This monthly Current Awareness Bulletin is produced by the Healthcare Library to provide Salisbury NHS Foundation Trust staff working in Paediatrics with a range of resources to support practice. It includes recently published guidelines and research articles, news, and details of new library resources.

OpenAthens
To access journal articles that are available in full text you will need to have a username and password for OpenAthens. To register for an OpenAthens account click here.

For further information or support please contact the Healthcare Library, SDH Central, Salisbury District Hospital, Salisbury, Wiltshire SP2 8BJ. 01722 429054 or 01722 336262 ext. 4430, Library.office@salisbury.nhs.uk or visit the library website at www.library.salisbury.nhs.uk

Guidelines

National Institute for Health and Care Excellence (NICE)

Maintaining a healthy weight and preventing excess weight gain among adults and children
NICE guidelines [NG7] Published date: March 2015

Depression in children and young people: Identification and management in primary, community and secondary care
NICE guidelines [CG28] Published date: March 2015

NICE Evidence Updates

Feverish illness in children: Evidence Update February 2015
A summary of selected new evidence relevant to NICE clinical guideline 160 ‘Feverish illness in children: assessment and initial management in children younger than 5 years’ (2013)

Psychosis and schizophrenia in children and young people: Evidence Update March 2015
A summary of selected new evidence relevant to NICE clinical guideline 155 ‘Psychosis and schizophrenia in children and young people: recognition and management’ (2013)

New and Updated Cochrane Systematic Reviews

New Reviews – March 2015

Chlorhexidine skin or cord care for prevention of mortality and infections in neonates

Food supplementation for improving the physical and psychosocial health of socio-economically disadvantaged children aged three months to five years

Influenza vaccines for preventing acute otitis media in infants and children

Interventions for reducing medication errors in children in hospital

Interventions for the cessation of non-nutritive sucking habits in children

Leukotriene inhibitors for bronchiolitis in infants and young children
Non-speech oral motor treatment for children with developmental speech sound disorders

Optical reading aids for children and young people with low vision

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

Pharmacological interventions for pain in children and adolescents with life-limiting conditions

Prophylactic milrinone for the prevention of low cardiac output syndrome and mortality in children undergoing surgery for congenital heart disease

Psychological therapies (remotely delivered) for the management of chronic and recurrent pain in children and adolescents

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

Tramadol for postoperative pain treatment in children

Zinc supplementation for the treatment of measles in children

Updated Reviews – March 2015

Corticosteroid therapy for nephrotic syndrome in children

Elective high frequency oscillatory ventilation versus conventional ventilation for acute pulmonary dysfunction in preterm infants

Intravenous immunoglobulin for suspected or proven infection in neonates

Pentoxifylline for treatment of sepsis and necrotizing enterocolitis in neonates

---

NICE Evidence Updates

**Feverish illness in children**
Evidence Update February 2015
A summary of selected new evidence relevant to NICE clinical guideline 160 ‘Feverish illness in children: assessment and initial management in children younger than 5 years’ (2013)

**Promoting physical activity for children and young people**
Evidence Update March 2015
A summary of selected new evidence relevant to NICE public health guidance 17 ‘Promoting physical activity for children and young people’ (2009)

---

New from UpToDate

**What’s new in paediatrics**
New additions to UpToDate considered by the editors and authors to be of particular interest.
You may need an OpenAthens username and password. To register for an OpenAthens account click [here](#).

---

Journal Articles

Please click on the blue links (where available) to access full text.
You may need an OpenAthens username and password. To register for an OpenAthens account click [here](#).
If you have any difficulty accessing the full text articles, or if you would like us to obtain any of the articles for you, please contact the Healthcare Library.
Table of Contents

1. 140 mmol/L of sodium versus 77 mmol/L of sodium in maintenance intravenous fluid therapy for children in hospital (PIMS): A randomised controlled double-blind trial
2. Accuracy of infrared tympanic thermometry used in the diagnosis of fever in children: A systematic review and meta-analysis
3. Are opioid antagonists effective in attenuating the core symptoms of autism spectrum conditions in children: A systematic review
4. Clinical features for diagnosis of pneumonia in children younger than 5 years: A systematic review and meta-analysis
5. Clinical presentation of pediatric autoimmune neuropsychiatric disorders associated with streptococcal infections in research and community settings
6. Comparative efficacy and acceptability of atomoxetine, lisdexamfetamine, bupropion and methylphenidate in treatment of attention deficit hyperactivity disorder in children and adolescents: A meta-analysis with focus on bupropion
8. Efficacy and tolerability of antidepressants in pediatric anxiety disorders: A systematic review and meta-analysis
9. Efficacy of antibiotic prophylaxis in children with vesicoureteral reflux: Systematic review and meta-analysis
10. Factors that predict remission of infant atopic dermatitis: A systematic review.
11. Headache in School Children: Is the Prevalence Increasing?
12. Hemispherectomy for treatment of refractory epilepsy in the pediatric age group: a systematic review
13. Hospital-based bereavement services following the death of a child: A mixed study review
15. Inflammatory myofibroblastic tumor of the trachea in the pediatric age group: Case report and systematic review of the literature
16. Nasal intermittent positive pressure ventilation versus nasal continuous positive airway pressure for preterm infants with respiratory distress syndrome: A meta-analysis and up-date
17. Neonatal pain and developmental outcomes in children born preterm: A systematic review
18. No effect of proton pump inhibitors on crying and irritability in infants: Systematic review of randomized controlled trials
20. Paediatric mastocytosis: A systematic review of 1747 cases
21. Psychological interventions for mental health disorders in children with chronic physical illness: A systematic review
22. Psychosocial impact of pediatric living-donor kidney and liver transplantation on recipients, donors, and the family: A systematic review
23. Randomized trial of peanut consumption in infants at risk for peanut allergy
25. Sucrose and warmth for analgesia in healthy newborns: An RCT
26. Systematic review of neonatal seizure management strategies provides guidance on anti-epileptic treatment
27. The pharmacological management of oppositional behaviour, conduct problems, and aggression in Children and adolescents with attention-deficit hyperactivity disorder, oppositional defiant disorder, and conduct disorder: A systematic review and meta-analysis. Part 1: Psychostimulants, alpha-2 agonists, and atomoxetine
28. The pharmacological management of oppositional behaviour, conduct problems, and aggression in children and adolescents with Attention-deficit hyperactivity disorder, oppositional defiant disorder, and conduct disorder: A systematic review and meta-analysis. Part 2: Antipsychotics and traditional mood stabilizers
29. Tonsillectomy versus tonsillotomy for sleep-disordered breathing in children: A meta analysis
30. Tuberculosis as a cause or comorbidity of childhood pneumonia in tuberculosis-endemic areas: A systematic review
31. Visual-perceptual impairment in children with cerebral palsy: A systematic review
32. Validity and reliability of measurement of capillary refill time in children: A systematic review
33. Variation in incidence of pediatric Crohn’s disease in relation to latitude and ambient ultraviolet radiation: A systematic review and analysis
34. When should clinicians search for GLUT1 deficiency syndrome in childhood generalized epilepsies?
1. Title: 140 mmol/L of sodium versus 77 mmol/L of sodium in maintenance intravenous fluid therapy for children in hospital (PIMS): A randomised controlled double-blind trial

