PICU
Current Awareness Newsletter
March 2015
Outreach

Your Outreach Librarian can help facilitate evidence-based practice for all PICU members of staff, as well as assisting with academic study and research. We can help with literature searching, obtaining journal articles and books, and setting up individual current awareness alerts.

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 1 to 1 session where we can guide you through the process of creating a well-focused literature research and introduce you to the health databases access via NHS Evidence.

Critical Appraisal Training

We also offer one-to-one or small group training in literature searching, accessing electronic journals, and critical appraisal/Statistics. These are essential courses that teach how to interpret clinical papers.

Books

Books can be searched for using SWIMS our online catalogue at www.swims.nhs.uk. Books and journals that are not available on site or electronically may be requested from other locations. Please email requests to: thomas.osborne@uhbristol.nhs.uk
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If you require full articles please email me @ Thomas.Osborne@UHBristol.nhs.uk

Pediatrics 2015 Vol.135 Issue 2

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Research on Medical Practices and the Ethics of Disclosure
Full Text
Assessing Parenting Behaviors to Improve Child Outcomes
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Redefining Success in the PICU: New Patient Populations Shift Targets of Care
Full Text
Natural BMI Reductions and Overestimation of Obesity Trial Effectiveness
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A New Commitment to Newborn Survival
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Addressing Social Determinants of Health at Well Child Care Visits: A Cluster RCT
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Epidemiology of Infant Meningococcal Disease in the United States, 2006-2012
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Development of Hospital-Based Guidelines for Skeletal Survey in Young Children With Bruises
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Safety of Measles-Containing Vaccines in 1-Year-Old Children
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Identifying Autism in a Brief Observation
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Paternal Depression in the Postnatal Period and Child Development: Mediators and Moderators
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Intranasal Triamcinolone and Growth Velocity
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Oropharyngeal Colostrum Administration in Extremely Premature Infants: An RCT
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Full Text (PDF)
Sleep Duration, Restfulness, and Screens in the Sleep Environment
Full Text
Potential Effect of Physical Activity Calorie Equivalent Labeling on Parent Fast Food Decisions
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Morphine Versus Clonidine for Neonatal Abstinence Syndrome
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Tapentadol Toxicity in Children
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Regional Variation in Antenatal Corticosteroid Use: A Network-Level Quality Improvement Study
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Cardiovascular Risk Factors in Children After Repeat Doses of Antenatal Glucocorticoids: An RCT
Full Text
Family Hardships and Serum Cotinine in Children With Asthma
Full Text
SCognitive-Behavioral Counseling for Exclusive Breastfeeding in Rural Pediatrics: A Cluster RCT
Variation in Rotavirus Vaccine Coverage by Provider Location and Subsequent Disease Burden
Quality Improvement Measures in Pulse-Oximetry Newborn Heart Screening: A Time Series Analysis

Full Text

Quality Improvement Initiative to Increase Influenza Vaccination in Pediatric Cancer Patients

Full Text

Caustic Ingestions Mimicking Anaphylaxis: Case Studies and Literature Review

Full Text

Eculizumab to Treat Antibody-Mediated Rejection in a 7-Year-Old Kidney Transplant Recipient

Full Text

The Recommendation To Not Use Bronchodilators Is Not Supported by the Evidence

Full Text

Author’s Response

Full Text

Clinical Report: Guidance for the Clinician in Rendering Pediatric Care: Promoting Optimal Development:

Full Text

Policy Statement: Recommended Childhood and Adolescent Immunization Schedule—United States, 2015

COMMITTEE ON INFECTIOUS DISEASES

Full Text

Policy Statement: AAP Publications Reaffirmed or Retired

Full Text

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**Current Opinion in Pediatrics   Vol 27 Issue 1**

**Advances in unrelated and alternative donor hematopoietic cell transplantation for nonmalignant disorders**

**New developments in pediatric venous thromboembolism and anticoagulation, including the target-specific oral anticoagulants**

**Neurofibromatosis-related tumors: emerging biology and therapies**

**Introduction and overview to issue on new developments in pediatric hematology/oncology**

**Translating genomic discoveries to the clinic in pediatric oncology**

**Update on biology and treatment of T-cell acute lymphoblastic leukaemia**

**Medial epicondyle fractures in children**

**Foot deformities in children with cerebral palsy**

**Considerations and intervention in congenital muscular torticollis**

**Update on persistent symptoms associated with Lyme disease**

**Importance of viruses in acute otitis media**

**Controlling acute rheumatic fever and rheumatic heart disease in developing countries: are we getting closer?**

**The contribution of extended-spectrum β-lactamases to multidrug-resistant infections in children**
Noninvasive ventilation for acute respiratory failure

