ON
NEONATAL RETRIEVAL

OPENING REMARKS

DR. KOSALA KARUNARATNE
President, Sri Lanka College of Paediatricians

DR. SUSIE PERERA
President, Perinatal Society of Sri Lanka

A STRUCTURED APPROACH ACCEPT MODEL

DR. SURANTHA PERERA

PREDEPARTURE PREPARATION

DR. NIMESHA GAMHEWAGE

STABILIZATION, SECURING, AND PACKAGING

DR. SAMAN KUMARA

TRANSPORT AND HANDING OVER

DR. KAPILANI WITHANARACHCHI

COMMUNICATION

DR. DILANI DEHIGAMA

CLINICAL GOVERNANCE

DR. THAVINDRA RUKSHANI

CLINICAL SCENARIOS HANDS-ON SESSION AND FEEDBACK

DR. AMIT GUPTA, UK | DR. MANOJ C V, INDIA
DR. SURENDRA BISHT, INDIA

04 SEPTEMBER 2023

1.00 PM TO 3.30 PM @ HOTEL GALADARI - COLOMBO

FACULTY - WORKSHOP ON NEONATAL RETRIEVAL

Dr. Amit Gupta
UK

Dr. Manoj C V
India

Dr. Surendra Bisht
India

Dr. Susie Perera

Dr. Saman Kumara

Dr. Surantha Perera

Dr. Kapilani
Withanarachchi

Dr. Dilani Dehigama

Dr. Nimesha
Gamhewage

Dr. Kosala
Karunaratne

Dr. Thavindra
Rukshani

Perinatal Society of Sri Lanka

FOUNDED 2001

Towards healthier
mothers and newborns

22ND ANNUAL SCIENTIFIC CONGRESS

Perinatal Society of Sri Lanka -2023

5th & 6th September at Cinnamon Grand, Colombo

Towards healthier mothers and newborns

ANNUAL SCIENTIFIC CONGRESS

Perinatal Society of Sri Lanka -2023

5th & 6th September at Cinnamon Grand, Colombo.

INTRODUCTIONS TO THE PLENARIES AND SYMPOSIA

	Title	Introduction – scope/ purpose
Symposium 1	**Managing past Caesarean section to optimize perinatal outcomes**	Observing an increased trend for primi-gravidas delivering through cesarean section, there is a strong likelihood for subsequent deliveries with cesarean section. The symposium seeks to give a better understanding on potential complications of caesarean section , with pointers to how the burden of primary section can be prevented. The growing literature on how the "past cesearean section "is managed in subsequent pregnancy is discussed. The symposium will highlight on resources for management of the past cesarean section given the different pathways to consider and the potential use of a reflective case audit
Symposium 2 (panel discussion)	**Improving neonatal outcomes with advanced technology**	Three clinical interventions for management of the preterm newborn will be discussed by the panelists where technology use in Sri Lanka is compared with similar clinical scenarios in the UK. The scenarios are surfactant use in chronic lung disease, therapeutic cooling for sudden unexpected post natal collapse and Nitric Oxide therapy for preterm newborns
Prof Indrajee Amarasinghe oration of PSSL	**The Ten Group Classification System and the "intention to treat" a philosophy of care for everyone**	
Plenary Symposium 1	**Early diagnosis of lethal congenital abnormalities**	Present antenatal screening in Sri Lanka to some extent identifies lethal congenital abnormalities. The implications and parental decisions are not being currently considered in the management of the pregnancy. The plenary symposium, through three speakers considers the current situation in Sri Lanka, service implications in introducing therapeutic termination for lethal congenital abnormalities and what can be accommodated even in current resource setting. The advancements made in other countries , including South East Asia are showcased.
Plenary Lecture	**Challenges in nutrition support in the preterm neonate**	The challenges for nutrition support for the preterm neonate is discussed in the light of recent evidence on clinical management. The Q and A session follows with the potential to discuss on possibilities that exist for low income countries .
Panel Discussion 3	**Managing NCDs in pregnancy - shared care**	Considering the overall high burden of Non Communicable Diseases in Sri Lanka, and noticing that a significant number of the maternal deaths too are mothers with NCDs, the symposium attempts to discuss current guidelines, the potential for better management in the shared care cluster model in primary care reorganization and population empanelment to closest primary care curative hospital. Care models need to consider continuity and shared care between primary and specialized services.
Symposium 2	**Managing the extreme Preterm neonate**	With gradual diminishing of birth rates and significant number born preterm in Sri Lanka, the focus on mere coverage to need for improving the quality of newborn care is increasingly felt. The three presentations show case three different technology advances that can bring better neonatal care as an efficiency gain despite the economic crisis.
Symposium 3	**Optimizing induction of labor for better neonatal outcomes**	The discussion on Induction of labor is discussed by three experts , bringing out the controversies, emerging evidence and trends and professional consensus that is building up.
Symposium 4	**Family centered care of a sick newborn**	Clinical care , especially focusing the sick newborn should evaluate care outcomes at community, especially the family experience. Are we on the right track for this?
Plenary Lecture	***Non-invasive respiratory support- the current status***	

Plenary Symposium	**Maternal weight gain and its implications for LBW reduction**	Management of both low and high BMI pregnant mothers pose challenges, which are discussed in this plenary session. Initial findings of a study analyzing maternal factors for low birth weight babies will add value to this session. OR Whilst there can be several reasons for occurrence of low birth weight, maternal weight gain needs further discussion for low birth weight prevention. Sri Lanka also has a significant proportion of mothers with high BMI. The evidence based management to achieve the optimum weight gain for mothers with low as well as high BMI is discussed. The symposium also throws light on the recent initiatives from PSSL in understanding low birth weight
Plenary Lecture	**Human capital development by improving MCH care: Global, regional, and country perspective**	The human capital comprise of knowledgeable, skillful, healthy workforce . A critical role is placed with Maternal and child care in providing the foundation for health but also contributing to early learning potential. Despite a changing epidemiology the investment to MCH must continue. Global , regional comparisons of Human capital development and future trends and implications for investing in MCH services, especially in quality of care improvement are likely discussions
Plenary	**Global initiative to support parenting**	This plenary focus on the need of parental support and the global evidence on the impact of parental support programs. A parenting intervention which is very successful in India is showcased to show that sometimes a large scale intervention works like a magic. This will advocate the Sri Lankan health sector to identify how to invest in parent crafting in Sri Lanka.
Parallel Symposium V	**Focussing on parent crafting in Sri Lanka**	The symposium highlights that more can be done to improve parent crafting through encounters with the health system. Clinical settings can be more educative on parent crafting. PSSL has taken initiative to understand how existing opportunities within the system can be further improved and some of this work is showcased through 1. videos 2. observations of PSSL of local program 3. reflective case studies by PHM
Parallel Symposium VI	**Digital transformation and patient empowerment in perinatal care**	Digital transformations require new competencies that are beneficial to both clinician and client. Challenges exist in how organizations manage the transformation . Data protection and ethical considerations are seen as further challenges.
Parallel Symposium VII	**Towards equitable care**	In "leaving no one behind ". Clinicians face diversity that require both professional and client understanding. The panelists will highlight the challenges and means of addressing a. Disabilities in Pregnancy b. How the situation of Intersex needs to be addressed Institutional challenges , workforce orientation as a responsibility of hospital administration
Parallel Symposium VIII	**Nutrition management in the life course** **Collaboration with World Food Program (WFP)**	Sri Lanka has taken a strategic path to address nutrition through different interventions spreading across a life course. Their importance and challenges are brought out by the speakers through a discussion on how targeting must be addressed in crisis situations . Global experiences on targeting and more recent local experiences are discussed
Plenary	**Interactive Session** **Governance-Quality of care-Parental Understanding**	This is the climax of the Annual Scientific Congress. This year the theme of the perinatal society is respectful perinatal care through governance, quality of care and better parental understanding. This theme will be explored interactively and showcased how each of these three constructs working simultaneously results in respectful perinatal care.

PROGRAMME OF ANNUAL SCIENTIFIC CONGRESS

5th & 6th September at Cinnamon Grand, Colombo

Day 01 – 5th September 2023

7.30 am – 8.00 am — **Registration**

Hall A

8.00 am – 9.30 am

Symposium I
Managing past Caesarean Sections to optimize perinatal outcomes

Chairpersons

Prof Rukshan Fernandopulle

Dr Mangala Dissanayake

Immediate and late complications of caesarean section

Dr Chamila Ayyavoo, India

Prevention of the burden of the primary section

Dr Chandana Jayasundara

Why the fear of scar

Dr U. D. P. Ratnasiri

Panel discussion I
Improving neonatal outcomes with advanced technology

Key topics

- Surfacttant treatment - Current practice and future trends
- Therapeutic Cooling for perinatal hypoxia and sudden unexpected postnatal collapse
- Nitric Oxide therapy for preterm newborns with PPHN

Panel: Dr Dilani Dehigama, Dr Saman Kumara, Dr Nalin Gamathige, Dr Amit Gupta (UK)

Moderator : Prof. Dulani Gunasekera

9.30 am - 10.30 am

Professor Indrajee Amarasinghe Oration of the Perinatal Society of Sri Lanka
The Ten Group Classification System and the "intention to treat"- a philosophy of care for everyone.

Professor Michael Robson, UK

10.30 am - 11.00 am — **TEA/ Viewing of posters**

11.00 am - 1 2.30 pm

Panel Discussion II
Early diagnosis of lethal congenital abnormalities

Key Topics

- Prenatal diagnosis of lethal congenital anomalies: Sri Lankan experience
- The policy perspective of antenatal anomaly scan and subsequent care pathways: Country situation
- Prenatal diagnosis of lethal congenital anomalies and therapeutic termination of pregnancy: Global scenario

Panel - Prof Tiran Dias, Dr Nishani Lucas, Dr Chithramalee de Silva
Moderator : Dr Suarntha Perera & Dr Susie Perera

12.30 pm – 1.30 pm — **Lunch & Viewing of Posters**

1.30 pm – 2.00 pm

Plenary Lecture I
Challenges in nutrition support in preterm neonates
Dr Manoj V C, India — Chairperson - Dr Surantha Perera

2.00 pm - 3.30 pm

Panel Discussion III
Managing NCDs in Pregnancy- shared care

- Heart diseases
- Diabetes mellitus
- Interpregnancy care

Panel discussion:
Dr Chandrika Ponnamperuma,
Dr Dimuthu Muthukuda,
Prof Shyamali Samaranayake
Moderator:
Dr Ruvaiz Hanifa,
Dr Shemoon Marleen

Symposium II
Managing Extreme Preterm Neonates

Chairpersons

Dr Shyama Basnayake

Dr Medha Weerasekera

Antenatal and perinatal care to optimize the outcomes

Dr Manoj V C, India

Reducing morbidity and planning early discharge from NICU

Dr Surendra Bisht, India

Neurodevelopment follow up with multi-disciplinary approach

Dr Kapilani Withanarachchi & Dr Mihindu Jayarathne

3.30pm – 5.00pm

Symposium III
Optimizing induction of labour for better neonatal outcomes

Chairpersons-
Dr U D P Ratnasiri,

Prof Hemantha Dodampahala

What is new in induction of labour
Dr Indunil Piyadigama

Challenges in reducing induction rates
Dr.Vijay Roach

Induction of labour; is there a consensus and does it matter
Prof Mike Robson, UK

Symposium IV
Family centered care of a sick newborn

Chairpersons
Dr Sandya Bandara
Dr Palitha Bandara

Engaging the family from the onset
Dr.Sathika Amarasekara

Kangaroo mother care for preterm and low birth weight
Dr Sandya Doluweera

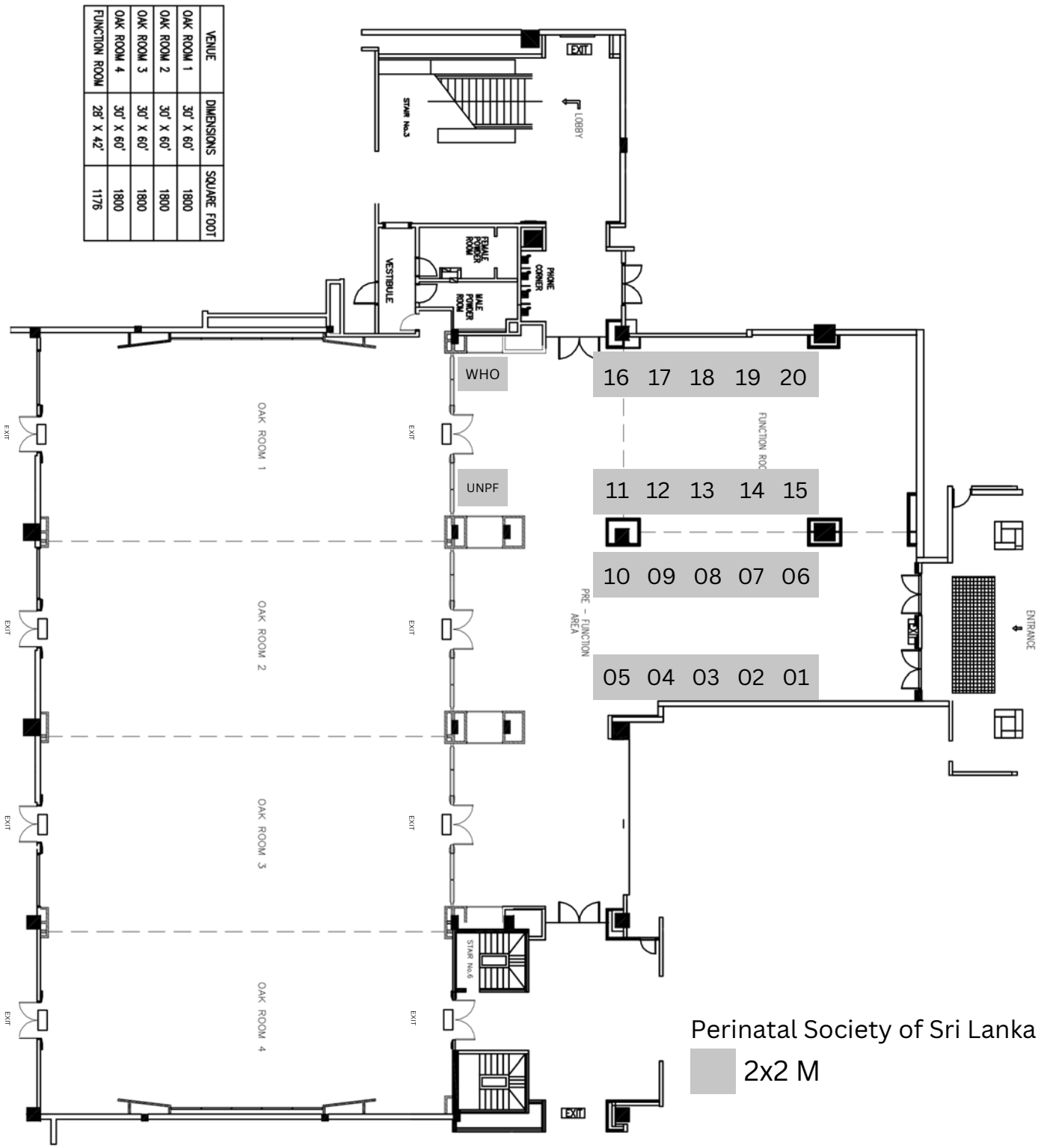
Handing over the care back to the community level
Dr.Nimesha Gamhewage

5.00 pm – 6.00 pm — **TEA / Oral Presentations** — **Oral Presentations**

Day 02 – 6th September 2023

	Hall A	Hall B
7.15 am - 8.15 am	**Oral Presentations**	**Oral Presentations**
8.15 am - 9.00 am	**Keynote speech** Non-invasive respiratory support- the current status Dr Amit Gupta, UK Chairperson- Dr.Sanjeewa Thennakoon	
9.00 am - 10.30 am	**Plenary Symposium** Maternal weight gain and its implications for LBW reduction Chairperson- Dr Mahendra Arnold Dr Renuka Jayatissa	International evidence from maternal weight gain in pregnancy and low birth weight Prof Athula Kaluarachchi Understanding Low birth weight in Sri Lanka – PSSL initiative Prof Sachith Mettananda Management of weight gain in mothers with high BMI Dr Uditha Bulugahapitiya
10.30 am - 11.00 am	**Tea / Viewing of posters**	
11.00 am - 11.30 am	**Plenary Lecture 2** Human capital development by improving MCH care: Global, regional, and country perspective **Dr Mickey Chopra,** Global solution lead for Service Delivery in the Health Nutrition and Population global practice World Bank Chairperson - Dr Deepika Attygalle	
11.30 am - 1.00 pm	**Symposium V** **Focussing on parent crafting in Sri Lanka** Chairperson: Dr Chithramalee De Silva, Dr Sanath Lanerolle	New frontiers of ante-natal care: Developing parenting skills during ante-natal period Dr Mohamed Rishard Creating opportunities to develop parenting skills, thinking outside the box Dr Surender Bisht, India Two birds with one stone: Improving parental skill training with reflective practices Dr Prabath Randombage & Dr Amila Chandrasiri **Symposium VI** **Digital transfor -mation and patient empowerment in perinatal care** Dr Lal Panapitiya Dr Shiromi Maduwage Digital tools for perinatal care Dr Pandula Siribaddana Personal health records and data management Dr Kaushalya Kasturiaratchi Ethical implications, data security and privacy Dr Surantha Perera
1.00 pm – 2.00 pm	**Lunch / Viewing of Posters**	
2.00 pm – 2.30 pm	**Plenary lecture 3** Global initiative to support parenting	
2.30 pm - 4.00 pm	**Symposium VII** **Towards equitable care United Nations Population Fund (UNFPA)**	**Symposium VIII** Nutrition management in the life course Collaboration with World Food Program (WFP) A desk review of benefits of food fortification for pregnant and breast -feeding women Ms. Hasini Rathnaweera, Fortification and Food Safety Associate, WFP Prevention of malnutrition by targeting pregnant and breastfeeding women for cash or food in-kind assistance schemes Dr. Filippo Dibari, Senior Advisor Nutrition, WFP Regional Bureau. Bangkok Efficacy of food in-kind assistance on children between 6 months and 2 years with MAM Professor Guwani Liyanage Consultant Paediatrician, University of Sri Jayawardenapura
4.00 pm- 5.00 pm	**Interactive Session** Governance-Quality of care-Parental Understanding Dr.Amit Gupta (UK), Dr Micky Chopra (UK), Surender Bisht (India), Deepika Atygalle (SL) Dr.Susie Perera, Dr Surantha Perera	
5.00 pm – 5.30 pm	**Closing session & awarding of certificates**	
5.30 pm - 6.00 pm	**Tea**	

FLOOR PLAN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Perinatal Society of Sri Lanka
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FACULTY - ANNUAL CONGRESS SCIENTIFIC CONGRESS

Dr. Amit Gupta
UK

Dr. Manoj C V
India

Prof. Mike Robson
UK

Dr. Surendra Bisht
India

Dr. Susie Perera

Dr. Nalin Gamathige

Dr. Kaushalya
Kasthuriarachchi

Dr. Nishani Lucus

Dr. Chithramalee
de Silva

Prof. Tiran Dias

Dr. U.D.P. Ratnasiri

Dr. Saman Kumara

Prof. Athula
Kaluarachchi

Dr. D.M. Chandana
Jayasundara

Prof. Guwani
Liyanage

Dr. Surantha Perera

Dr. Deepika Attygalla

Dr. Dimuthu Muthukuda

Dr. Kapilani Withanarachchi

Dr. Dilani Dehigama

Dr. Sandya Doluweera

Dr. Sathika Amarasekara

Dr. Nimesha Gamhewage

Dr. Mohamed Rishard

Dr. Pandula Siribaddana

Dr. Prabath Randombage

Dr. Uditha Bulugahapitiya

Dr. Amila Chandrasiri

Dr. Chandrike Ponnamperuma

Prof. Sachith Mettananda

Dr. Indunil Piyadigama

Dr. Mickey Chopra

Professor Guwani Liyanage

Ms. Hasini Rathnaweera

Prof. Abhishek Raut (India)

Dr. Pranali Kothekar (India)

Prof. Subodh S Gupta (India)

Dr. Vijay Roach

Dr. Alexander Butchart

Dr. Filippo Dibari

Dr. Chamila Ayyavoo

Ms. Niluka Gunawardana

Dr. Dilini Vipulaguna

Ms Bernaddette Muyomi

Prof. Shyamalee Samaranayaka

Dr. Mihindu Jayarathna

Symposium 1 : Managing past caesarean sections to optimize perinatal outcomes

Prevention of the burden of the primary section

Dr. Chandana Jayasundara
MBBS (Kelaniya, Sri Lanka), MD (Obs and Gyn), MRCOG (UK)
Senior Lecturer in Obstetrics and Gynaecology, Faculty of Medicine, University of Colombo.
Consultant Obstetrician and Gynaecologist, De Soysa Hospital for Women, Colombo.

