Evidence Update
June 2018 (Quarterly)
Current Journals: Tables of Contents

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<td><em>Neonatology</em></td>
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If you require full articles please email: library@uhbristol.nhs.uk
Your Outreach Librarian Helen Pullen

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**Outreach:** Your Outreach Librarian can help facilitate evidence-based practice for all in the team, as well as assisting with academic study and research. We also offer one-to-one or small group training in literature searching, critical appraisal and medical statistics. Get in touch: library@uhbristol.nhs.uk

**Literature searching:** We provide a literature searching service for any library member. For those embarking on their own research it is advisable to book some time with one of the librarians for a one-to-one session where we can guide you through the process of creating a well-focused literature research. Please email requests to library@uhbristol.nhs.uk

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**Lunchtime Drop-in Sessions**

**June (12.00-13.00)**

- 7th (Thu) Literature Searching
- 11th (Mon) Critical Appraisal
- 20th (Wed) Interpreting Statistics
- 28th (Thurs) Literature Searching

**July (13.00-14.00)**

- 5th (Thu) Critical Appraisal
- 9th (Mon) Statistics
- 19th (Thu) Literature Searching
- 23rd (Mon) Critical Appraisal

**August (12.00-13.00)**

- 1st (Wed) Statistics
- 6th (Mon) Literature Searching
- 16th (Thu) Critical Appraisal
- 22nd (Wed) Statistics
- 30th (Thu) Literature Searching
Stop by and find out more about our services. We will be here to answer any questions you may have!

June 6th: **Terrace (Level 4, Education Centre) 12.00-14.00**

June 19th: **Welcome Centre, BRI 10.00-16.00**

July 3rd: **Welcome Centre, BRI 10.00-16.00**

July 4th: **Canteen (Level 9, BRI) 12.00-14.00**

August 8th: **Foyer, Education Centre 12.00-14.00**

August 29th: **Foyer, St Michael’s Hospital 12.00-14.00**

September 5th: **Canteen (Level 9, BRI) 12.00-14.00**

September 11th: **Welcome Centre, BRI 10.00-16.00**

October 3rd: **Terrace (Level 4, Education Centre) 12.00-14.00**

November 7th: **Canteen (Level 9, BRI) 12.00-14.00**

December 5th: **Foyer, Education Centre 12.00-14.00**

December 11th: **Welcome Centre, BRI 10.00-16.00**
### Latest Evidence

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<td>Fathers' Stress in the Neonatal Intensive Care Unit: A Systematic Review</td>
<td>PubMed - Advances In Neonatal Care</td>
<td>01 April 2018</td>
<td>National Association Of Neonatal Nurses</td>
<td>Admission to the neonatal intensive care unit (NICU) is stressful for parents. Nurses often focus on maternal well-being and...</td>
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<td>Systematic review of maternal Placental Growth Factor levels in late pregnancy as a predictor of adverse intrapartum and perinatal outcomes</td>
<td>PubMed - European Journal Of Obstetrics, Gynecology, And Reproductive Biology</td>
<td>30 March 2018</td>
<td>outcomes investigated included caesarean section (CS) for fetal compromise, low Apgar score, neonatal intensive care unit (NICU)...</td>
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<td>Immersion in water during labour and birth</td>
<td>Cochrane Database of Systematic Reviews</td>
<td>16 May 2018</td>
<td>intensive care unit (NICU), maternal and/or neonatal infection, and obstetric anal sphincter injuries (OASIS). This is an update of a...</td>
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<td>In preterm and/or low birth weight infants, how does plastic wrap or bag compare with routine care for preventing hypothermia?</td>
<td>Cochrane Clinical Answers</td>
<td>18 May 2018</td>
<td>in the incidence of hypothermia on admission to the neonatal intensive care unit (NICU), which was lower with plastic wrap (on average,...</td>
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Value of abdominal ultrasound in management of necrotizing enterocolitis: a systematic review and meta-analysis

Source: PubMed - 02 May 2018 - Publisher: Pediatric Surgery International

PURPOSE: Necrotizing enterocolitis (NEC) remains a life-threatening disease among infants in the NICU. Early diagnosis and careful...

Read Summary

Videolaryngoscopy versus direct laryngoscopy for tracheal intubation in neonates

Source: Cochrane Database of Systematic Reviews - 04 June 2018

Singh 2009; Vlatten 2009). Videolaryngoscopes are portable and can be used in both the delivery room and the neonatal intensive care unit...