Hypercapnia: clinical relevance and mechanisms of action

Extracorporeal life support for severe acute respiratory distress syndrome

Novel approaches to minimize ventilator-induced lung injury

Balancing neuromuscular blockade versus preserved muscle activity

Monitoring and preventing diaphragm injury

Stem cells for respiratory failure

Selecting the ‘right’ positive end-expiratory pressure level

How to ventilate patients without acute respiratory distress syndrome?

Discontinuation of ventilatory support: new solutions to old dilemmas

Prevention of acute respiratory distress syndrome

Care of the Child With Ebola Virus Disease*

Low Thiamine Levels in Children With Type 1 Diabetes and Diabetic Ketoacidosis: A Pilot Study

Comparison Between Noninvasive Mechanical Ventilation and Standard Oxygen Therapy in Children Up to 3 Years Old With Respiratory Failure After Extubation: A Pilot Prospective...

Association of Left Ventricular Systolic Function and Vasopressor Support With Survival Following Pediatric Out-of-Hospital Cardiac Arrest*

Association of Bleeding and Thrombosis With Outcome in Extracorporeal Life Support*

Rhino/Enteroviral Infections in the PICU: The Uncertainty of Diagnosis and Interpretation of Clinical Significance*

The Clinical Relevance of Pediatric Post–Cardiac Arrest Myocardial Dysfunction and Hemodynamic Instability*

Complications During Extracorporeal Membrane Oxygenation: Why Collaboration Is Key*

Pediatric Burn Injury in Iraq and Afghanistan*
News from the pediatric anesthesia societies (page 221)
Optimal design in pediatric pharmacokinetic and pharmacodynamic clinical studies (pages 222–230)
Anesthetic considerations in myofibrillar myopathy (pages 231–238)
A comparison of functional magnetic resonance imaging findings in children with and without a history of early exposure to general anesthesia (pages 239–246)
Effect of carboxyhemoglobin on postoperative complications and pain in pediatric tonsillectomy patients (pages 247–252)
Confirmation of local anesthetic distribution by radio-opaque contrast spread after ultrasound guided infraclavicular catheters placed along the posterior cord in children: a prospective analysis (pages 253–257)
Evaluation of the minimum volume of salvage blood required for the successful use of two different autotransfusion devices (pages 258–264)
Sedation monitoring during open muscle biopsy in children by Comfort Score and Bispectral Index – a prospective analysis (pages 265–271)
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Comparison of pediatric perioperative risk assessment by ASA physical status and by NARCO-SS (neurological, airway, respiratory, cardiovascular, other–surgical severity) scores (pages 309–316)
A Pilot study to determine whether visually evoked hemodynamic responses are preserved in children during inhalational anesthesia (pages 317–326)
Caudal clonidine and apnea risk (page 327)
Response to Makkar and Singh's comment on our article 'Determination of optimum time for intravenous cannulation after induction with sevoflurane and nitrous oxide in children premedicated with midazolam' (pages 328–329)
Development and validation of a risk score to predict the probability of postoperative vomiting in pediatric patients: the VPOP score (page 330)
Development and validation of a risk score to predict the probability of postoperative vomiting in pediatric patients: the VPOP score

New NICE Guidance

Gastro-oesophageal reflux disease: recognition, diagnosis and management in children and young people (NG1)
January 2015
Latest relevant Systematic Reviews from the Cochrane Library

If you require full articles, or a more enhanced search of any of the below topics please email me @ Thomas.Osborne@UHBristol.nhs.uk

Peritoneal dialysis for acute kidney injury
Linfeng Liu, Ling Zhang, Guan J Liu and Ping Fu
February 2015

Loop diuretics for patients receiving blood transfusions
Michael Sarai and Aaron M Tejani
February 2015

Videolaryngoscopy versus direct laryngoscopy for tracheal intubation in neonates
Krithika Lingappan, Jennifer L Arnold, Thomas L Shaw, Caraciolo J Fernandes and Mohan Pammi
Online Publication Date: February 2015

