

PICU

Current Awareness Newsletter

April 2015



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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.

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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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Tables of Contents from Paediatric & Critical Care journals

If you require full articles please email me @
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Pediatrics 2015 Vol.135 Issue 3

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Medical Journals and Free Speech

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Progress in the Control of Childhood Obesity

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Sucrose and Warmth for Analgesia in Healthy Newborns: An RCT

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Intellectual and Academic Functioning of School-Age Children With Single-Suture Craniosynostosis

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Cognitive Outcomes After Neonatal Encephalopathy

and for the Hypothermia Extended Follow-up Subcommittee of the Eunice Kennedy Shriver NICHD Neonatal Research Network

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A School-Based Sleep Education Program for Adolescents: A Cluster Randomized Trial

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Motivational Interviewing With Parents for Obesity: An RCT

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Diet, Exercise, and Endothelial Function in Obese Adolescents

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Utility of Symptoms to Predict Treatment Outcomes in Obstructive Sleep Apnea Syndrome

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Medical Augmentation of Labor and the Risk of ADHD in Offspring: A Population-Based Study

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Hair Nicotine Levels in Children With Bronchopulmonary Dysplasia

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Youth Tobacco Product Use in the United States

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Sodium and Sugar in Complementary Infant and Toddler Foods Sold in the United States

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Medication-Related Emergency Department Visits in Pediatrics: a Prospective Observational Study
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Noninvasive Ventilation Strategies for Early Treatment of RDS in Preterm Infants: An RCT
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Mental Health of Extremely Low Birth Weight Survivors in Their 30s
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The Great Sleep Recession: Changes in Sleep Duration Among US Adolescents, 1991–2012
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Timing of Initial Well-Child Visit and Readmissions of Newborns
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Timing of Opioid Administration as a Quality Indicator for Pain Crises in Sickle Cell Disease
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Azithromycin in Early Infancy and Pyloric Stenosis
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A Comparison of Individual- Versus Practice-Level Measures of the Medical Home
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Vaccination, Underlying Comorbidities, and Risk of Invasive Pneumococcal Disease
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Headache in Traumatic Brain Injuries From Blunt Head Trauma
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Prevalence of Duchenne and Becker Muscular Dystrophies in the United States
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Nonpharmacologic Treatment of Functional Abdominal Pain Disorders: A Systematic Review
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Butyrfentanyl Overdose Resulting in Diffuse Alveolar Hemorrhage
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Successful Treatment of an Adolescent With *Naegleria fowleri* Primary Amebic Meningoencephalitis
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Hepatocellular Carcinoma in Tyrosinemia Type 1 Without Clear Increase of AFP
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[Technical Report: The Impact of Marijuana Policies on Youth: Clinical, Research, and Legal Update](#)
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Current Opinion in Pediatrics Vol 27 Issue 2

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[What is new for patent ductus arteriosus management in premature infants in 2015?](#)

[Long-chain polyunsaturated fatty acids supplementation in preterm infants](#)

[Donor human milk for very low birth weights: patterns of usage, outcomes, and unanswered questions](#)

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[Clinical manifestations of autosomal recessive polycystic kidney disease](#)

[Autosomal dominant polycystic kidney disease in children](#)

[Nephronophthisis and related syndromes](#)

[The role of cilia in the pathogenesis of cystic kidney disease](#)

[MicroRNAs in the pathogenesis of cystic kidney disease](#)

[Recent progress in the genetics and epigenetics of paraoxonase: why it is relevant to children's environmental health](#)

[Developmental origins of health and disease: a paradigm for understanding disease cause and prevention](#)
[Impact of hospital-based environmental exposures on neurodevelopmental outcomes of preterm infants](#)

Current Opinion in Critical Care 2015 - Volume 21 Issue 2

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[Blood pressure management in acute intracerebral hemorrhage: current evidence and ongoing controversies](#)

[Why is diagnosing brain death so confusing?](#)

[Recommendations for the use of multimodal monitoring in the neurointensive care unit](#)

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[Reversal of the novel oral anticoagulants dabigatran, rivoraxaban, and apixaban](#)

[Update on acute liver failure](#)

[Diarrhoea in the critically ill](#)

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[Liver transplantation in the context of organ shortage: toward extension and restriction of indications considering recent clinical data and ethical framework](#)

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Paediatric Critical Care Medicine Volume 16 Issue 3

[Fluid Overload at 48 Hours Is Associated With Respiratory Morbidity but Not Mortality in a General PICU: Retrospective Cohort Study*](#)

[Current Medication Practice and Tracheal Intubation Safety Outcomes From a Prospective Multicenter Observational Cohort Study*](#)

[Autologous Bone Marrow Mononuclear Cells Reduce Therapeutic Intensity for Severe Traumatic Brain Injury in Children*](#)

