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### New and Updated Cochrane Systematic Reviews

Full-text evidence-based systematic reviews prepared by the Cochrane Collection. Please click on the title to access full text.

**New Reviews – April 2015**

- [Debriefing interventions for the prevention of psychological trauma in women following childbirth](#)

**Withdrawn Reviews – April 2015**

- [Lidocaine-prilocaine cream for analgesia during circumcision in newborn boys](#)

**New Reviews – March 2015**

- [Paracetamol (acetaminophen) for patent ductus arteriosus in preterm or low-birth-weight infants](#)

**Updated Reviews – March 2015**

- [Community-based intervention packages for reducing maternal and neonatal morbidity and mortality and improving neonatal outcomes](#)

- [Elective high frequency oscillatory ventilation versus conventional ventilation for acute pulmonary dysfunction in preterm infants](#)

- [Intravenous immunoglobulin for suspected or proven infection in neonates](#)

- [Pentoxifylline for treatment of sepsis and necrotizing enterocolitis in neonates](#)

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What’s New: (Scroll down to the Neonatology section:))
Ibuprofen versus indomethacin for PDA closure in preterm infants (March 2015)

Key Journals Latest Edition

Infant & Infant Grapevine
Link to most recent edition

Journal of Neonatal Nursing
Current issue contents page

Journal Articles

Please click on the blue link at the end of the abstract (where available) to access the full text. You may need an OpenAthens username and password. To register for an OpenAthens account click here.

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**Journal Articles:**

1. A descriptive study of nurse-reported missed care in neonatal intensive care units

Citation: Journal of Advanced Nursing, Apr 2015, vol. 71, no. 4, p. 813-824, 0309-2402 (April 2015)

Author(s): Tubbs-Cooley, Heather L., Pickler, Rita H., Younger, Janet B., Mark, Barbara A.

Abstract: Aims. The aims of this study are to describe: (1) the frequency of nurse-reported missed care in neonatal intensive care units; and (2) nurses’ reports of factors contributing to missed care on their last shift worked. Background. Missed nursing care, or necessary care that is not delivered, is increasingly cited as a contributor to adverse patient outcomes. Previous studies highlight the frequency of missed nursing care in adult
settings; the occurrence of missed nursing care in neonatal intensive care units is unknown. Design. A descriptive analysis of neonatal nurses’ self-reports of missed care using data collected through a cross-sectional web-based survey. Methods. A random sample of certified neonatal intensive care nurses in seven states was invited to participate in the survey in April 2012. Data were collected from nurses who provide direct patient care in a neonatal intensive care unit (n = 230). Descriptive statistics constituted the primary analytic approach. Results. Nurses reported missing a range of patient care activities on their last shift worked. Nurses most frequently missed rounds, oral care for ventilated infants, educating and involving parents in care and oral feedings. Hand hygiene, safety and physical assessment and medication administration were missed least often. The most common reasons for missed care included frequent interruptions, urgent patient situations and an unexpected rise in patient volume and/or acuity on the unit. Conclusion. We find that basic nursing care in the neonatal intensive care unit is missed and that system factors may contribute to missed care in this setting. [PUBLICATION] 45 references

Source: BNI

2. A research protocol for testing relationships between nurse workload, missed nursing care and neonatal outcomes: the neonatal nursing care quality study

Citation: Journal of Advanced Nursing, Mar 2015, vol. 71, no. 3, p. 632-641, 0309-2402 (March 2015)
Author(s): Tubbs-Cooley, Heather L., Pickler, Rita H., Mark, Barbara A., Carle, Adam C.
Abstract: Aim. We describe an innovative research protocol to test the role of missed nursing care as a mediator of the association between nurse workload and patient outcomes in the neonatal intensive care unit. Background. Increases in nurses' workloads are associated with adverse patient outcomes in neonatal intensive care settings. Missed nursing care is a frequently hypothesized explanation for the association between workload and outcomes. Few studies to date have tested missed care as a variable that mediates the workload-outcomes relationship. Design. We use a longitudinal, observational study design. Methods. We will recruit approximately 125 nurses (80% of target population) providing direct patient care in one neonatal intensive care unit. Four, 6-week data collection cycles occur over 1 year. At the end of every shift, nurses report on their workloads and the frequency with which specific patient care activities were missed for each infant cared for during the shift. Infant-specific nurse reports of missed care are linked to shift-level infant outcomes data extracted from the electronic health record. Funding for the study began in July 2012; Research Ethics Committee approval was granted in December 2012. Discussion. Missed care may explain the effects of nurse workload on patient outcomes. This research will generate preliminary evidence regarding the causal relationships among nurses' workloads, missed care and infant outcomes that we will confirm in a future multi-site study. [PUBLICATION] 32 references

