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Oral Presentations

CLOSING THE COMPETENCY GAP IN T-PIECE VENTILATION DURING NEONATAL RESUSCITATION: A CLINICAL AUDIT AND QUALITY IMPROVEMENT INITIATIVE FROM A TERTIARY CARE MATERNITY HOSPITAL IN SRI LANKA

Govinnage DPS[1], Doluweera DSP[1], Mannapperuma T[1], Madawala PS[1], Rathnayake AARMNS[1]

[1]*Castle Street Hospital for Women, Colombo, Sri Lanka*

Introduction

Effective ventilation is a key component of successful neonatal resuscitation. The T-piece device allows controlled positive pressure ventilation by providing appropriate peak inspiratory pressure (PIP) and positive end-expiratory pressure (PEEP). Gaps in knowledge and practical skills may affect its effective use. This audit assessed competency in T-piece device use among healthcare workers in labour wards and identified areas requiring further training.

Objectives

To assess knowledge, practical competency and confidence in T-piece device use, identify gaps in knowl-edge and practice, provide targeted training and evaluate changes in knowledge, confidence and participant satisfaction following training.

Method

A prospective clinical audit was conducted over four weeks from 10 August to September 2025 in the la-bour wards of Castle Street Hospital for Women, Colombo. Participants completed a structured baseline questionnaire assessing knowledge, previous exposure, training and practical aspects of T-piece use. Identified gaps were addressed through guideline-based teaching, device demonstrations and simulation-based hands-on training, Knowledge, confidence and satisfaction were assessed immediately after training. Descriptive statistics were used for analysis.

Results

Of 61 participants; 50.8% were midwifery nursing officers, 29.5% house officers and 16.4% midwives. Al-though 83.6% had seen a T-piece device, only 44.3% had used one and 19.7% had received formal training. Knowledge was higher for basic device principles (72%) than for technical and practical aspects (52%). Important gaps included recommended gas flow (27.9%), PEEP adjustment (34.4%) and initial PEEP set-tings for preterm newborns (41.0%). Following training, among 48 participants, 93.8% correctly identified the device's primary function, 85.4% recognized essential pre-use safety checks and 79.2% identified appropriate troubleshooting for inadequate chest rise. Confidence in adjusting PIP/PEEP and device setup was high, while overall training satisfaction was 4.85/5.

Conclusion

The audit demonstrated a clear gap between exposure to the T-piece device and formal competency-based training, particularly in technical and practical skills. A structured, simulation-based programme was highly acceptable and was associated with improved knowledge and confidence. Regular competency-based re-fresher training, simulation practice and periodic re-audit are recommended to strengthen preparedness for neonatal resuscitation.

EVERY DEGREE MATTERS: IMPROVING ADMISSION NORMOTHERMIA IN NEONATES THROUGH A CLOSED-LOOP AUDIT

Abeysiriwardana KE[1], Dissanayake NW[1], Hettiarachchi BT[1]

[1]*Neonatal Intensive Care Unit/Special Care Baby Unit, New District General Hospital, Matara, Sri Lanka*

Introduction

Admission hypothermia remains an important cause of morbidity and mortality in newborns, particularly in those born preterm. A baseline audit in our Neonatology Unit found a high prevalence of admission hy-pothermia despite routine thermal care measures. This prompted a quality improvement initiative aimed at strengthening the neonatal warm chain, followed by a re-audit to assess its impact.

Objectives

To measure the prevalence of admission hypothermia among newborns admitted to the NICU, identify gaps in thermal care, implement targeted quality improvement measures, and assess their effectiveness by completing the audit cycle.

Method

A closed-loop clinical audit was carried out in two phases. The initial audit included all newborns admitted to the NICU between 1 June and 17 November 2025 (n=109). Following analysis of the findings, several interventions were introduced, including postponing routine weighing until thermal stability was achieved, maintaining recommended delivery room temperatures, pre-warming transport incubators, and reinforcing staff education on evidence-based thermal care. The re-audit was performed between 1 December 2025 and 30 April 2026 using the same inclusion criteria and WHO definitions of neonatal temperature. Admission temperatures were classified as normothermia (≥36.5°C), cold stress (36.0–36.4°C), moderate hypothermia (32.0–35.9°C), and severe hypothermia (<32.0°C).