The escalating global and Sri Lankan rates of Cesarean sections (LSCS), currently standing at around 40% in Sri Lanka, underscore a multifaceted issue. Contributing factors include increased use of intrapartum fetal monitoring, instances of labor induction failing progression, changes in obstetric training, legal ramifications shaping medical decisions, evolving societal expectations regarding childbirth outcomes, and an increased emphasis on maternal autonomy in decision-making. This surge in primary LSCS instances unavoidably engenders a parallel increase in repeat LSCS procedures. Regrettably, this gratuitous rise in Cesarean deliveries amplifies risks to both maternal and fetal well-being, including complications like abnormal placentation and obstetric hemorrhage. Furthermore, the strain on healthcare costs is undeniable. Addressing this trend necessitates a more balanced approach to childbirth that prioritizes the health of mothers and infants while considering economic implications.

In addressing the high cesarean section rates in developing countries like Sri Lanka, implementing Robson's 10-group classification system has emerged as a promising strategy. However, the lack of information technology infrastructure in these regions has posed a significant challenge to effectively implementing and auditing this approach. A potential solution lies in the form of a web app, Robsapp, developed by the university obstetric unit. Operating on smartphones and utilizing a bring-your-own-device approach, this innovation holds the potential to streamline the classification process, significantly reducing the financial burden associated with implementing Robson's classification. Robsapp's versatility allows for a more targeted approach, enabling tailored solutions to address the specific factors contributing to high cesarean section rates in each category. Notably, a multi-center study employing Robsapp has been completed, with findings set for publication shortly, promising insights and strategies to curb cesarean section rates and enhance maternal care effectively.

Why the fear of scar

Dr. U.D.P. Ratnansiri
(MS, FRCOG, FSLCOG)
Consultant Obstetrician & Gynaecologist
Castle Street Hospital for Women
Colombo Sri Lanka

Introduction of lower segment transverse incision for Caesarean section in 1926 has demonstrated lower risk of uterine rupture compared to classical incision. Improvements antibiotics, blood transfusion has led to reductions in maternal mortality and morbidity traditionally associated with Caesarean section due to sepsis and haemorrhage. This has resulted in a surge in Caesarean section rates. Globally the C section rates are increasing along with its complications.

Subsequent observational studies from the 1960s also suggested that vaginal delivery was a reasonable option for birth after Caesarean and became a practice with small fear of rupture.

Advantages of vaginal delivery overtakes the caesarean delivery. How ever fear of scar rupture has led to reduction in vaginal births after caesarean sections in the last decade. Successful VBAC has the fewest complications. The greatest risk of adverse outcomes occurs when a planned VBAC results in an emergency caesarean section. Spontaneous, planned VBAC has a 1:200 risk of uterine rupture. The absolute risk of birth-related perinatal death associated with VBAC is extremely low (4:10,000) and comparable to the risk of a nullip in labour. The risk of perinatal death with ERCS is also extremely low but there is an increased risk of neonatal respiratory morbidity before 39+0 weeks gestation. ERCS is associated with a small increased risk of placenta praevia/accreta complicating any future pregnancies. Pelvic adhesions may complicate any future abdomino-pelvic surgery. Absolute contraindications to vaginal birth are previous uterine rupture, previous classical caesarean section and major placenta praevia. Relative contraindications are previous T/J shaped incisions on the uterus or uterine angle extensions, Significant uterine surgery, e.g., open myomectomy, previous B-Lynch sutures, Multiple pregnancy, Breech presentation and Fetal macrosomia.

Symptoms and signs of scar dehiscence/rupture (NB scar dehiscence may be "silent") Persistent CTG abnormalities (commonest finding), Vaginal bleeding, Uterine scar tenderness, Pain between contractions, Cessation of contractions, Pain "breaking through" epidural analgesia or excessive epidural requirements, Maternal tachycardia, hypotension, shock,Palpation of fetal parts outside the uterus and . Haematuria.

Bad maternal and perinatal out comes are associated with Improper case selection, in proper monitoring and intrapartum management of labour, failure to recognize complications, hyper stimulation - improper use of oxytocics and not intervening when necessary.

Panel Discussion I : Improving neonatal outcomes with advanced technology

Surfactant therapy: Current practice and the future trends

Dr. Dilani Dehigama
Consultant Neonatologist
Teaching Hospital Mahamodara

Exogenous surfactant reduces the risk of pneumothorax and neonatal death in infants with respiratory distress syndrome. Recent studies demonstrate that early CPCP and selective use of surfactant improve mortality rates and chronic lung disease compared with prophylactic surfactant treatment. Brief intubation combined with surfactant administration followed by extubation (INSURE) has been recommended as a means to minimize mechanical ventilation times. More recently an approach of surfactant replacement without intubation, LISA (less invasive surfactant administration) has been introduced. Exogenous surfactants are classified into natural and synthetic surfactants. Currently, animal-derived surfactants are preferred. However new synthetic surfactants containing peptides that mimic the action of surfactant proteins are emerging. They seem to have a comparable efficacy profile to the natural surfactants.

Endotracheal instillation is the recommended mode of surfactant delivery. However non-invasive methods such as aerosolization are being investigated with some success. High dose (200 mg/kg) of surfactant (Curosurf) results in faster improvement of oxygenation when compared to a lower dose (100 mg/kg).

All babies less than 28 weeks who need intubation in delivery suite need surfactant treatment. Babies who are on noninvasive respiratory support may receive surfactant as early rescue treatment depending on the clinical parameters. If the baby is having clinical signs of severe surfactant deficient lung disease after the first dose of surfactant, retreatment can be considered within 12 hours. Multiple dosing when clinically indicated shows further reduction in the risk of pneumothorax and mortality. However, there is no much additional benefit from repeating doses beyond two times. Other than the neonatal RDS, there are few other indications of surfactant therapy such as meconium aspiration syndrome (MAS), congenital pneumonia and pulmonary hemorrhage.

Dilemmas in Therapeutic Hypothermia (Cooling)

Dr. L. P. C. Saman Kumara
Consultant Neonatologist
Castle Street Hospital for Women

Globally, neonatal hypoxic ischemic encephalopathy (HIE) is a significant health problem. In wealthy nations, 3-5 out of every 1000 live newborns are affected with asphyxia. The emerging world has a substantially greater incidence. Subsequent development of moderate to severe hypoxic-ischemic encephalopathy (HIE) occurs in 0.5- 1 per 1000 live births, with up to 60% of these babies dying during the neonatal period and 25% of survivors having major long term neurodevelopmental problems.

The apoptosis-prone cells are modified by therapeutic Hypothermia (TH), resulting in their survival. It might additionally save neurons by lowering brain metabolic rate. The target temperature for therapeutic hypothermia is 33–34°C for the delicate deep brain structures. Particularly for mild to moderate cases of HIE, this has been demonstrated to be effective.

There are widely accepted criteria for cooling. But cooling beyond these criteria is challenging. Cooling after post-natal collapse, cooling for babies born at the margin of the defined maturity, cooling with severe PPHN and with coagulation defects are common unclear areas with little evidence. According to the available case studies, it's recommended to consider TH for asphyxia after sudden post-natal collapse. In all the other situations, the decision to cool is a clinical decision and if the clinical scenario is fitting for cooling and if the clinician thinks that benefits of cooling outweigh the risks, it's always better to start or continue cooling.

Panel Discussion II : Early diagnosis of lethal congenital abnormalities

Prenatal diagnosis of lethal congenital anomalies - Sri Lankan experience – The burden on neonatal care

Dr. Nishani Lucas
Consultant Neonatologist, University Unit, De Soysa Hospital for Women, Colombo
Senior Lecturer, Department of Paediatrics, Faculty of Medicine, University of Colombo

The word 'lethal' is derived from the Latin word 'letalis" meaning deadly and is related to a Greek word meaning 'oblivion'. While there is no universal consensus, it is frequently defined as, conditions that 'invariably' or 'mostly' lead to death or 'associated with death' in the fetal or neonatal period regardless of treatment. The proposal for medical termination by the Sri Lankan Law Commission lists 30 conditions defined as 'serious fetal impairment which is not viable'.

Prenatal diagnosis is not standard of care in Sri Lanka and is done at the discretion of the obstetrician or at the request of the patient. It helps to plan care and optimise the neonate if the anomalies are treatable. In contrast, prenatal diagnosis of lethal anomalies, in the absence of medical termination, adds to the burden of living with the knowledge of a congenital anomaly inevitably resulting in death, either during pregnancy or after delivery. These parents frequently go through denial and seek costly treatment, which is futile, or seek illegal termination, increasing the risk of septic abortion and maternal death.

Prenatal diagnosis of lethal congenital anomalies results in these neonates being transferred to tertiary care neonatal centres far away from their homes, due to unrealistic parent expectations. These babies with lethal anomalies end up occupying intensive care beds, due to unavailability of Sri Lankan laws for 'limitation of treatment' or 'withdrawal of treatment' with obvious medical futility. Lack of medical termination of lethal anomalies increases the neonatal mortality rate, by increasing deaths of babies with treatable conditions and excellent long-term outcome (due to the lack of intensive care facilities, caused by the futile use of these facilities by those with lethal anomalies) in addition to the inevitable deaths of the babies with lethal anomalies (which would not contribute to neonatal mortality if medically terminated).

The policy perspective of antenatal anomaly scan and subsequent care pathways: Country situation

Dr. Chithramalee de Silva
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Director Maternal and Child Health, Family Health Bureau, Ministry of Health

Antenatal anomaly scans are an important part of pregnancy care, which is used to assess the development of the fetus and to detect any possible congenital anomalies. The policy perspective on antenatal anomaly scans and subsequent care pathways is complex and multifaceted.

The main benefits of antenatal anomaly scans are that they can help to identify fetuses with congenital anomalies early in pregnancy which could facilitate for decision making about the care. The benefits and risks of screening should be carefully evaluated by a technically competent team to make the policy decisions.

There are a number of factors that need to be considered when developing policies for antenatal anomaly scans.

1. Availability of resources- infrastructure and human resources
2. When the resources are limited, identification of high priority groups
3. Ethical implications of providing information to the parents including informed consent
4. Balance between the benefits and risks of screening
5. The need for comprehensive care pathways for women who receive a diagnosis of fetal anomaly
6. Legal support for the diagnosis and management

In Sri Lanka, except in situations where maternal life is at risk, abortion is considered a criminal offence. The offence of illegal abortion could result in imprisonment of up to 3 years or with a fine or both. Several attempts taken in the recent past to liberalize the abortion law, facilitating the termination for severe fetal congenital anomalies were not successful. Hence, the decision for inclusion of anomaly scan into national MCH programme should carefully taken as the interventions are very limited. Further, Sri Lanka is currently facing economic downturn, in such a situation considering this intervention as a national priority in a limited health budget is questionable.

Research evidence on accuracy and safety of antenatal anomaly scans and implementation of interventions should be further carefully evaluated taking the country context into consideration.

Panel Discussion III : Managing NCDs in Pregnancy- shared care

Pre pregnancy care- role of primary care providers

Prof. Shyamalee Samaranayaka
Chair professor in family Medicine,University of Sri Jayewardenepura,
Chairperson, Board of studies in family Medicine PGIM

Before becoming pregnant and in between pregnancies, women seek their regular care mainly through their primary care providers. Therefore, preparing women for pregnancies is a responsibility of the family doctor.

Checking the readiness for pregnancy needs to be evaluated on a routine basis while attending to the contraceptive needs. Screening for presence of NCDs, evaluating the suitability of medication, optimising the nutritional status, ensuring coverage for rubella, initiating folic acid and psychological preparation for pregnancy and child rearing needs to be done at pre pregnancy counselling sessions, specially before the first child.

In between pregnancies, follow up of medical issues occurred before or during the pregnancy is a responsibility of the family doctor. Regular follow up to optimise the control of medical conditions in collaboration with relevant subject specialists is very important in between pregnancies for better outcomes in subsequent pregnancy. With the continuing doctor patient relationship, family doctor can play a major role in identifying and managing psychosis, depression, and distress during the postpartum period.

Appropriate guidance on contraception is of prime importance during this time. Most women tend to gain weight during and following pregnancy. Weight management with regular monitoring can be arranged best at primary care level.

Emphasising the importance of pre pregnancy care and educating the primary care providers on relevant aspects will help in better outcomes for both mother and baby leading to a healthier nation.

Symposium II : Managing Extreme Preterm Neonates

Neurodevelopment follow up with Multi- disciplinary approach

Dr. Kapilani Withanarachchi
Consultant Paediatrician
Teaching Hospital Karapitiya

Dr. Mihindu Jayarathne

Premature and sick neonates are neurologically immature and physiologically unstable. The environment of the NICU affects a baby's health. Due to the advances in technology, the survival of sick neonates has improved but the quality of life among the survivors may not be satisfactory unless neurodevelopmental strategies are introduced and implemented early.

Broad categories of interventions are designed to minimize the stress of the NICU environment, benefiting neurodevelopment outcome and growth of the baby, such as, control of environmental factors to create a Baby-friendly Ecology in the NICU, proper positioning and handling, non-nutritive sucking, feeding with breast milk, Kangaroo Mother Care, individualized cluster care, early stimulation and parent centred care. It's not only during NICU stay, further monitoring and development care should be continued at home and clinic setting as well. Neurodevelopment care package offered at paediatric neurology clinics supports the high risk neonates immensely. General Movement Assessments and Hammersmith Infant Neurological Examination are used for early diagnosis of cerebral palsy and delayed cognitive performance, enabling to intervene promptly by early stimulation, through integrated care of physiotherapy, occupational therapy, speech and language therapy and visual therapy, a multi-disciplinary approach.

Symposium III : Optimizing induction of labour for better neonatal outcomes

What is new in induction of labour?

Dr. Indunil Piyadigama
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Base Hospital Kahawatta

Induction of labour is artificially stimulating the onset of labour, prior to the spontaneous onset. This is one of the commonest interventions in obstetrics. 65% of women will give birth without further interventions when induced. However, 15% will have instrument deliveries and 20% will end up with caesarean sections. One fifth of women will not deliver by 41 weeks of gestation. These women need induction of labour to reduce caesarean section rates. Early induction of labour is needed for certain maternal and fetal indications. However, unnecessary inductions will lead to undesired complications and added health costs. 70% of women do not like induction of labour.

Induction of labour can be prevented by accurate dating and membrane sweeping starting from 39 weeks. There are pharmacological and non-pharmacological methods of induction. Usage depends on presence or absence of a scarred uterus, Bishop's score, parity, obstetrician's, and patient's preferences. There are many complications of induction of labour out of which commonest being uterine hyperstimulation. Induction of labour between 34-41 weeks of gestation can lead to an increase in caesarean section rates.

Symposium IV : Family centered care of a sick newborn

Family Centered Care Engaging the Family from the Onset

Dr. Sathika Amarasekara
Consultant Neonatologist
DGH Nuwara Eliya

Mother and infant being in proximity from the birth is essential for attachment and breast feeding. Close parent-infant relationship influences the infant's brain maturation, neurobehavioral and neurocognitive outcomes. Furthermore, the attachment process is recognized to be vital and contributes to the physical, emotional, and social well-being of both. Admission of a sick newborn to a neonatal intensive care unit is extremely stressful experience for both the family and infant. The attachment process may be significantly hampered. This adversely affects parent mental health, family functioning and the infants' neurodevelopment in long-term.

Family cantered care (FCC) promotes parental participation in the care of their infant on NICU whilst recognizing them as integral members of the care team and primary decision-makers for their infant. It is based on the principles of information sharing, respect and honouring differences, partnership and collaboration between the family and healthcare team.

ESF European Research Network on Early Development Care has suggested eight principles of FCC which has later proven scientifically to be effective strategies. Key element of FCC is free 24 hours a day parental access with no limitations due to staff shift or medical rounds as the family is the primary source and strength of the child's support. Psychological support to the parents to lessen burden of the traumatic and stressful experience is essentially important in FCC. Effective pain management strategies, supportive environment, postural support, support of skin to skin, lactation and breastfeeding support and sleep protection are proven other principals of FCC.

Advantages of FCC consisted of those related to neonates, family, and organization. Short-term benefits for infants are, shortened hospital stay, pain relief, decrease use of analgesics and improved parent bonding. Infants are reported to have improve neurobehavioral outcome and reduced risk of moderate to severe bronchopulmonary dysplasia in long-term. Benefits for the family are enhanced emotional well-being, improvement in self-esteem and independence.

Despite, strong evidence to support the effectiveness of FCC, various challenges do exist when implementing FCC in NICU, which are in part due to historical practices and beliefs.

Handing over the care back to the community level

Dr. Nimesha Gamhewage
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Colombo South Teaching Hospital

The neonatal units of tertiary care centers are geared to manage acute complicated neonatal problems. Some of these neonates (eg: babies who underwent therapeutic hypothermia, extreme preterm infants etc) warrant follow up in a tertiary care center up to at least 2 years of life as these babies are at higher risk of developing neurodevelopmental deficits.

However, majority of neonates managed at tertiary care centers could be safely repatriated or followed up in peripheral units or handed over to the community level. Shared care between the community level and the tertiary center would be the ideal in most of the situations.

The follow-up needs for each neonate is unique to that baby. The main areas of importance would be maintaining adequate growth, nutrition,development, and immunization. Understanding normal trends in growth and timely referral to the tertiary unit is extremely important. There are special growth charts to be used in preterm infants and syndromic infants which needs to be practiced.

The field staff must monitor the development of each baby. Babies who had insults during neonatal period such as severe hyperbilirubinemia, hypoglycemia, meningitis, and birth asphyxia will be followed up in a multi-disciplinary team in the hospital outpatient setup. However, the field staff must make sure that these infants do not default from their follow-up. Most of the infants can be vaccinated in the field level without contraindications.