[Prevalence of Dysglycemia and Association With Outcomes in Pediatric Extracorporeal Membrane Oxygenation*](#)

[Hemorrhagic Complications in Pediatric Cardiac Patients on Extracorporeal Membrane Oxygenation: An Analysis of the Extracorporeal Life Support Organization Registry](#)

[Pharmacologic Recipes for Tracheal Intubation in the PICU: What's on the Menu?*](#)

[Pediatric Critical Care Ultrasound Education: The Importance of a Common Denominator*](#)

[Cell-Based Therapy for Pediatric Traumatic Brain Injury: Not \(Yet\) an Update to the Traumatic Brain Injury Guidelines*](#)

[Critical Care for Rare Diseases \(and Procedures\): Redux*](#)

[Outcomes and Risk Factors in Pediatric Ventilator-Associated Pneumonia: Guilt by Association*](#)

Pediatric Anesthesia March Vol 25 Issue 4

- [News from the pediatric anesthesia societies \(page 331\)](#)
- [Rare events can be fatal and must not be ignored; how much needs to happen before we act? \(pages 332–333\)](#)
- [An update on newer pediatric supraglottic airways with recommendations for clinical use \(pages 334–345\)](#)
- [Development of a guideline for the management of the unanticipated difficult airway in pediatric practice \(pages 346–362\)](#)
- [Difficult airway consultation service for children: steps to implement and preliminary results \(pages 363–371\)](#)
- [Tracheal intubation with the Bonfils fiberscope in the difficult pediatric airway: a comparison with fiberoptic intubation \(pages 372–378\)](#)
- [Assessment of three placement techniques for individualized positioning of the tip of the tracheal tube in children under the age of 4 years \(pages 379–385\)](#)
- [A comparative study of Laryngeal Mask Airway size 1 vs i-gel size 1 in infants undergoing daycare procedures \(pages 386–391\)](#)
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- [A randomized comparison of the i-gel™ with the self-pressurized air-Q™ intubating laryngeal airway in children \(pages 405–412\)](#)
- [The pressure drop across the endotracheal tube in mechanically ventilated pediatric patients \(pages 413–420\)](#)
- [Effect of a neck collar on upper airway size in children sedated with propofol–midazolam combination during magnetic resonance imaging \(pages 421–427\)](#)
- [A new twist in the pediatric difficult airway \(pages 428–430\)](#)
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- [Effects of anesthesia and surgery on the developing brain: problem solved? \(pages 435–436\)](#)
- [Effects of anesthesia on the developing brain: can the underlying disease be ignored? \(pages 436–437\)](#)
- [Pediatric endobronchial blockers in infants: a refinement in technique \(pages 438–439\)](#)

New NICE Guidance

-
- **Depression in children and young people: Identification and management in primary, community and secondary care (CG28)** March 2015
 - **Excess winter deaths and morbidity and the health risks associated with cold homes (NG6)** March 2015
 - **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

[Prophylactic milrinone for the prevention of low cardiac output syndrome and mortality in **children** undergoing surgery for congenital heart disease](#)

Barbara EU Burkhardt , Gerta Rücker and Brigitte Stiller

[Corneal collagen cross-linking for treating keratoconus](#)

Evipidis Sykakis , Rushmia Karim , Jennifer R Evans , Catey Bunce , Kwesi N Amisah-Arthur , Showrob Patwary , Peter J McDonnell and Samer Hamada

[Adrenaline with lidocaine for digital nerve blocks](#)

Hemanshu Prabhakar , Santosh Rath , Mani Kalaivani and Neel Bhandari

[Corticosteroid therapy for nephrotic syndrome in **children**](#)

Deirdre Hahn , Elisabeth M Hodson , Narelle S Willis and Jonathan C Craig

[Leukotriene inhibitors for bronchiolitis in infants and young **children**](#)

Fang Liu , Jing Ouyang , Atul N Sharma , Songqing Liu , Bo Yang , Wei Xiong and Rufu Xu

[Pharmacological interventions for pain in **children** and adolescents with life-limiting conditions](#)

Emma Beecham , Bridget Candy , Richard Howard , Renée McCulloch , Jo Laddie , Henrietta Rees , Victoria Vickerstaff , Myra Bluebond-Langner and Louise Jones

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

Arne Ohlsson and Prakeshkumar S Shah

[Standard \(head-down tilt\) versus modified \(without head-down tilt\) postural drainage in infants and young **children** with cystic fibrosis](#)

Diana A Freitas , Fernando AL Dias , Gabriela SS Chaves , Gardenia MH Ferreira , Cibele TD Ribeiro , Ricardo O Guerra and Karla MPP Mendonça

[Interventions for reducing medication errors in **children** in hospital](#)