Citation: The Lancet, March 2015, vol./is. 385/9974(1190-1197), 0140-6736;1474-547X (28 Mar 2015)

Author(s): McNab S., Duke T., South M., Babl F.E., Lee K.J., Arnup S.J., Young S., Turner H., Davidson A.

Language: English

Abstract: Summary Background Use of hypotonic intravenous fluid to maintain hydration in children has been associated with hyponatraemia, leading to neurological morbidity and mortality. We aimed to assess whether use of fluid solutions with a higher sodium concentration reduced the risk of hyponatraemia compared with use of hypotonic solutions. Methods We did a randomised controlled double-blind trial of children admitted to The Royal Children's Hospital (Melbourne, VIC, Australia) who needed intravenous maintenance hydration for 6 h or longer. With an online randomisation system that used unequal block sizes, we randomly assigned patients (1:1) to receive either isotonic intravenous fluid containing 140 mmol/L of sodium (Na140) or hypotonic fluid containing 77 mmol/L of sodium (Na77) for 72 h or until their intravenous fluid rate decreased to lower than 50% of the standard maintenance rate. We stratified assignment by baseline sodium concentrations. Study investigators, treating clinicians, nurses, and patients were masked to treatment assignment. The primary outcome was occurrence of hyponatraemia (serum sodium concentration <135 mmol/L with a decrease of at least 3 mmol/L from baseline) during the treatment period, analysed by intention to treat. The trial was registered with the Australian New Zealand Clinical Trials Registry, number ACTRN1260900924257. Findings Between Feb 2, 2010, and Jan 29, 2013, we randomly assigned 690 patients. Of these patients, primary outcome data were available for 319 who received Na140 and 322 who received Na77. Fewer patients given Na140 than those given Na77 developed hyponatraemia (12 patients [4%] vs 35 [11%]; odds ratio [OR] 031, 95% CI 016-061; p=0001). No clinically apparent cerebral oedema occurred in either group. Eight patients in the Na140 group (two potentially related to intravenous fluid) and four in the Na77 group (none related to intravenous fluid) developed serious adverse events during the treatment period. One patient in the Na140 had seizures during the treatment period compared with seven who received Na77. Interpretation Use of isotonic intravenous fluid with a sodium concentration of 140 mmol/L had a lower risk of hyponatraemia without an increase in adverse effects than did fluid containing 77 mmol/L of sodium. An isotonic fluid should be used as intravenous fluid for maintenance hydration in children. Funding National Health and Medical Research Council, Murdoch Childrens Research Institute, The Royal Children’s Hospital, and the Australian and New Zealand College of Anaesthetists.

Publication type: Journal: Article
Source: EMBASE
Full text: Available Lancet at Lancet, The

2. Title: Accuracy of infrared tympanic thermometry used in the diagnosis of fever in children: A systematic review and meta-analysis

Citation: Clinical Pediatrics, February 2015, vol./is. 54/2(114-126), 0009-9228;1938-2707 (19 Feb 2015)

Author(s): Zhen C., Long L., Xia Z., Ya Jun Z., Jian S., Gui Ju C.