However, patients with severe congenital heart disease (eg: Tetralogy of fallots, those with palliative shunts) require observation in ward for 24 hours following vaccination. Babies needing additional vaccinations (eg: Pneumococcal vaccine for preterm infants) must be referred to a pediatrician.

The parents' perspectives cannot be ignored. It is vital that a proper discussion takes place with parents before repatriation or handing over to another unit/ community to ensure that they won't default. It is a good practice to provide written information regarding where to go during an emergency before discharge. Furthermore, a basic training in handling emergencies like chocking and resuscitation must be given to parents before leaving the hospital.

Kangaroo Mother Care for preterm and low birth weight babies

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Kangaroo Mother Care (KMC) has emerged as a landmark intervention in neonatal care, especially for preterm and low birth weight infants. It prioritizes infant-maternal engagement through skin-to-skin contact and breastfeeding, heralding a transformative shift towards family-centered and humanized neonatal care. In 2023, the World Health Organization provided a pivotal recommendation for integrating KMC into routine care for all preterm infants. The directive emphasizes early initiation, even preceding clinical stability, and highlights the importance of providing 8-24 hours of KMC daily, whether within hospital settings or at home.

With a foundation spanning over four decades, this approach yields profound benefits, including enhanced infant outcomes such as reducing mortality, enhancing cognitive development, fostering positive behavioral outcomes, improving overall health, strengthening bonding, and reducing maternal postpartum challenges. Promoting paternal involvement through KMC further contributes to improved family cohesion and stability along with positive influences on the home environment.

Despite a wealth of evidence and global and national policy endorsement, KMC services encounter limitations in implementation. Existing data, both on a global scale and in Sri Lanka, remains scattered and incomplete.

Thus, it is imperative that our current approach be steered towards proactive measures to scale up KMC practices, ensuring that every preterm infant receives its nurturing embrace. There are numerous factors which hinder and enable its implementation, which may be unique to each institution. Tackling these challenges necessitates changing healthcare provider's attitudes, empowering mothers in the practice and devising innovative solutions to overcome spatial constraints. Additionally, the development of clear indicators and the utilization of quality improvement tools offer a pathway forward in advancing KMC practices.

Through collective efforts, we can redefine the future of neonatal care and provide a brighter beginning for the tiniest members of our society.

Symposium V : Focussing on parent crafting in Sri Lanka

Two birds with one stone: Improving parental skill training with reflective practices

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Base Hospital, Medirigiriya
MBBS, MD, MRCOG(UK), GESEA Diploma in Gynaecological Endoscopy (France)

Recent research from a range of disciplines has highlighted the importance of parenting skills on childrens' emotional and social development. Antenatal education in preparation for childbirth and parenthood by public health midwives has come about as traditional methods of information sharing. A prospective cohort study found that 74% of first-time mothers considered that antenatal education helped them to prepare for childbirth but only 40% considered that the education helped them prepare for parenthood (Fabian et al 2005).

So, as a Perinatal Society of Sri Lanka took initiatives to structure this already existing parent crafting sessions by adding updated new knowledge of 'Parenting skills'. Moreover, direct health talks by Obstetrician, Pediatricians and Community physicians addressing couples in large groups at community level, reflected parents' understanding of these newer concepts. For digital outreach of the message PSSL also developed four short videos one for each trimester sessions and one for the first post-natal encounter with PHMs. Public health midwives have been identified as the key messenger of the program. In order to improve the understanding of newer parenting skills by them, a capacity building platform of 'Reflective writing' has been introduced to PHMs.

Dr. Amila Chandrasiri
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Reflective writing is a learning approach through reflection and critical evaluation of own actions, to identify strengths, weaknesses, and areas for development. This includes looking back on own practice and identifying whether it worked or not, and if so, why. Reflective practice also includes knowing feelings and personal biases affecting work and what you admire about yourself and perception of your close ones about you. This allows us to have a clear idea about how to use our competencies and skills to perform well in our profession.
This program involved Public Health Midwives (PHMs) of two Medical Officer of Health (MOH) areas. Bope-Poddala MOH from Galle District and Medirigiriya MOH from Polonnaruwa District were chosen. An orientation program was done for each group to describe and introduce 'reflective writing' for both groups of PHMs. A module was prepared, and Gibb's model of reflection was used as the theoretical framework. The training consisted of both theoretical knowledge and an opportunity to use 'reflection' practically. Initial output was a success as most of the participants gained a satisfactory knowledge.

Following the training, each PHM was requested to start the 'reflective journal', reflecting current practices and interventions in promoting parenting among a selected client family. PHMs were requested to make the 1st entry soon after the session and make the 2nd entry by first 2 weeks of June. MOH and PHNS were entrusted with the responsibility of supervision and guidance. A follow up session was held in mid June to assess the progress.

The 3rd entry was made during the first 2 weeks of August and were subjected to qualitative analysis. Best journals were given the opportunity of presenting at the pre-congress session of PSSL and this resulted in showcasing the success of project. PHMs are now continuing their 'reflective practice'. Introducing 'reflective practice' to all health staff categories who involve in perinatal care is warranted and this model can be successfully used as a trigger.

Key words – Parenting, Reflective writing.

New frontiers of ante-natal care: Developing parenting skills during the ante-natal period

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Antenatal care's historical roots, spanning over 800 years, reveal a longstanding practice of educating expectant parents about pregnancy, childbirth, and parenting. Initially facilitated through the informal "women's networks," this tradition has evolved into a cornerstone of modern antenatal care, despite cultural differences. The enduring objective remains: to equip parents with the knowledge needed to navigate pregnancy's intricacies and prepare for successful parenting.

Comprehensive antenatal education covers physiological changes during pregnancy, labour, and delivery. This education also includes breastfeeding techniques, pain management, and mental health strategies, influencing both maternal well-being and paternal involvement. Research highlights antenatal education's impact on elevating spontaneous natural birth rates and reducing unnecessary cesarean sections. This shift fosters early bonding and positive parenting experiences owing to much earlier recovery and less separation of the mother and the child. Psychological readiness during childbirth emerges as a significant outcome of antenatal education.

Armed with understanding, parents approach labour with reduced anxiety and enhanced coping skills, potentially mitigating birth-related complications. Integral to antenatal care, parentcrafting sessions impart vital child-rearing skills and stress the significance of immunization. These sessions not only address immediate newborn needs but also establish early healthcare practices.

It is also hypothesized that proper nutrition during the pregnancy is associated with better maternal parenting behaviour and reduced maternal postpartum stress and prevalence of mood disorders. Nutrition during pregnancy is quite in detail covered during the antenatal education classes.

In conclusion, antenatal care's evolution embraces holistic pregnancy and childbirth preparation. Antenatal education empowers parents with knowledge, improving birth outcomes and fostering positive parenting attitudes. Integrating evidence-based practices into care holds the potential to revolutionize parenting and early child development.

Plenary Symposium : Maternal weight gain and its implications for LBW reduction

Understanding Low birth weight in Sri Lanka – PSSL initiative

Prof. Sachith Mettananda
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Faculty of Medicine, University of Kelaniya

Low birth weight (LBW; weight at birth <2500g) continues to pose significant challenges to perinatal teams working across the globe. It is estimated that 15% to 20% of all births worldwide are LBW, representing more than 20 million births annually. The leading causes of LBW are prematurity and small for gestational age (SGA). WHO and UNICEF had set a goal to achieve a 30% reduction in the number of infants born with LBW between 2012 and 2025.

An extensive review of literature conducted by the PSSL subcommittee on reducing low birth weight identified several gaps in LBW research in Sri Lanka. Specifically, the lack of local data on the composition of LBW and the sparsity of properly conducted large-scale studies to determine the risk factors of LBW were identified as deficiencies.

Based on these findings, the PSSL Subcommittee embarked on an islandwide multicentre study to determine the 'Prevalence, composition, and risk factors of low birth weight in Sri Lanka'. The Subcommittee built partnerships with the Intranatal and Newborn Care Unit of the Family Health Bureau to obtain the necessary administrative support for the study. The funding for the study was obtained from UNICEF Sri Lanka.

The study commenced on 1 August 2023 and is conducted in thirteen selected hospitals in all nine provinces of Sri Lanka. A group of dedicated research assistants (pre-intern medical graduates) visit the selected hospitals daily to capture data on all live births occurring in those hospitals for two months, between 1 August and 30 September 2023. The preliminary results of this study will be presented here.

Symposium VI : Digital transformation and patient empowerment in perinatal care

Ethical implications, data security and privacy

Dr. Surantha Perera
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Data protection is an ethical issue. It involves respect for individuals and their rights regarding privacy and the use of information about them. Many stakeholders are seeking increasing levels of assurance regarding data protection and ethics. Data protection issues are raised formally during ethical processes, such as research.

The key areas are consent, transparency, anonymisation, physical and IT security, written procedures, training in handling data, and data sharing with third parties. Personal data is any information about a living individual who can be identified directly from the data or by combining data with other available information. It is important to adhere to the following areas whenever possible.

- **Data Collection and Purpose -** Personal data must be collected lawfully and fairly for a purpose directly related to a function/activity of the data user. The data subjects must be notified of the purpose, and the classes of persons to whom the data may be transferred, and the collection should be necessary but not excessive.
- **Accuracy and Retention -** Personal data must be accurate and should not be kept for a period longer than is necessary to fulfil the purpose for which they are used.
- **Data Usage -** Personal data must be used for the data collected or for a directly related purpose unless voluntary and explicit consent with a new purpose is obtained from the data subject.
- **Data Security -** A data user needs to take reasonably practical steps to safeguard personal data from unauthorized or accidental access, processing, erasure, loss or use while considering the harm that would affect the individual should there be a breach.
- **Openness -** A data user must make personal data policies and practices known to the public regarding the types of personal data it holds and how it is used.
- **Data Access and Correction -** Data subjects must be given access to their personal data and allowed to make corrections if the data are inaccurate.

The above principles are based on and are not a piece of prescriptive law. Knowing the underlying ethical considerations will help a healthcare organization to understand the implications of the law, the rights of the patients and the responsibilities of the governing bodies in the healthcare system.

Digital tools for perinatal care

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Medical education in modern times has evolved into a science where educators grapple to keep up with emerging evidence and technologies. In recent times, even in countries such as Sri Lanka, education of medical professionals has been transformed through the use of digital tools. Perinatal education of health professionals has also been impacted significantly. Online platforms, virtual reality and augmented reality, AI based tools,

mobile technologies, and even social media have contributed to the transformation of perinatal education. The use of these tools requires innovative thinking and sometimes a critical evaluation of its impact on health professions education in a context such as Sri Lanka. In this session, digital tools for perinatal education would be discussed critically in view of identifying what works and how the future may be shaped.

Symposium VII

Bridging Gaps in Disability in Pregnancy

Introduction and justification

The Perinatal Society of Sri Lanka (PSSL), convened first in 2001, specifically addresses concerns and focuses interest in maternal and newborn care. It is a not-for-profit multidisciplinary organization which works to promote the continuing improvement in the quality of healthcare from pre-conception through birth of the baby and into infancy. It strives to work as an active member in the national effort towards improving healthcare for mothers and infants.

Supporting education for providers is included in the vision of the PSSL, while encouraging, promoting and advancing teaching, training and research in the field of perinatology and assisting or conducting training courses in perinatology for health professionals for capacity building are among its objectives.

Every year, the Perinatal Society of Sri Lanka carries out its initiatives under a timely theme closely related to perinatal care. For the year 2023, it is working for "A Collective response for respectful perinatal care through governance, clinical quality & parenting".

Perinatal society has partnered with UNFPA Sri Lanka again in 2023 to conduct a session. UNFPA is the UN's Sexual and Reproductive Health agency operating in Sri Lanka for over 50 years. UNFPA strives to achieve zero maternal mortality, zero unmet need for family planning and zero gender based violence. Maternal health is not just vital it is lifesaving. UNFPA continues to strengthen health systems, build health staff capacities, improve data and evidence, provide humanitarian assistance and advocate for policy level changes to address preventable maternal deaths and provide wholistic quality maternal health care.

Persons with disabilities generally have more healthcare needs than others both general needs and specific needs linked to impairment and are therefore more vulnerable to the impact of low quality or inaccessible healthcare services than others. Women living with disability in Sri Lanka receive basic health care services, yet they are neither more specialized health services to meet the full range of their needs nor continuous care and SRH services are readily available or accessible for them in the usual situation. SRH services are often inaccessible to persons living with disabilities and even when health services are physically accessible, women and young people with disabilities may face financial, social, and psychological barriers to accessing adequate SRH services.

Pregnant women with disabilities often face disparities in accessing healthcare compared to their nondisabled counterparts. They encounter barriers such as physical inaccessibility, lack of appropriate medical equipment, and limited availability of healthcare providers trained in disability inclusive care. Studies have shown that pregnant women with disabilities are at a higher risk of experiencing adverse maternal health outcomes, including complications during pregnancy and childbirth, due to barriers in accessing timely and appropriate healthcare. Pregnant women with disabilities may face discrimination and stigmatization within healthcare settings, which can further hinder their access to quality care. Negative attitudes and biases from healthcare providers can result in inadequate or substandard care.

Pregnant women with sensory impairments or intellectual disabilities may face communication barriers in

healthcare settings. Lack of accessible information, limited use of sign language interpreters, and inadequate communication tools can impact their ability to understand and participate in their own care.

Various international human rights instruments, such as the United Nations Convention on the Rights of Persons with Disabilities (CRPD), emphasize the right of persons with disabilities to access healthcare on an equal basis with others. National laws and policies may also provide protection and guidance for the rights of pregnant women with disabilities.

It is argued that in order to ensure a safe pregnancy and a healthy baby, healthcare professionals should focus more on women's abilities than their disabilities2, and also the care and communication should focus on empowering women. However, study evidence has shown that, for many pregnant disabled women, maternity care needs have not been met optimally4,5. According to research done in other countries, high rates of abortion, miscarriage, caesarean section, and low usage of contraception are found in physically disabled women6. An increased risk of adverse pregnancy outcomes has been identified in women with certain chronic illnesses7. Thus, identifying the current gaps in disability in pregnancy, and bridging them, will provide favourable outcomes for both the pregnant women and their babies.

The perinatal society has achieved many gains in perinatal care, and are focusing on improving the quality of perinatal care. Therefore the Perinatal Society of Sri Lanka following this important policy dialogue would like to further enhance the capacity of healthcare providers and other relevant stakeholders on bridging gaps in disability in pregnancy with a rights based gender responsive approach and advocate for life saving reproductive health services for women and girls with the support of UNFPA.

Objectives:
The primary objectives of this initiative are as follows:

a) Raise awareness about the challenges and the importance of bridging gaps in disability in pregnancy.

b) Enhance the capacity of healthcare providers and other relevant stakeholders to provide comprehensive inclusive sexual and reproductive health services to pregnant women and girls

c) Identify policy and programme level interventions that need to take place to ensure equitable inclusive health care for all

Methodology
To raise awareness about the importance of bridging gaps in access to health care for pregnant women with disabilities, a symposium will be conducted in line with the upcoming Annual Academic Sessions of the Perinatal Society of Sri Lanka, scheduled to be held in September 2023. It is expected that an audience of around 250 healthcare providers including relevant hospital and field health staff, global policy experts, key decision makers, academics and activists will participate in this symposium.

Structure and format of the panel discussion
This panel discussion will have an open discussion that will help the health professionals and policy makers to understand the gaps and issues in providing effective SRH services to pregnant women with a focus on disability. The panel will aim to discuss lived experiences of service providers and the service users and discuss the new ways forward in providing services that meet the unique health care needs of service users.

Specific examples of interventions that have been done will be discussed find out the challenges of the services users and the providers including the lessons learned.

Key questions

What are the challenges faced by pregnant women living with disabilities when accessing services and how can we address the misconceptions, prejudice, of health care professionals to ensure non-discriminatory service deliver?

- What steps can healthcare providers and institutions take to ensure that healthcare facilities are accessible and inclusive for pregnant women with disabilities?
- Are there any successful models or initiatives that have improved access to healthcare for disabled pregnant women? What were the key elements of their success?
- How can healthcare providers ensure that disabled pregnant women have equal access to prenatal care, labor and delivery support, and postnatal care?
- What policies and legal frameworks exist to protect the rights of disabled pregnant women in accessing healthcare? Are there any gaps or areas that need improvement?
- What are some practical steps that policymakers and stakeholders can take to address the disparities in healthcare faced by disabled pregnant women?

Key messages

- A comprehensive approach to SRHR is cost-effective; increased investments are required to successfully adopt and progressively realize SRHR in UHC. Increased domestic resource mobilization is critical to sustain gains made so far and enable additional investments on improving innovative ways for professional development
- The National Health system should deploy better, innovative strategies and programmes to focus on client centred rights based care for all during and post pandemic ensuring that resilience is maintained through better built systems in the new normal
- Services provided should cater to everyone and should be customized and accessible according to the needs of the different service users with a rights based gender responsive approach
- Make all health services accessible to women living with disabilities and also ensure that not just physical accessibility but also social accessibility free of discrimination and stigma is available.
- Implementing inclusive healthcare practices can help improve access for pregnant women with disabilities. This includes ensuring physical accessibility of healthcare facilities, providing disability-inclusive training for healthcare providers, offering appropriate assistive technologies, and facilitating effective communication.
- It is important to recognize the intersectionality of disability with other social identities, such as gender, race, and socioeconomic status. Pregnant women with disabilities who belong to marginalized groups may face compounded barriers in accessing healthcare.

There are successful initiatives and models of care that have improved access to healthcare for pregnant women with disabilities. These include comprehensive assessments, individualized care plans, peer support networks, and partnerships between disability organizations and healthcare providers.

Symposium VIII : Nutrition management in the life course

A desk review of benefits of food fortification for pregnant and breast-feeding women and landscape and feasibility of rice fortification in Sri Lanka

Ms. Hasini Rathnaweera
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United Nations World Food Programme in Sri Lanka

Micronutrient deficiencies are the most widespread form of malnutrition affecting over 2 billion people worldwide. Micronutrient deficiencies usually prevalent in low- and middle-income countries and in most cases results from a person's diet consisting of mainly staples like rice bread or corn. Food fortification is a cost-effective strategy with proven health, economic, and social advantages which has a great potential to combat the problem of micronutrient deficiencies in the vulnerable populations who do not have access to nutrient rich foods. Food fortification could also play a crucial role in safeguarding the health of pregnant and breast-feeding women by ensuring they receive the necessary nutrients for their well-being and the optimal development of their babies.

In Sri Lanka, first food fortification intervention started in the 1970s with Thriposha supplementation programme for pregnant and breast-feeding mothers. Also, iodisation of salt has been initiated from the early 1990's to address the iodine deficiency. Food fortification Technical Advisory Group (TAG) was established in 2016. Subsequently, a road map for food fortification was agreed under the guidance of TAG and with the technical support from the World Food Programme (WFP) in 2017. In 2018, the Minister of Health proposed to the Cabinet to fortify staples foods with iron and folic acid to address the incidence of iron deficiency and iron deficiency-related anaemia and other related health issues among the Sri Lankan population. A study on the technical feasibility of producing rice by the National Food Promotion Board (NFPB) was undertaken in 2016 by consultants' group from Agribusiness Centre of the Postgraduate Institute of Agriculture at Peradeniya. Subsequently, an acceptability trial of fortified rice produced at the NFPB was done in 2016 using a total of 2,511 school children.