Jolanda M Maaskant , Hester Vermeulen , Bugewa Apampa , Bernard Fernando , Maisoon A Ghaleb , Antje Neubert , Sudhin Thayyil and Aung Soe

[Standard versus biofilm antimicrobial susceptibility testing to guide antibiotic therapy in cystic fibrosis](#)

Valerie Waters and Felix Ratjen

[Physical rehabilitation for critical illness myopathy and neuropathy](#)

Jan Mehrholz , Marcus Pohl , Joachim Kugler , Jane Burridge , Simone Mückel and Bernhard Elsner

March 2015

NHS Behind the Headlines

'4D' ultrasound shows effects of smoking on unborn babies

Tuesday Mar 24 2015

"Unborn baby shown grimacing in womb as mother smokes," is the somewhat misleading headline in The Daily Telegraph after researchers released dramatic images of babies in the womb taken using 4D ultrasound scanners...

Are half of all children's teeth really rotten?

Friday Mar 20 2015

"Rotten teeth are secret reason why teens don't smile," revealed The Times today. The Daily Mirror expressed shock over revelations that...

Damage to 'heart health' may start in childhood

Wednesday Mar 18 2015

"Children are suffering damage to their hearts as early as 12 due to poor diets, a study has warned," the Mail Online reports. A US study suggests that an unhealthy diet in childhood can quickly lead to a deterioration in "heart health"...

Breastfed babies 'grow up to be brainier and richer'

Wednesday Mar 18 2015

"Breastfed babies grow up smarter and richer, study shows," The Daily Telegraph reports. A study from Brazil that tracked participants for 30 years found a significant association between breastfeeding and higher IQ and income in later life...

All teens should be vaccinated against rare strain of meningitis

Monday Mar 16 2015

"A vaccination for meningitis is to be offered to all 14-18 year-olds in England and Wales, after a spike in a rare strain of the disease," The Guardian reports. The strain – meningitis W (MenW) – is described as rare, but life-threatening...

[Is education the best form of teen contraception?](#)

Monday Mar 9 2015

"Getting a good education could be the best form of contraception for teenagers," The Independent reports after a study of recent data from England found an association between improved GCSE results and lower rates of teenage pregnancy...

[New activity in Uptodate/DynaMed](#)

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) [20]. 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'.)

Optimal ratio of blood components in massive transfusion (February 2015)

Patients with trauma often require transfusion of massive amounts of plasma, platelets, and red blood cells (RBCs), but the optimal ratio of these components is uncertain. The first randomized trial to evaluate this issue has been published, and it supports our approach of transfusing these components in a 1:1:1 ratio (ie, the "damage control" approach) [21]. The Pragmatic, Randomized Optimal Platelet and Plasma Ratios (PROPPR) trial randomly assigned nearly 700 adults with major bleeding from trauma to receive 1 versus 2 units of RBC for every unit of fresh frozen plasma (FFP) and platelets (ie, ratio of FFP:platelets:RBC of 1:1:1 versus 1:1:2). The 1:1:1 strategy was associated with better hemostasis, fewer early exsanguination deaths, and trends toward better survival at one day and one month. (See "[Massive blood transfusion](#)", section on 'Trauma'.)

Tranexamic acid for severe trauma in children (January 2015)

Antifibrinolytic therapy, specifically tranexamic acid administration, has been associated with lower mortality in adult trauma patients when given within three hours of injury, but an increased risk of death from hemorrhage if administered after three hours. Preliminary evidence now suggests it may also lower mortality in severely injured pediatric trauma victims. In an observational study of 766 patients younger than 18 years of age with combat injuries (73 percent with penetrating trauma), the 66 patients who received tranexamic acid had a significantly lower mortality compared with all other

patients after adjusting for severity of injury and other relevant confounders [22]. In addition, neurologic outcomes among patients who received tranexamic acid and large volume transfusions were improved compared with those getting large volume transfusions alone. No thromboembolic complications were seen in the patients who received tranexamic acid. Further study in pediatric trauma patients with significant hemorrhage is needed to determine its safety and efficacy, however. (See "[Trauma management: Approach to the unstable child](#)", section on 'Persistent hemorrhage'.)

PECARN decision rules in children with minor head trauma (March 2015)

For infants and children with minor head trauma and absence of high-risk physical findings of clinically important traumatic brain injury (ciTBI, defined as conditions requiring neurosurgery, endotracheal intubation, or hospitalization), UpToDate suggests that management decisions, especially the performance of neuroimaging or emergency department observation, be guided by the use of the Pediatric Emergency Care Applied Research Network (PECARN) low-risk clinical decision rules ([table 1](#)). In a decision analysis model that utilized characteristics of the PECARN public use dataset, application of the PECARN rules was projected to result in more ciTBI being missed but fewer computer tomographs of the head, fewer radiation-induced cancers, lower net quality-adjusted-life-years (QALYS) lost, and lower costs when compared with usual care in the United States [16]. Overall, the model indicated that the PECARN rules were better than usual care because they were more effective (less QALYS lost) and less costly. (See "[Minor head trauma in infants and children: Evaluation](#)", section on 'Clinical decision rules'.)