Pressure-controlled versus volume-controlled ventilation for acute respiratory failure due to acute lung injury (ALI) or acute respiratory distress syndrome (ARDS)
Binila Chacko, John V Peter, Prathap Tharyan, George John and Lakshmanan Jeyaseelan
Online Publication Date: February 2015

Early versus late tracheostomy for critically ill patients
Brenda NG Andriolo, Régis B Andriolo, Humberto Saconato, Álvaro N Atallah and Orsine Valente
Online Publication Date: January 2015

Single induction dose of etomidate versus other induction agents for endotracheal intubation in critically ill patients
Eric A Bruder, Ian M Ball, Stacy Ridi, William Pickett and Corinne Hohl
Online Publication Date: January 2015

Protocol-directed sedation versus non-protocol-directed sedation to reduce duration of mechanical ventilation in mechanically ventilated intensive care patients
Leanne M Aitken, Tracey Bucknall, Bridie Kent, Marion Mitchell, Elizabeth Burmeister and Samantha J Keogh
Online Publication Date: January 2015

Continuous positive airway pressure (CPAP) for acute bronchiolitis in children
Kana R Jat and Joseph L Mathew
Online Publication Date: January 2015

NHS Behind the Headlines
Over two hours screen time a day may raise a child's blood pressure

Thursday Feb 26 2015

"Watching TV for more than two hours a day increases the risk of raised blood pressure in children," The Daily Telegraph reports. A large study, involving more than 5,000 children who were followed up over two years…

Peanut butter for non-allergic babies may reduce later allergies

Tuesday Feb 24 2015

"The cure for peanut allergy – peanuts, from the age of four months," says The Guardian. This is bad advice...

Impact of daytime naps on children's sleep quality uncertain

Wednesday Feb 18 2015

“Daytime naps ‘should stop at the age of two’: Children have poorer quality sleep if they rest during the afternoon,” is the inaccurate headline on the Mail Online…

Teen screen time linked to less sleep

Tuesday Feb 3 2015

"Teenagers sleep less when they have more computer screen time says study," The Guardian reports. A Norwegian study found an association between the use of any type of electronic screen device in the evening and disrupted sleep patterns…

New activity in Uptodate/DynaMed

Sensitivity to nonsteroidal antiinflammatory drugs in children with chronic urticaria (February 2015)

In many patients with chronic spontaneous urticaria (CSU), nonsteroidal antiinflammatory drugs (NSAIDs) exacerbate symptoms. NSAID sensitivity has been demonstrated in 20 to 40 percent of adults with CSU and typically presents as an increase in urticaria lesions appearing one to four hours after ingestion. However, data in children have been limited. In a new study of 68 children with CSU and no history of previous reactions to NSAIDs, subjects underwent single-blind challenge with aspirin, and 10 to 24 percent developed increased symptoms, with the majority experiencing isolated lip angioedema [13]. Clinicians should inform patients with CSU (and their caretakers) about potential sensitivity to NSAIDs. (See "Chronic urticaria: Standard management and patient education", section on 'Avoidance of exacerbating factors'.)
Safety of calcineurin inhibitors for treatment of atopic dermatitis in children (February 2015)

Topical calcineurin inhibitors can be used as an alternative to topical corticosteroids for the treatment of mild to moderate atopic dermatitis. In 2005, based upon case reports, animal studies, and the known risks with systemic calcineurin inhibitors, the US Food and Drug Administration (FDA) issued boxed warnings about a possible link between the topical calcineurin inhibitors and cancer. An analysis of data from 7500 children enrolled between 2004 and 2014 in the Pediatric Eczema Elective Registry (PEER), an ongoing post-marketing cohort study, found a trend toward increased risk for lymphoma and leukemia that was not statistically significant compared with incidence in the general population based on the SEER database [20]. The small sample size and wide confidence intervals for these data may not exclude all risk. While awaiting data from a larger study, it seems prudent to use topical calcineurin inhibitors only as second-line therapy for the management of atopic dermatitis in areas at high risk for skin atrophy when treated with topical corticosteroids. (See "Treatment of atopic dermatitis (eczema)", section on 'Long-term safety concerns'.)