A pilot study was conducted by NFPB with WFP assistance to assess the operational feasibility of introducing fortified rice through the current National School Meal Programme in 2019 and 2020. During the study, further infrastructure developments and technical advancements necessary for product improvement at blending unit owned by NFPB have been identified. Also, management of rice fortification supply chain, cost analysis of fortified rice production and challenges in the distribution process have been analysed. Presently, a series of initiatives are in progress aimed at enhancing the capabilities of local fortified rice production intended for utilization in social safety net initiatives and national level standards have been drafted for fortified rice. Also, from February 2023, around 1.1 million of primary school children are provided with Iron and folic acid fortified rice through national school meal programme with the assistance of WFP.

Key words: Food Fortification, Fortified rice, Micronutrient Deficiencies, Pregnant and breast-feeding mothers, National School Meal Programme, Iron and Folic acid

Efficacy of food in kind assistance on children between 6 months and 2 years with MAM in a context of acute food insecurity in 3 Medical Officer of Health areas: preliminary findings of a two-armed randomized control trial

Professor Guwani Liyanage
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University of Sri Jayawardenapura

Acute malnutrition is one of the key drivers of child mortality in the developing world. A child suffering from Moderate Acute Malnutrition (MAM) has a three- to four-fold increased risk of dying compared to a well-nourished child. In Sri Lanka, acute undernutrition is considerable problem. Previous research has shown that food-based interventions can effectively reduce both Moderate Acute Malnutrition (MAM) and Severe Acute Malnutrition (SAM) and that a multifaceted approach to nutrition intervention could be more effective. These interventions are critical during an economic crisis, as food insecurity and malnutrition would make the targeted interventions crucial.

The research study was designed as a two-arm randomized controlled trial. The main goal of the study was to assess the effectiveness of a specific nutritional intervention for addressing MAM. This helps to assess the efficacy of a food-based intervention by comparing the outcomes between the two groups.

A universal food-based intervention for all children with MAM might not be practical. Instead, a targeted approach that identifies and focuses on more vulnerable children with MAM could be more efficient and impactful. Thus, it is essential to identify the risk factors associated with the most vulnerable children affected by MAM, and that was our second objective. This understanding can help tailor interventions to those at the highest risk and in need of the most support. Publishing the preliminary results of such an intervention is an important step, and it allows the dissemination of valuable information and insights that can contribute to the understanding of nutritional interventions for MAM among the vulnerable population

Symposium VIII : Global initiatives to support parenting

MGIMS, Sewagram

Mahatma Gandhi Institute of Medical Sciences, Sewagram (MGIMS), located in Sewagram, Wardha District, is a multi-disciplinary health institution and was the first rural medical college in India. It works for its core function of training health professionals to work in the rural communities of India. MGIMS is renowned for its innovations in community-based medical education and research.

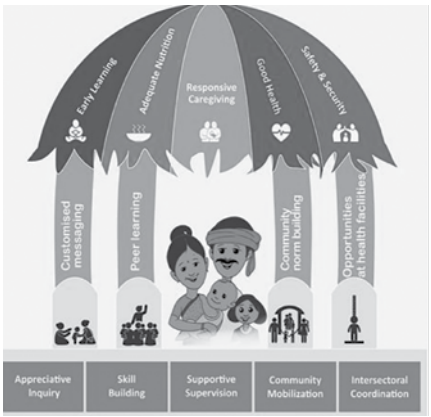
In addition to its unique role in medical education, MGIMS is also involved in health care research and the delivery of health services from the tertiary to the village level of care. In particular, it has been involved in a variety of cooperative ventures with the Ministry of Health and Family Welfare (MOHFW) which have created a synergy between the two institutions and built capacity at MGIMS.

MGIMS, Sevagram is committed to exemplary standards of professional excellence by evolving a pattern of integrated value-based medical education with accessible and affordable health care, catering to underprivileged communities. It has 1000 bedded hospital with full range of diagnostic and medical specialty. It hosts the 1st model MCH wing of the country. MGIMS is a WHO Collaborative Centre for Training and Research in Maternal, Newborn and Child Health since 2009 and ICMR Centre for Advanced Research under RHN division.

MGIMS has excellent partnership with health and ICDS sector at all levels as well as with the community. Community empowerment for health and well-being is the key focus and research at MGIMS, Sevagram. The institute has participated in several implementation research in recent times. 'Aarambh', a model developed for delivery of nurturing care has been scaled across the entire state of Maharashtra. MGIMS has setup its own Health and Demographic Surveillance System.

The Department of Community Medicine, MGIMS has been implementing community-based programs to enhance health care services to the rural communities in and around Wardha district. The department has, in its mission, to catalyze healthier communities through innovative models for participatory learning, service and research. The Department has developed expertise working with the Community-based Organizations and the Panchayati Raj Institutions and is actively involved in developing innovative models for community-based research.

Aarambh: an India-specific model for nurturing care interventions for every child



Millions of young children in India may fail to reach their full potential leading to poor academic success and low employability due to inadequate nutrition, exposure to stress, and limited early learning activities. The WHO/UNICEF nurturing care framework provides a roadmap for action, focusing specifically on the period from conception to year 3. It emphasizes the need to invest in capacity building and empowerment of service providers, families and communities for early childhood development to create a conducive environment for child development.

Mahatma Gandhi Institute of Medical Sciences, Sevagram in partnership with WHO (2010-14) and UNICEF (2017 – 2021 (continued)) has been involved in the development, piloting and scale-up activities for nurturing care interventions for early childhood development. 'Aarambh' (meaning 'the beginning'), a model for empowering parents and primary caregivers developed under this initiative utilizes existing opportunities within Integrated Child Development Services (ICDS), the health sector and other service delivery channels.

The initial pilot was implemented in a population of approximately 100,000 in Wardha district of Maharashtra state in India. The learnings from the pilot were utilized to initiate the 'Aarambh' (the Beginning) project in partnership with UNICEF and was implemented in 10 ICDS projects (around 1200,000 population) in two districts of Maharashtra during 2018-20. Based on the cumulative experience and benefits in child growth and development, in Jan 2021, the Department of Women and Child Development (DWCD), Government of Maharashtra decided to further scale-up the Aarambh model across all districts of the state with government resources. In addition, an integrated Aarambh-HBYC training package has been developed by Nutrition Bureau, Nagpur which is being implemented in 6 districts of Maharashtra.

Aarambh utilizes existing human resources and opportunities within the ICDS and health department, such as AWWs, ASHAs and ANMs and their contact points with parents, other caregivers and communities (e.g., home visits, mothers' meetings, growth monitoring, monthly early childhood care and education (ECCE) days, village health and nutrition days (VHNDs), community group meetings and opportunities available through health facilities) to promote responsive caregiving and early learning activities.

The package includes a cascade model of training where the supervisors of frontline workers act as trainers for the frontline workers. A team of 6-10 master trainers from ICDS have been created in each district of Maharashtra. The master trainers train all Anganwadi supervisors, who in turn provide training to all frontline workers (AWWs) using an incremental learning approach (ILA). The critical elements of the training designed for Aarambh included - establishing supervisors as trainers, joint training for ICDS and health sector, playful nature of the training, and demonstration of all approaches.

An analysis of reasons for the ownership by ICDS and the health sector suggests that participatory processes, an appreciative environment, as well as space for innovation available within these approaches hugely contributed to this. The core principle of 'Appreciative Inquiry' adopted in this initiative helped create an environment of appreciation and gave a sense of responsibility and accountability at each level in the system so that they derive pleasure and feel excited while delivering the interventions.

Due to the aspirational nature of the concept that nurturing care is critical for brain development, families and communities not only highly value it, but are also ready to further innovate. The pleasurable nature of play and communication activities makes this the best entry point for all social and behavior change communication messages related to child health.

Status of scale-up

Aarambh Cycle 1 training has been completed all over the state and more than 92% of Anganwadi workers have been trained. Training of master trainers have been completed for Aarambh cycle 2 training and

district level training has been initiated in all the districts of the state. Aarambh is playing a critical role in revitalizing ICDS to focus on child development as the initiative has been owned by all cadres.

Dissemination

Efforts have been undertaken to disseminate best practices of Aarambh both nationally and across various states. Teams from Telangana, Andhra Pradesh, Odisha, Bihar and Meghalaya visited to learn about field implementation, best practices, and challenges of implementing nurturing care interventions in Indian context.

In several of these states – Telangana, Andhra Pradesh and Bihar – pilot implementation in one or more districts have been initiated. Meghalaya, which has already initiated a state ECD mission, is in the stage of planning to implement the knowledge gained from the visit. Additionally, a team from NITI Aayog visited MGIMS, Sevagram for a deep understanding of the Aarambh initiative. Following this, we had several rounds of consultation with NITI Aayog, which is working on a proposal for national scale-up of Aarambh.

Managing Extreme Preterm Neonates

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The birth of a preterm baby, presents a multitude of challenges to both the newborn and the medical teams caring for them. Recognizing the critical importance of this vulnerable population, medical research has focused extensively on antenatal and perinatal interventions to optimize neonatal outcomes. These interventions, backed by rigorous evidence, encompass a range of strategies that begin during pregnancy and extend into the immediate postnatal period. Their overarching goal is to mitigate the risks associated with preterm birth and improve the long-term prospects for these infants.

Antenatal Interventions:
Various are strategies implemented during pregnancy to address potential complications and enhance foetal development. Antental Steroids: One of the most widely studied and effective interventions is the administration of antenatal corticosteroids. Both betamethasone and dexamethasone administered to pregnant mothers at risk of preterm delivery before 34 weeks of gestation has been shown to promote the maturation of the baby's lungs, reducing the incidence and severity of respiratory distress syndrome. Meta-analyses of multiple clinical trials have consistently demonstrated the effectiveness of various antenatal corticosteroids in improving neonatal respiratory outcomes, leading to their widespread adoption in clinical practice. Antenatal Magnesium Sulfate: Administration of magnesium sulfate to mothers at risk of preterm birth before 32 weeks of gestation has been shown to significantly decrease the risk of cerebral palsy and other neurological impairments in preterm infants. This antenatal intervention acts as a neuroprotective agent, helping to safeguard the developing brain.

Perinatal Interventions:
Perinatal interventions encompass the medical care and support provided to both the mother and the newborn during labor, delivery, and the immediate postnatal period. Neonatal resuscitation, a cornerstone of perinatal care, has evolved significantly with evidence-based practices. Advances in resuscitation techniques, such as delayed cord clamping and the use of positive end-expiratory pressure (PEEP), have improved the outcomes of preterm infants by reducing the incidence of respiratory distress and intraventricular hemorrhage.

Another impactful perinatal intervention is the use of surfactant replacement therapy. Preterm infants often lack sufficient surfactant, a substance that prevents lung collapse. By administering exogenous surfactant, clinicians can enhance lung function and decrease the need for invasive respiratory support, leading to improved respiratory outcomes. Temperature regulation is also a critical perinatal consideration. Preterm infants struggle to maintain their body temperature due to limited subcutaneous fat. Incubators and radiant warmers provide the controlled environment needed to prevent hypothermia, which can have detrimental effects on the newborn's metabolic and cardiovascular systems. Nutritional Support: Providing appropriate nutrition, whether through breast milk, formula, or parenteral nutrition, is crucial for growth and development. Infection Prevention: Preterm infants have immature immune systems, making them more vulnerable to infections. Strict infection control measures, including hand hygiene and limited exposure have a major role in improving the outcomes. To summarize, the evidence supporting antenatal and perinatal interventions for improving neonatal outcomes in preterm babies is robust and continually expanding. Through antenatal corticosteroids, magnesium sulfate administration, neonatal resuscitation techniques, surfactant replacement therapy, and temperature regulation measures, healthcare providers can significantly reduce the risks and complications associated with preterm birth. These interventions not only enhance immediate

neonatal outcomes but also lay the foundation for healthier long-term development. As medical knowledge advances, the refinement and personalized application of these interventions promise to continually improve the quality of care and the prospects for preterm infants worldwide.

Challenges in nutrition support in preterm neonates - Navigating Complex Challenges for Optimal Nutrition in Preterm Neonates

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The care of preterm neonates, especially extreme preterm neonates born before 28 weeks of gestation, presents a multifaceted challenge to neonatal healthcare providers. Among the various critical aspects of their care, enteral feeding strategy stands out as a pivotal element that directly influences these infants' growth, development, and overall outcomes. Crafting a well-designed and evidence-based enteral feeding plan for extreme preterm neonates requires a nuanced understanding of their physiological limitations, nutritional requirements, and potential complications. Physiological Considerations: The gastrointestinal tract of preterm neonates is markedly underdeveloped and functionally immature. Their ability to digest, absorb, and tolerate enteral feeds is limited, often necessitating a cautious approach to feeding initiation and advancement. Immature motor functions, such as peristalsis and gastric emptying, can lead to feeding intolerance, reflux, and increased risk of necrotizing enterocolitis (NEC). As such, any enteral feeding strategy must be tailored to the individual needs and readiness of each neonate. Initiation of Enteral Feeding: The initiation of enteral feeds for preterm neonates typically involves a stepwise approach. In the earliest days of life, parenteral nutrition (intravenous feeding) might be necessary to provide essential nutrients directly into the bloodstream in extreme preterm neonates. Once hemodynamically stable, minimal enteral feeds, often consisting of human milk or preterm formula, are gradually introduced. This approach helps condition the gastrointestinal tract and stimulate its maturation. Colostrum, the initial form of breast milk, is particularly valuable for its immune-boosting properties and bioactive components.

Advancement and Challenges: Advancing enteral feeds must be done carefully, taking into account the neonate's tolerance and response. Slowly increasing the volume and caloric content of feeds helps minimize the risk of feeding intolerance, gastric residuals, and NEC. Gastroesophageal reflux is common in preterm infants due to the immaturity of the lower esophageal sphincter. Feeding positioning, frequent small-volume feeds, and appropriate use of medications can help manage reflux symptoms. Breast Milk: A Cornerstone of Enteral Feeding: Breast milk is widely acknowledged as the optimal source of nutrition for preterm neonates. Its unique composition provides essential nutrients, growth factors, and immunological protection crucial for the vulnerable immune system of extreme preterm infants. Human milk feeding has been linked to a reduced risk of NEC and improved developmental outcomes.

Mother's own Milk, Individualized Care and Monitoring: The complexity of enteral feeding in extreme preterm neonates demands an individualized approach and need for mother's own milk. Healthcare providers closely monitor growth parameters, feeding tolerance, and potential complications. Collaborative efforts between neonatologists, paediatric dietitians, and nursing staff are essential to adjusting the feeding plan as the infant's needs evolve. Enteral feeding strategy for extreme preterm neonates represents a delicate balance between providing adequate nutrition and mitigating the challenges posed by their immature gastrointestinal systems. The evidence-based approach involves gradual initiation of feeds, breast milk promotion, vigilant monitoring, and a willingness to adapt to each infant's unique needs. With a focus on individualized care and continuous assessment, healthcare teams can optimize enteral feeding strategies, laying the foundation for healthier growth, development, and improved neonatal outcomes in these remarkably fragile infants.

OP 01 :LONGITUDINAL CURVES FOR NEONATAL BEHAVIOUTAL ASSESSMENT SCORING IN HEALTHY, TERM, INFANTS IN COLOMBO, SRI LANKA

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Introduction:

Neonatal Behavioural Assessment Scores (NBAS) at birth reflect the newborns adjustment to labour, delivery and new environment. There is no data regarding NBAS references for healthy Sri Lankan infants.

Objective:

To develop longitudinal percentile curves from 1st to 99th centile for NBAS from birth to 2 months, in healthy term infants born in Colombo, Sri Lanka

Methods:

Part of alongitudinal study on body composition from July 2015 to December 2019, at Professorial Unit, De Soysa Hospital for Women, Colombo. Term babies born to mothers, >18years old, who agreed, to attend monthly follow-up for one year were enrolled. Assessment was done within 2 days of birth by a single observer certified in NBAS scoring. Ethical clearance was obtained from Faculty of Medicine, University of Colombo. NBAS includes 18reflexes, each scored on a 4-point scale and 28behavioural items each scored on a 9point scale. Data reduction was done using the 7cluster (habituation, orientation, motor, range of state, regulation of state, autonomic stability and reflexes) scoring method. Longitudinal curves were formulated using LMS Chartmaker Pro_version_2.54.

Results:

A total of 250 cord blood samples were analysed. Mean and SD for cord blood were 7.3 ± 9.9 ng/ml for leptin, 6.4 ± 5.2 mIU/ml for insulin. 60.6 ± 39.9 ng/ml for IGF-1 and 31.3 ± 14.8 µg /ml for adiponectin. Each ng/ml increase in adiponectin decreased FFM index (FFMI) by 0.1g/cm at 3 months of age[beta= -0.022, p=0.008, r^2=0.074, F(1,91)=7.251, p=0.008] and 0.3g/cm at 9 months of age [beta= -0.027, p=0.013, r^2=0.078, F(1,77)=6.518, p=0.013]. , each mIU/ml in insulin increased FM by 0.05g at 24 months of age [beta=0.046, p=0.044, r^2=0.125, F(1,31)=4.425, p=0.044] and each ng/ml increase I IGF-1 increased FFMI by 9g/cm at 9 months of age [beta=0.009, p=0.041, r^2=0.053, F(1,77)=4.308, p=0.041].

Conclusion:

Cord blood insulin, adiponectin and IGF-1 can be used to predict body composition within the first 2 years of life.

OP 02 :CAN NEONATAL BEHAVIOUTAL ASSESSMENT SCORING PREDICT INFANT BODY COMPOSITION?

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Introduction:

Neonatal Behavioural Assessment Scores (NBAS) at birth reflect the newborns adjustment to labour, delivery and new environment. The simplest 2-compartment model of body composition describes our body content as fat mass (FM) and fat free mas (FFM).

Objective:

To assess the relationship between NBAS and infant body composition from 3-24 months of age

Methods:

Body composition was measured at 3,6,9,12,18 and 24 months via deuterium-dilution-method using saliva sample analysis, in healthy, term babies as part of a longitudinal study from 2015-2019, at Professorial Unit, De Soysa Hospital for Women, Colombo. Assessment was done within 2 days of birth by a single observer certified in NBAS scoring. Ethical clearance was obtained from Faculty of Medicine, University of Colombo. NBAS includes 18reflexes, each scored on a 4-point scale and 28 behavioural items each scored on a 9point scale. Data reduction was done using the 7cluster (habituation, orientation, motor, range of state, regulation of state, autonomic stability and reflexes) scoring method. Data was analysed via SPSS v27 using linear regression, to determine whether NBAS can predict body composition of infants, after ensuring that assumptions of normality, linearity, multicollinearity and homoscedasticity were met.

Results:

NBAS assessments were done in 337, 157 and 159 infants at birth, 1 and 2 months of age. Body composition at 3, 6, 12, 18 and 24 months of age was significantly related to NBAS scores at birth, 1 and 2 months of age. State regulation, social interaction, motor system, autonomic system and reflexes demonstrated a significant positive relationship ($p<0.05$) with FM from 3-6 months of age and with FFM from 12-24 months of age while demonstrating a significant negative relationship ($p<0.05$) with FFM from 3-6 months of age and with FM from 12-24 months of age. The positive relationship between FM from 3-6 months of age followed by a positive relationship with FFM from 12-24 months, suggest that NBAS increases parallel to the change in body composition that is characteristic for the breastfed baby with high adherence to infant and young child feeding guidelines.