Headache after minor head trauma in children (March 2015)

Headache is a frequent complaint after minor blunt head trauma in children. When present with other symptoms, headache modestly increases the risk of clinically important traumatic brain injury (ciTBI) and is of particular concern if it is persistent or worsening over time. When isolated, however, headache is not associated with ciTBI. As an example, in a prospective multicenter cohort of almost 28,000 verbal children with minor head trauma, none of the 2,462 patients with an isolated headache (defined by history and physical examination features, including a normal scalp) had ciTBI compared with 1.6 percent of the 10,105 patients with headache and other symptoms [17]. (See "[Minor head trauma in infants and children: Evaluation](#)", section on 'Headache'.)

Quick Exercise

Have a play with Uptodate. Log in via Athens (if you don't have an Athens account register using your UHBristol email address here:

<https://openathens.nice.org.uk/>

USING UPTODATE

■ A simple, single search box

Enter your search term - conditions, drugs, therapies...
(The more specific the search, the more specific the results)

Hit to search

Prioritise results by adult or paediatric relevance, patient info, or filter for graphics only

Current Awareness Database Articles

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

Title: Short-term treatment outcomes of children starting antiretroviral therapy in the intensive care unit, general medical wards and outpatient hiv clinics at red cross war memorial children's hospital, Cape Town, South Africa: A retrospective cohort study

Citation: South African Medical Journal, 2015, vol./is. 105/3(220-227), 0256-9574 (2015)

Author(s): Pillay V., Davies M.-A., King S., Eley B.

Abstract: Background. Many HIV-infected children are initiated on antiretroviral therapy (ART) during hospitalisation in South Africa (SA). No published data on these outcomes exist. Objectives. To assess the short-term outcomes of children initiated on ART in the intensive care unit (ICU), general medical wards (GMWs) and outpatient HIV clinics (OHCs) at Red Cross War Memorial Children's Hospital (RCWMCH), Cape Town, SA. Methods. We conducted a retrospective cohort study of HIV-infected children aged <13 years commenced

on first-line ART between January 2008 and December 2011. Outcomes included death, virological suppression and changes in CD4 count. Kaplan-Meier estimates, multivariate Cox proportional hazard ratios and logistic regression were used to estimate outcomes at 6 months.

Title: Correlation of Hypocalcemia with Serum Parathyroid Hormone and Calcitonin Levels in Pediatric Intensive Care Unit

Citation: Indian Journal of Pediatrics, 2015, vol./is. 82/3(217-220), 0019-5456;0973-7693 (2015)

Author(s): Haghbin S., Serati Z., Sheibani N., Haghbin H., Karamifar H.

Language: English

Abstract: Objectives: To investigate factors involved in causing hypocalcemia in critically ill patients. Methods: The patients aged 1 mo to 18 y, admitted to PICU at Nemazee Hospital, from May through November 2012, were reviewed. Those with impaired calcium hemostasis or on vitamin-D supplement were excluded. Calcitonin and parathyroid hormone levels were checked if ionized calcium level was less than 3.2 mg/d. Patient's demographic data, length of stay, Pediatric Risk of Mortality-III (PRISM-III) score, the need for mechanical ventilation, inotropic drug administration and outcome were recorded.

Title: Case report: Partial trisomy 4q27q35 syndrome

Citation: Genetic Counseling, 2015, vol./is. 25/4(413-416), 1015-8146 (2015)

Author(s): Arayici S., Topcu V., Kadioglu Simsek G., Kanmaz Kutman G., Oguz S.S., Dilmen U.

Abstract: Summary: Case report: partial trisomy 4q27q35 syndrome: Partial trisomy 4q is a rare chromosomal abnormality which results in variable clinical features, often including growth and developmental delay, mental retardation and dysmorphic features. We herein report a newborn with the diagnosis of partial trisomy 4q with Hirschsprung's disease who was monitored in neonatal intensive care unit. This is the first report of partial trisomy 4q27q35 with accompanying Hirschsprung's disease.

Title: Effect of 2013 national healthcare safety network definition changes on central line bloodstream infection rates: Audit results from the New York State Department of Health

Citation: American Journal of Infection Control, March 2015, vol./is. 43/3(280-282), 0196-6553;1527-3296 (01

Author(s): Hazamy P.A., Haley V.B., Tserenpuntsag B., Tsivitis M., Giardina R., Knab R., Lutterloh E.