Read Summary

Laryngeal mask airway versus bag-mask ventilation or endotracheal intubation for neonatal resuscitation

Source: Cochrane Database of Systematic Reviews - 15 March 2018

intensive care unit (NICU) (typical RR 0.60, 95% CI 0.40 to 0.90 and typical RD -0.18, 95% CI -0.31 to -0.04; 2 studies, 191 infants;...
Prophylactic vitamin K for the prevention of vitamin K deficiency bleeding in preterm neonates.
Cochrane 2018

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<td><strong>Avoidance of subthreshold phototherapy in newborn infants (May 2018)</strong></td>
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<td>In newborn infants, subthreshold phototherapy (initiated at total bilirubin below threshold levels) has been used to avoid a subsequent readmission after birth hospitalization. A large retrospective study confirmed that subthreshold phototherapy reduced readmission rates, but the number of patients that needed to be treated to avoid a single readmission ranged from 6 to 60, depending on the predicted risk of neonatal hyperbilirubinemia [15]. Subthreshold phototherapy lengthened the newborn hospital stay and potentially exposed the infant to an unnecessary procedure, and in turn, unnecessary adverse effects and physical separation from its mother. Based on these findings, we suggest avoiding subthreshold phototherapy when there is good follow-up care after birth hospitalization. (See &quot;Treatment of unconjugated hyperbilirubinemia in term and late preterm infants&quot;, section on 'Subthreshold phototherapy'.)</td>
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| **No long-term adverse neurodevelopmental effect of neonatal caffeine therapy (May 2018)** |
| Caffeine, a respiratory stimulant, is administered prophylactically to extremely low birth weight infants (ELBW, birth weight <1000 g) to avoid mechanical ventilation in management of apnea of prematurity, which occurs in almost all ELBW infants. A recent follow-up study of participants in the Caffeine for Apnea of Prematurity trial found no adverse effects of caffeine on intelligence, attention, executive function, and behavior compared with placebo-treated controls [16]. In addition, the caffeine group performed better on tests for fine motor coordination, visuomotor integration, visual perception, and visuospatial organization at 11 years of age [16]. These results support our continued recommendation for prophylactic caffeine therapy for ELBW infants. (See "Management of apnea of prematurity", section on 'Long-term neurodevelopmental outcome'.) |
Recent Database Articles

Below is a selection of articles recently added to the healthcare databases.

If you would like any of the following articles in full text, or if you would like a more focused search on your own topic, then get in touch: library@uhbristol.nhs.uk

1. Role of antimicrobial stewardship programmes in children: a systematic review.

**Author(s):** Araujo da Silva, A R; Albernaz de Almeida Dias, D C; Marques, A F; Biscaia di Biase, C; Murni, I K; Dramowski, A; Sharland, M; Huebner, J; Zingg, W

**Source:** The Journal of hospital infection; Jun 2018; vol. 99 (no. 2); p. 117-123

**Publication Date:** Jun 2018

**Publication Type(s):** Journal Article Review

**PubMedID:** 28807835

**Abstract:** The United Nations and the World Health Organization have designated antimicrobial resistance (AMR) as a major health priority and developed action plans to reduce AMR in all healthcare settings. Establishment of institutional antimicrobial stewardship programmes (ASPs) is advocated as a key intervention to reduce antibiotic consumption in hospitals and address high rates of multi-drug-resistant (MDR) bacteria. PUBMED and the Cochrane Database of Systematic Reviews (January 2007-March 2017) were searched to identify studies reporting the effectiveness of ASPs in general paediatric wards and paediatric intensive care units (PICUs) for reducing antibiotic consumption, use of broad-spectrum/restricted antibiotics, and antibiotic resistance and healthcare-associated infections (HAIs). Neonatal units and antifungal agents were excluded. Of 2509 titles and abstracts, nine articles were eligible for inclusion in the final analysis. All studies reported a reduction in the use of broad-spectrum/restricted antibiotics or antibiotic consumption. One study reported a reduction in HAIs in a PICU, and another study evaluated bacterial resistance, showing no effect following ASP implementation. Prospective audit on antibiotic use was the most common ASP core component (eight of nine studies). Antibiotic pre-authorization was described in two studies. Other described interventions were the provision of guidelines or written information (five of nine studies), and training of healthcare professionals (one study). There is limited evidence for a reduction in antibiotic consumption and use of broad-spectrum/restricted agents following ASP implementation specifically in PICUs. Data evaluating the impact of ASPs on HAIs and AMR in PICUs are lacking. In addition, there is limited information on effective components of a successful ASP in PICUs.