Language: English

Abstract: Background. Accurate determination and detection of fever is essential in the appropriate treatment of pediatric population. It is widely known that improper definitions of fever can cause grave and dangerous consequences in medical procedures. Infrared tympanic thermometry seems a relatively new and popular alternative for traditional measurement in the diagnosis of pediatric fever. However, its accuracy in the diagnosis of fever remains a major concern. Design. Systematic review and meta-analysis. Data Sources. Medline, Ovid, Elsevier, Google Scholar, and Cochrane library. Study Selection. Cross-sectional, prospective design. Data Extraction. Two investigators independently assessed selected studies and extracted data. Disagreements were resolved by discussion with other reviewers. Results. A total of 25 articles were included in our meta-analysis. The summary estimates revealed that the pooled sensitivity was 0.70 (95% confidence interval [CI] = 0.68-0.72), pooled specificity was 0.86 (95% CI = 0.85-0.88), and pooled diagnostic odds ratio was 47.3 (95% CI = 29.76-75.18), for the diagnosis of fever using infrared tympanic thermometry. Additionally, the area under the summary receiver operating characteristic curve was 0.94, and O* value was 0.87. Conclusion. A total of 25 articles that encompassing 31 studies were analyzed. Based on our meta-analysis, accuracy of infrared tympanic thermometry in diagnosing fever is high. We can cautiously make conclusion that infrared tympanic thermometry should be widely used as fever of thermometer.

Publication type: Journal: Article
Source: EMBASE

3. Title: Are opioid antagonists effective in attenuating the core symptoms of autism spectrum conditions in
Background: ASC (autism spectrum conditions) may result from a failure of striatal beta endorphins to diminish with maturation. Many symptoms of ASC resemble behaviours induced in animals or humans by opiate administration, including decreased socialisation, diminished crying, repetitive stereotypies, insensitivity to pain and motor hyperactivity. Naltrexone, an opioid antagonist, has been used in the management of children with ASC and can produce a clinically significant reduction in the serious and life-threatening behaviour of self-injury for individuals who have not been responsive to any other type of treatment and is important for this reason. It was therefore appropriate to reconsider the available evidence and a systematic review was undertaken. Methods: Four electronic databases were searched for relevant journal articles. In addition, cross-referencing of pertinent reviews and a hand search for articles in major international intellectual disability (ID) journals between the years 2010 and 2012 was carried out to ensure that all relevant articles were identified. We also searched databases for unpublished clinical trials to overcome publication bias. Each database was searched up to present (February 2013) with no restrictions on the date of publication. The search terms consisted of broad expressions used to describe ID and autistic spectrum disorder as well as terms relating to opioid antagonists and specific drugs. All studies identified by the electronic database search and hand search were examined on the basis of title alone for relevance and duplication. The abstracts of the remaining papers were then scrutinised against the inclusion criteria. Where abstracts failed to provide adequate information, the full texts for these papers were obtained. All the full texts were then evaluated against the inclusion proforma. Two reviewers carried out all the stages of the process independently. The reviewers met to discuss their selections and where disagreements arose, these were settled by discussion with a member of the study group. Data from each study meeting the inclusion criteria were extracted on a pre-piloted data extraction form. The quality of each study was further assessed using the Jadad scale, a tool developed to assess the quality of randomised controlled trials. Results: 155 children participated in 10 studies; 27 received placebo. Of the 128 that received naltrexone 98 (77%) showed statistically significant improvement in symptoms of irritability and hyperactivity. Side effects were mild and the drug was generally well tolerated. Conclusions: Naltrexone may improve hyperactivity and restlessness in children with autism but there was not sufficient evidence that it had an impact on core features of autism in majority of the participants. It is likely that a subgroup of children with autism and abnormal endorphin levels may respond to naltrexone and identifying the characteristics of these children must become a priority.

Publication type: Journal: Article
Source: EMBASE
higher than 40 breaths per min (043, 023-083). Interpretation: Not one clinical feature was sufficient to diagnose pneumonia definitively. Combination of clinical features in a decision tree might improve diagnostic performance, but the addition of new point-of-care tests for diagnosis of bacterial pneumonia would help to attain an acceptable level of accuracy. Funding: Swiss National Science Foundation.

**Publication type:** Journal: Article  
**Source:** EMBASE

5. **Title:** Clinical presentation of pediatric autoimmune neuropsychiatric disorders associated with streptococcal infections in research and community settings  
**Citation:** Journal of Child and Adolescent Psychopharmacology, February 2015, vol./is. 25/1(26-30), 1044-5463;1557-8992 (01 Feb 2015)  
**Author(s):** Swedo S.E., Seidlitz J., Kovacevic M., Latimer M.E., Hommer R., Lougee L., Grant P.  
**Language:** English  
**Abstract:** Background: The first cases of pediatric autoimmune neuropsychiatric disorders associated with streptococcal infections (PANDAS) were described>15 years ago. Since that time, the literature has been divided between studies that successfully demonstrate an etiologic relationship between Group A streptococcal (GAS) infections and childhood-onset obsessive-compulsive disorder (OCD), and those that fail to find an association. One possible explanation for the conflicting reports is that the diagnostic criteria proposed for PANDAS are not specific enough to describe a unique and homogeneous cohort of patients. To evaluate the validity of the PANDAS criteria, we compared clinical characteristics of PANDAS patients identified in two community practices with a sample of children meeting full research criteria for PANDAS. Methods: A systematic review of clinical records was used to identify the presence or absence of selected symptoms in children evaluated for PANDAS by physicians in Hinsdale, Illinois (n=52) and Bethesda, Maryland (n=40). Results were compared against data from participants in National Institute of Mental Health (NIMH) research investigations of PANDAS (n=48). Results: As described in the original PANDAS cohort, males outnumbered females (95:45) by ~ 2:1, and symptoms began in early childhood (7.3+/2.7 years). Clinical presentations were remarkably similar across sites, with all children reporting acute onset of OCD symptoms and multiple comorbidities, including separation anxiety (86-92%), school issues (75-81%), sleep disruptions (71%), tics (60-65%), urinary symptoms (42-81%), and others. Twenty of the community cases (22%) failed to meet PANDAS criteria because of an absence of documentation of GAS infections. Conclusions: The diagnostic criteria for PANDAS can be used by clinicians to accurately identify patients with common clinical features and shared etiology of symptoms. Although difficulties in documenting an association between GAS infection and symptom onset/exacerbations may preclude a diagnosis of PANDAS in some children with acute-onset OCD, they do appear to meet criteria for pediatric acute-onset neuropsychiatric syndrome (PANS).