Conclusion:

Increase in NBAS predicts healthy body composition.

OP 03 :ASSESSMENT OF THE ENTERAL FEEDING OF PRETERM BABIES IN NEONATAL INTENSIVE CARE UNIT- TEACHING HOSPITAL MAHAMODARA.

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Introduction

Premature infants have greater nutritional needs in the neonatal period and enteral feeding is the preferred method of provision of nutrition. Early and adequate nutritional support is needed to achieve appropriate rates of weight gain and to minimize complications. It is important to choose feeding practices associated with improved outcomes for premature infants. Sometimes parenteral nutrition is needed especially for infants with medical conditions.Nutritional management in neonatal units often lacks uniformity. Standardization of practice across the neonatal units will minimize the nutrition related complications and improve the neonatal outcomes.

Objectives

To assess the adherence to the standard feeding protocols and to identify the lags of current practice.

Method

Babies who were born preterm (n= 25) from 01.11.2022 – 31.12.2022 were included to the study. Data was collected prospectively using an audit form. Seven standards were defined and assessed in the study. This includes initiation of first feed within 1st 24 hour of life, feeding with breast milk, adherence to the recommended feeding regimes considering risk category of baby, adherence to the appropriate feeding method, assessment of optimal weight gain, commencement of prophylactic Iron treatment and vitamin supplements and antenatal expression of breast milk.

Results

Out of 25, there were 4 extremes preterm ,13 very preterm, 6 moderate preterm and 2 late preterm neonates. According to the birth weight, 7 were less than 1000 g, 14 were 1000-1499g and 4 were 1500-2499g.
Out of seven standards, 4 recorded 100% compliance namely feeding with breast milk, adherence to recommended feeding regimes considering risk category, adherence to appropriate feeding method, commencement of prophylactic Iron treatment and vitamins. 92% of babies had optimal weight gain. 64% compliance recorded for initiating 1st feed withing 24 hours of birth. Only one baby had received antenatally expressed maternal breast milk.

Conclusion

Although most of the standards are met, there are few areas which need improvement.

OP04 :OUTCOMES OF INFANTS BORN LESS THAN 28 WEEKS' GESTATION AND FACTORS ASSOCIATED WITH SURVIVAL AT DISCHARGE: A SINGE CENTER EXPERIENCE IN SRI LANKA OVER A DECADE

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Introduction:

Preterm birth and complications are now the leading cause of death globally in children under five years. In Sri Lanka, studies assessing the survival rate of preterm babies and associated factors are sparse.

Objectives:

To assess the survival of extreme preterm babies and to ascertain factors associated with the survival.

Methods:

This was a 10-year retrospective analysis of all live births at 22+0 to 27+6 weeks gestation in a single center in Sri Lanka. It involved a review of records of all extreme preterm babies admitted between 1st January 2010 and 31st December 2019. Live births with major congenital malformations and chromosomal abnormalities were excluded. Survival probability was calculated by using Kaplan-Meier estimates. Logistic regression was used to assess the factors associated with survival. The explanatory variables included gestational age at birth, comorbidities (sepsis), gender, mode of delivery, and birth weight.

Results:

A total of 123 records were reviewed. The majority survived (55.3%). The overall median survival time was 58 days at discharge. Significant independent factors affecting survival were gestational age (B=3.18, 95% CI: 6.239, 92.476, p<0.001 & B=2.83, 95% CI:4.188, 68.262, p<0.001), small for gestation (B= -1.95, 95% CI:2.051, 0.392, p=<0.001), and having sepsis (B=-3.19, 95% CI: 0.008, 0.205, p<0.001).

Conclusion:

We found a high mortality rate in preterm babies < 28 weeks of gestation and that survival increased with higher gestational age, birth weight, and not having sepsis. Since most of the identified predictors are not modifiable, everyone must work towards omproving modifiable risk factors such as prevention of sepsis.

OP 05 : A FACILITY LEVEL QUALITY IMPROVEMNT INITIATIVE CONDCUTED USING THE ASSESSMENT TOOL FOR THE QUALITY OF HOSPITAL CARE FOR MOTHERS AND NEWBORNS: A PILOT PROJECT CONDCUTED AT DSHW

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Introduction:

Quality of care provided in labour rooms needs improvement in many LIMC. There is research evidence to prove that systematic use of available tools to identify the gaps and tailor-made interventions can improve the outcomes.

Objectives:

To improve the key quality indicators by using the manual developed by the WHO and by training the staff to improve adherence to evidence-based care

Methods:

A pilot quasi experimental study conducted in the labour wards of DSHW from May 2021 to Dec 2022. The quality-of-care assessment tool developed by the WHO was used to assess the quality indicators. This audit was conducted over a period of two weeks by a trained doctor. The findings were presented in the stake holders meeting. Areas that need improvement were decided and prioritised. A series of workshops regarding safe use of oxytocin, birth positions, respectful maternity care, intrapartum fetal surveillance, labour companionship and pain relief in labour were conducted and protocols for induction of labour and use of oxytocin, handbook for fetal surveillance, safety checklist for CTG interpretations were developed to improve the adherence to evidence based practices. After one year of implementation phase, a repeat audit was conducted and compared with phase 1.

Results:

During the audit and re-audit process, a total of 91 criteria were assessed. Out of these criteria, 30 showed a remarkable improvement of over 50%. Another 40 criteria exhibited an improvement, albeit less than 50%. It is worth noting that 13 of the criteria remained unchanged, with their assessment results remaining static. Interestingly, 12 of these static criteria had already achieved a perfect score of 100% prior to the audit. On the other hand, 8 indicators experienced a decline in their assessment between the audit and the re-audit.

Conclusion:

Quality improvement strategy using the assessment tool developed by the WHO and tailor-made interventions to educate and train the staff and development of protocols, checklists and job aids is practical and can be scaled up in similar settings.

OP 06 :Relationship between Umbilical Cord Arterial pH with CTG and APGAR Score

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Introduction:

The International Cerebral Palsy (CP) Task Force list four essential criteria for diagnosing CP. One of them is evidence of metabolic acidosis in fetal umbilical cord arterial blood obtained at delivery (pH l <7 and base deficit of≥12 mmol/L). At UHKDU ward 01 it has been the standard practice to do umbilical artery pH in suspected fetal distress and assisted vaginal deliveries. Electronic fetal monitoring (EFM) and umbilical artery pH are the only means available to confirm objectively any adverse intrapartum event causing CP.

Objectives:

To determine the relationship between umbilical cord pH to intrapartum EFM and neonatal APGAR score. Design – a retrospective correlational study.

Methods:

Data collected from bed head tickets (BHT) singleton, term (> 36 weeks gestation), non-anomalous, live neonates with validated paired umbilical cord arterial pH values delivered from January 1st 2023 to May 31st 2023. N=42. Inclusion criteria: Gestational age confirmed by dating ultrasound scan, singleton pregnancy, live birth, EFM of 20minutes or more attached to the BHT, availability of the result of validated umbilical cord blood pH from paired samples.

Results:

A Kruskal-Wallis H test showed that there was no statistically significant difference in umbilical Ph between the different intrapartum CTG findings, $\chi 2(2) = 2.301$, $p = 0.316$, with a mean rank umbilical Ph of 18.05 for normal CTG, 20.94 for suspicious CTG and 13.42 for pathological CTG.The relationship between umbilical cord Ph and APGAR score was investigated using Spearman's rank order correlation. There was a medium, positive correlation between the two variables [r=42, n=42, p<.0005], with high levels of umbilical cord Ph associated with high levels of APGAR score.

Conclusions:

Intrapartum CTG has no statistically significant correlation to umbilical artery pH. A statistically significant positive correlation between the two variables APGAR score to umbilical artery Ph was found.

Key words: cerebral palsy, umbilical cord pH, APGAR score, intrapartum adverse events, electronic fetal monitoring

OP07 :STREPTOCOCCAL NEONATAL DISEASE: A SINGLE TERTIARY CARE CENTER EXPERIENCE BETWEEN PRE AND POST IMPLEMENTATION OF THE NATIONAL GUIDELINES TO MITIGATE GROUP B NEONATAL SEPSIS

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Introduction:
Group B Streptococcus (GBS) and other streptococcal species cause neonatal sepsis with variable severity. GBS sepsis result in mortality of 10% and 50 % of survivors develop neuro-disability in various severity. The country implemented national guideline to mitigate GBS sepsis in 2016, in keeping with the NICE guidelines.

Objectives:
The study assesses the changes that occurred in the prevalence of GBS neonatal sepsis over a decade to evaluate the impact of GBS prophylaxis. The study also aims to provide the baseline data for a national surveillance on GBS neonatal disease.

Method:
A retrospective descriptive analysis was done on all streptococcal isolates recovered from the blood cultures collected from neonates, managed at Colombo South Teaching Hospital over a period of 10 years from the 1st of January 2013. The data was collated from the data retained in the Microbiology laboratory and in the special care baby unit (SCBU).

Results;
Fifty episodes of GBS, 3 pneumococcal, and 3 *Streptococcus pyogenes* neonatal sepsis were reported. The incidences of GBS sepsis were 0.66, 0.86, 0.9, 0.93, 1.33, 0.61, 0.25, 2.27 per 1000 live births respectively from 2015 to 2022. Forty-four (96%) were early onset sepsis (EOS) and all (40/50) were delivered vaginally or by an emergency section. Forty-six (92%) newborns with GBS sepsis needed care from the SCBU and the reported mortality rate was 7% (3/42). Pneumococcus was isolated as a pathogen of early onset sepsis from 3 and 2 (67%) of them died, although the isolates were susceptible to cefotaxime.

Conclusion:
No significant downward trend noted in GBS-EOS following implementation of GBS prevention guidelines, indicating the need for reassessing the existing practisesand looking for new strategies. The incidence of GBS sepsis in the present study is similar to the incidenceof high-income countries with comparatively higher mortality rate. Therefore, the study shows the importance of a national surveillance on GBS sepsis to define the burden of disease. *S. pneumoniae,* a rare pathogen in EOS which carries a high mortality probably due to lack of maternal antibodies since the vaccine is not implemented in Sri Lanka.

OP08 :AUDIT ON EARLY ONSET NEONATAL SEPSIS (EOS) AT BASE HOSPITAL UDUGAMA

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Introduction

Neonatal sepsis may be categorized as early (<72 hours) or late onset. In Sri Lanka 11% of Neonatal mortality is due to infection, among whom 75% deaths occur during the first week due to EOS. Decreasing invasive interventions and promoting hygienicpractices are key preventive strategies to avoid EOS.

Objective

To audit and reduce early onset neonatal infections

Methods

We conducted a retrospective cross-sectional study of all deliveries over two consecutive months at maternity unit of Base Hospital Udugama, Srilanka. Using a pretested checklist and compared against national guideline for newborn care (Ministry of Health ; 2020).

Result

Hundred and five deliveries were studied during months of January and February ,2023. The median maternal age was 30 years while median gestational age of neonates was 37 weeks + 5 days.Early onset neonatal infection (EOS) rate was found to be 3.8%(N=4) in this population. Preterm labour (<37 weeks) 36.1%(N=38), newborn of a mother with diabetes 9.5%(N=10), Instrumental/Difficult delivery 4.7%(N=5), >3 Vaginal Examinations 25.7%(N=27), PROM >18 hours 0.9%(N=1), Low birth weight <10th Centile 6.6%(N=7) and low APGAR at 5 min 1.9%(N=2) were the documented risk factors for EOS.

Conclusion and Recommendation

Sri Lankan national guideline for newborn care states maternal pyrexia, PPROM/Prolonged rupture of membranes >18 hours, Preterm delivery, Low birth weight, Low APGAR, difficult delivery/instrumentation, ≥3 vaginal examinations or unclean delivery ect. as risk factors for EOS.However, in this population, only newborn of a mother with diabetes was the only factor which was associated with EOS.To mitigate the early onset neonatal infection, we have newly implemented quality improvement measures namely, limiting number of vaginal examinations, strict asepsis during vaginal examinations, limiting number of visitors by introducing a visitors pass system, regular carbolizing, changing linen and individual allocation linen for each baby. Proper diabetic control has been achieved by home blood sugar monitoring.At present follow-up audit is being carried out following new hygienic practises.

OP 09 : ASSESS THE ADHERENCE TO THE GOLDEN HOUR CONCEPT IN MANAGEMENT OF PREMATURE BABIES AT TEACHING HOSPITAL MAHAMODARA.

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Introduction
"Golden hour "of the neonatal life is defined as the first hour of postnatal life in both preterm and term neonates. This includes neonatal resuscitation, post resuscitation care, transportation of sick neonate to NICU, cardiovascular support, respiratory support and initial stabilization in NICU. Golden hour concept includes practicing evidence-based interventions during the first hour of stabilization of a neonate. This practice has markedly reduced the neonatal hypothermia, hypoglycemia, intraventricular hemorrhage, bronchopulmonary dysplasia and retinopathy of prematurity. There are many standard interventions that need to be practiced during the golden hour for optimal neonatal care. This study aims to assess the adherence to these concepts.

Objectives
To assess the adherence to standard interventions during the golden hour.

Methodology
Observational Prospective study was conducted in the NICU- THM from 20/8/2022 to 30/11/2022. Babies who were less than 34 weeks of gestation were included to the study. Optimal cord management, prevention of hypothermia, surfactant treatment and respiratory support, cardiovascular support, laboratory investigations, commencement of intravenous fluids/ parenteral nutrition and antibiotics was assessed during the study.

Results
Total of 43 premature babies were assessed during this period. All the babies had immediate cord clamping. All the babies who were less than 32 weeks of gestation delivered into the plastic bag and monitored for hypothermia. Out of 43 babies 24 babies were normothermic on admission to NICU. 16 (37.2%) babies were mildly hypothermic. Three babies (6.9%) had moderate hypothermia. All the babies were stabilized on PEEP at delivery room and admitted to NICU during the golden hour to receive the respiratory care. Out of 43 only 6 babies met the criteria and received the Surfactant treatment. Screening for hypoglycemia was done only in 28 babies (65%) and 8 (28.5%) babies had hypoglycemia. All the babies had initial blood investigations during the golden hour and had intravenous fluids and antibiotics when indicated.

Conclusions
The concept of '' Golden hour ''is for the better outcome of neonates and this study shows that there are few areas which need improvement.

OP 10 :AUDIT CYCLE ON IMPLEMENTATION OF BEST PRACTICE IN BASIC NEONATAL RESUSCITATION GUIDELINES IN MATERNITY UNITS AND MATERNITY THEATRE

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Introduction

Resuscitation council in United Kingdom have introduced guidelines for improving the quality of neonatal care. Evidence have proven that adherence to formulated guidelines is a highly effective intervention that can reduce the incidence of severe birth asphyxia and hypoxic injury of the neonates, mainly in developing countries.

Objectives

Audit project was focused to evaluate the current practice of neonatal resuscitation in labour ward and maternity theatre at Colombo North Teaching Hospital Ragama against the European resuscitation guidelines.

Methods

91participants including 63 nurses and 28 midwives specialized in providing labour care were audited. Audit was carried out collecting clinical data on the proper assessment of the APGAR score according to etrospective case note reviews of 245 babies. A questionnaire and observer check list was used to collect data on practices.

Baseline audit data were analysed using simple statistical data analysis. An action plan was developed following identifying the potential barriers to adhere guidelineswith interactive teaching and skills sessions being implemented over a period of 1 month with suppression of the audit leads.A prospective re-audit was carried out among the same study subjects and assessed 240 babies in a similar manner.

Results

Baseline audit revealed that only 12% of subjects have undergone a training course on neonatal resuscitation previously. 5 out of 31 necessary equipment were not available (Laryngoscope, face masks were not available in three different sizes). Appropriate documentation of APGAR score was 97%. Awareness of guidelines and protocols was 25% without meeting 100% adherence to the standards. Resistance to change practice, knowledge gaps and lack of motivation for training were identified as barriers for adherence and addressed successfully at action plan which included Neonatal resuscitation workshops. During re-audit, APGAR score documentation and equipment maintenance was 100%. Staff satisfaction and guideline adherence were 100% following knowledge sharing. Will to change practices and to attend training sessions showed a significant improvement (70% and 88% respectively).

Conclusion

Audit cycle addressed the barriers to adhere guidelines and helped ensuring confidence, establishing proper skills and techniques among new-born care providers thus leading to a remarkable outcome.

OP 11 : SURVEY ON MUSCULOSKELETAL SYMPTOMS IN A GROUP OF OBSTETRIC PATIENTS AT A DISTRICT HOSPITAL IN SRI LANKA

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Introduction

Musculoskeletal symptoms are frequently reported by pregnant women and can have a significant impact on their daily functioning and quality of life. However, limited attention has been given to exploring the prevalence of musculoskeletal symptoms specifically in obstetric patients within rural healthcare settings. This survey aims to fill this crucial knowledge from a rheumatology perspective.

Objectives

Provide insights from a rheumatology perspective on musculoskeletal symptom prevalence and associated factors in obstetric patients in rural healthcare settings.
Contribute to the development of targeted interventions and management strategies to improve the well-being of obstetric patients.

Methodology

The survey was conducted among 65 obstetric patients who were either attending clinics or warded at the obstetric wards at Matara District General Hospital using an interviewer-based questionnaire. Statistical analysis was done using SPSS.

Results

Median(IQR) age of the study population was 30(26-33)years. Median(IQR) gestational age was 32(20-36) weeks. Mean(SD) parity was 2.05(4.533). Common types of musculoskeletal symptoms were back, leg and knee pain seen in 48.5%,19.7% and 4.5% of patients respectively.Some reasons attributed by patients as possible causes of pain were nutritional deficiencies(83.1%), caring for new-born(80%), weight-gain(76.9%), changes in posture(76.9%) and childbirth injuries(72.3%).The age of patient positively correlated with hours of physical activity carried out on a daily basis($p<0.01$). Patients with higher parity had onset of musculoskeletal symptoms at a later gestational age($p<0.01$). Severity of symptoms plotted in a visual analogue scale was worse if number of months since last childbirth was higher($p<0.05$), when gestational age at onset of symptoms was higher($p<0.01$) or when the hours of daily physical activity was higher($p<0.05$). Higher gestational age positively correlated with a higher gestational age of onset of symptoms($P<0.01$).

Conclusion

Musculoskeletal pain was reported in various body regions, with age, parity, gestational age and physical activity playing significant roles in the onset and severity of symptoms. These findings emphasize the importance of addressing musculoskeletal symptoms in obstetric patients. Further research and interventions are warranted to better understand and manage symptoms in this population.

OP12 :PREGNANT WOMEN'S ATTITUDES TOWARDS DECISION-MAKING AND IMPLEMENTING NIPT IN NATIONAL ANTENATAL CARE

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Introduction
NIPT has become an integral part of fetal medicine. Though national program for antenatal care doesn't have a considerable place for this testing, it is available in private sector laboratories.

Objectives

Evaluate the attitudes of pregnant women in Sri Lanka towards implementing NIPT in national antenatal care plan for high risk pregnancies.