Source: BNI

3. An operational neonatal patient acuity tool for measuring clinical dependency of each infant on a unit

Citation: Infant, Mar 2015, vol. 11, no. 2, p. 51-53, 1745-1205 (March 2015)
Author(s): Davies, Wendy L.
Abstract: This article discusses the development and introduction of an operational 'neonatal patient acuity tool', which enables staff to measure the level of clinical dependency of each infant and use that measurement as the foundation for a risk assessment that is linked to the number of nurses available on each shift. Since its conception the neonatal patient acuity tool has been rolled out to all neonatal units in Wales by the Wales Neonatal Network. [PUBLICATION]

Source: BNI

4. Assessing clinicians’ knowledge and confidence to perform kangaroo care and positive touch in a tertiary neonatal unit in England using the Neonatal Unit Clinician Assessment Tool (NUCAT).

Citation: Journal of Neonatal Nursing, 01 April 2015, vol./is. 21/2(72-82), 13551841
Author(s): Higman, Wendy, Wallace, Louise M., Law, Susan, Bartle, Naomi C., Blake, Kathryn
Language: English
Publication type: journal article
Source: CINAHL
5. **Bloodstream infections: epidemiology and resistance.**

**Citation:** Clinics in Perinatology, 01 March 2015, vol./is. 42/1(1-17), 00955108

**Author(s):** Cantey, Joseph B, Milstone, Aaron M

**Language:** English

**Abstract:** Bloodstream infections in the neonatal intensive care unit (NICU) are associated with many adverse outcomes in infants, including increased length of stay and cost, poor neurodevelopmental outcomes, and death. Attention to the insertion and maintenance of central lines, along with careful review of when the catheters can be safely discontinued, can minimize central-line-associated bloodstream infections rates. Good antibiotic stewardship can further decrease the incidence of bloodstream infections, minimize the emergence of drug-resistant organisms or Candida as pathogens in the NICU, and safeguard the use of currently available antibiotics for future infants.

**Publication type:** journal article

**Source:** CINAHL

6. **Compression force on the upper jaw during neonatal intubation: Mannequin study**

**Citation:** Journal of Paediatrics and Child Health, Mar 2015, vol. 51, no. 3, p. 328-333, 1440-1754 (March 2015)

**Author(s):** Doreswamy, Srinivasa Murthy, Almannaei, Khaled, Fusch, Chris, Shivananda, Sandesh

**Abstract:** Aim: Neonatal intubation is a technically challenging procedure, and pressure-related injuries to surrounding structures have been reported. The primary objective of this study was to determine the pressure exerted on the upper jaw during tracheal intubation using a neonatal mannequin. Method: Multidisciplinary care providers working at a neonatal intensive care unit were requested to intubate a neonatal mannequin using the standard laryngoscope and 3.0-mm (internal diameter) endotracheal tube. Compression force exerted was measured by using pressure-sensitive film taped on the upper jaw before every intubation attempt. Pressure, area under pressure and time taken to intubate were compared between the different types of health-care professionals. Results: Thirty care providers intubated the mannequin three times each. Pressure impressions were observed on the developer film after every intubation attempt (n=90). The mean pressure exerted during intubation across all health-care providers was 568kPa (SD 78). The mean area placed under pressure was 142mm² (SD 45), and the mean time taken for intubation was 14.7s (SD 4.3). There was no difference in pressure exerted on the upper jaw between frequent and less frequent intubators. It was found that pressure greater than 400kPa was inadvertently applied on the upper jaw during neonatal intubation, far exceeding the 250kPa shown to cause tissue injury in animal models. Conclusion: The upper jaw is exposed to a significant compression force during intubation. Although such exposure is brief, it has the potential to cause tissue injury. Contact of the laryngoscope blade with the upper jaw occurred in all intubation attempts with the currently used design of laryngoscope. [PUBLICATION]

**Source:** BNI

7. **Effect of Cobedding Twins on Coregulation, Infant State, and Twin Safety**


**Author(s):** Hayward, Kathryn M, Johnston, C Celeste, Campbell-Yeo, Marsha L, Price, Sheri L, Houk, Shauna L, Whyte, Robin K, White, Susan D, Caddell, Kim E