Utility of abdominal examination findings after blunt pediatric trauma (February 2015)

Children with significant blunt abdominal trauma warrant a complete physical examination as part of the secondary survey and consistent with the principles of Advanced Trauma Life Support. In a prospective, multicenter observational study of more than 12,000 children undergoing evaluation for blunt torso trauma, four abdominal exam findings were associated with an increased risk of intraabdominal injury (IAI) compared with a baseline risk of 5 percent for patients without abdominal pain or tenderness: peritoneal irritation (44 percent), abdominal distension (31 percent), any abdominal tenderness (13 percent), and absent bowel sounds (8 percent) [24]. Serial examinations are necessary in children with abdominal trauma because serious IAI may not be apparent during the initial examination. (See "Overview of blunt abdominal trauma in children", section on 'Abdomen'.)

Strict cognitive rest associated with more symptoms in children with concussions (February 2015)

Strict cognitive rest, including avoidance of reading, video games, loud music, and screen time (computer, tablet, television, or smart phone), limitation of social activities, and absence from school, has been advocated as a primary treatment for pediatric concussion. However, evidence for this approach is sparse. In a trial of 99 patients aged 11 to 22 years who were diagnosed with a concussion after pediatric emergency department evaluation (36 percent with loss of consciousness), all subjects reduced physical activity and one group was assigned to strict cognitive rest for five days while the other was assigned to usual care (one to two days of rest followed by gradual return to full cognitive activities) [25]. Strict cognitive rest was associated with significantly more daily reported postconcussive symptoms during the 10 days of follow-up, while there were no differences in neurocognitive function or balance outcomes at three and 10 days after injury. Thus, strict cognitive rest was harmful in this trial. We suggest an individualized approach to cognitive rest, in which patients are instructed to avoid mental activities that worsen symptoms and are followed closely by a clinician with expertise in managing concussions. (See "Concussion in children and adolescents: Management", section on 'Cognitive rest'.)

Caustic ingestions mimicking anaphylaxis in young children (February 2015)

Accidental ingestion of caustic liquids by young children may be mistaken for anaphylaxis because both may present with nausea, vomiting, difficulty swallowing, and swelling of the lips, tongue, or pharynx. In a report of two cases and review of the literature, clinical clues to the diagnosis of caustic
ingestion include the lack of a history of food allergy or other allergic disease and failure to respond to treatment for anaphylaxis [26]. Caretakers may not have witnessed the ingestion, or may not report it for fear of reprisal. Careful visualization of the affected areas with endoscopy or microlaryngoscopy can distinguish caustic ingestion from anaphylaxis by identifying ulceration and mucosal damage to the upper airway and esophagus. Preparations should be in place to intubate, if necessary, when manipulating a compromised airway. (See "Differential diagnosis of anaphylaxis in children and adults", section on 'Caustic ingestion (young children)' and "Caustic esophageal injury in children".)

Seat belt sign and intraabdominal injury in children (February 2015)

The seat belt sign consists of abdominal wall bruising in a linear pattern across the abdomen in restrained children who are injured in a motor vehicle collision. In a prospective observational study of 1864 children injured in a motor vehicle collision who underwent definitive determination of the presence of an intraabdominal injury (IAI), these injuries occurred more frequently in children demonstrating a seat belt sign than in those who did not (19 versus 12 percent) [27]. The seat belt sign was independently associated with IAI after adjustment for several other physical findings, including abdominal or costal margin pain. In addition, among all patients with normal or near-normal mental status and no abdominal pain, IAI was found in 6 percent of children with a seat belt sign compared with 2 percent of patients without it. Thus, the seat belt sign is an important indicator of IAI in children with blunt abdominal trauma. (See "Overview of blunt abdominal trauma in children", section on 'Seat belt sign'.)

Quick Exercise

Calculate the Relative Risk for these two groups of patients in this RCT. For more information on how to do this please email library@uhbristol.nhs.uk
**Current Awareness Database Articles**

If you require full articles, or a more enhanced search of any of the below topics please email me at Thomas.Osborne@UHBristol.nhs.uk

**Title:** Communication intervention in the neonatal intensive care unit: Can it backfire?

**Citation:** Journal of Palliative Medicine, February 2015, vol./is. 18/2 (157-161), 1096-6218;1557-7740 (01 Feb 2015)

**Author(s):** Clarke-Pounder J.P., Boss R.D., Roter D.L., Hutton N., Larson S., Donohue P.K.

**Language:** English

**Abstract:** Background: For parents of a critically ill infant, good communication may help alleviate stress and anxiety. To improve communication, physicians must be responsive to families' needs and values surrounding the care of their hospitalized infant. Objective: We adapted a Decision-Making Tool for the Neonatal Intensive Care Unit (N-DMT) to encourage consideration of family concerns and preferences in daily care planning. Design: This was a randomized controlled design.