Abstract: Surveillance criteria for central line-associated bloodstream infections (CLABSIs) are continually being refined to more accurately reflect infections related to central lines. An audit of 567 medical records from adult, pediatric, and neonatal intensive care unit patients with a central line and a positive blood culture showed a 16% decrease in CLABSI rates after the 2013 National Healthcare Safety Network definitions compared with the 2012 definitions.

Title: Hearing screening in a tertiary care hospital in India

Citation: Journal of Clinical and Diagnostic Research, March 2015, vol./is. 9/3(MC01-MC04), 2249-782X;0973-709X (01 Mar 2015)

Author(s): Kumar A., Shah N., Patel K.B., Vishwakarma R.

Language: English

Abstract: Introduction: To study the incidence of hearing loss among children and to determine and confirm the distribution of common risk factors in children with hearing loss presenting at a tertiary care hospital in India. Materials and Methods: Babies underwent hearing screening using Transient Evoked Otoacoustic Emission (TEOAE) and Automated Auditory Brainstem Response (AABR) from November 2009 to September 2011. It was a cross-sectional study carried out at our institute involving 500 babies (<2 y). To identify the high risk babies, Joint Committee on Infant Hearing (2007) High risk registry was used.

Title: The outcome of treatment limitation discussions in newborns with brain injury

Citation: Archives of Disease in Childhood: Fetal and Neonatal Edition, March 2015, vol./is. 100/2(F155-

Author(s): Brecht M., Wilkinson D.J.C.

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 Setting Patients: A retrospective statewide cohort study. Two tertiary NICUs in South Australia. 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.

Title: Childhood obesity and in-hospital asthma resource utilization

Citation: Journal of Hospital Medicine, March 2015, vol./is. 10/3(160-164), 1553-5592;1553-5606 (01 Mar

Author(s): Bettenhausen J., Puls H., Queen M.A., Peacock C., Burrus S., Miller C., Daly A., Colvin J.D.

Abstract: OBJECTIVE: To examine the relationship between pediatric obesity and inpatient length of stay (LOS), resource utilization, readmission rates, and total billed charges for in-hospital status asthmaticus. DESIGN/METHODS: We conducted a cross-sectional study of patients 5 to 17 years old hospitalized with status asthmaticus to 1 free-standing children's hospital system over 12 months. Only hospitalized patients initially treated in the hospital's emergency department were included to ensure all therapies/charges were examined. Patients with complex chronic conditions, pneumonia, or lacking recorded body mass index (BMI) were excluded. The primary exposure was BMI percentile for age. The primary outcome was LOS (in hours). Secondary outcomes were 90-day readmission rate, billed charges, and resource utilization: number of albuterol treatments, chest radiographs, intravenous fluids, intravenous or intramuscular steroids, and intensive care unit admission. Bivariate, adjusted Poisson and logistic regression model analyses were performed.

Title: Scrubbing the hub of intravenous catheters with an alcohol wipe for 15 sec reduced neonatal sepsis

Citation: Acta Paediatrica, International Journal of Paediatrics, March 2015, vol./is. 104/3(232-236), 0803-5253;1651-2227 (01 Mar 2015)

Author(s): Bjorkman L., Ohlin A.

Abstract: Aim The aim of this study was to investigate whether scrubbing the hub of intravenous catheters with an alcohol wipe for 15 sec could reduce the incidence of neonatal sepsis in a level-three neonatal intensive care unit. Methods We studied the incidence of neonatal sepsis caused by coagulase-negative staphylococci (CoNS) for 16.5 months before the initiative was launched on May 15, 2012 and then for a further 8.5 months after it was introduced. The hub routine was applied to all intravenous catheters.

Title: Rotavirus in organ transplantation: Drug-virus-host interactions

Citation: American Journal of Transplantation, March 2015, vol./is. 15/3(585-593), 1600-6135;1600-6143 (01

Author(s): Yin Y., Metselaar H.J., Sprengers D., Peppelenbosch M.P., Pan Q.

Abstract: Although rotavirus is usually recognized as the most common etiology of diarrhea in young children, it can in fact cause severe diseases in organ transplantation recipients irrespective of pediatric or adult patients. This comprehensive literature analysis revealed 200 cases of rotavirus infection with 8 related deaths in the setting of organ transplantation been recorded. Based on published cohort studies, an average incidence of 3% (187 infections out of 6176 organ recipients) was estimated. Rotavirus infection often causes severe gastroenteritis complications and occasionally contributes to acute cellular rejection in these patients. Immunosuppressive agents, universally used after organ transplantation to prevent organ rejection, conceivably play an important role in such a severe pathogenesis. Interestingly, rotavirus can in turn affect the absorption and metabolism of particular immunosuppressive medications via several distinct mechanisms. Even though rotaviral enteritis is self-limiting in general, infected transplantation patients are usually treated with intensive care, rehydration and replacement of nutrition, as well as applying preventive strategies. This article aims to properly assess the clinical impact of rotavirus infection in the setting of organ transplantation and to disseminate the interactions among the virus, host and immunosuppressive medications.