**Publication type:** Journal: Article  
**Source:** EMBASE

6. **Title:** Comparative efficacy and acceptability of atomoxetine, lisdexamfetamine, bupropion and methylphenidate in treatment of attention deficit hyperactivity disorder in children and adolescents: A meta-analysis with focus on bupropion  
**Citation:** Journal of Affective Disorders, June 2015, vol./is. 178/(149-159), 0165-0327;1573-2517 (01 Jun 2015)  
**Author(s):** Stuhec M., Munda B., Svab V., Locatelli I.  
**Language:** English  
**Abstract:** Objectives There is a lack of comparative effectiveness research among attention deficit hyperactivity disorder (ADHD) drugs in terms of efficacy and acceptability, where bupropion is compared with atomoxetine, lisdexamfetamine and methylphenidate. The main aim of this work was to compare the efficacy and acceptability of these drugs in children and adolescents using a meta-analysis. Methods A literature search was conducted to identify double-blind, placebo-controlled, noncrossover studies of ADHD. PubMed/Medline and Clinicaltrials.gov were searched. Comparative drug efficacy to placebo was calculated based on the standardized mean difference (SMD), while the comparative drug acceptability (all cause discontinuation) to placebo was estimated on the odds ratio (OR). Results In total 28 trials were included in the meta-analysis. Efficacy in reducing ADHD symptoms compared to placebo was small for bupropion (SMD=-0.32, 95% CI; -0.69, 0.05), while modest efficacy was shown for atomoxetine (SMD=-0.68, 95% CI; -0.76, -0.59) and methylphenidate (SMD=-0.75, 95% CI; -0.98, -0.52) and high efficacy was observed for lisdexamfetamine (SMD=-1.28, 95% CI; -1.84, -0.71). Compared to placebo treatment discontinuation was statistically significantly lower for methylphenidate (OR=0.35, 95% CI; 0.24, 0.52), while it was not significantly different for atomoxetine (OR=0.91, 95% CI; 0.66, 1.24), lisdexamfetamine (OR=0.60, 95% CI; 0.22, 1.65), and bupropion (OR=1.64, 95% CI; 0.5, 5.43). Limitations The heterogeneity was high, except in atomoxetine trials. The crossover studies were excluded. The effect sizes at specific time points were not
9. Title: Efficacy and tolerability of antidepressants in pediatric anxiety disorders: A systematic review and meta-analysis
Citation: Depression and Anxiety, March 2015, vol./is. 32/3(149-157), 1091-4269;1520-6394 (01 Mar 2015)
Author(s): Strawn J.R., Welge J.A., Wehry A.M., Keeshin B., Rynn M.A.
Language: English
Abstract: Background Randomized controlled trials have demonstrated that antidepressants are efficacious in the treatment of anxiety disorders in youth. However, there are no recent, systematic analyses of the efficacy, safety, or tolerability of these medications in pediatric anxiety disorders. Methods A systematic review and meta-analysis of prospective, randomized, parallel-group, controlled trials of selective serotonin reuptake inhibitors (SSRIs) and selective serotonin-norepinephrine reuptake inhibitors (SSNRI s) in pediatric patients with non-obessive compulsive disorder (OCD) anxiety disorders was undertaken using a search of PubMed/medline (1966-2014). The meta-analysis utilized random-effects models to evaluate change in the Pediatric Anxiety Rating Scale or similar anxiety scale, suicidality, and adverse events. Additionally, pharmacologic variables were explored with regard to effect size, although no correction for multiple comparisons was made with regard to these relationships. Results Nine trials involving 1,673 patients and six medications were included. All SSRI/SSNRI s evaluated demonstrated efficacy, and the meta-analytic estimate of effect was of moderate magnitude (Cohen’s d = 0.62, confidence interval [CI]: 0.34-0.89, P =.009) and there was evidence of modest heterogeneity (I² = 0.29, P = .103). Activation trended toward being more likely with antidepressant treatment (OR: 1.86, CI: 0.98-3.53, P = .054), but no increased risk was observed for nausea/abdominal symptoms (P = .262), discontinuation as a result of an adverse event (P = .132), or suicidality (OR: 1.3, CI: 0.53-3.2, P = .514). Finally, the effect size correlated with the serotonergic specificity of the agent (R = .79, P = .021). Conclusions Data for nine SSRI/SSNRI s suggest superiority of antidepressants relative to placebo for the treatment of pediatric anxiety disorders with a moderate effect size.
Publication type: Journal: Article
Source: EMBASE