Results

During the initial audit, only 34 of 109 newborns (31.2%) were normothermic on admission. Moderate hypothermia was present in 73 (67.0%), while two infants (1.8%) had severe hypothermia. The re-audit included 81 newborns and demonstrated a marked improvement, with 62 (76.5%) achieving normothermia on admission. Cold stress was observed in 13 infants (16.0%), moderate hypothermia fell to six (7.4%), and no cases of severe hypothermia were identified. Normothermia was achieved in 88.9% of term infants compared with 73.0% of preterm infants, highlighting the continuing susceptibility of preterm babies to heat loss.

Conclusions

Introducing a targeted thermal care bundle was associated with a substantial improvement in admission temperatures and the elimination of severe hypothermia. Practical, low-cost measures focused on delivery room care, neonatal transport, and staff education strengthened the neonatal warm chain. Continued surveillance and sustained attention to thermal care, particularly for preterm infants, are essential to maintain these gains.

SUICIDAL IDEATION IN PREGNANCY: PREVALENCE AND PSYCHOSOCIAL PREDICTORS AMONG ANTENATAL CLINIC ATTENDEES IN GALLE

De Silva BV̈S[1], Ponnamperuma TT[1], Punchihewa GD[2], Wijesinghe CJ[1], De Silva PV[1]

[1]Department of Community Medicine, Faculty of Medicine, University of Ruhuna [2]Department of Psychiatry, Faculty of Medicine, University of Ruhuna

Introduction

Suicidal ideation during pregnancy is a significant yet under-recognized mental health concern with potentially serious consequences for both the mother and fetus. Routine screening of antenatal suicidal ideation is rare, and thus literature is scarce on its effects, especially in the local context.

Objectives

To assess the prevalence, associated factors and predictors of suicidal ideation among third-trimester pregnant women attending antenatal clinics in two Medical Officer of Health (MOH) areas in Galle district.

Method

A cross-sectional study was conducted among 450 pregnant women in their third trimester attending ante-natal clinics in Bope, Poddala and Galle MOH areas. Participants were recruited using multi-stage cluster sampling. Suicidal ideation and symptoms of antepartum depression (APD) were screened with the locally validated Columbia Suicide Severity Rating Scale(C-SSRS) and Edinburgh Postnatal Depression Scale, respectively. Obstetric and psychosocial factors were assessed through a self-administered questionnaire.

Results

The majority of women were Sinhalese (59%) with a mean age of 29.43years (SD±5.24). Suicidal ideation was present among 2% of women in the third trimester during the past month with a majority (55.5%) hav-ing low levels of suicidal ideation. In the sample, 1.1% had attempted suicide prior to the pregnancy, of Medicine, University of Ruhuna.

12.2% had symptoms of APD and 5.6% were exposed to DV. Out of those with suicidal ideation, 66.6% screened positive for symptoms of APD and exposure to DV, respectively. In bivariate analysis, symptoms of AP-D($p=0.002$), past suicidal attempts($p=0.003$), having a special person to confide($p<=0.028$), relationship with in-laws($p<0.00$) and with extended family($p=0.041$), support for housework($p=0.021$), and exposure to DV($p<0.00$) were significantly associated with suicidal ideation. In the logistic regression model, exposure to DV(OR=20.49, $p=0.001$) emerged as a significant predictor for the presence of suicidal ideation after controlling for confounders.

Conclusion

Suicidal ideation is present among pregnant women even in the third trimester, and risk is higher among pregnant women with poor family relationships, support, symptoms of APD, and exposure to DV. Integrating routine screening of DV and symptoms of APD into antenatal services with a special focus on suicidal ideation among those who screen positive, and strengthening psychosocial support systems throughout pregnancy are recommended for early identification and prevention of consequences.