Title: Pharmacological interaction between valproic acid and carbapenem: What about levels in pediatrics?

Citation: European Journal of Paediatric Neurology, March 2015, vol./is. 19/2(155-161), 1090-3798;1532-2130

Author(s): Miranda Herrero M.C., Alcaraz Romero A.J., Escudero Vilaplana V., Fernandez Lafever S.N.,

Abstract: Valproic acid (VPA) is the most commonly used antiepileptic drug in pediatric patients, but its major drawback is its multiple pharmacological interactions. Objective To study children who had been simultaneously treated with carbapenems and valproic acid, considering drug levels, pharmacological interactions and clinical follow-up. Material and methods Retrospective study of children who simultaneously received treatment with VPA and carbapenems between January 2003 and December 2011. Demographic variables, indication of treatment, dose, VPA plasma levels, interactions, clinical manifestations and medical management were analyzed. Results 28 children with concomitant treatment with both drugs were included in the study. 64.3% were males. 78.6% of the interactions were observed in the Intensive Care Unit. 60.7% of children had been previously treated VPA and its major indication were generalized seizures. Basal plasma levels of VPA were recorded in 53% and at 24 h after admittance in 60%. "40% of basal VPA levels were below therapeutic range prior to the administration of carbapenem. After the introduction of carbapenem 88% of level determinations were below therapeutic range". 54.5% of the patients that were chronically receiving VPA and had good control of epilepsy before admission had seizures during the coadministration. One patient that was on VPA before admission but with bad control of epilepsy worsened, and one patient that acutely received VPA did not achieve seizure freedom. In these cases it was necessary to either increase VPA dose or change to a different antiepileptic drug. Conclusions Little is known about the mechanism of pharmacologic interactions between carbapenems and VPA, but it leads to a reduction in plasma levels that may cause a loss of seizure control, so simultaneous use of both drugs should be avoided when possible. If not, VPA levels should be monitored.

Title: Children hospitalised with influenza-associated pneumonia during the 2009 pandemic displayed increased disease severity

Citation: Acta Paediatrica, International Journal of Paediatrics, March 2015, vol./is. 104/3(e100-e105), 0803-

Author(s): Tasher D., Stein M., Solomon C., Shachor-Meyouhas Y., Glikman D., Mandelboim M., Kassis I.,

Abstract: Aim The precise role of the influenza virus in the morbidity of hospitalised paediatric pneumonia cases is unknown. We identified how many cases hospitalised during the 2009 pandemic had influenza-associated pneumonia and assessed their severity. Methods Children admitted to three Israeli medical centres during the 2009 influenza pandemic with radiologically confirmed pneumonia were prospectively screened for influenza. We compared the clinical, laboratory and radiologic findings for positive and negative cases. Results The pandemic H1N1 virus was detected in 89 (30%) of the 297 patients hospitalised for pneumonia and 55% of the Paediatric Intensive Care Unit admissions for pneumonia.

Title: Pharmacological interaction between valproic acid and carbapenem: What about levels in pediatrics?

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Title: Moral Distress Among Healthcare Professionals: Report of an Institution-Wide Survey.

Citation: Journal of Nursing Scholarship, 01 March 2015, vol./is. 47/2(117-125), 15276546

Author(s): Whitehead, Phyllis B., Herbertson, Robert K., Hamric, Ann B., Epstein, Elizabeth G., Fisher, Joan M.

Abstract: Purpose Moral distress is a phenomenon affecting many professionals across healthcare settings. Few studies have used a standard measure of moral distress to assess and compare differences among professions and settings. Design A descriptive, comparative design was used to study moral distress among all healthcare professionals and all settings at one large healthcare system in January 2011. Methods Data were gathered via a web-based survey of demographics, the Moral Distress Scale-Revised (MDS-R), and a shortened version of Olson's Hospital Ethical Climate Scale (HECS-S).

Title: Magnesium sulfate exposure and neonatal intensive care unit admission at term.

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

Abstract: Objective: The aim of this study was to investigate the effect of maternal magnesium sulfate ($MgSO_4$) 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 $MgSO_4$ exposure and NICU admission. $P < 0.05$ was considered statistically significant.

Title: Moral distress in the neonatal intensive care unit: an Italian study.