**Abstract:** Objective: To evaluate the efficacy of cobedding on twin coregulation and twin safety. Design: Randomized controlled trial (RCT). Setting: Two university affiliated Level III neonatal intensive care units (NICUs). Participants: One hundred and seventeen sets (N = 234) of stable preterm twins

**Source:** BNI

8. **Effect of turning vs. supine position under phototherapy on neonates with hyperbilirubinemia: a systematic review**

**Citation:** Journal of Clinical Nursing, Mar 2015, vol. 24, no. 5-6, p. 672-682, 0962-1067 (March 2015)

**Author(s):** Fei, Shalin Lee Wan, Abdullah, Khatijah L

**Abstract:** To determine the most effective position jaundiced neonates should assume during phototherapy from appraised randomised controlled trials. Many local hospitals still alternate positions of jaundiced neonates receiving phototherapy despite the safe infant sleeping protocol of placing them supine. A systematic review was conducted. Databases that included Cumulative Index to Nursing and Allied Health Literature, ScienceDirect,
9. End-of-life care in a regional level IV neonatal intensive care unit after implementation of a palliative care initiative

**Citation:** Journal of Perinatology, Mar 2015, vol. 35, no. 3, p. 223-228, 0743-8346 (March 2015)

**Author(s):** Samsel, C, Lechner, B E

**Abstract:** Objective: We hypothesized that the implementation of a neonatal palliative care initiative will result in improved markers of end-of-life care. Study design: A retrospective and prospective chart review of neonatal intensive care unit deaths was performed for 24 months before, 16 months during and 24 months after the implementation of palliative care provider education and practice guidelines (n=106). Ancillary care, redirextion of care, palliative medication usage and outcome meetings in the last 48h of life and basic demographic data were compared between epochs. Parametric and nonparametric analysis was performed. Result: There was an increase in redirection of care and palliative medication usage and a decrease in variability of use of end-of-life interventions (P=0.012, 0.022 and 0.023). Source: BNI

10. Hindering and buffering factors for parental sleep in neonatal care. A phenomenographic study

**Citation:** Journal of Clinical Nursing, Mar 2015, vol. 24, no. 5-6, p. 717-727, 0962-1067 (March 2015)

**Author(s):** Edéll-Gustafsson, Ulla, Angelhoff, Charlotte, Johnsson, Ewa, Karlsson, Jenny, Mörelius, Evalotte

**Abstract:** Top of Form To explore and describe how parents of preterm and/or sick infants in neonatal care perceive their sleep. Parents experience many stressful situations when their newborn infant is preterm and/or sick. This affects bonding. By developing more family-centred care units with single-family rooms, parents are given the opportunity to stay and care for their newborn infant(s) 24 hours a day. Lack of sleep may affect new parents’ ability to cope with the many challenges they face on a daily basis. A phenomenographic study with an inductive and exploratory design. Semi-structured interviews were conducted with twelve parents of infants in neonatal care between January-March 2012. To describe variations in perception of the phenomenon, data were analysed using phenomenography. Four descriptive categories were identified within the phenomenon sleep in parents of preterm and/or sick infants in neonatal care: impact of stress on sleep; how the environment affects sleep; keeping the family together improves sleep; and, how parents manage and prevent tiredness. Anxiety, uncertainty and powerlessness have a negative influence on sleep. This can be decreased by continuous information, guidance and practical support. Skin-to-skin care was perceived as a stress-reducing factor that improved relaxation and sleep and should be encouraged by the nurse. The parents also mentioned the importance of being together. Having a private place where they could relax and take care of themselves and their newborn infant improved sleep. It was also desirable to involve older siblings in order to decrease feelings of loneliness, sadness and isolation. Improved parental sleep in neonatal care may help the families cope with the situation and facilitate problem-solving, emotional regulation and the transition to parenthood. [PUBLICATION] 50 references

Source: BNI

11. Impact of a palliative care program on end-of-life care in a neonatal intensive care unit

**Citation:** Journal of Perinatology, Mar 2015, vol. 35, no. 3, p. 282-222, 0743-8346 (March 2015)
Author(s): Younge, N, Smith, P B, Goldberg, R N, Brandon, D H, Simmons, C, Cotten, C M, Bidegain, M

Abstract: Objective: Evaluate changes in end-of-life care following initiation of a palliative care program in a neonatal intensive care unit. Study design: Retrospective study comparing infant deaths before and after implementation of a Palliative Care Program comprised of medication guidelines, an individualized order set, a nursing care plan and staff education. Result: Eighty-two infants died before (Era 1) and 68 infants died after implementation of the program (Era 2). Morphine use was similar (88% vs 81%; P = 0.17), whereas benzodiazepines use increased in Era 2 (26% vs 43%; P = 0.03). Withdrawal of life support (73% vs 63%; P = 0.17) and do-not-resuscitate orders (46% vs 53%; P = 0.42) were similar. Do-not-resuscitate orders and family meetings were more frequent among Era 2 infants with activated palliative care orders (n = 21) compared with infants without activated orders (n = 47). Conclusion: End-of-life family meetings and benzodiazepine use increased following implementation of our program, likely reflecting adherence to guidelines and improved communication.