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**Title:** Human milk and breastfeeding outcomes in infants with congenital heart disease

**Citation:** Breastfeeding Medicine, February 2015, vol./is. 10/1 (31-37), 1556-8253;1556-8342 (01 Feb 2015)

**Author(s):** Torowicz D.L., Seelhorst A., Froh E.B., Spatz D.L.

**Language:** English
Abstract: Background: Although human milk (HM) is the recommended form of infant nutrition, the provision of HM feeding among infants with congenital heart disease in the cardiac intensive care unit is unknown. Therefore the aim of the study was to understand the prevalence of pumping initiation, HM feeding, and breastfeeding patterns of mothers and their infants born with congenital heart disease.

Title: Controversies in nutritional support for critically ill children

Citation: Seminars in Pediatric Surgery, February 2015, vol./is. 24/1(20-24), 1055-8586;1532-9453 (01 Feb 2015)

Author(s): Askegard-Giesmann J.R., Kenney B.D.

Abstract: Nutritional support for critically ill infants and children is of paramount importance and can greatly affect the outcome of these patients. The energy requirement of children is unique to their size, gestational age, and physiologic stress, and the treatment algorithms developed in adult intensive care units cannot easily be applied to pediatric patients. This article reviews some of the ongoing controversial topics of fluid, electrolyte, and nutritional support for critically ill pediatric patients focusing on glycemic control and dysnatremia. The use of enteral and parenteral nutritional as well as parenteral nutritional-associated cholestasis will also be discussed.

Title: Assessing need for palliative care services for children in Mexico

Citation: Journal of Palliative Medicine, February 2015, vol./is. 18/2(162-166), 1096-6218;1557-7740 (01 Feb 2015)

Author(s): Cardenas-Turanzas M., Tovalin-Ahumada H., Romo C.G., Okhuysen-Cawley R.

Abstract: Background: Pediatric palliative care increasingly became integrated into health care institutions worldwide over the last decade. However, in Mexico and other developing countries with large populations of children, little is known regarding the need for palliative care services. We aimed to assess the need for palliative and end-of-life care for children dying in public hospitals affiliated with Secretaria de Salud in Mexico. Measurement: We conducted a retrospective review of deaths of children (1-17 years old) occurring during 2011 and determined deaths associated with underlying complex chronic conditions by reviewing the four causes of death listed in the death certificate. We collected sociodemographic and clinical data and utilized univariate and multivariate analyses to determine factors associated with complex chronic conditions.

Title: Innovations and controversies in the monitoring of pediatric patients in the ICU

Citation: Seminars in Pediatric Surgery, February 2015, vol./is. 24/1(32-36), 1055-8586;1532-9453 (01 Feb 2015)

Author(s): Bliss D.

Abstract: In recent years, the number of monitoring options for ICU clinicians has continued to proliferate, but there has been limited information regarding their value in shortening length of stay, averting complications including death, or improving functional outcomes. However, innovative new approaches hold the promise of integrating data sets to help clinicians avert complications and to detect evolving organ dysfunction earlier.

Title: Sedation and analgesia in the ICU

Citation: Seminars in Pediatric Surgery, February 2015, vol./is. 24/1(37-46), 1055-8586;1532-9453 (01 Feb 2015)

Author(s): Zalieckas J., Weldon C.

Abstract: The alleviation of pain and anxiety is an important component of caring for a critically ill child. Sedation and analgesia regimens are utilized as adjuncts to procedures, facilitate mechanical ventilation, and assist with management of a critically ill child. Although sedation regimens have been used extensively across
intensive care units, the data are lacking as to the best drugs, dosing, regimens, and short- and long-term safety profiles for use in the pediatric population. Sedation regimens continue to be a challenging aspect of the care of a critically ill child, and they have been associated with significant morbidity in this population. This article will discuss the sedative use in the intensive care unit, morbidity associated with sedatives and analgesics, and the importance of establishing sedation and analgesia algorithms to reduce morbidity and mortality.

Title: Laser treatment for retinopathy of prematurity in neonatal intensive care units [Hungarian] Koraszulotték ideghartya-elváltozása miatt lezerkezések neonatalis intenzív centrumokban. Csecsemő-Szem-Mentő Program

Citation: Orvosi Hetilap, February 2015, vol./is. 156/5(192-196), 0030-6002;1788-6120 (01 Feb 2015)

Author(s): Maka E., Imre L., Somogyvari Z., Nemeth J.