Citation: Journal of Perinatology, 01 March 2015, vol./is. 35/3(214-217), 07438346

Author(s): Sannino, P, Giannini M L, Re, L G, Lusignani, M

Abstract: Objective: The objective of this study was to evaluate the frequency, the intensity and the level of moral distress experienced by nurses working in neonatal intensive care units (NICUs). Study Design: We conducted a cross-sectional questionnaire survey involving 472 nurses working in 15 level III NICUs. Frequency, intensity and level of moral distress was evaluated using a modified version of Moral Distress Scale Neonatal-Pediatric Version. Socio-demographic data were also collected.

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

Citation: Journal of Perinatology, 01 March 2015, vol./is. 35/3(218-222), 07438346

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.

Title: Epidemiology of severe domestic accidents of children admitted in a versatile pediatric intensive care unit at the Children's Hospital of Rabat, Morocco [English;French] Epidemiologie des accidents domestiques graves de l'enfant admis en reanimation pediatrique polyvalente a l'hopital d'enfants de Rabat-Maroc

Citation: Pan African Medical Journal, 2015, vol./is. 20/(29-34), 1937-8688;1937-8688 (2015)

Author(s): Rafai M., Mekkaoui N., Chouaib N., Bakkali H., Belyamani L., El Koraichi A., El Kettani S.E.-C.

Title: Children hospitalised with influenza-associated pneumonia during the 2009 pandemic displayed increased disease severity

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Author(s): Tasher D., Stein M., Solomon C., Shachor-Meyouhas Y., Glikman D., Mandelboim M., Kassis I., Somekh E.

Abstract: Aim The precise role of the influenza virus in the morbidity of hospitalised paediatric pneumonia cases is unknown. We identified how many cases hospitalised during the 2009 pandemic had influenza-associated pneumonia and assessed their severity. Methods Children admitted to three Israeli medical centres during the 2009 influenza pandemic with radiologically confirmed pneumonia were prospectively screened for influenza. We compared the clinical, laboratory and radiologic findings for positive and negative cases.

Title: Rotavirus in organ transplantation: Drug-virus-host interactions

Citation: American Journal of Transplantation, March 2015, vol./is. 15/3(585-593), 1600-6135;1600-6143

Author(s): Yin Y., Metselaar H.J., Sprengers D., Peppelenbosch M.P., Pan Q.

Abstract: Although rotavirus is usually recognized as the most common etiology of diarrhea in young children, it can in fact cause severe diseases in organ transplantation recipients irrespective of pediatric or adult patients. This comprehensive literature analysis revealed 200 cases of rotavirus infection with 8 related deaths in the setting of organ transplantation been recorded. Based on published cohort studies, an average incidence of 3% (187 infections out of 6176 organ recipients) was estimated. Rotavirus infection often causes severe gastroenteritis complications and occasionally contributes to acute cellular rejection in these patients. Immunosuppressive agents, universally used after organ transplantation to prevent organ rejection, conceivably play an important role in such a severe pathogenesis. Interestingly, rotavirus can in turn affect the absorption and metabolism of particular immunosuppressive medications via several distinct mechanisms. Even though rotaviral enteritis is self-limiting in general, infected transplantation patients are usually treated with intensive care, rehydration and replacement of nutrition, as well as applying preventive strategies. This article aims to properly assess the clinical impact of rotavirus infection in the setting of organ transplantation and to disseminate the interactions among the virus, host and immunosuppressive medications.

Title: Increased plasma selenium is associated with better outcomes in children with systemic inflammation

Citation: Nutrition, March 2015, vol./is. 31/3(485-490), 0899-9007;1873-1244 (01 Mar 2015)

Author(s): Leite H.P., Nogueira P.C.K., de Oliveira Iglesias S.B., de Oliveira S.V., Sarni R.O.S.

Abstract: Objective: The aim of this study was to assess the effects of changes in plasma selenium on the outcome of critically ill children. Methods: Plasma selenium was prospectively measured in 99 children with acute systemic inflammation. The exposure variables were selenium level on admission and on day 5 of stay in the intensive care unit (ICU) and the difference in selenium concentrations between day 5 post-admission and the ICU admission (delta selenium). Selenium was given only as part of enteral diets. Age, malnutrition, red cell glutathione peroxidase-1 activity, serum C-reactive protein, Pediatric Index of Mortality 2, and Pediatric Logistic Organ Dysfunction scores were analyzed as covariates. The outcome variables were ventilator-free days, ICU-free days, and 28-d mortality.

Title: Scrubbing the hub of intravenous catheters with an alcohol wipe for 15 sec reduced neonatal sepsis

Citation: Acta Paediatrica, International Journal of Paediatrics, March 2015, vol./is. 104/3(232-236), 0803-5253;1651-2227 (01 Mar 2015)

Author(s): Bjorkman L., Ohlin A.