**Database:** Medline

2. Critical Care in Obstetrics: Where are We.

**Author(s):** Chawla, Sushil; Jose, T; Paul, Manish

**Source:** Journal of obstetrics and gynaecology of India; Jun 2018; vol. 68 (no. 3); p. 155-163

**Publication Date:** Jun 2018

**Publication Type(s):** Journal Article Review

**PubMedID:** 29895993
Abstract: Maternal mortality is disastrous news for the society, family, newborn, and the obstetrician. Yet, we all who are care providers to these apparently healthy women carrying another life within them are dumbfounded by the clinical conditions arising due to the pregnancy or the effects of the pregnancy, that it becomes difficult to provide an ideal care to them. The rapid uprisings of a condition and the worsening of commonly occurring benign conditions—preeclampsia, hemorrhage, etc., necessitates that all obstetricians are well versed with the physiological changes and should be able to not only provide the best of obstetric care to the mother and the newborn but also perform or assist in performance of life-saving procedures.

Database: Medline

3. Preventing Continuous Positive Airway Pressure Failure: Evidence-Based and Physiologically Sound Practices from Delivery Room to the Neonatal Intensive Care Unit.

Author(s): Wright, Clyde J; Sherlock, Laurie G; Sahni, Rakesh; Polin, Richard A

Source: Clinics in perinatology; Jun 2018; vol. 45 (no. 2); p. 257-271

Publication Date: Jun 2018

Publication Type(s): Journal Article Review

PubMedID: 29747887

Abstract: Routine use of continuous positive airway pressure (CPAP) to support preterm infants with respiratory distress is an evidenced-based strategy to decrease incidence of bronchopulmonary dysplasia. However, rates of CPAP failure remain unacceptably high in very premature neonates, who are at high risk for developing bronchopulmonary dysplasia. Using the GRADE framework to assess the quality of available evidence, this article reviews strategies aimed at decreasing CPAP failure, starting with delivery room interventions and followed through to system-based efforts in the neonatal intensive care unit. Despite best efforts, some very premature neonates fail CPAP. Also reviewed are predictors of CPAP failure in this vulnerable population.

Database: Medline

4. Ethical dilemmas of recording and reviewing neonatal resuscitation.

Author(s): den Boer, Maria C; Houtlosser, Mirjam; van Zanten, Henriëtte Anje; Foglia, Elizabeth E; Engberts, Dirk P; Te Pas, Arjan B

Source: Archives of disease in childhood. Fetal and neonatal edition; May 2018; vol. 103 (no. 3); p. F280

Publication Date: May 2018

Publication Type(s): Journal Article Review

PubMedID: 29353257

Abstract: Neonatal resuscitation is provided to approximately 3% of neonates. Adequate ventilation is often the key to successful resuscitation, but this can be difficult to provide. There is increasing evidence that inappropriate respiratory support can have severe consequences. Several neonatal intensive care units have recorded and reviewed neonatal resuscitation procedures for quality assessment, education and research; however, ethical dilemmas sometimes make it difficult to implement this review process. We reviewed the literature on the development of recording and
reviewing neonatal resuscitation and have summarised the ethical concerns involved. Recording and reviewing vital physiological parameters and video imaging of neonatal resuscitation in the delivery room is a valuable tool for quality assurance, education and research. Furthermore, it can improve the quality of neonatal resuscitation provided. We observed that ethical dilemmas arise as the review process is operating in several domains of healthcare that all have their specific moral framework with requirements and conditions on issues such as consent, privacy and data storage. These moral requirements and conditions vary due to local circumstances. Further research on the ethical aspects of recording and reviewing is desirable before wider implementation of this technique can be recommended.

**Database:** Medline

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5. Targeted Temperature Management in Brain Injured Patients.

**Author(s):** Rincon, Fred

**Source:** Neurosurgery clinics of North America; Apr 2018; vol. 29 (no. 2); p. 231-253

**Publication Date:** Apr 2018

**Publication Type(s):** Journal Article Review

**PubMedID:** 29502714

**Abstract:** Evidence from animal models indicates that lowering temperature by a few degrees can produce substantial neuroprotection. In humans, hypothermia has been found to be neuroprotective with a significant impact on mortality and long-term functional outcome only in cardiac arrest and neonatal hypoxic-ischemic encephalopathy. Clinical trials have explored the potential role of maintaining normothermia and treating fever in critically ill brain injured patients. This review concentrates on basic concepts to understand the physiologic interactions of thermoregulation, effects of thermal modulation in critically ill patients, proposed mechanisms of action of temperature modulation, and practical aspects of targeted temperature management.

**Database:** Medline
# Departmental News

**News, Research, Conferences, Training etc**

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<td><a href="mailto:library@uhbristol.nhs.uk">library@uhbristol.nhs.uk</a></td>
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Library Opening Times

Staffed hours: 8am-5pm, Monday to Friday
Swipe-card access: 7am-11pm, seven days a week

Level Five, Education and Research Centre
University Hospitals Bristol

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