Keywords - antepartum, suicidal ideation, domestic violence, antepartum depression

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CLOSING THE PAIN MANAGEMENT GAP: NATIONAL STUDY ON KNOWLEDGE, ATTITUDES, AND PRACTICES OF NEONATAL PAIN MANAGEMENT AMONG HEALTH-CARE PROFESSIONALS WORKING IN LEVEL III AND LEVEL IV NICUS IN SRI LANKA

Dissanayaka D.M.M.P[1], Gamaathige NI [2]

[1]*Associate Consultant Neonatologist, Teaching Hospital Badulla, Sri Lanka*
[2] *Consultant Neonatologist, De Soysa Hospital for Women, Colombo, Sri Lanka*

Background

Neonatal pain is frequently underestimated despite evidence of adverse short- and long-term consequences. Healthcare professionals' knowledge, attitudes, and practices (KAP) play a crucial role in effective neonatal pain management. This study aims to assess KAP regarding neonatal pain management among doctors and nurses working in Level III and IV NICUs in Sri Lanka.

Objectives

To assess the knowledge, attitudes, and practices among healthcare professionals (Nurses and Doctors) regarding neonatal pain management in Level III and Level IV NICUs in Sri Lanka.

Method

A nationwide cross-sectional study was conducted among 342 NICU healthcare professionals (Consultants, medical officers, and nursing officers) from 24 government-sector Level III and IV NICUs. Data were collected using a self-administered questionnaire.

Results

Among 342 healthcare professionals, 51.5% were nursing officers, 39.5% medical officers, and 8.8% consultants. Majority of participants were female (79.2%) and aged 31–40 years (45.6%). Although 88.6% recognized that neonates can experience pain, only 17.0% used neonatal pain assessment tools, and 46.5% had received formal pain management training. Crying (95.6%), tachycardia (86.8%), and tachypnoea (76.9%) were the most frequently recognized pain indicators. Non-pharmacological interventions were commonly practiced, particularly swaddling (84.8%) and breastfeeding/expressed breast milk (83.0%). Majority of participants considered neonatal pain management important (98.0%), while 75.7% perceived neonatal pain as underrecognized and undertreated. The main barriers were the time-consuming nature of pain management (38.3%), lack of training (34.2%), and inadequate resources (20.8%).

Conclusion

Healthcare professionals working in Sri Lankan Level III and IV NICUs demonstrated good knowledge and positive attitudes toward neonatal pain management; however, important deficiencies in clinical prac-tice persist. Strengthening capacity-building initiatives and implementing evidence-based pain assessment protocols are recommended to improve neonatal pain management and clinical outcomes.

MOTHERS' EXPERIENCES OF CARE DURING THE LABOUR IN FOUR SELECTED HOSPITALS IN SRI LANKA

Gamhewage NC[1], Wijegoonewardene N[1], Janet L[2], Lucus N[2], Chandrasiri A[3], Amarasekara S[4], Rishard M [2], Rathnayake C[5], Gunasekara D[1], Senanayake H[2]

[1] *Faculty of Medical Sciences, University of Sri Jayewardenepura*
[2] *Faculty of Medicine, University of Colombo*
[3] *Regional Director of Health Services, Galle*
[4] *District General Hospital, Nuwara Eliya*
[5] *Faculty of Medicine, University of Peradeniya*

Introduction

Respectful postnatal care is fundamental to improving maternal experiences and promoting positive health outcomes after childbirth. Understanding mothers' perceptions of postnatal care can identify strengths and opportunities for improving the quality of maternity services.

Objectives

To assess mothers' experiences of postnatal care following childbirth in four selected hospitals in Sri Lanka.

Method

A descriptive cross-sectional study was conducted in four maternity units across the country (Colombo South Teaching Hospital, De Soysa Maternity Hospital, Base Hospital-Nuwara Eliya, Teaching Hospital-Peradeniya) among 253 postpartum mothers. Data were collected using a validated self-administered questionnaire available in Sinhala, Tamil, and English that assessed communication, information sharing, emotional support, and overall satisfaction with postnatal care. Descriptive statistics were used to summarize the findings.