Abstract: Aim The aim of this study was to investigate whether scrubbing the hub of intravenous catheters with an alcohol wipe for 15 sec could reduce the incidence of neonatal sepsis in a level-three neonatal intensive care unit. Methods We studied the incidence of neonatal sepsis caused by coagulase-negative staphylococci (CoNS) for 16.5 months before the initiative was launched on May 15, 2012 and then for a further 8.5 months after it was introduced. The hub routine was applied to all intravenous catheters. Results During the control period before the initiative was launched, there were nine cases of CoNS sepsis compared with no cases after it was introduced, resulting in a decrease in sepsis incidence from 1.5% to 0% with a risk reduction of 1.5% (0.53-2.58%) (p = 0.06). In the preterm infant population, the incidence of sepsis decreased from 3.6% to 0% (1.1-6.0%) (p = 0.11). Conclusion Scrubbing the hub of intravenous catheters with an alcohol wipe for 15 sec seemed to be an efficient way of preventing sepsis caused by CoNS in newborn infants. However, the evidence for the benefits will remain weak until a large randomised trial has been completed.

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Title: Stay in NICU and infantile haemangioma development

Author(s): Gey A., Ezzedine K., Diallo A., Prey S., Dreyfus I., Maza A., Mazereeuw-Hautier J., Taieb A., Leaute-Labreze C.

Abstract: Background Infantile haemangiomas (IHs) are more frequent in low birth weight babies, especially premature. Objective To compare the characteristics of infants with IHs who stayed in neonatal intensive care unit (NICU) vs. those with IHs who did not.

Title: Prophylactic versus reactive transfusion of thawed plasma in patients undergoing surgical repair of craniosynostosis: A randomized clinical trial

Author(s): Pieters B.J., Conley L., Weiford J., Hamilton M., Wicklund B., Booser A., Striker A., Whitney S., Singhal V.

Abstract: Background Surgical repair of craniosynostosis in young children is associated with copious bleeding and often coagulopathy. Typically, a reactive transfusion strategy is used to treat coagulopathy whereby fresh frozen plasma (FFP) is given only after clinical manifestation of clotting abnormality. This prospective, randomized clinical trial was designed to test the hypothesis that prophylactic FFP during craniofacial surgery reduces blood loss and blood transfusion requirements compared to a reactive FFP transfusion strategy.

Title: Risk factors predictive of endogenous endophthalmitis among hospitalized patients with hematogenous infections in the United States

Citation: American Journal of Ophthalmology, March 2015, vol./is. 159/3(498-504), 0002-9394;1879-1891 (01 Mar 2015)

Author(s): Vaziri K., Pershing S., Albini T.A., Moshfeghi D.M., Moshfeghi A.A.

Language: English

Abstract: Purpose To identify potential risk factors associated with endogenous endophthalmitis among hospitalized patients with hematogenous infections. Design Retrospective cross-sectional study. Methods MarketScan Commercial Claims and Encounters, and Medicare Supplemental and Coordination of Benefit inpatient databases from the years 2007-2011 were obtained. Utilizing ICD-9 codes, logistic regression was used to identify potential predictors/comorbidities for developing endophthalmitis in patients with hematogenous infections.

Title: Near-infrared spectroscopy after high-risk congenital heart surgery in the paediatric intensive care unit

Author(s): Tume L.N., Arnold P.

Abstract: Objective: To establish whether the use of near-infrared spectroscopy is potentially beneficial in high-risk cardiac infants in United Kingdom paediatric intensive care units. Design: A prospective observational pilot study. Setting: An intensive care unit in North West England. Patients: A total of 10 infants after congenital heart surgery, five with biventricular repairs and five with single-ventricle physiology undergoing palliation. Interventions: Cerebral and somatic near-infrared spectroscopy monitoring for 24 hours post-operatively in the intensive care unit.

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Title: Developing and evaluating the success of a family activated medical emergency team: A quality improvement report

Author(s): Brady P.W., Zix J., Brilli R., Wheeler D.S., Griffith K., Giaccone M.J., Dressman K., Kotagal U., Muething S., Tegtmeier K.

Abstract: Background Family-activated medical emergency teams (MET) have the potential to improve the timely recognition of clinical deterioration and reduce preventable adverse events. Adoption of family-activated METs is hindered by concerns that the calls may substantially increase MET workload. We aimed to develop a reliable process for family activated METs and to evaluate its effect on MET call rate and subsequent transfer to the intensive care unit (ICU). Methods The setting was our free-standing children's hospital. We partnered with families to develop and test an educational intervention for clinicians and families, an informational poster in each patient room and a redesigned process with hospital operators who handle MET calls. We tracked our primary outcome of count of familyactivated MET calls on a statistical process control chart. Additionally, we determined the association between family-activated versus clinician-activated MET and transfer to the ICU. Finally, we compared the reason for MET activation between family calls and a 2:1 matched sample of clinician calls.

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