Methodology
Pregnant women, attending the Fetal medicine clinic, Professorial Obstetrics and Gynecology Unit, North Colombo Teaching Hospital, Ragama, and Fetal medicine unit, Ninewells Care Mother & Baby Hospital (PVT) Ltd, KirimandalaMawatha, Narahenpita were recruited to the study. Data collection was done through interviewer based questionnaire, in three aspects (social and demographic data, attitude towards NIPT, and factors important for decision-making for NIPT testing) following educating the each pregnant mother regarding NIPT and clarifying their problems

Results
A total of 179, 60 patients were enlisted from the NCTH, and 119 patients were from the Ninewells hospital. 82 (46%) mothers had a high-risk pregnancies. There were 10 (5.5%) mothers who had a past history of Down syndrome/congenitally abnormal children. Only 32 (8%) mothers knew that NIPT is available in Sri Lanka while majority. Seventy (39%) mothers strongly agreed that NIPT should be offered to all high risk pregnancies, 13(7%) mothers strongly disagreed with the decision. The majority (141;79%) of the cohort agreed with the decision to undergo invasive prenatal testing if they got positive NIPT and 23 (13%) disagreed with that choice. The most important factor in undertaking NIPT testing was to know more information about the fetus. 173 (97%) mothers considered doing the NIPT testing because they were more worried about the baby's safety. The least important factor for decision-making to undergo NIPT was to confirm the gender of the baby (50,28%) .The family support (71%) and social support(71%) of having a baby with a chromosomal abnormality and 148 (83%) mothers considered the fear of not being able to cope with a baby with a chromosomal abnormality to be important in decision-making.

Conclusion
The majority (147;82%) of the study cohort needs to be made aware about the this test and the availability of NIPT.

PP 01:SPONTANEOUS PNEUMOTHORAX IN A TERM HEALTHY NEONATE COMPLICATED WITH SIGNIFICANT SUBCUTANEOUS EMPHYSEMA -A RARE CLINICAL ENTITY

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Introduction

Pneumothorax is a relatively common cause of respiratory distress in newborn babies, especially in preterm neonates. Although they usually occur secondarily to underlying lung diseases or following mechanical ventilation, spontaneous pneumothoraxes also have been reported. We describe aoccurrence of a spontaneous pneumothorax in a healthy term neonate without any structural abnormalities in the lungs while on room air, which eventually recovered completely following surgical and medical intervention.

Case report

A male neonate was born at tern with birth weight of 2960g to a primigravida mother by caesarean section due to failed prostaglandin induction. There were no meconium stained liquor or trauma during delivery. The perinatal period was uneventful with APGAR 9 at 1 minute and 10 at 5 minutes. Then baby was sent to postnatal ward and started on breastfeeding. At 12 hours of age while in the post natal ward baby developed respiratory distress with cyanosis saturation varying from 80-85%. Baby was immediately taken to NICU and supplementary oxygen started via nasal canula but respiratory distress persisted. Examination revealed heart rate 150/min capillary refill time 2 seconds no murmurs. Air entry was equal but reduced in right side lower zone. Other system examinations were normal. A chest X-ray was ordered and venous blood gas revealed mild metabolic acidosis with respiratory compensation (PH-7.32,PCO2-32,HCO3-17,PO2- 58). Chest x-ray showed right sided tension pneumothorax with midline shift to left side. Immediate needle thoracocentesis done in right second intercostal space. Chest X-ray was repeated after that but pneumothorax was still persisting and a moderate subcutaneous emphysema has been developed which was gradually worsening. Then intercostal tube was inserted. With that baby got improved with saturation 100% with reduction of respiratory distress. Initial septic screen done at 12 hours of age (total leucocyte count=29860/mm3, absolute neutrophil count 21300,platelet 245,000, Hb 19.8 g/dl,CRP 07 at 12 hrs and 46 at 36 hours,blood culture negative, deep ear swab culture negative. CXR did not reveal any consolidation. As the pneumothorax is persisting in a contrast CT chest was performed at day 3 of life to exclude any underlying structural abnormalities of the lung. CT chest revealed that right right sided pneumothorax with IC tube insitu and there were no evidence of consolidation to suggest congenital pneumonia and no lung parenchymal abnormalities were detected. IC tube had to be kept for 13 days till the pneumothorax gets fully settled. Meanwhile, in the NICU stay other supportive management was done and baby got discharged at day 15 of age.

Figure 1: Chest Xray AP view showing right sided pneumothorax (red arrow)

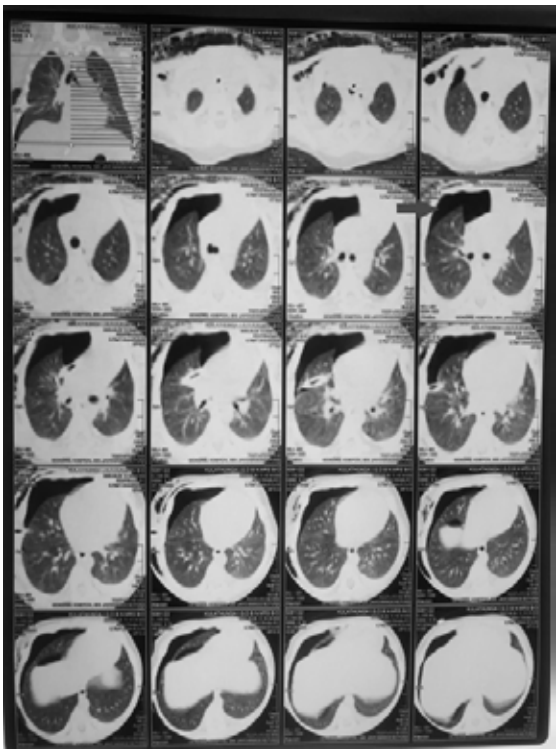

Figure 2: Contrast enhanced CT chest showing right sided pneumothorax (red arrow) without any lung parenchymal abnormalities

Figure 3: Development of subcutaneous emphysema in the right side (red arrow)

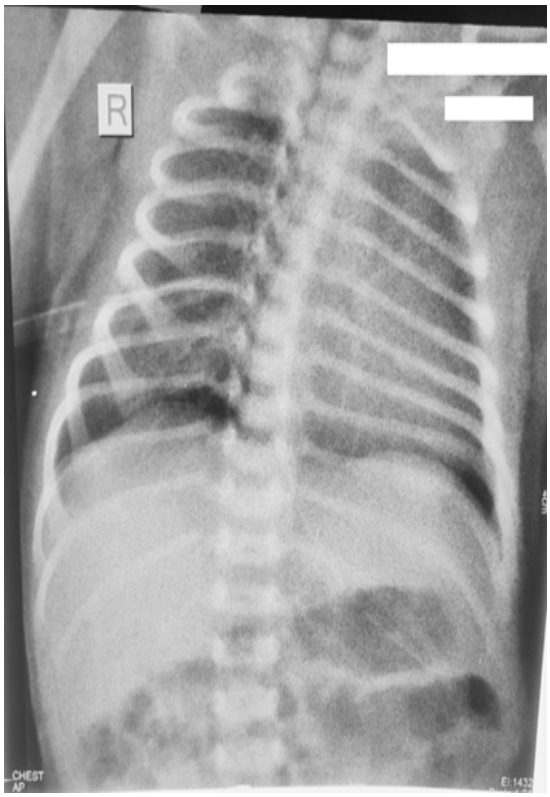

Figure 4: Chet Xray Ap view showing resolution of Pneumothorax following IC tube insertion

Discussion

Pneumothorax is a known cause for respiratory distress in newborns. They are more frequent in premature babies with a reported incidence of 6%, mainly as a result of poor lung compliance due to surfactant deficiency[1].Reported incidence in term newborns is 1-2%[2,3].Pneumothorax usually occurs as a complication of mechanical ventilation or secondarily to lung pathologies such as respiratory distress syndrome, meconium aspiration syndrome and pulmonary hypoplasia[4]. However they are also known to occur spontaneously[5].Neonatal pneumothorax usually occurs within the first 3 days of birth in late preterm and term newborns[6].Our neonate was a term baby without any identified risk factors for development of a pneumothorax.

Spontaneous pneumothorax occurs due to high negative transpulmonary pressure generated with the onset of breathing to open the lungs which were collapsed in utero. If there is primary lung disease, chance of developing pneumothorax increases[7].Familial spontaneous pneumothorax also has been described in the litature[8].Recognized causes for familial pneumothorax are genetic disorders, such as cystic fibrosis, homocystinuria, and α1 antitrypsin, and collagen disorders, such as Ehlers-Danlos syndrome[9].Risk factors to develop spontaneous pneumothorax in late preterm and full term babies have been described.Male sex and need for positive pressure ventilation during resuscitation in the delivery room was significantly associated with neonatal pneumothorax[10]. A high requirement of FiO_2 to achieve an SPO_2 of ≥90% on admission also was significantly associated with neonatal pneumothorax[10].

Early diagnosis of pneumothoraxes needs high index of clinical suspicion.Clinical features of a pneumothorax include irritability,tachypnoea,grunting,nasal flaring and cyanosis. Physical findings include reduced air entry to affected side and displacement of cardiac impulse.if significant amount of air has been trapped in the mediastinum there may be bulging of the chest in the affected side[5]. If a pneumothorax is suspected clinically and the baby is stable, diagnosis can be confirmed by a chest Xray, which will show air in the pleural space with a collapsed lung.However, if the baby is in distress or when X-ray would delay treatment, clinical findings alone are sufficient to plan out the management.

Mortality is very high when pneumothorax is untreated or when there is a delay in treatment[11]. However, all cases of pneumothorax do not need intercostal tube insertion[12]. When the baby is in severe distress, urgent needle thoracocentesis should be performed, followed by intercostal tube insertion. Babies with mild to moderate respiratory distress can be managed with supportive care and observation alone.Studies have shown that most pneumothoraxes resolve on their own, without any residual defects[5]. Administration of high flow or 100% oxygen (nitrogen washout therapy) has been shown to accelerate the resolution of a pneumothorax[6]. Our baby needed 12 days of intercostal tube drainage for the pneumothorax to resolve and discharged at 15 days of life.

Conclusion

This case reports highlights the fact that spontaneous pneumothorax should be suspected in any term neonate who develop acute onset respiratory distress, even without any risk factors for pneumothoraxes. It also stresses the need for a good clinical examination in neonates with respiratory distress.

PP02 :CASE REPORT: A GIANT CYSTIC HYGROMA OF ANTERIOR NECK AND POTENTIAL AIRWAY OBSTRUCTION IN A NEWBORN

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Introduction

Cervical cystic hygroma is a benign congenital malformation of the lymphatic system secondary to lack of development of communication between lymphatic and venous system. Incidence of cystic hygroma is 1/6000 live births. We present a case of giant anterior neck cystic hygroma which was initially asymptomatic and eventually developed stridor in a newborn.

Case report

The patient was a term baby girl delivered by elective cesarian section with Apgar were 7,8,10 at 1,5,10 minutes respectively. There was an incidental finding of an anterior neck mass in fetal ultrasound and was described on postnatal ultrasound as a large cystic lesion in the anterior neck which inferiorly followed the course of the right carotid artery, consistent with cystic hygroma. She was asymptomatic initially, She developed a stridor after one week, and a follow-up USS neck showed increased size of the cystic hygroma. Dexamethasone was started to reduce fluid buildup in the mass. Intraoperatively, as Cystic hygroma was found to be inseparable from the right half of the thyroid gland, hemithyroidectomy was performed. Post operatively Right side mandibular neuropraxia noted.

Discussion

Cystic hygromas may be associated with trisomies, Turners, chromosomal aneuploidy and cardiac anomalies.Indications for surgery are cosmetic deformity, obstructive symptoms, bleeding and recurrent infections. Other treatment modalities include aspiration, radiation, and injection of sclerosing agents.

The neuropraxia involving the marginal mandibular branch of the facial nerve, was expected to correct with time. Large cervical cystic hygromas may surround or displace neurovascular structures making their identification quite challenging intraoperatively. A team of experienced surgeons will help to ensure a successful surgical outcome.

PP 03: AUTOSOMAL RECESSIVE POLYCYSTIC KIDNEY DISEASE: CASE REPORT OF A NEWBORN WITH RARE PKHD1 MUTATION AND EARLY FATAL OUTCOME

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Introduction

ARPKD is an autosomal recessive disorder occurring with an incidence of 1:10,000-40,000 and a gene carrier rate of 1/70 . The gene for ARPKD (PKHD1) encodes fibrocystin. ARPKD causes dual organ disease; progressive renal failure and congenital hepatic fibrosis. It is often complicated by pulmonary hypoplasia. The diagnosis is made antenatally by detecting oligohydroamnios and enlarged cystic kidneys.

Case report

A 30-year-old mother delivered a baby boy at 35 weeks of gestation with 2500 g birth weight by cesarean section due to antenatally detected bilateral polycystic kidney disease and pulmonary hypoplasia and oligohydroamniosis. There was a 2nd degree consanguinity among parents and her 1st pregnancy ended up with a neonatal death on day 3, due to bilateral polycystic kidneys and lung hypoplasia complicated with acute renal failure and circulatory insufficiency requiring intubation.

This baby's APGAR was 6 and 8 at 1min and 5 min respectively. He had typical potter sequence face, severe abdominal distension with ballotable kidneys. He got severe respiratory distress due to pulmonary hypoplasia and needed intubation and ventilation. He was anuric for 3 days and renal functions were severely impaired, GFR 15 Ml/min/1.73 m^2. He got hyperkalemia, hyponatremia, metabolic acidosis and two events of convulsions. He had marginally elevated liver enzymes. Abdominal sonography showed bilateral cystic nephromegaly with poor corticomedullary demarcation and hepatomegaly with cystic lesions.

He was decided to manage conservatively with fluid restriction, inotropes, NaHCO3 , IV antibiotics, total parenteral nutrition. Peritoneal dialysis was planned but baby died on day 3 due to cardiorespiratory arrest.
The parents were counselled regarding prognosis and genetic assessment before next pregnancy. The genomic diagnosis was obtained as ARPKD and homozygous mutation of PKHD1 gene with severe truncation was identified in proband.

Discussion

This case report shows the clinical outcomes of neonatal ARPKD and the need of multidisciplinary approach and good communications with parents. Counselling regarding poor prognosis avoid unnecessary, expensive treatments. Target next generation sequencing may guide and support the family to decide on future pregnancies. In vitro fertilization is the option for next pregnancy for heterozygous carrier parents.

PP 04:CLINICAL AUDIT FOR ASSESSMENT OF CAUSES FOR FEVER IN NEWBORN BABIES IN TEACHING HOSPITAL MAHAMODARA (THM)

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Introduction

Fever in newborn babies is one of the major causes for fear in the post-natal mothers and it is cause for lengthening of hospital stay after delivery.

Objectives

This audit aimed to assess the causes for fever and to identify the measures to be implemented/ improved to reduce the causes of fever in newborn babies in post-natal wards, THM.

Method

A descriptive study was conducted among randomly selected 100 newborn babies in a post-natal wards, THM to assess the causes for fever from January 2019 to May 2019. Axillary temperature more than 37.2^0C/99^0F or rectal temperature more than 38^0C/100.4^0F were taken as a fever in neonates. The data was obtained via a data collection sheet. Data ware analyzed by using Microsoft excel. The Chi-square test was used for comparison of cause of fever in relation to other measures. Statistical significance was presented as p value <0.05.

Results

Out of 100 babies, 62% were delivered via lower segment cesarian section (LSCS) and 38% were delivered via vaginal delivery. According to the period of gestation (POG) and birth weight, 64% were more than 38 POG and 82% were within normal range of birth weight respectively. According to the duration of fever, 66% had only one day fever, 30% had >1 day, but <5 days fever and 4% had>5 days fever. Considering the causes of fever, 66% due to breast feeding problem, 22% due to presumed sepsis, 2% due to neonatal meningitis and 6% had unknown causes. Considering the cause of fever and mode of delivery, 73.3% breast feeding problem babies were delivered via LSCS (p value was <0.05). Considering the duration of fever and cause of fever, 96.7% breast feeding problem babies had <5 days fever, 100% neonatal meningitis babies had >5 days fever.

Conclusion

Significant amount of LSCS babies had fever. Most of the babies were term and with normal birth weight. Breast feeding problem is the leading cause for fever and most of the breast-feeding problem babies delivered via LSCS. Hospital stays prolonged mainly due to breast feeding issues.

PP 05: FACTORS AFFECTING SUCCESSFUL COMPLETION OF THE NEONATAL HEARING SCREENING TEST (OTOACOUSTIC EMISSION TEST) IN THE FIRST ATTEMPT IN HEALTHY NEWBORNS PRIOR TO DISCHARGE FROM THE HOSPITAL

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Introduction

Hearing loss is one of the most prevalent congenital disorders in neonates. Infants with untreated hearing loss usually struggle greatly in terms of emotional, social, and verbal development. Early identification via neonatal hearing tests and preventive strategies have been advised in order to lessen the negative impacts of congenital hearing loss on the infant's life.

Objectives

To assess the factors affecting the success of performing an otoacoustic emissions test.

Methodology.

This descriptive type of cross sectional study was carried out at Sri Jayewardenepura Hospital from 01/06/20222 to 01/09/2022. All healthy term neonates were included, and preterm and neonates associated with other medical conditions were excluded.

Results

Out of 455 neonates, 422 (92.7%) were able to successfully complete the OAE test. 85.1% (n = 365) had a bedside sound level of 60dB-65 with a mean value of 61.62 dB at the time of OAE testing (p = 0.030). 134 (29.5%) neonates were breastfed (p = 0.281), and the majority of the newborns (n = 367, 80.7%) were sleeping (p = 0.460) during the OAE test. Considering the factors affecting the successful outcome of the OAE testing, there is a statistically significant association with crying (p < 0.001) OR (95% CI)=0.026 (0.010- 0.068), struggling (p = 0.003) with OR (95% CI) = 0.194 (0.58 - 0.647), debris in the external ear (p<0.001) OR (95% CI) = 0.019 (0.005 - 0.75), throat secretions(p<0.001) with OR (95% CI)=0. 122 (0.034 - 0.442) , external ear abnormalities (p = 0.005) OR (95% CI) = 0.169(0.041 - 0.686).

Conclusion

To conclude, crying , struggling , debris in the external ear, throat secretions , external ear abnormalities, and the sound level (dB) at the time of the test are the factors that are statistically significantly associated with the success of the OAE test. Thus, to achieve a successful OAE test, it is pivotal to keep the baby in a calm state with an optimal bedside sound level.

PP 06: A CASE REPORT ON SPONTANEOUS BILE DUCT PERFORATION IN A NEONATE

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Introduction

Spontaneous bile duct perforation althoughrareand often misdiagnosed entitiyin infants and neonates,is an important cause of surgical jaundice in paediatric patients and one of the most common cause of surgical jaundice in infancy after biliary atresia.

Case report

A 31 year old mother with gestational diabetis mellitus delivered a 4.3kg term babyby EM-LSCS due to severe pre eclampsia and muconeum detected at birth.Theapgarwas 3,4,5 at 1,5,and 10 minutes respectively and baby was resuscitated at birth.Baby underwent therapeutic hypothermia for moderate to severe hypoxic ischaemic encephalopathy fulfilling TOBY criteria A and B.He also had muconeum aspiration syndrome complicated with pulmonary hypertension and needed ventilator support from day one of life.Antibiotics,parenteralnutrition,anticonvulsants and ionotropes were commenced.