7. Title: Diet in the treatment of ADHD in children - A systematic review of the literature
Citation: Nordic Journal of Psychiatry, January 2015, vol./is. 69/1(1-18), 0803-9488;1502-4725 (01 Jan 2015)
Author(s): Heilskov Rytt er M.J., Andersen L.B.B., Houmann T., Bilenberg N., Hvolby A., Molgaard C., Michaelsen K.F., Lauritzen L.
Language: English
Abstract: Background: Attention-deficit/hyperactivity disorder (ADHD) is one of the most prevalent psychiatric conditions in childhood. Dietary changes have been suggested as a way of reducing ADHD symptoms. Aims: To provide an overview of the evidence available on dietary interventions in children with ADHD, a systematic review was carried out of all dietary intervention studies in children with ADHD. Methods: Relevant databases were searched in October 2011, with an update search in March 2013. The studies included describe diet interventions in children with ADHD or equivalent diagnoses measuring possible changes in core ADHD symptoms: inattention, hyperactivity and impulsivity. Results: A total of 52 studies were identified, some investigating whether ADHD symptoms can improve by avoiding certain food elements (20 studies), and some whether certain food elements may reduce ADHD symptoms (32 studies). Conclusion: Elimination diets and fish oil supplementation seem to be the most promising dietary interventions for a reduction in ADHD symptoms in children. However, the studies on both treatments have shortcomings, and more thorough investigations will be necessary to decide whether they are recommendable as part of ADHD treatment.
Publication type: Journal: Review
Source: EMBASE

8. Title: Efficacy of antibiotic prophylaxis in children with vesicoureteral reflux: Systematic review and meta-analysis
Citation: Journal of Urology, March 2015, vol./is. 193/3(963-969), 0022-5347;1527-5347 (01 Mar 2015)
Language: English
Abstract: Computed. Studies with comorbid conditions, except those reporting on oppositional defiant disorder, were also excluded. All studies involving MPH were combined. Conclusions The results suggest that lisdexamfetamine has the best benefit risk balance and has promising potential for treating children and adolescents with ADHD. More research is needed for a better clinical evaluation of bupropion.
Publication type: Journal: Article
Source: EMBASE
Abstract: Purpose: Controversy exists regarding the use of continuous antibiotic prophylaxis vs observation in the management of children with vesicoureteral reflux. The reported effectiveness of continuous antibiotic prophylaxis in children with reflux varies widely. We determined whether the aggregated evidence supports use of continuous antibiotic prophylaxis in children with vesicoureteral reflux. Materials and Methods: We searched the Cochrane Controlled Trials Register, clinicaltrials.gov, MEDLINE, EMBASE, Google Scholar and recently presented meeting abstracts for reports in any language. Bibliographies of included studies were then hand searched for any missed articles. The study protocol was prospectively registered at PROSPERO (No. CRD42014009639). Reports were assessed and data abstracted in duplicate, with differences resolved by consensus. Risk of bias was assessed using standardized instruments. Results: We identified 1,547 studies, of which 8 are included in the meta-analysis. Pooled results demonstrated that continuous antibiotic prophylaxis significantly reduced the risk of recurrent febrile or symptomatic urinary tract infection (pooled OR 0.63, 95% CI 0.42-0.96) but, if urinary tract infection occurred, increased the risk of antibiotic resistant organism (pooled OR 8.75, 95% CI 3.52-21.73). A decrease in new renal scarring was not associated with continuous antibiotic prophylaxis use. Adverse events were similar between the 2 groups. Significant heterogeneity existed between studies (I² <sup>2</sup> 50%, p = 0.03), specifically between those trials with significant risk of bias (eg unclear protocol descriptions and/or lack of blinding). Conclusions: Compared to no treatment, continuous antibiotic prophylaxis significantly reduced the risk of febrile and symptomatic urinary tract infections in children with vesicoureteral reflux, although it increased the risk of infection due to antibiotic resistant bacteria. Continuous antibiotic prophylaxis did not significantly impact the occurrence of new renal scarring or reported adverse events.

Publication type: Journal: Article
Source: EMBASE
Full text: Available Elsevier at Salisbury District Hospital Healthcare Library
Full text: Available Elsevier at Journal of Urology, The

10. Title: Factors that predict remission of infant atopic dermatitis: A systematic review
Citation: Acta Dermato-Venereologica, April 2015, vol./is. 95/4 (389-394), 0001-5555;1651-2057 (01 Apr 2015)
Author(s): Von Kobyletzki L., Svensson A., Apfelbacher C., Schmitt J.
Language: English
Abstract: The individual prognosis of infants with atopic dermatitis (AD) is important for parents, healthcare professionals, and society. The aim of this study was to investigate predictors for remission of infant AD until school age. A systematic review was carried out of clinical and epidemiological studies investigating the effect of filaggrin gene (FLG) loss-of-function mutations, sex, exposure to pets, topical anti-inflammatory treatment, disease severity, and atopic sensitization during infancy on complete remission of infant-onset AD until 6-7 years of age. Systematic electronic searches until September 2013, data abstraction, and study quality assessment (Newcastle- Ottawa Scale) were performed. From 3,316 abstracts identified, 2 studies of good study quality were included. Parental allergies and sex did not significantly affect remission. For non-remission of AD, the included articles reported an association with any atopic sensitization at 2 years old (adjusted odds ratio [aOR] 2.76; 95% confidence interval [CI] 1.29-5.91), frequent scratching with early AD (aOR 5.86; 95% CI 3.04-11.29), objective severity score at 2 years old (aOR 1.10; 95% CI 1.07-1.14), and exposure to pets (cat OR 2.33; 95% CI 0.85-6.38). It is largely unknown which factors predict remission of infant AD. This is a highly relevant research gap that hinders patient information on the prognosis of infant-onset AD.