Results

Having a female labour companion was encouraged in 16%. Pain relief during labour was received by 68%, while 60% received local analgesia during episiotomy. Different positions were allowed during labour in 57%, and fluids or light snacks were allowed in 60% mothers. 62% stated that baby was delivered to abdomen. 5.2% mentioned that they felt abandoned during the labour, while 17% perceived verbal disrespect during labour. Staff introduced themselves to 26.5% of mothers always and 19.8% very often. Health staff informed 75.9% of mothers about their baby's time of birth, sex, and birth weight, while 71.9% received refreshments after delivery.

Conclusion

The findings indicate important gaps in respectful maternal care during labour in the selected hospitals. Opportunities for improvement remain in supporting labour companions, allowing maternal choice of position and oral intake, during labour. Providing immediate skin-to-skin contact to the neonate should be encouraged. The experiences of verbal disrespect and feeling abandoned reported by some mothers highlight the need for continued staff training and strengthening of respectful maternity care practices.

MOTHERS' EXPERIENCES IN THE NEONATAL INTENSIVE CARE UNITS/ SPECIAL CARE BABY UNITS: A DESCRIPTIVE CROSS-SECTIONAL STUDY IN FOUR SELECTED HOSPITALS IN SRI LANKA

Gamhewage NC[1], Wijegoonewardene N[1], Janet L[2], Lucus N[2], Chandrasiri A[3], Amarasekara S[4], Rish-ard M [2], Rathnayake C[5], Gunasekara D[1], Senanayake H[2]

[1] *Faculty of Medical Sciences, University of Sri Jayewardenepura*
[2] *Faculty of Medicine, University of Colombo*
[3] *Regional Director of Health Services, Galle*
[4] *District General Hospital, Nuwara Eliya*
[5]*Faculty of Medicine, University of Peradeniya*

Background

Admission of a newborn to a Neonatal Intensive Care Unit (NICU) or Special Care Baby Unit (SCBU) can be a stressful experience for mothers. Understanding mothers' experiences during their newborn's admission is important for identifying areas that can be improved in neonatal care and maternal support.

Objective

To assess mothers' experiences during their newborns' admission to the NICU/SCBU in selected hospitals in Sri Lanka.

Method

A descriptive cross-sectional study was conducted among 100 postpartum mothers whose newborns were admitted to the NICU/SCBU in four maternity units across Sri Lanka (Colombo South Teaching Hospital, De Soysa Maternity Hospital, Base Hospital-Nuwara Eliya, Teaching Hospital-Peradeniya). Data were collected using a validated and pretested self-administered questionnaire available in Sinhala, Tamil, and English. The questionnaire assessed communication regarding the newborn's condition, maternal access to the newborn, breastfeeding support, availability of maternal amenities, and satisfaction with NICU/SCBU services. Descriptive statistics were used to summarize the findings.

Results

Regarding communication, 92% of mothers reported that the indication for their newborn's admission was explained to them, while 64% saw their baby before admission. Daily or more frequent updates regarding their newborn's condition were received by 88% of mothers.

Regarding access to the newborn, 18% of mothers visited their baby within 12 hours of delivery, while 58% first visited within 12–24 hours. Overall, 63% visited their baby more than once daily. Daily or more frequent visitation by the father was reported by 74% of mothers. Breast milk was expressed in the NICU/ SCBU by 61% of mothers, while 89% received instructions on the technique of expressing breast milk. A separate room for maternal rest was available to 54% of mothers.

Overall, 73% of mothers reported being extremely satisfied with the care they received, while 82% were extremely satisfied with the care provided to their baby.

Conclusion

Mothers reported generally positive experiences and high levels of satisfaction with NICU/SCBU care. However, opportunities remain to improve maternal access to newborn units, breastfeeding support, and the availability of facilities for mothers. Addressing these areas may further improve mothers' experiences during their newborns' admission to neonatal units.

DECISION-TO-INCISION INTERVAL FOR CATEGORY 2 CAESAREAN SECTIONS AT A SRI LANKAN DISTRICT GENERAL HOSPITAL: A RETROSPECTIVE AUDIT

Jayawardane MHD[1], Senevirathna W[2], Serasinghe SGS[1], Geekiyanage UKA[1], Fernando A[1]

[1] *District General Hospital, Negombo, Sri Lanka*
[2]*Ministry of Health, Sri Lanka*

Introduction

Category 2 caesarean sections make up the majority of emergency caesareans in most obstetric units, yet decision-to-incision (DTI) interval performance against international standards is rarely audited in South Asian secondary care settings.