On day 11 baby developed mild abdominal distension with guarding and investigations revealed a repeatedly high CRP with thrombocytopenia and blood cultures were positive for Coagulase negative Staphylococcus aureus.ET tube cultures twice became positive for Acetenobacter.Liver enzymes and PT/INR were elevated with hypoalbuminemia. Since day 12 of age baby developed pale stools,dark urine and Jauncice.Serum total bilirubin were elevated with direct fraction more than 70%.TORCH screen,urine for reducing substance,Hepatitis B surface antigen became negative and ultrasound abdomen showed trace amount of free fluid in the hepatorenal pouch and pelvis with no evidence of intrahepatic bile duct dilatation.He was started on Ursodeoxycholic acid and Phenobarbitone with no much improvement.On day 30 baby underwent diagnostic laparoscopic examination to confirm the diagnosis of spontaneous bile duct perforation.Free peritoneal bile noted around porta hepatis and around liver. Perforation involving anterior surface of common bile duct just inferior to cystic duct noted and free peritoneal drain inserted in subhepatic area close to bile duct.Immediate postoperative period was uneventful and liver enzymes with serum bilirubin started to normalize.Baby was gradually weaned off to NIPPV and full feeds achieved by post op day 3.

Discussion

Exact aetiology for spontaneous biliary perforations remain unclear in majority of cases.Literature suggest that most of the reported patients were typically previously healthy infants with unremarkable birth and perinatal histories.Presenting features are usually benign and non specific unless there is superimposed bacterial peritonitis making the diagnosis challenging.Abdominal paracentesis may reveal bilious ascites with elevated bilirubin levels in ascitic fluid.Ultrasound is of limited use and HIDA shown to be highly sensitive in diagnosis.

Most commonly used surgical management is simple drainage with or without cholecystectomy and laparoscopic examination with simple percutaneous drainage. Spontaneous healing of perforation occurs in most patients and overall prognosis is good provided early diagnosis and treatment instituted.

PP 07: CONGENITAL DIAPHRAGMATIC HERNIA : A CASE REPORT

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Introduction

Congenital diaphragmatic hernia is a birth defect withherniation of abdominal organs into the thorax through a defect in the diaphragm. The three main types are posterolateral (Bochdalek), anterior (Morgagni) and hiatus hernia. Left-sided Bochdalek hernia occurring at around 6 weeks of gestation accounts for 85% of cases. It can occur as an isolated defect or in association with a syndrome such as trisomy 13, trisomy 18, trisomy 21 and Turner syndrome.

Case Presentation

The case we report here is of a girl born to non-consanguineous parents at 37 weeks of gestation with normal antenatal scans, weighing 2.1 kg. She was delivered via emergency section due to lack of progression and was not resuscitated at birth. She developed respiratory distress soon after birth and was initially managed as congenital pneumonia. She required multiple modes of non-invasive and invasive ventilation since birth. Whenever the patient was weaned off to non-invasive ventilation, she deteriorated. CXRs and USS chest was normal initailly, which were done while on the ventilator. The 2D echocardiogram detected an abnormal thoracic mass. CXR done on day 21 of life was suggestive of right side diaphragmatic eventration, which was followed by a CECT that suggested the same. The patient was taken into surgery on day 24 of life as she couldn't be weaned off from the ventilator. During surgery she was found to have a right sided diaphargmatic hernia with a defect measuring 5×3cm, with the liver completely in the thorax.

Conclusion

This case emphasizes that diaphragmatic hernias can have uncommon presentations and can lead to late diagnosis. It is important to not to miss such a diagnosis as it can give rise to serious complications and can be life threatening for the patient. It was concluded by a multidisciplinary team that pushing down of the the liver and bowel through the diaphargmatic defect in the initial instance was due to the raised intrathoracic pressure during invasive ventilation.

PP 08: THE QUALITY AND ASSOCIATED FACTORS ON NEWBORN SCREENING FOR CONGENITAL HYPOTHYROIDISM AMONG POSTNATAL CARE PROVIDERS IN STATE HOSPITALS OF COLOMBO DISTRICT

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Introduction

Congenital hypothyroidism is the commonest preventable cause of mental retardation among newborns, which can be prevented by screening. Knowledge, attitudes, and practices of health workers affect the success of the screening programme.

Objectives

To describe the knowledge, attitudes, practices, and associated factors on newborn screening for congenital hypothyroidism among Medical Officers (MO) and Nursing Officers (NO) providing postnatal care in state hospitals of Colombo district.

Methods

A descriptive cross-sectional study was conducted in six state hospitals of the Colombo district. All MO (n=209) and 394 NO selected through stratified sampling at postnatal units were included. Data was collected using a self-administered questionnaire and an observation checklist to assess practices among NO. A score of≥50% was selected to define "good" knowledge while mean score of ≥27 for MO and ≥28 for NO were defined as "favourable attitudes". Chi-squared test was applied to determine factors associated with "good" knowledge and "favourable attitudes". Practices were categorized as standard and substandard.

Results

A majority (55%; n=115) of MOs and (100%, n=394) NOs comprised of females. The overall knowledge was good among (82.3%, n=172) of MO and (56.1%, n=221) of NO. However, (77.5%, n=162) MO and (62.4%, n=246) NO had poor knowledge on specimen transport. The attitudes on screening was favourable among (56.5% , n=118) of MO and (54.3%, n=214) of NO. Standard practices were followed by (56.7% , n=17) NO. Being a MO of other grades (Intern and Preliminary grade MO) (p=0.002), working in a Paediatric unit (p=0.004) and Midwifery trained NO (p=0.004) were significantly associated for good knowledge while being a MO <30 years (p=0.004), having highest level of education as MBBS only (p=0.000), work experience of <5 years (p=0.000), being a MO of other grades (p<0.000), being an intern MO (p=0.004) and duration of current appointment <6 months (p=0.001) were significantly associated with favorable attitudes.

Conclusions

Overall knowledge on hypothyroidism screening was good among MO and NO despite some areas. Approximately 50% with favourable attitudes and adherent to standard practices warrant further action on strengthening these aspects.

Key words

Congenital hypothyroidism, Medical Officers, Nursing Officers, Intern Medical Officer

PP 09: PROTEIN C DEFICIENCY LEADING TO PORTAL VEIN THROMBOSIS : A CASE REPORT

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Introduction

Protein C deficiency, acquired or congenital, is a thromboplilic condition which predisposes to thrombosis. Congenital forms can be inherited as autosomal dominant or recessive forms. Protein C is a vitamin K dependent glycoprotein synthesized by the liver and its deficiency disturbs the balance between pro-coagulant and anticoagulant proteins which creates a pro-thrombotic state.

Case Presentation

Here we present a case of a baby boy, born as the second child of non-consanguineous parents following an uncomplicated antenatal period. Postnatally, he was well up to day 11 of life, when he presented with a two day history of abdominal distension. He was found to have hepatomegaly of 4cm and splenomegaly of 7cm. Ultrasound scan confirmed the organomegaly and detected to have portal vein thrombosis including the right and left main portal vein branches. Surgical intervention was not recommended by the vascular surgical team at this stage. A thrombophilic screening and genetic testing was performed, and found to have low protein C levels of 42%, in which the lower normal level is 70%. It was repeated at 6 months and 1 year of age, and in both occasions the protein C level was persistently low. The diagnosis was confirmed at 1 year. The family screening of this patient was negative. Ultrasonically the thrombus in the portal vein started recannalizing with cavernous transformation after 3 weeks of age. At 1 year of age the portal vein was patent, but there was slightly coarse echo texture of the liver. Slightly increased liver enzymes at the time of initial presentation started dropping gradually over 6 months. The size of the liver and spleen reduced to 3cm and 2cm respectively by 1 year of age.

Conclusion

A high suspicion of a thrombophilic condition is essential in managing a neonate with portal vein thrombosis, when there is no previous history of sepsis, umbilical catheterization or exchange transfusion which are considered as possible risk factors.

PP 10: STUDY OF NEONATES WITH BILIOUS VOMITING DUE TO CONGENITAL SURGICAL PATHOLOGIES MANAGED BY PIONEERING NEONATAL SURGICAL TEAMS AT TWO TEACHING HOSPITALS IN SRI LANKA

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Introduction

Bilious vomiting in neonates is a salient clinical feature of congenital intestinal obstruction where failure of timely diagnosis and reconstruction could cause loss of life. Prospective analysis of spectrum of pathologies and outcome of neonates with bilious vomiting resulting from congenital surgical pathologies managed at pioneering neonatal surgical units at two teaching hospitals performed over 3years and 8/12 period. All neonates born at these hospitals were managed by respective neonatal teams.

Objective

To study spectrum of pathologies encountered, assess quality of care delivered and later to share the knowledge among stakeholders

Method

Data was collected from first author's personnel operations log book

Results

Study duration:2019.08.-2023.04.30.At Teaching Hospital Ratnapura, from 2019.08.01 to 2021.10.28, there were three term surgical neonates with bilious vomiting. All had antenatal follow up at obstetric units within Ratnapura district and were delivered at TH Ratnapura. Ileal atreia type IIIa and duodenal atresia were diagnosed within 24 hours of birth. Malrotation of midgut was diagnosed at 6 days. All underwent corrective surgery and went home between 7-20 days after surgery.At CNTH Ragama, from 2021.10.29 to 2023.04.01 there were seven surgical neonates. All had antenatal follow up and delivery at CNTH obstetric units. Two pre-terms with- ileal atresia type IIIa and duodenal atresia were detected within 24 hours. Following surgical correction they were discharged after optimising body weight. Two term babies with malrotation of midgut presented after 3days of life were operated and sent home within 2 weeks. One pre term having both duodenal atresia and malrotation of midgut detected within 24 hours underwent successful reconstruction. He later succumbed to septicaemia at 28 days. Baby with ileal atresia diagnosed within 24 hours underwent corrective surgery but succumbed nearly one month afterwards due to sepsis. Term beby with ileal stenosis underwent surgery but succumbed after more than 1month secondary to cardiac pathology. Education of stakeholders was done regularly at both hospitals.

Conclusion

Prospective analysis of surgical neonates with bilious vomiting managed at pioneering neonatal surgical teams of two teaching hospitals over nearly 4 years studied 10 babies. Knowledge dissipation to stakeholders at both hospitals was done expecting improved final outcome.

PP 11: Single Fetal Demise In a Twin Pregnancy – A Great Concern and Unfavorable Outcome.

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Introduction

Single fetal demise cause deleterious effects on surviving co twin and mother namely Preterm delivery, IUGR, multiorgan complications for fetus and pre-eclampsia and DIC in mother. Dead twin will absorb his soft tissues and will transform into 'fetus papyraceous' causing toxic effects.

Case report

We present case of a 28-year-old pregnant mother who had a dichorionic diamniotic twin pregnancy with discordant growth at 28 weeks of gestation. First fetus was appropriate for 26 weeks with normal amniotic fluid volume and other one was compatible with 18 weeks and had absent diastolic flow and died 2 days later. No fetal anomalies were noted. Parental counselling was done regarding unfavorable outcome of pregnancy and managed conservatively, along with maternal coagulation profile, intensive fetal surveillance for living twin. At 30 weeks of gestation fetal growth compatible with 26 weeks and reversed diastolic flow noted. IM Dexamethasone given and delivered by an Emergency cesarian section. APGAR was 5 ,6,7 in 1,5 ,10 minute respectively requiring intubation. Surfactant was administered. Despite hydration there was no urine output and became edematous gradually. Blood pressure was > 95 th centile. Serum creatinine and urea was very high continuously. Hemoglobin < 10 g/dl . Renal sonography revealed increased echogenicity of kidneys with obliterated corticomedullary demarcation. After taking nephrologist's opinion IV Frusemide infusion and Metolazone started and he became oliguric. on D4 he got a massive pulmonary hemorrhage. Blood transfusion done and modified ventilator settings. On D4 he got an intraventricular hemorrhage. On D4 baby was died despite resuscitation.

Discussion

Causes for fetal demise are twin -twin transfusion, placental insufficiency, discordant growth, velamentous insertion of cord, cord nots and congenital abnormality. Risk of co twin death is 12% in monochorionic and 4 % in dichorionic. It is because 98% monochorionic have vascular anastomosis. Other mechanism is trans chorionic embolization of toxic products from dead twin to live twin and cause coagulopathy, hypotension and multiorgan ischemia namely renal insufficiency, liver failure, neurological abnormalities namely optic nerve hypoplasia, intracranial hemorrhage.

Obstetrician has to outweigh risk and benefit of leaving fetus inside toxic environment vs deliver early and facing problems of prematurity.

PP 12: ASSESSMENT OF PAIN RELIEF METHODS UTILIZED FOR MUSCULOSKELETAL PAIN IN A COHORT OF OBSTETRIC PATIENTS: A RHEUMATOLOGICAL PERSPECTIVE

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Introduction

Musculoskeletal pain in obstetric patients presents unique challenges that necessitate effective pain management strategies. However, the optimal pain relief methods specifically tailored for this population remain poorly understood. This survey aims to explore and assess the pain relief methods used for musculoskeletal pain.

Objectives

Assess different pain relief methods and evaluate the correlation betweenspecific factors such as gestational age, pain duration, and medication preferences.

Method

The survey was conducted among 27 obstetric patients who had used pain relief methods during pregnancy, either attending clinics or warded at the obstetric wards at Matara District General Hospitalusing an interviewer-based questionnaire. Statistical analysis was done using SPSS.

Results

Meanage(SD) of study population was 30.5(6.13). Median(IQR) gestational age was 35(25-38). Mean(SD) pain plotted on a visual analogue scale was 7.4(2.3). Mean(SD) overall satisfaction from pain relief methods was 6.9(1.8). 48.1% of study population had experienced back pain.55.6% and 29.6% had used prescribed medication and over-the-counter medication respectively. No one had tried traditional or complementary therapies. The commonest prescribed medication used was pain-killer local applications(33.3%). Only 16% experienced side effects from medication.Out of the 60% who had used non-pharmacological methods 37% and 33.3% used massage/manual therapy and heat/cold therapy respectively. 7.4%, 7.4% and 3.7% used compression stocking/bandage, relaxation techniques and exercise/physical therapy respectively. 70.4% disagreed on the usefulness of supportive devices like maternity belts. Only 18.5% received medical guidance on pain relief methods.

The gestational age of patients negatively correlated with severity of pain($p<0.05$). Patients who had pain for longer durations experienced less severe pain($p<0.05$). Perceiving benefit from prescribed medication positively correlated with overall satisfaction($p<0.05$) and negatively correlated with perceiving benefit from over-the-counter medication($p<0.05$).

Conclusion

This study provides a preliminary understanding of pain relief methods used by this specific population.The findings emphasize the importance of tailored pain management strategies for obstetric patients with rheumatological conditions, taking into account gestational age, pain duration, side-effects and individual medication preferences. Further research is needed tohelp guide healthcare professionals in making informed decisions regarding pain management.

PP 13: FAMILIAL CONGENITAL ULNAR DRIFT/WINDBLOWN HANDS

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Introduction

Congenital ulnar drift of fingers is a rare congenital anomaly consisting of multiple hand deformities;
1. Digital ulnar deviation 2. Ulnar deviation at MP joints3. PIP joint flexion contractures and clasped thumb deformity,that progressively worsens affecting the normal function of hands and causing cosmetically unsatisfactory appearance. It was first described in 1897 by Boix. Since then, although various etiologies and syndromic associations (Athrogyroposis, Marfan and other hyperlaxity syndromes, freeman-Sheldon syndrome and Escobar syndrome) have been proposed, literature regarding the subject is very sparse, suggesting the rarity of the condition.Few pathophysiologies for congenital ulnar drift have been suggested by researchers.

ex; insufficiency of the aponeurosis, hypoplasia / absence of extensor tendons, malformation of the retinaculum cutis - mid palmar fascia/ natatory ligament. Although mostly sporadic, the possibility of familial type ulnar drift of autosomal dominant inheritance is also not excluded, which is infrequently reported in literature.

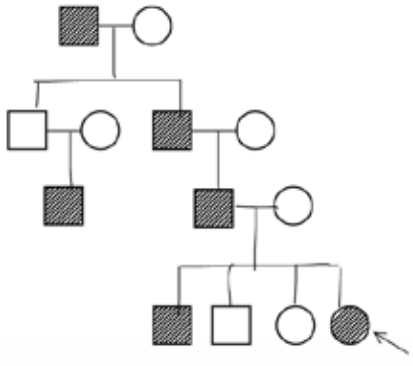
Here we report six individuals of three successive generations of a family with congenital ulnar drift, which to our knowledge is the first such report in the country.Management of congenital ulnar drift could be done surgically or non surgically, out of which the first is preferred and benefited better if attended before 3 years of age.

Case presentation

A 15 days old, term infant presented to the neonatal clinic with B/L symmetrical ulnar drift of fingers at MCP joints and developing flexion contractures which were tender on palpation. On clinical examination there was no other evidence of skeletal or cardiovascular abnormalities.

X-ray shows - B/L ulnar deviation of B/L wrist joints and B/L MCP joints without fractures or subluxation of joints. She was referred for early physiotherapy.

Her family pedigree is drawn below.



All the rest of the affected family members have ulnar drift with flexion contractures and function with minimum disturbance to activities of daily living, but no medical management has been sought so far.

Figure 1 : family's pedigree

Figure 2 :Appearance of the hand of the baby

Figure 3 : Radiographic findings

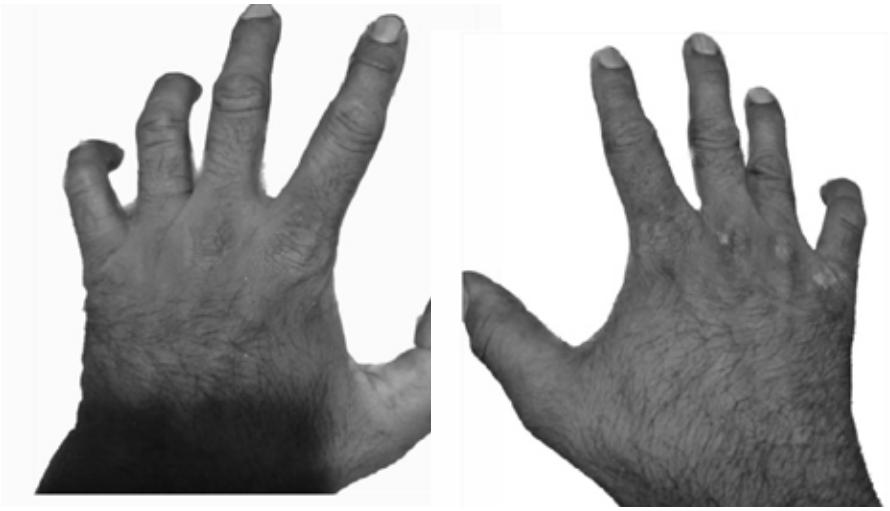


Figure 4 : appearance of the hand of baby's father

PP 14: RHIZOMELIC CHONDRODYSPLASIA PUNCTATA CASES FROM SRI LANKA

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Introduction

Rhizomelic chondrodysplasia punctata is a multi-organ system disorder affecting peroxisomes showing autosomal recessive inheritance.

Objectives

To report the incidence of two cases of Rhizomelic chondrodysplasia punctata within a single generation of the same family.