Source: BNI

12. Impact of hospital-based environmental exposures on neurodevelopmental outcomes of preterm infants.

Citation: Current Opinion in Pediatrics, 01 April 2015, vol./is. 27/2(254-260), 10408703

Author(s): Santos, Janelle, Pearce, Sarah E, Stroustrup, Annemarie

Language: English

Abstract: PURPOSE OF REVIEW: Over 300,000 infants are hospitalized in a neonatal intensive care unit (NICU) in the United States annually during a developmental period critical to later neurobehavioral function. Environmental exposures during the fetal period and infancy have been shown to impact long-term neurodevelopmental outcomes. This review summarizes evidence linking NICU-based environmental exposures to neurodevelopmental outcomes of children born preterm. RECENT FINDINGS: Preterm infants experience multiple exposures important to neurodevelopment during the NICU hospitalization. The physical layout of the NICU, management of light and sound, social interactions with parents and NICU staff, and chemical exposures via medical equipment are important to long-term neurobehavioral outcomes in this highly vulnerable population. SUMMARY: Existing research documents NICU-based exposure to neurotoxic chemicals, aberrant light, excess sound, and restricted social interaction. In total, this creates an environment of co-existing excesses (chemicals, light, sound) and deprivation (touch, speech). The full impact of these co-exposures on the long-term neurodevelopment of preterm infants has not been adequately elucidated. Research into the importance of the NICU from an environmental health perspective is in its infancy, but could provide understanding about critical modifiable factors impacting the neurobehavioral health of hundreds of thousands of children each year.

Publication type: journal article

Source: CINAHL

13. Implications of Epigenetics and Stress Regulation on Research and Developmental Care of Preterm Infants


Author(s): Montiroso, Rosario, Provenzi, Livio

Abstract: Epigenetics refers to chemical modifications leading to changes in gene expression without any alteration of the DNA structure. We suggest ways through which epigenetic mechanisms might contribute to alter developmental trajectories in preterm infants. Although theoretical and methodological issues still need to be addressed, we discuss how epigenetics might be an emergent research field with potential innovative insights for researchers and clinicians involved in the neonatal care of preterm infants. [PUBLICATION] 50 references

Source: BNI


Citation: Journal of Perinatology, 01 March 2015, vol./is. 35/3(181-185), 07438346

Author(s): Girsen, A I, Greenberg, M B, El-Sayed, Y Y, Lee, H, Carvalho, B, Lyell, D J

Language: English

Abstract: Objective: The aim of this study was to investigate the effect of maternal magnesium sulfate (MgSO<sub>4</sub>) exposure for eclampsia prophylaxis on neonatal intensive care unit (NICU) admission rates.
for term newborns. Study Design: A secondary analysis of the Maternal-Fetal Medicine Unit Network Cesarean Registry, including primary and repeat cesarean deliveries, and failed and successful trials of labor after cesarean was conducted. Singleton pregnancies among women with preeclampsia and >37 weeks of gestation were included. Pregnancies with uterine rupture, chorioamnionitis and congenital malformations were excluded. Logistic regression analysis was used to determine associations between MgSO₄ exposure and NICU admission. P<0.05 was considered statistically significant. Result: Two thousand one hundred and sixty-six term pregnancies of women with preeclampsia were included, of whom 1747 (81%) received MgSO₄ for eclampsia prophylaxis and 419 (19%) did not. NICU admission rates were higher among newborns exposed to MgSO₄ vs unexposed (22% vs 12%, P<0.001). After controlling for neonatal birth weight, gestational age and maternal demographic and obstetric factors, NICU admission remained significantly associated with antenatal MgSO₄ exposure (adjusted odds ratio 1.9, 95% confidence interval 1.3 to 2.6, P<0.001). Newborns exposed to MgSO₄ were more likely to have Apgar scores <7 at 1 and 5 min (15% vs 11% unexposed, P=0.01 and 3% vs 0.7% unexposed, P=0.008). There were no significant differences in NICU length of stay (median 5 (range 2 to 91) vs 6 (3 to 15), P=0.5). Conclusion: Antenatal maternal MgSO₄ treatment was associated with increased NICU admission rates among exposed term newborns of mothers with preeclampsia. This study highlights the need for studies of maternal MgSO₄ administration protocols that optimize maternal and fetal benefits and minimize risks.