Objectives

To determine the DTI interval for Category 2 caesarean sections at a single obstetric unit of a Sri Lankan district general hospital, and assess compliance with the RCOG 75-minute standard.

Method

A retrospective audit of 418 consecutive deliveries at one obstetric unit of Negombo District General Hospital (August–October 2025) identified 67 Category 2 caesarean sections by documented decision and skin-incision times. Eight cases were excluded due to missing incision-time records, leaving 59 cases for interval analysis.

Results

Median DTI interval was 30 minutes (mean 33.9, range 10–110 minutes). Fifty-seven of 59 cases (96.6%) met the RCOG 75-minute standard; two exceeded it.

Conclusion

Category 2 response times met international benchmarks in the large majority of evaluable cases, despite infrastructural constraints at this unit. Incomplete time-interval documentation in 12% of cases is itself a quality-improvement target. Prospective, real-time DTI recording is recommended to strengthen future audit.

MOTHERS' EXPERIENCE ON EARLY POSTNATAL CARE IN FOUR SELECTED HOSPITALS IN SRI LANKA

Gamhewage NC[1], Wijegoonewardene N[1], Janet L[2], Lucus N[2], Chandrasiri A[3], Amarasekara S[4], Rishard M[2], Rathnayake C[5], Gunasekara D[1], Senanayake H[2]

[1] *Faculty of Medical Sciences, University of Sri Jayewardenepura*
[2] *Faculty of Medicine, University of Colombo*
[3] *Regional Director of Health Services, Galle*
[4] *District General Hospital, Nuwara Eliya*
[5] *Faculty of Medicine, University of Peradeniya*

Introduction

Supporting mothers during the postnatal period is a key component of quality postnatal care and contributes to successful breastfeeding initiation and maternal confidence. Assessing mothers' experiences of support can help identify areas for improving maternity and newborn services.

Objectives

To evaluate mothers' experiences of support following childbirth in four selected hospitals in Sri Lanka

Method

A descriptive cross-sectional study was conducted in four hospitals across the country (Colombo South Teaching Hospital, De Soysa Maternity Hospital, Base Hospital-Nuwara Eliya, Teaching Hospital-Perad-eniya) among 253 postpartum mothers. Data were collected using a validated, self-administered questionnaire available in Sinhala, Tamil, and English that assessed breastfeeding initiation, staff support, breast-feeding education, and maternal confidence. Descriptive statistics were used to summarise the findings.

Results

Skin-to-skin contact immediately after birth was reported by 62% of mothers. Breastfeeding was initiated immediately after birth in 21.7% of mothers and within the first hour in another 34.8%. The first feed lasted only 5-10 minutes in 36.8%. More than half (56.1%) were extremely satisfied with the assistance received for the first breastfeed. More than 95% of mothers stated that breastfeeding instructions were provided, and they felt confident in breastfeeding before discharge. Nurses (74.3%) and midwives (60.5%) were the main providers of education. Despite these positive findings, only 35.2% of mothers who expressed breast milk reported receiving instruction on the correct expressing technique. 70.8% received information about the Lactation Management Centre. Following birth, 81.8% of mothers were updated regarding their baby's neonatal examination, 62.5% expressing extreme confidence in breastfeeding at discharge. Satisfaction with care was high, with 66.8% reporting being extremely satisfied with the care provided to their baby.

Conclusion

Mothers reported positive experiences with early breastfeeding support, particularly regarding staff assistance, education, and confidence at discharge. Strengthening practical lactation counselling, especially breast milk expression techniques, may further enhance breastfeeding outcomes.