Abstract: Introduction: Retinopathy of prematurity is a leading cause of childhood blindness around the world. Aim: The Department of Ophthalmology in Semmelweis University and the Neonatal Emergency and Ambulance Service called Peter Cerny started an innovation called Premature Eye Rescue Program to reduce the non-essential transport of premature babies suffering from retinopathy of prematurity. Method: During the first 5 years 186 eyes of 93 premature babies were treated bedside with stage 3 retinopathy of prematurity in the primary hospitals. Results: In this first 5-years period the authors reduced the event of transports of premature babies for laser treatment; 93 children avoided the unnecessary transport, saving altogether 21,930 kilometres distance for children as well as the ambulance service. Conclusions: The Premature Eye Rescue Program offers an effective and good alternative method for treatment of retinopathy in the primary hospitals. The authors propose the national extension of this program.

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Citation: Journal of Palliative Medicine, February 2015, vol./is. 18/2(157-161), 1096-6218;1557-7740 (01 Feb 2015)


Abstract: Background: For parents of a critically ill infant, good communication may help alleviate stress and anxiety. To improve communication, physicians must be responsive to families' needs and values surrounding the care of their hospitalized infant. Objective: We adapted a Decision-Making Tool for the Neonatal Intensive Care Unit (N-DMT) to encourage consideration of family concerns and preferences in daily care planning. Design: This was a randomized controlled design. Setting/Subjects: Parents and providers of critically ill neonates were eligible. Parents were randomized to an intervention group (using the N-DMT) or standard of care. N-DMT information was shared through the electronic medical record and communicated directly to the primary provider. Measurements: Daily rounds on all infants were audio recorded. Parents completed the State-Trait Anxiety Inventory at the first interview and 2 weeks later. Parents completed the Family Inventory of Needs-Pediatrics (FIN-PED) survey and an N-DMT-specific survey 2 weeks postenrollment.

Title: Human milk and breastfeeding outcomes in infants with congenital heart disease

Citation: Breastfeeding Medicine, February 2015, vol./is. 10/1(31-37), 1556-8253;1556-8342 (01 Feb 2015)

Author(s): Torowicz D.L., Seelhorst A., Froh E.B., Spatz D.L.

Abstract: Background: Although human milk (HM) is the recommended form of infant nutrition, the provision of HM feeding among infants with congenital heart disease in the cardiac intensive care unit is unknown. Therefore the aim of the study was to understand the prevalence of pumping initiation, HM feeding, and breastfeeding patterns of mothers and their infants born with congenital heart disease. Subjects and Methods: This was a prospective cohort study conducted a large children’s hospital with a cardiac referral program and unit. All women with infants with congenital heart disease were approached for enrollment in order to document HM prevalence. Results: The majority of women (89%) initiated lactation via pumping for their infants. On
average, mothers pumped five to six times per day, and mothers were able to achieve a milk supply of over 500mL/day. Once infants received enteral feeds, over 70% of the infant diet was HM. Very few (13%) infants were directly breastfed, the rest received HM via gavage or bottle. There was a significant difference in pumping initiation based on where the infant was born, with mothers delivering in the hospital having a significantly higher pumping initiation rate (96% born in this hospital, 67% born in an outside hospital).

Conclusions: Mothers who have infants diagnosed with congenital heart disease should be encouraged to initiate pumping for their infants. Future research is warranted regarding the dose response of HM and specific health outcomes and the need for postdischarge services for these families.

Title: Tetanus and Clostridium tetani - A brief review [German] Wundstarrkrampf und Clostridium tetani

Citation: Medizinische Monatsschrift fur Pharmazeuten, February 2015, vol./is. 38/2(57-60), 0342-9601 (01 Feb 2015)

Author(s): Stock I.

Abstract: Tetanus is an acute, often fatal, disease caused by an exotoxin (tetanospasmin) produced by the anaerobic, gram-positive spore-forming bacterium Clostridium tetani. It is characterized by generalized rigidity and convulsive spasms of skeletal muscles. In most industrialized countries, tetanus is a rare disease. However, in many tropical and subtropical countries with low vaccination coverage and poor medical care, it is still widely distributed. This applies in particular for neonatal tetanus. About 50 000 newborns and infants die each year from consequences from this severe illness. Management of tetanus involves neutralization of free circulating toxin, adequate antibacterial and symptomatic therapy as well as intensive care of the patient. For prophylaxis of the disease, active tetanus toxoid vaccination is the method of choice.