Publication type: journal article
Source: CINAHL

15. Maternal mood and concordant maternal and infant salivary cortisol during heel lance while in kangaroo care.

Citation: European Journal of Pain, 01 March 2015, vol./is. 19/3(429-438), 10903801
Author(s): Castral, T C, Warnock, F, Dos Santos, C B, Daré, M F, Moreira, A C, Antonini, S R R, Scochi, C G S
Language: English
Abstract: BACKGROUND: Maternal kangaroo care (MKC) is a naturalistic intervention that alleviates neonatal pain, and mothers are assumed to play a stress regulatory role in MKC. Yet, no MKC infant pain study has examined relationship between maternal and infant stress reactivity concurrently, or whether post-partum depression and/or anxiety (PPDA) alters maternal and neonatal stress response and the regulatory effects of MKC. OBJECTIVES: To examine the concordance of salivary cortisol reactivity between 42 mothers and their stable preterm infants during routine infant heel lance (HL) while in MKC and to compare salivary cortisol between groups of mothers with and without PPDA and their infants. METHODS: Maternal and infant salivary cortisol samples were collected pre-HL and 20 min post-HL with two additional maternal samples at night and in the morning. Mothers and infants were allocated to with PPDA versus without PPDA study groups on the basis of maternal post-natal mental health assessment scores. RESULTS: Higher mothers’ cortisol pre-HL was weakly associated with infants’ salivary cortisol in response to the HL procedure. Maternal depression and/or anxiety were not associated with infants’ cortisol. During HL, both groups of mothers and infants showed no change in salivary cortisol. CONCLUSIONS: Concordance between mother and infant salivary cortisol supports the maternal stress regulatory role in MKC. MKC may have stress regulatory benefits for mothers and their preterm infants during HL independent of PPDA. Future MKC studies that target mothers with altered mood will help to build on these findings.

Publication type: journal article
Source: CINAHL

16. Mothers’ experiences of the NICU and a NICU support group programme.

Citation: Journal of Reproductive & Infant Psychology, 01 April 2015, vol./is. 33/2(165-179), 02646838
Author(s): Turner, Melanie, Chur-Hansen, Anna, Winefield, Helen
Language: English
Abstract: Objective: to understand both the maternal experience of the NICU and mothers’ views of a NICU Parent Support Group. Background: mothers of babies who are born prematurely have their first experiences of parenting while their infant is in the neonatal intensive care unit (NICU). This presents multiple challenges and a range of stresses related to their role as a mother and concerns about their baby’s survival and growth. Thus, various supportive interventions have been trialled with this NICU parent population. However, the focus of this support and how it should be delivered lacks research as an evidence base for practice. Mothers’ experiences of the NICU and a professionally facilitated NICU support group at a city hospital were explored in this qualitative research.
study. Method: Nine mothers were interviewed in 2010 while their babies were NICU inpatients. Interviews were recorded, transcribed and analysed thematically. Results: The NICU admission resulted in participant mothers facing challenges in getting to know their baby, forming their parenting role while in the NICU, and a reliance upon, but resentment toward, nursing staff. Positive feelings about their baby’s strengths were also apparent. The parent support group was an important part of managing the experience of the NICU and was reported to meet the emotional support needs of these NICU parents. Conclusion: the implications and recommendations for NICU-based emotional support are discussed. In particular, modifications to support group structures to ensure professional staff involvement and a balance between education and emotional care are reviewed.