ASSESSMENT OF DOCUMENTATION AND FEASIBILITY OF TRIPS SCORE CALCULATION IN NEONATAL INTER-HOSPITAL TRANSFERS: A CLINICAL AUDIT

Dinushika WGA[1], Ruwanpathirana U[1], Hapuarachchi G[1], Fonseka J[1]

[1]*German Sri Lanka Hospital for Women, Karapitiya, Galle, Sri Lanka*

Background

Safe neonatal transport is essential to minimise physiological deterioration and improve neonatal outcomes. The Transport Risk Index of Physiologic Stability (TRIPS) score is a validated tool for assessing physio-logical stability and predicting mortality among transported neonates. Accurate documentation of physio-logical parameters before and after transfer is essential for its calculation and for evaluating the quality of neonatal transport.

Objective

To assess the completeness of clinical documentation required for TRIPS score calculation among neonates transferred to a tertiary neonatal intensive care unit (NICU).

Method

A retrospective clinical audit was conducted among neonates transferred from 12 referring hospitals to the NICU of the German Srilanka Friendship Hospital for Women, over a three-month period. Data were extracted from transfer records and clinical documentation. The availability of parameters required for TRIPS score calculation, including temperature, blood pressure, respiratory status and neurological status, was assessed before and after transfer. Documentation of transfer duration and hospital outcomes was also reviewed.

Results

Twenty-five neonates were included, of whom 15 (60%) were preterm and 10 (40%) were term infants. Pre-transfer documentation was incomplete, with temperature missing in 13 (52%) and blood pressure in 11 (44%) cases. Respiratory status was documented in 24 (96%), while neurological status was absent in 3 (12%). Consequently, pre-transfer TRIPS scores could not be calculated in 18 (72%) neonates. Post-trans-fer documentation was relatively better; however, temperature and blood pressure remained undocumented in 3 (12%) and 7 (28%) cases, respectively. Transfer duration was not documented in any case. Six neonates (24%) died during the hospital stay.

Conclusion

Significant deficiencies in physiological monitoring and documentation limit the use of TRIPS scoring in neonatal transport. Implementation of a standardised transfer documentation tool and staff education may improve assessment of transport quality and support strategies to optimise neonatal outcomes.

TURNING AUDIT INTO ACTION: ENHANCING THE NEONATAL RESUSCITATION COMPETENCE THROUGH CLINICAL GOVERNANCE

Ranasingha, WMKI [1], Tissera, SBI [1], Wijethunga, WMKM [1], Wanigasuriya, WMSN [1]

[1] *Colombo North Teaching Hospital, Ragama*

Objectives

To assess the standard practices in neonatal resuscitation among health care professionals working in the maternity care unit and improve self-confidence and knowledge.

Method

A clinical audit was conducted in ward 17 antenatal and postnatal ward staff; doctors, nursing officers, and midwives using a structured self-administered questionnaire comprising multiple-choice questions and single-best-answer questions based on the Sri Lanka Neonatal Resuscitation Training Manual (2019) and Neonatal Resuscitation Programme (NRP),8th Edition. Knowledge scores were categorised as good (> 75%), satisfactory (50-75%), and poor (<50%).

Results

Among the 36 participants, only one achieved a score of more than 75%, while 15 participants (41.7%) got a satisfactory score. The majority, 20 participants (55.6%), scored below 50%, revealing a significant knowledge gap. The audit findings were shared with the participants, and we organised a comprehensive one-day Neonatal Resuscitation workshop at Colombo North Teaching Hospital, Ragama, in collaboration with the Perinatal Society of Sri Lanka on 4th March 2026.

This workshop consisted of evidence-based lectures by Consultant Neonatologists, simulation stations and hands-on skills sessions. There were 41 participants, including doctors, nursing officers and midwives working in all three maternity units in Colombo North Teaching Hospital, Ragama. Continuing Profession-al Development (CPD) accredited certificate was given upon successful completion of the course. Follow-ing this successful programme, there was a significant improvement in the day-to-day practice.

Conclusion

The knowledge and skills on neonatal resuscitation of the staff members working in the maternity care unit are a critical determinant of neonatal survival and the long-term outcome. Clinical audit is one of the pillars of clinical governance practices to improve the quality of care. Therefore, identification of the knowledge gap and the implementation of continuous professional development is important for quality improvement in neonatal ca