Method

A term newborn was admitted to the NICU, Teaching Hospital Ratnapura with grunting since birth and facial dysmorphism. Further probing revealed a similarly affected older sibling.

Results

POA 31+1 (Birth weight 1.750 kg) neonate was born to non-consanguineous parents by emergency LSCS due to fetal distress. The mother was a 33-year-old female (P_3C_3) with hypothyroidism on treatment. The anomaly scan had revealed abnormal bilateral lower limbs with normal liqor volumes. The baby was admitted to the NICU with respiratory distress, increased secretions and found to have a facial dysmorphism. Her lower body Xray showed bilateral short lower limbs. Family history revealed an 8 years old elderly sibling diagnosed with Congenital Rhizomelic Punctata. She had been born at 34+5 POA by emergency LSCS due to polyhydroamniosis. She had been a collodion baby with multiple dysmorphic features. She had undergone surgery for bilateral lamellar cataracts as well as bilateral open tendoachillis lengthening due to contractures. She is currently on long term orthopedic, rheumatology, ophthalmology and dermatology follow up. Our patient was discharged from the NICU with a plan to be referred to the orthopedic, ophthalmology and ENT clinics as well as a review at the well-baby clinicin 3 days for weight assessment.

Conclusions

Such patients need long term follow up into adulthood to manage the complications of the disease with extensive parent counselling. We would also recommend educating the parents on the different methods of contraception available.

PP 15:AUDIT ON NEONATAL ADMISSION TEMPERATURE TO THE NEONATAL INTENSIVE CARE UNIT, CASTLE STREET HOSPITAL FOR WOMEN (CSHW) , SRI LANKA

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Introduction

Neonatal hypothermia has been linked to increased infant mortality and morbidity. The International Liaison Committee on Resuscitation (ILCOR) concluded that admission temperatures strongly predict mortality and morbidity at all gestations and therefore temperature should be maintained between 36.5 and 37°C after birth through stabilization and admission.

Objective

To assess the admission temperatures of babies admitted to the Neonatal intensive care unit (NICU) at CSHW

Method

A descriptive-analytical study based on retrospective data collection through neonatal records of all neonates admitted to NICU over the period of 2 months.

Results

Forty-nine babies were admitted to the NICU at CSHW over 2 months. The majority of the sample were preterm (77.5%) with 32.6% being born in <28 weeks of gestation., male (55.1%), and of birth weight <1500g (61.2%). The average overall admission temperature to the unit was 35.66 C while 9 babies (18.3%) were admitted with optimal temperature range. Lower the gestation, the average admission temperature decreased, and interestingly none of the moderate to late preterm babies had the admission temperature within the normal demarcated range. There were no hyperthermic babies admitted to the NICU and the lowest admission temperature was 32.5C. The average admission temperature of the 37 neonates born through the caesarian section in the operation theatre was 35.69C while 12(24.4%) were born in the delivery room with an average temperature of 35.57C. 23(46.9%) babies needed resuscitation at birth. The outcome of death was in 11 babies with an average temperature of 35.59C.

Conclusion and Recommendation

The overall temperature maintenance on admission to NICU is below the recommended guidelines with a high risk of preterm neonates weighing <1500g developing hyperthermia. The strengthening of measures and protocols in temperature management/ maintenance is essential in preventing neonatal morbidity and mortality.

PP 16: CONGENITAL SPIGELIAN HERNIA IN A NEONATE ASSOIATE WITH VACTERL ANOMALY

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Introduction

Congenital abdominal hernial defects that are located outside of the anterior wall in the pediatric patient are extremely rare. There are two regions outside of the anterior wall: lateral wall and the lumbar region. Among the defects in these regions are Spigelian hernia and the lumbar hernia. Spigelian hernia is defined by protrusion of an organ or fat through a congenital or acquired defect in the semilunar line. it is rare and extremely uncommon in neonates where it is suspected to be congenital.

We report a case of newborn with a Spigelian hernia associated with VACTERL anomaly.

Case report

The newborn was a female born at term as the first product to healthy non consanguineous parents by emergency cesarian section due to lack of progression weighing 2450 g. Antenatal period was complicated with maternal gestational diabetes. Physical examination indicated a soft non-tender mass located in the left flank. The mass had normal skin covering on the surface. Ultra sound scan of the abdomen confirmed a large spigelian hernia and hernial sac containing bowel loops and a small part of spleen. Apart from lateral abdominal wall hernia he was diagnosed with hemivertebrae, dextroposition of heart with ostium secondum ASD, Bilateral talipes eqinovarus, Bilateral development dysplasia of hip and right side crossed fused ectopia of the kidney.

He underwent successful hernial repair at the age of 4 months with full recovery and follow up was arranged with pediatric surgical, cardiology, orthopedic and general pediatric clinics.

Discussion

Pediatric abdominal hernias located outside the anterior abdominal wall are difficult to classify because there are no well accepted guidelinesThe European Hernia Society (EHS describes two types of lateral abdominal hernias: Spigelian hernia and the lumbar hernia.

There is evidence that congenital abdominal wall defects occur at different stages of embryonic development, with various clinical manifestations and associated anomalies. Some theories include germinal disc defects in the pathogenesis, problems associated with amnion, vascular defects, and alterations of ectodermal placode.

Dextroposition of the heart with ASD, vertebral abnormalities with hemi vertebrae, bilateral talipes and crossed fused ectopia of right kidney were the other associated abnormalities which are part of the components of VACTERL association.

In conclusion, the suggested treatment is to repair the defect before 1 year of age. Given that the anomalies described may accompany lateral abdominal wall hernias, it is important to diagnose and treat the associated defects. The morphological characteristics of the defect and the presence of other associated abnormalities, in this case, suggest that this defect is a part of associated VACTERL anomaly.

PP 17 :GRISCELLI SYNDROME WITH DOWNS SYNDROME COMPLICATED WITH TRABECULATED BLADDER AND PERSISTENT HYPERKALEMIA FOLLOWING INTESTITIAL NEPHRITIS

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Introduction :

Griscelli syndrome is a rare autosomal recessive disorder with pigmentary dilution, neurologic problems and immunodeficiency.In this article we report two weeks old neonate who was found to have hair ,eye and skin pigmentary dilution and Downs syndrome with trabeculated bladder complicated with deranged renal functions.

Case presentation :

A one old neonate was born to healthy non consanguineous parents admitted following respiratory Distress after birth.
He had silvery gray scalp hair, pale skin complexion, subtle facial dysmorphism with hypotonia warranted evaluation since day one.None of the family members have silvery gray hair or skin hypopigmentation. There is no known genetic disorders or unexplained young deaths in the family.Baby had hypopigmented fundi, iris and light microscopic scalp hair shaft revealed large irregular clumps of pigments.Karyotyping is compatible with Down syndrome due to non- dysjunction.

Due to the deranged renal functions, mainly high serum creatinine and hyperkalemia we investigated further. MCUG revealed abnormal bladder with trabeculated wall and multiple diverticula. No MCUG evidences of VUR or bladder Outflow Obstruction. Cystoscopy revealed no evidence of PUV.

Discussion :

We had to differentiate this condition from Ocular Cutaneous Albinism, Griscellisyndrome,Chediak Higashi and HermanskyPudlaksyndrome.But microscopic hair shaft showed classic feature of Griscellisyndrome.we excluded type 2 Griscelli since FBC and Blood picture doesn‘t suggest any features of HLH but favors type 3 Griscelli syndrome and awaiting for the immunology confirmation. For the best diagnostic conclusion whole exome sequencing test is needed. Since it was not affordable for the parents Karyotyping was done and it revealed Down syndrome due to non-dysjunction.(47,XY,+21)

Trabeculated bladder with multiple diverticula managed with CIC. Hyperkalaemia and elevated serum creatinine were due to interstitial nephritis following antibiotics which had to managed with Calcium Resonium as Hyperkalaemia was persisting.

Conclusion

This is a rare presentation complicated with multiple problems which needs early management with multidisciplinary team approach which helped to commence early treatment.Regular follow up is mandatory for further evaluation.

PP 18: SEVERE HEMOLYSIS DUE TO DELAYED HAEMOLYTIC TRANSFUSION REACTION / HAEMOLYTIC DISEASE OF NEWBORN LEADING TO EXCHANGE TRANSFUSION FOLLOWING EXPOSURE TO MATERNAL ANTIBODY c

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Introduction:

Anti c is a clinically significant allo antibody which can cause Haemolytic Transfusion Reaction and Haemolytic Disease of fetus and newborn.

Case presentation:

This was a baby who was born to a consanguineous parents who had a previous neonatal death following unknown cause.baby was delivered via unassisted normal vaginal delivery and antenatal history was unremarkable. baby was admitted to SCBU due to be pale at birth.

Urgent FBC,Blood picture and hemolytic screening were sent and it revealed Hb 5.2g/dl. Mother was A + and baby s blood group was O+.DAT was negative, Retic count 5.5%. Blood picture revealed severe anaemia and RBC changes were due to hemolysis / blood loss. Urgent group specific blood transfusion was done on D1 and post transfusion Hb was 9.9g/dl.

Baby was severely icteric on following day and 14 blocks above the exchange level with high indirect fraction. Coagulation profile ,septic screening was negative
Baby was started on strict quadruple photo therapy and arranged 20% Albumin-transfusion with serial SBR. Since there was no satisfactory SBR drop, exchanged transfusion was done on Day 2.

Meanwhile we have repeated the blood picture, antibody screening of the mother, kleiuhauer test, and blood picture of the parents liaising with the hematology team before transfusing the baby again. Immudohaematology reference laboratory at NBTS revealed maternal antibody screening was positive with anti c- (antibody titer 64) with DAT negative ,probable phenotype is DCe/DCe R1R1, kell antigen negative. Baby's and DAT was positive with IgG specificities.(poly2 +,Ig G 2+) Group O Rh D was also positive . Kleiuhauer test was negative

Discussion:
ABO group compatible, c negative ,kell negative ,37C IAT cross match compatible with maternal-serum RCC was recommended to transfuse if needed. ABO grouping and Rh typing of the partner and advised to perform early immune hematological investigations (antibody screening, identification and titration) in future pregnancies for the mother.

Conclusion:
Elution study for baby's blood sample revealed anti c which is a clinically significant allo antibody Can be lead to positive DAT causing Hemolytic Disease of Newborn or Delayed Hemolytic Transfusion Reaction (DHTR). Which could be the reason for DAT positivity.

PP 19: UNUSUAL PRESENTATION OF MIS -N WITH SEVERE PPHN IN A NEWBORN BABY

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Introduction:
New born babies are prone to affect with MIS-N which can be presented in different clinical conditions. It severely affects on multiple systems and leading to multi organ failure and death if not detected and treated timely.

Case presentation:
This is a baby who was born at term via an emergency cesarean section due to meconium stained liquor with the birth weight of 4400 g. Antenatal history was unremarkable.

Baby was admitted to SCBU due to respiratory distress and having pre and post ductal discrepancy (89%,82%) .Chest X-ray didn't reveal features of meconium aspiration syndrome. 2D echocardiography revealed severe PPHN with pressure gradient of 80mmHg.Baby was progressively deteriorated and intubated and ventilated. He was started on inhaled Nitric Oxide with 20ppm.

Since the baby was progressively deteriorated, we planned for second line investigations and it fulfilled the criteria of Multi-system Inflammatory syndrome in the newborn (MIS-N).

Discussion:

During the course of illness baby was having severe septicemia, coagulopathy, B/L grade 111 IVH complicated with neonatal convulsion, acute liver failure (AST>5000, ALT >2000) complicated with direct hyperbilirubinemia ,acute renal failure and electrolyte imbalance. We managed the baby with IV Ig,Methylprednisilone, repeated doses of blood and blood products,IV antibiotics, anti-epileptics, liver failure regimen, furosemide infusion,iNO and had overcome the critical condition successfully.

We have arranged multidisciplinary team approach to evaluate this baby further. His cardiac assessment was normal. Arranged neurosurgical referral to evaluate hydrocephalus and intracranial haemorrhage which revealed resolving haemorrhage and excluded hydrocephalus. Eye,ENT, Rheumatology and neurology for early intervention referrals were arranged and mother was educated on physiotherapy and early intervention rehabilitation. Oromotor coordination was assessed and discharged after direct breast feeding was achieved.

Conclusion:

This was a very complicated case where we had high index of clinical suspicion of MIS -N at very early stage which was confirmed with investigation panel without having any suspected background for the condition. Hence the baby was survived after stormy neonatal period because we were able to provide specific care timely.

PP 20: AUDIT ON THE PRACTICE OF KANGAROO MOTHER CARE AT THE NEONATAL UNIT CSHW

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Introduction:

Kangaroo Mother Care (KMC) is a universally recognized cost effective evidence based practice which aids to reduce mortality & morbidity of preterm & small for gestational age (SGA) babies. . Despite its benefits, provision of KMC varies across the world.

Objectives :

To assess the duration of KMC being provided at the Castle Street Hospital for Women (CSHW) , at present, help identify the gaps, address the barriers & establish a minimum KMC duration (8 hrs/day) for all the preterm & SGA babies admitted to the Neonatal unit, CSHW.

Method :

We included all preterm & SGA babies, admitted to the Neonatal Unit, CSHW for the study. Babies whose mothers were clinically unstable were excluded.We formed a team to evaluate the KMC duration , barriers for establishing minimum duration and to plan the subsequent steps to improve it.A questionnaire was given to the staff and to the mothers to evaluate their awareness on KMC while observing the period being provided for KMC. Root cause analysis was done. Lack of awareness among the medical staff and the mothers was the predominant factor. Environmental factors & visiting time schedules of the mothers were the other leading barriers.
Changes were tested as PDSA cycles. These include

- Awareness programs and counseling the staff and the mothers
- Provision of comfortable beds to mothers
- Implementation of a" Unit policy" for KMC.

Results:

We were able to increase the number of babies receiving KMC for a minimum period 3- 8 hours a day from 0% to 30% over a period of one month from 28/05/2023 to 28/06/2023.

Conclusions :

Lack of awareness and a supportive environment posed significant barriers to the implementation of optimal KMC. We successfully demonstrated a simple quality improvement approach to enhance the practise of KMC.
The establishment of a policy marked a milestone, and the continuous facilitation efforts following its implementation was the backbone for sustaining this accomplishment.

PP 21: PREVALENCE OF HYPOGLYCEAMIA AMONG TERM BABIES BORN TO THE MOTHERS WITH DIABETES MELLITUS – EVIDENCE FROM SRI LANKAN COHORT

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Introduction:

Neonatal hypoglycemia is the commonest metabolic disorder which can affect newborns in the first few days of life. Many maternal and neonatal factors contribute to this condition. Maternal diabetes is an identified risk factor.
Objective –To determine the prevalence of hypoglyceamia among full-term babies born to a cohort of Sri Lankan mothers with diabetes mellitus

Method:

Descriptivecross sectional study was conducted among term babies born atCastle Street Maternity Hospital, whose mothers had gestational and pre-existing diabetes mellitus. The data from 100 mothers with diabetes whose babies did not have secondary causes for hypoglyceamia were collected using interviewer administered questionnaire and analyzed using SPSS.

Results:

100 term babies whose mothers had either pre-existing or gestational diabetes mellitus were included into the study. Among all the neonates, 19 (19%) developed neonatal hypoglyceamia of which asymptomatic neonates were 11 (57.9%) and symptomatic neonates were 8(42.1%). Based on blood sugar values, 10 (52.6%), 2 (10.6%) and 7 (36.8%) mild, moderate and severe cases were identified respectively. The condition developed in first day of life of all babies and more among mothers with gestational diabetes when compared to mothers with pre-existing diabetes (p=0.0002).

Conclusion:

Prevalence of hypoglycaemia in first day of life among neonates who were born to mothers with pre-existing and gestational diabetes is high.

PP 22: WHAT HAVE THEY ACHIEVED AFTER A YEAR'S HARD WORK? AN ANALYSIS OF MATERNAL AND NEONATALCHARACTERISTICS OF LACTATION MANAGEMENT CENTER REFERRALS IN A TEACHING HOSPITAL

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Introduction

Though Breast milk fulfills the entire requirement of a newborn baby till 6 months of age, exclusive breast feeding (EBF) rates drop significantly during first few months. Lactation management centers (LMC) were initiated in year 2000 to address this issue.

Objectives

To analyze maternal and neonatal characteristics in a teaching hospital LMC during 2022.

Methodology

Data were extracted from the LMC register, Colombo South Teaching Hospital and analyzed using Microsoft excel.

Results

During 2022, Colombo South Teaching Hospital (CSTH) - LMC has attended 605 mothers. Out of them, 602 (99.5%) were documented as first visits and 443 (73.2%) were documented as primi mothers. Majority of the mothers (n= 462, 76.4%) were within 20 to 35 year age range. Most (85.3%) were ward referrals. Majority of the babies (n= 459, 75.9%) seen were born between POA of 37 to 41 weeks and most of them (41.3% n= 250) were less than three days old at referral. Fifty percent of them were referred due to difficult attachment, 13.9% were referred due to poor weight gain and 11.9% were referred due to neonatal jaundice. Following assessment, 74.5% of the babies did not have any significant neonatal issues while 74.9 % of the mothers were diagnosed to have incorrect position and poor attachment. Almost all mothers had received a health education during the assessment.

Conclusion

LMC- CSTH plays a major role in establishing EBF practice among mothers. The commonest reason for referral and commonest cause for lactation failure is poor positioning and attachment of the baby, which could be easily corrected with some support.

PHARMACOLOGICAL METHODS OF PAIN MANAGEMENT DURING VAGINAL DELIVERY IN DISTRICT GENERAL HOSPITAL, HORANA.

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[2] Consultant Anaesthetist, DGH, Horana.

Introduction:
Normal vaginal delivery is associated with negative emotions due to experience of severe pain. Labour pain is mostly ignored in low-income countries.

Objectives:
To assess the knowledge of pregnant mothers regarding the pharmacological pain management(PPM) and non-pharmacological pain management(NPPM) methods during vaginal delivery in DGH , Horana.

Methods:
A descriptive cross sectional study was conducted at antenatal clinics of DGH, Horana from 31/05/2023 to 15/06/2023. 100 pregnant mothers participated to the study. Participants verbally responded to invigilator administered pre designed questionnaire after informed consent.

Results:
Most participants had studied up to Ordinary Level 61(61%) and were not employed 78(78%). 87(87%) reported they accept any kind of labour analgeisa during labour while 13(13%) said not required. Regarding pain management, 16(16%) mothers knew only PPM methods, 6(6%) only NPPM methods, 68(68%) knew both methods and 10(10%) mothers did not know any method. Considering the knowledge of NPPM methods 41(54.6%) knew breathing exercises, 47(62.6%) walking/upright, 51(67.1%) massage, 17(22.6%) aroma therapy, 43(57.3%) pray and 31(41.3%) focus on interesting picture. Only 24(24%) had heard about NPPM methods, but they didn't know exact methods. Knowledge on available PPM methods for pain relief were 12(12%) oral, 14(14%) injections, 49(49%) both methods and 25(25%) didn't know any method. There was a correlation with the multiple gestation and the knowledge on PPM methods (P=0.001).

Conclusion:
Knowledge of pregnant mothers on PPM methods is more compared to NPPM methods. Improvements in practice of NPPM techniques is required while educating pharmacological methods, to undergo pain free labour.

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