Publication type: journal article
Source: CINAHL

17. Oral Feeding.
Citation: MCN: The American Journal of Maternal Child Nursing, 01 March 2015, vol./is. 40/2(96-104), 0361929X
Author(s): Gennattasio, Annmarie, Perri, Elizabeth A., Baranek, Donna, Rohan, Annie
Language: English
Abstract: Oral feeding readiness is a complex concept. More evidence is needed on how to approach beginning oral feedings in premature hospitalized infants. This article provides a review of literature related to oral feeding readiness in the premature infant and strategies for promoting safe and efficient progression to full oral intake. Oral feeding readiness assessment tools, clinical pathways, and feeding advancement protocols have been developed to assist with oral feeding initiation and progression. Recognition and support of oral feeding readiness may decrease length of hospital stay and have a positive impact on reducing healthcare costs. Supporting effective cue-based oral feeding through use of rigorous assessment or evidence-based care guidelines can also optimize the hospital experience for infants and caregivers, which, in turn, can promote attachment and parent satisfaction.
Publication type: journal article
Source: CINAHL

18. Patient Safety: Working as a neonatal network to undertake enhanced peer review of infection prevention and control
Citation: Infant, Mar 2015, vol. 11, no. 2, 1745-1205 (March 2015)
Author(s): Dopran, Jacki, Broughton, Janet
Abstract: Infection control is at the core of patient safety. Ensuring that an environment has robust infection prevent and control measures for the neonatal patient group is essential for safe care. A network approach utilising ?new eyes? methodology can support simple actions and changes that make significant safety improvements for infants in neonatal units. [PUBLICATION]
Source: BNI

Citation: Journal of Reproductive & Infant Psychology, 01 April 2015, vol./is. 33/2(140-152), 02646838
Author(s): Yaman, Sengul, Altay, Naime
Language: English
Abstract: Objective: This study examined the posttraumatic stress of parents with a newborn in the neonatal intensive care unit (NICU), the differences between their posttraumatic stressors, the factors that affect posttraumatic stress, and the experiences of parents. Methods: The parents of 66 newborn infants (66 mothers and 66 fathers) in the NICU were the sampling group, and a descriptive design was used. The sociodemographic traits of parents were identified using a data collection form, and posttraumatic stress experiences of parents were identified by using the Impact of Events Scale-Revised (IES-R). Analysis of variance and t-test for two independent groups were used for the comparisons, and a chi-square test was used. Results: The mean of the total scale scores (mothers 43.61 ± 14.98; fathers 36.26 ± 17.01), mean of the intrusion scores (mothers 18.17 ± 6.25; fathers 15.13 ± 7.14), and mean of the avoidance scores (mothers 11.21 ± 4.94; fathers 9.17 ± 5.17) were high. When the scores for the IES-R and subscale scores of parents were compared, mothers scored 20 higher than fathers, a statistically significant difference. When the cut-off point was 30, 81.8% of mothers and 66.7% of fathers experienced posttraumatic stress. Conclusion: In light of these findings, it is recommended that health
professionals monitor all parents with a newborn in the NICU for symptoms of posttraumatic stress and that parents are informed about their newborns.

**Publication type:** journal article  
**Source:** CINAHL

### 20. Preventing ophthalmia neonatorum

**Citation:** Paediatrics & Child Health, Mar 2015, vol. 20, no. 2, p. 1-5, 1205-7088 (March 2015)  
**Author(s):** Moore, Dorothy L., MacDonald, Noni E.

**Abstract:** The use of silver nitrate as prophylaxis for neonatal ophthalmia was instituted in the late 1800s to prevent the devastating effects of neonatal ocular infection with Neisseria gonorrhoeae. At that time - during the preantibiotic era - many countries made such prophylaxis mandatory by law. Today, neonatal gonococcal ophthalmia is rare in Canada, but ocular prophylaxis for this condition remains mandatory in some provinces/territories. Silver nitrate drops are no longer available and erythromycin, the only ophthalmic antibiotic eye ointment currently available for use in newborns, is of questionable efficacy. Ocular prophylaxis is not effective in preventing chlamydial conjunctivitis. Applying medication to the eyes of newborns may result in mild eye irritation and has been perceived by some parents as interfering with mother-infant bonding. Physicians caring for newborns should advocate for rescinding mandatory ocular prophylaxis laws. More effective means of preventing ophthalmia neonatorum include screening all pregnant women for gonorrhea and chlamydia infection, and treatment and follow-up of those found to be infected. Mothers who were not screened should be tested at delivery. Infants of mothers with untreated gonococcal infection at delivery should receive ceftriaxone. Infants exposed to chlamydia at delivery should be followed closely for signs of infection. [Publication] 34 references  
**Source:** BNI  
**Full text:** Available ProQuest at Paediatrics and Child Health

### 21. Prevention of late-onset sepsis in the neonate

**Citation:** Infant, Mar 2015, vol. 11, no. 2, p. 42-46, 1745-1205 (March 2015)  
**Author(s):** Soni, Roopali, English, Sharon

**Abstract:** The number of infants at risk of late-onset sepsis (LOS) has increased due to the improved survival of very low birthweight infants and their need for invasive monitoring and support. LOS is a cause of significant mortality and morbidity that in turn results in life-long economic consequences for society. Effective strategies to prevent LOS and regular feedback of surveillance data are associated with a progressive decrease in incidence of infection. This literature review explores such preventative strategies and the evidence for NICU care bundles in preventing LOS. [PUBLICATION]

**Source:** BNI

### 22. Safety and efficacy of active Leptospermum honey in neonatal and paediatric wound debridement

**Citation:** Journal of Wound Care, Mar 2015, vol. 24, no. 3, p. 95-103, 0969-0700 (March 2015)  
**Author(s):** Amaya, R.