Publication type: Journal: Article
Source: EMBASE

11. Title: Headache in School Children: Is the Prevalence Increasing?
Citation: Current Pain and Headache Reports, 2015, vol./is. 19/4, 1531-3433;1534-3081 (2015)
Author(s): Albers L., von Kries R., Heinen F., Straube A.
Language: English
Abstract: The objectives of this systematic review were to examine age dependency of headache prevalence in school age children and to assess secular trends of headache prevalence in the last decade, gender and regional differences. A literature search was performed in MEDLINE to identify all prevalence studies in children and adolescents. Five hundred seventy studies were found, of which 37 studies could be included for this review. Headache prevalence in school children increases with their age as demonstrated in cohorts of identical children and cross-sectional surveys covering different age groups of children in one population. Regarding a potential general increase in the prevalence of headache in children and adolescents in the last decade, there are four studies which all show some increase of headache prevalence; however, the degree of increase is varying. Prevalence of headache in girls appears to be higher than in boys. There were no clear regional differences in the prevalence of headache.
12. Title: Hemispherectomy for treatment of refractory epilepsy in the pediatric age group: a systematic review

Citation: Journal of neurosurgery. Pediatrics, January 2015, vol./is. 15/1(34-44), 1933-0715 (01 Jan 2015)

Author(s): Griessenauger C.J., Salam S., Hendrix P., Patel D.M., Tubbs R.S., Blount J.P., Winkler P.A.

Language: English

Abstract: OBJECT: Evidence in support of hemispherectomy stems from a multitude of retrospective studies illustrating individual institutions' experience. A systematic review of this topic, however, is lacking in the literature.

METHODS: A systematic review of hemispherectomy for the treatment of refractory epilepsy available up to October 2013 was performed using the following inclusion criteria: reports of a total of 10 or more patients in the pediatric age group (< 20 years) undergoing hemispherectomy, seizure outcome reported after a minimum follow-up of 1 year after the initial procedure, and description of the type of hemispherectomy. Only the most recent paper from institutions that published multiple papers with overlapping study periods was included. Two reviewers independently applied the inclusion criteria and extracted all the data.

RESULTS: Twenty-nine studies with a total of 1161 patients met the inclusion criteria. Seizure outcome was available for 1102 patients, and the overall rate of seizure freedom at the last follow-up was 73.4%. Sixteen studies (55.2%) exclusively reported seizure outcomes of a single type of hemispherectomy. There was no statistically significant difference in seizure outcome and type of hemispherectomy (p = 0.737). Underlying etiology was reported for 85.4% of patients with documented seizure outcome, and the overall distribution of acquired, developmental, and progressive etiologies was 30.5%, 40.7%, and 28.8%, respectively. Acquired and progressive etiologies were associated with significantly higher seizure-free rates than developmental etiologies (p < 0.001). Twenty of the 29 studies (69%) reported complications. The overall rate of hydrocephalus requiring CSF diversion was 14%. Mortality within 30 days was 2.2% and was not statistically different between types of hemispherectomy (p = 0.787).

CONCLUSIONS: Hemispherectomy is highly effective for treating refractory epilepsy in the pediatric age group, particularly for acquired and progressive etiologies. While the type of hemispherectomy does not have any influence on seizure outcome, hemispherotomy procedures are associated with a more favorable complication profile.

Publication type: Journal: Review
Source: EMBASE

13. Title: Hospital-based bereavement services following the death of a child: A mixed study review

Citation: Palliative Medicine, March 2015, vol./is. 29/3(193-210), 0269-2163;1477-030X (26 Mar 2015)

Author(s): Donovan L.A., Wakefield C.E., Russell V., Cohn R.J.

Language: English

Abstract: Background: There has been a breadth of research on the grief experience of parents following the death of a child. However, the role and impact of hospital-based bereaved services remain unclear. Aim: To identify services offered to bereaved families in perinatal, neonatal, and pediatric hospital settings and summarize the psychosocial impact of these services and published recommendations for best practice hospital-based bereavement care.

Design: Systematic review of qualitative, quantitative, and mixed method studies guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses checklist and methodological quality appraised in accordance with the Mixed Method Appraisal Tool. Data sources: MEDLINE, EMBASE, Cumulative Index to Nursing and Allied Health, and PsychINFO were searched to find studies describing hospital-based bereavement services/interventions for parents, siblings, and grandparents. Results: In all, 14 qualitative, 6 quantitative, and 10 mixed method studies were identified. Nine descriptive articles were also included. Qualitatively, family members described feeling cared for and supported by staff, a reduction in sense of isolation, and improved coping and personal growth. Quantitatively, bereavement services have most effect for parents experiencing more complex mourning. It is recommended that bereavement services be theoretically driven and evidence based, offer continuity of care prior to and following the death of a child, and provide a range of interventions for the "whole family" and flexibility in service delivery.

Conclusions: There is a role for transitional hospital-based services/interventions for families in the lead up to and following the death of a child. Further mixed method research is required to inform best practice bereavement care guidelines in the perinatal, neonatal, and pediatric hospital settings.