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Abstract: The alleviation of pain and anxiety is an important component of caring for a critically ill child. Sedation and analgesia regimens are utilized as adjuncts to procedures, facilitate mechanical ventilation, and assist with management of a critically ill child. Although sedation regimens have been used extensively across intensive care units, the data are lacking as to the best drugs, dosing, regimens, and short- and long-term safety profiles for use in the pediatric population. Sedation regimens continue to be a challenging aspect of the care of a critically ill child, and they have been associated with significant morbidity in this population. This article will discuss the sedative use in the intensive care unit, morbidity associated with sedatives and analgesics, and the importance of establishing sedation and analgesia algorithms to reduce morbidity and mortality.

Title: Achieving energy goals at day 4 after admission in critically ill children; predictive for outcome?

Abstract: Summary Background & aims Adequate nutritional intake is essential during pediatric intensive care admission. We investigated whether achievement of energy intake goals at day 4 after admission and route of nutrition were associated with improved outcome. Methods Observational study using prospectively acquired data. Patients receiving enteral and/or parenteral nutrition were included. The energy intake target range at day 4 after admission was 90-110% of resting energy expenditure +10%. Acute malnutrition was defined as weight-for-age < -2 SD. Clinical outcome measures were length of stay, days on ventilator, duration of antibiotics and number of new infections. Data as median (minmax).
Title: A comparison of mid-forehead and axillary temperatures in newborn intensive care.

Citation: Journal of Perinatology, 01 February 2015, vol./is. 35/2(120-122), 07438346

Author(s): Robertson-Smith, J, McCaffrey, F T, Sayers, R, Williams, S, Taylor, B J

Abstract: Objective: To evaluate accuracy of mid-forehead (MFH) thermometry compared with digital axilla (DAT) temperatures in infants in newborn intensive care. Study design: A comparative study of MFH and DAT temperatures of newborn infants receiving tertiary-level intensive care. All admissions were considered and the following exclusion criteria applied: 'in extremis', hypoxic ischemic encephalopathy or non-English-speaking parents. Foot temperatures, infant and environmental variables were measured.

Title: Does diagnosis influence end-of-life decisions in the neonatal intensive care unit?

Citation: Journal of Perinatology, 01 February 2015, vol./is. 35/2(151-154), 07438346

Author(s): Weiner, J, Sharma, J, Lantos, J, Kilbride, H

Abstract: Objective: To determine the influence of physiological status and diagnosis at the time of death on end-of-life care. Study Design: Retrospective descriptive study in a regional referral level IV neonatal intensive care unit (NICU) of infants who died from 1 January 1999 to 31 December 2008. Infants were categorized based on diagnosis (very preterm, congenital anomalies or other) and level of stability. Primary outcome was level of clinical service provided at end of life (care withheld, care withdrawn or full resuscitation).


Citation: Respiratory Care, 01 February 2015, vol./is. 60/2(0-), 00201324

Title: Overcoming the practical challenges of electroencephalography for very preterm infants in the neonatal intensive care unit

Citation: Acta Paediatrica, International Journal of Paediatrics, February 2015, vol./is. 104/2(152-157), 0803-5253;1651-2227 (01 Feb 2015)

Author(s): Lloyd R.O., Goulding R.M., Filan P.M., Boylan G.B.

Abstract: Aim Long-term electroencephalogram (EEG) recording is increasingly being used in the neonatal period, but application and maintenance of the EEG electrodes is challenging, especially in preterm infants. This study proposes a practical method of electrode application that can be used in the neonatal intensive care unit (NICU).

Title: Neonatal procedural pain can be assessed by computer software that has good sensitivity and specificity to detect facial movements

Citation: Acta Paediatrica, International Journal of Paediatrics, February 2015, vol./is. 104/2(e63-e69), 0803-5253;1651-2227 (01 Feb 2015)

Author(s): Heiderich T.M., Leslie A.T.F.S., Guinsburg R.

Abstract: Aim The difficulty in assessing pain during the neonatal period is one of the main obstacles for appropriate analgesia in intensive care units. The aim of this study was to develop and validate computer software to monitor neonatal facial movements of pain in real time.
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