**Abstract:** Objective: Safety is a critically important factor in the selection of products used in neonatal and paediatric wound care. Given the lack of standardisation of neonatal and paediatric wound care protocols, the goal of this study was to present data on the safety and efficacy of active Leptospermum honey (ALH) in this patient population. Method: A multicentre, retrospective chart review was conducted at eight inpatient facilities and one outpatient clinic between October 2011 and March 2014. The number of applications of ALH, adverse events, and the success of debridement and wound healing were recorded. Results: Data were collected on 115 neonatal and paediatric patients, with 121 wounds requiring debridement, treated with ALH. Patients were treated for an average of 18.7 days. ALH was well tolerated, with two (1.7%) patients reporting adverse events involving a transient stinging sensation on application, which did not prohibit additional applications of ALH. Successful debridement was achieved in 86.0% (104 wounds), and 77.7% (94 wounds) were successfully closed using nonsurgical intervention. Outcomes in neonates were similar to the overall paediatric population, with 86.1% (31/36) wounds successfully debrided with no adverse events. In a subset of six patients with available pre- and post-treatment data, no clinically meaningful changes in white blood cell counts or glucose levels were associated with the initiation of treatment with ALH. [PUBLICATION] 17 references  
**Source:** BNI
23. Stable rates of neonatal sepsis in a tertiary neonatal unit

Citation: Journal of Paediatrics and Child Health, Mar 2015, vol. 51, no. 3, p. 294-299, 1440-1754 (March 2015)

Author(s): Lean, Wei Ling, Kamlin, Camille O, Garland, Suzanne M, Jacobs, Susan E

Abstract: Aims: To describe the rate of early- and late-onset sepsis in neonates admitted to the neonatal intensive care unit at the Royal Women's Hospital and to compare the rate of late-onset sepsis (LOS) with a published (2008) cohort from the same unit. The secondary aim was to examine clinicians' compliance with antibiotic guidelines. Methods: Infants born

Source: BNI

24. The desaturating intubated neonate: is DOPE enough?

Citation: Infant, Mar 2015, vol. 11, no. 2, p. 47-50, 1745-1205 (March 2015)

Author(s): Vas, Chris, Medd, Nicola, Bustani, Porus

Abstract: Neonatal staff are often asked to review mechanically ventilated infants who significantly desaturate. A systematic assessment is used to ascertain the cause and commonly doctors are taught to use the acronym DOPE (displaced, obstructed, pneumothorax and equipment failure) as an aide-mémoire to the assessment. This article questions how the availability of continuous waveform monitoring alters the systematic assessment of the desaturating infant. [PUBLICATION]

Source: BNI


Citation: Journal of Neonatal Nursing, 01 April 2015, vol./is. 21/2(63-71), 13551841

Author(s): Mahon, Paula, Albersheim, Susan, Holsti, Liisa

Language: English

Publication type: journal article

Source: CINAHL

26. The outcome of treatment limitation discussions in newborns with brain injury.

Citation: Archives of Disease in Childhood -- Fetal & Neonatal Edition, 01 March 2015, vol./is. 100/2(0-1), 13592998