Publication type: Journal: Review
Source: EMBASE

Full text: Available Palliative medicine at Palliative Medicine

14. Title: Incentives to promote breastfeeding: A systematic review

Citation: Pediatrics, March 2015, vol./is. 135/3(e687-e702), 0031-4005;1098-4275 (01 Mar 2015)
Author(s): Moran V.H., Morgan H., Rothnie K., MacLennan G., Stewart F., Thomson G., Crossland N., Tappin D., Campbell M., Hoddinott P.
Language: English
Abstract: BACKGROUND AND OBJECTIVES: Few women in industrialized countries achieve the World Health Organization’s recommendation to breastfeed exclusively for 6 months. Governments are increasingly seeking new interventions to address this problem, including the use of incentives. The goal of this study was to assess the evidence regarding the effectiveness of incentive interventions, delivered within or outside of health care settings, to individuals and/or their families seeking to increase and sustain breastfeeding in the first 6 months after birth.
METHODS: Searches of electronic databases, reference lists, and grey literature were conducted to identify relevant reports of published, unpublished, and ongoing studies. All study designs published in English, which met our definition of incentives and that were from a developed country, were eligible for inclusion. Abstract and full-text article review with sequential data extraction were conducted by 2 independent authors. RESULTS: Sixteen full reports were included in the review. The majority evaluated multicomponent interventions of varying frequency, intensity, and duration. Incentives involved providing access to breast pumps, gifts, vouchers, money, food packages, and help with household tasks, but little consensus in findings was revealed. The lack of high-quality, randomized controlled trials identified by this review and the multicomponent nature of the interventions prohibited meta-analysis. CONCLUSIONS: This review found that the overall effect of providing incentives for breastfeeding compared with no incentives is unclear due to study heterogeneity and the variation in study quality. Further evidence on breastfeeding incentives offered to women is required to understand the possible effects of these interventions.
Publication type: Journal: Review
Source: EMBASE
Full text: Available Salisbury Journals at Pediatrics

15. Title: Inflammatory myofibroblastic tumor of the trachea in the pediatric age group: Case report and systematic review of the literature
Citation: Journal of Bronchology and Interventional Pulmonology, March 2015, vol./is. 22/1(58-65), 1944-6586;1948-8270 (16 Mar 2015)
Author(s): Jindal A., Bal A., Agarwal R.
Language: English
Abstract: Inflammatory myofibroblastic tumors are uncommon tumors, which present as solitary masses in the pulmonary parenchyma. Tracheal involvement by these tumors is extremely rare and can be misdiagnosed as asthma. The closest histologic differential diagnoses are IgG4-related sclerosing pseudotumors, which are differentiated by IgG4 positivity. Fifty percent of inflammatory myofibroblastic tumors are positive for anaplastic lymphoma kinase gene rearrangements. The treatment modality of choice is surgical resection with therapeutic bronchoscopy reserved for patients presenting with acute airway obstruction or in those unwilling for surgery. New and upcoming treatments include anaplastic lymphoma kinase inhibitors like crizotinib.
Publication type: Journal: Review
Source: EMBASE

16. Title: Nasal intermittent positive pressure ventilation versus nasal continuous positive airway pressure for preterm infants with respiratory distress syndrome: A meta-analysis and up-date
Citation: Pediatric Pulmonology, April 2015, vol./is. 50/4(402-409), 8755-6863;1099-0496 (01 Apr 2015)
Author(s): Li W., Long C., Zhangxue H., Jinning Z., Shifang T., Juan M., Renjun L., Yuan S.
Language: English
Abstract: Summary Objective To evaluate whether nasal intermittent positive pressure ventilation (NIPPV) would decrease the requirement for endotracheal ventilation compared with nasal continuous positive airway pressure(NCPAP) for preterm infants with respiratory distress syndrome (RDS) and compare the related complications between these two noninvasive variations of respiratory support Methods A search of major electronic databases, including Medline (1980-2013) and the Cochrane Central Register of Controlled Trials, for randomized controlled trials that compared NIPPV versus NCPAP for preterm infants with RDS was performed. Main Results Six randomized controlled trials met selection criteria (n = 1,527). The meta-analyses demonstrated significant decrease in the need for invasive ventilation in the NIPPV group (RR:0.53; 95% CI, 0.33-0.85). In the subgroup of infants who received surfactant also demonstrated a significant rate of failure of nasal support in the NIPPV group (RR:0.57; 95% CI 0.42-0.78). However, the subgroup of infants whose gestational age (GA) < 30 weeks or birth weight (BW) < 1,500 g showed no difference between the two groups (RR:0.59; 95% CI 0.27-1.26); and the subgroup of infants whose GA > 30 weeks or BW > 1,500 g also showed no difference between the two groups (RR:0.63; 95% CI 0.29-1.39). No differences in other outcome variables were observed between the two groups.
Conclusions Among preterm infants with RDS, there was a significant decrease in the need for invasive ventilation in the NIPPV group as compared with NCPAP group, especially for the infants who received surfactant. However, NIPPV could not decrease the need for invasive ventilation both in the subgroup of infants whose GA < 30 weeks or BW < 1,500 g and the subgroup of infants with BW of >30 weeks or BW > 1,500 g. It is limited to analysis the primary outcome generally. Larger trials of this intervention are needed to assess the difference in this primary outcome and the related complications between both forms of noninvasive respiratory support.

**Publication type:** Journal: Review  
**Source:** EMBASE

### 17. Title: Neonatal pain and developmental outcomes in children born preterm: A systematic review  
**Citation:** Clinical Journal of Pain, March 2015, vol./is. 31/4(355-362), 0749-8047;1536-5409 (27 Mar 2015)  
**Author(s):** Valeri B.O., Holsti L., Linhares M.B.M.  
**Language:** English  
**Abstract:** Background: Neonates cared for in neonatal intensive care units are exposed to many painful and stressful procedures that, cumulatively, could impact later neurodevelopmental outcomes. However, a systematic analysis of these effects is yet to be reported. Objectives: The aim of this research was to review empirical studies examining the association between early neonatal pain experiences of preterm infants and the subsequent developmental outcomes of these children across different ages. Methods: The literature search was performed using the PubMed, PsycINFO, Lilacs, and SciELO databases and included the following key words: "pain," "preterm," and "development." In addition, a complementary search was performed in online journals that published pain and developmental studies to ensure all of the target studies had been found. The data were extracted according to predefined inclusion and exclusion criteria. Results: Thirteen studies were analyzed. In infants born extremely preterm (gestational age <29 wk) greater numbers of painful procedures were associated with delayed postnatal growth, with poor early neurodevelopment, high cortical activation, and with altered brain development. In toddlers born very preterm (gestational age <32 wk) biobehavioral pain reactivity-recovery scores were associated with negative affectivity temperament. Furthermore, greater numbers of neonatal painful experiences were associated with a poor quality of cognitive and motor development at 1 year of age and changes in cortical rhythmicity and cortical thickness in children at 7 years of age. Conclusions: For infants born preterm, neonatal pain-related stress was associated with alterations in both early and in later developmental outcomes. Few longitudinal studies examined the impact of neonatal pain in the long-term development of children born preterm.  
**Publication type:** Journal: Review  
**Source:** EMBASE  
**Full text:** Available *Clinical Journal of Pain* at [Clinical Journal of Pain](https://www.clinicaljournalofpain.com)