Author(s): Brecht, Marcus, Wilkinson, Dominic J C

Language: English

Abstract: BACKGROUND: Most deaths in severely brain-injured newborns in neonatal intensive care units (NICUs) follow discussions and explicit decisions to limit life-sustaining treatment. There is little published information on such discussions. OBJECTIVE: To describe the prevalence, nature and outcome of treatment limitation discussions (TLDs) in critically ill newborns with severe brain injury. DESIGN: A retrospective statewide cohort study. SETTING: Two tertiary NICUs in South Australia. PATIENTS: Ventilated newborns with severe hypoxic ischaemic encephalopathy and periventricular/intraventricular haemorrhage (P/IVH) admitted over a 6-year period from 2001 to 2006. MAIN OUTCOME MEASURES: Short-term outcome (until hospital discharge) including presence and content of TLDs, early childhood mortality, school-age functional outcome. RESULTS: We identified 145 infants with severe brain injury; 78/145 (54%) infants had documented TLDs. Discussions were more common in infants with severe P/IVH or hypoxic-ischaemic encephalopathy (p<0.01). Fifty-six infants (39%) died prior to discharge, all following treatment limitation. The majority of deaths (41/56; 73%) occurred in physiologically stable infants. Of 78 infants with at least one documented TLD, 22 (28%) survived to discharge, most in the setting of explicit or inferred decisions to continue treatment. Half of long-term survivors after TLD (8/16, 50%) were severely impaired at follow-up. However, two-thirds of surviving infants with TLD in the setting of unilateral P/IVH had mild or no disability. CONCLUSIONS: Some critically ill newborn infants with brain injury survive following TLDs between their parents and physicians. Outcome in this group of infants provides valuable information about the integrity of prognostication in NICU, and should be incorporated into counselling.

Publication type: journal article

Source: CINAHL

Full text: Available Highwire Press at Fetal and Neonatal
27. Time needed to achieve changes in oxygen concentration at the T-Piece resuscitator during respiratory support in preterm infants in the delivery room

**Citation:** Paediatrics & Child Health, Mar 2015, vol. 20, no. 2, p. E10., 1205-7088 (March 2015)

**Author(s):** Follett, Graeme, Cheung, Po-Yin, Pichler, Gerhard, Aziz, Khalid, Schmölder, Georg M.

**Abstract:** OBJECTIVE: To measure the time needed to achieve changes in fraction of inspired oxygen concentration (FiO\textsubscript{2}) from the oxygen blender to the facemask during simulated neonatal resuscitation.

METHOD: Two oxygen analyzers were placed at each end of the T-Piece. During simulated ventilation, the duration to achieve the set oxygen concentration at the facemask was measured. This was repeated at different gas flow rates (5 L/min, 8 L/min or 10 L/min) and different FiO\textsubscript{2} changes (0.21 to 1.0 to 0.21, with stepwise increases and decreases in 0.05, 0.1 and 0.2 increments). RESULTS: A total of 1134 measurements (378 measurements for each flow) were recorded. Overall, the mean (± SD) time required to achieve FiO\textsubscript{2} changes at 5 L/min, 8 L/min and 10 L/min was 36±15 s, 31±14 s and 28±14 s, respectively. CONCLUSION: There was a lag time of approximately 30 s to achieve the FiO\textsubscript{2} 2 at the facemask. This delay needs to be considered when making serial adjustments to FiO\textsubscript{2} 2 during neonatal resuscitation. [Publication] 8 references

**Source:** BNI

**Full text:** Available ProQuest at Paediatrics and Child Health

28. Timing of Breastfeeding Initiation and Exclusivity of Breastfeeding During the First Month of Life: Effects on Neonatal Mortality and MorbidityA Systematic Review and Meta-analysis

**Citation:** Maternal and Child Health Journal, Mar 2015, vol. 19, no. 3, p. 468-479, 1092-7875 (March 2015)

**Author(s):** Khan, Jehangir, Vesel, Linda, Bahl, Rajiv, Martines, José Carlos

**Abstract:** The purpose of this study was to review the evidence on the effect of initiation of breastfeeding early after birth and of exclusive breastfeeding during the first month in reducing neonatal mortality and morbidity. We searched Cochrane and PubMed databases for all available papers addressing our review questions and identified eleven papers. Data were extracted using a standard abstraction form. Evidence was assessed using the Grading of Recommendations Assessment, Development and Evaluation system. Meta-analysis was done using STATA 11.0. Early initiation of breastfeeding was associated with a reduced risk of neonatal mortality. Initiating breastfeeding after the first hour doubled the risk of neonatal mortality. Exclusively breastfed neonates had a lower risk of mortality and infection-related deaths in the first month than partially breastfed neonates. Exclusively breastfed neonates also had a significantly lower risk of sepsis, diarrhea and respiratory infections compared with those partially breastfed. The pooled evidence indicates that substantial benefits in reducing neonatal mortality and morbidity can be achieved with effective promotion of early initiation of breastfeeding and exclusive breastfeeding during the first month of life. [PUBLICATION] 28 references

**Source:** BNI

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**Rennie and Robertson’s Textbook of Neonatology**
Janet M Rennie
ISBN: 978 0 7020 3479 4
Barcode: T026921
Shelfmark: tbc

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