### 18. Title: No effect of proton pump inhibitors on crying and irritability in infants: Systematic review of randomized controlled trials  
**Citation:** Journal of Pediatrics, March 2015, vol./is. 166/3(767-770), 0022-3476;1097-6833 (01 Mar 2015)  
**Author(s):** Gieruszczak-Bialek D., Konarska Z., Skorka A., Vandenplas Y., Szajewska H.  
**Language:** English  
**Abstract:** Proton pump inhibitors are increasingly being used to treat infants with crying and/or irritability based on the assumption that these symptoms are attributable to gastroesophageal reflux. However, the data from a systematic review of randomized controlled trials do not support the use of proton pump inhibitors to decrease infant crying and irritability.  
**Publication type:** Journal: Article  
**Source:** EMBASE

### 19. Title: Noninvasive ventilation strategies for early treatment of RDS in preterm infants: An RCT  
**Citation:** Pediatrics, March 2015, vol./is. 135/3(444-451), 0031-4005;1098-4275 (01 Mar 2015)  
**Author(s):** Salvo V., Lista G., Lupo E., Ricotti A., Zimmermann L.J.I., Gavilanes A.W.D., Barberi I., Colivicchi M., Temporini F., Gazzolo D.  
**Language:** English  
**Abstract:** BACKGROUND AND OBJECTIVES: There is evidence that new methods of noninvasive ventilation (NIV) support have significantly changed respiratory distress syndrome (RDS) management in preterm infants. Further perspectives for neonatologists involve the assessment of different NIV strategies in terms of availability, effectiveness, and failure. This study evaluates the efficacy of 2 different NIV strategies for RDS treatment in very low birth weight (VLBW) infants: nasal synchronized intermittent positive pressure ventilation (NSIPPV), which is a modality of conventional ventilation with intermittent peak inspiratory pressure, and bilevel continuous positive
We conducted a 2-center randomized control study in 124 VLBW infants (<1500 g and <32 weeks of gestational age) with RDS who received NIV support (NSIPPV, n = 62; BiPAP, n = 62) within 2 hours of birth. We evaluated the performance of NIV strategies by selected primary outcomes (failure rate and duration of ventilation) and secondary outcomes. RESULTS: The number of failures and duration of ventilation support did not differ between NSIPPV and BiPAP strategies (P > .05 for both). Moreover, no differences between groups were found regarding secondary outcomes (P > .05 for all). CONCLUSIONS: The present data show no statistically significant differences between NSIPPV and BiPAP strategies in terms of duration of ventilation and failures, suggesting that both NIV techniques are effective in the early treatment of RDS in VLBW infants. Further randomized investigations on wider populations are needed to evaluate the effect of NIV techniques on long-term outcomes.

**Publication type:** Journal: Article

**Source:** EMBASE

**Full text:** Available Salisbury EJournals at Pediatrics

---

**Title:** Nonpharmacologic treatment of functional abdominal pain disorders: A systematic review

**Citation:** Pediatrics, March 2015, vol./is. 135/3(522-535), 0031-4005;1098-4275 (01 Mar 2015)

**Author(s):** Rutten J.M.T.M., Korterink J.J., Venmans L.M.A.J., Benninga M.A., Tabbers M.M.

**Language:** English

**Abstract:** BACKGROUND AND OBJECTIVE: Various nonpharmacologic treatments are available for pediatric abdominal pain-related functional gastrointestinal disorders (AP-FGIDs). Data on efficacy and safety are scarce. The goal of this study was to summarize the evidence regarding nonpharmacologic interventions for pediatric AP-FGIDs: lifestyle interventions, dietary interventions, behavioral interventions, prebiotics and probiotics, and alternative medicine. METHODS: Searches were conducted of the Medline and Cochrane Library databases. Systematic reviews and randomized controlled trials (RCTs) concerning nonpharmacologic therapies in children (aged 3-18 years) with AP-FGIDs were included, and data were extracted on participants, interventions, and outcomes. The quality of evidence was assessed by using the GRADE approach. RESULTS: Twenty-four RCTs were found that included 1390 children. Significant improvement of abdominal pain was reported after hypnotherapy compared with standard care/wait-list approaches and after cognitive behavioral therapy compared with a variety of control treatments/wait-list approaches. Written self-disclosure improved pain frequency at the 6-month follow-up only. Compared with placebo, Lactobacillus rhamnosus GG (LGG) and VSL#3 were associated with significantly more treatment responders (LGG relative risk: 1.31 [95% confidence interval: 1.08 to 1.59]; VSL#3: P < .05). Guar gum significantly improved irritable bowel syndrome symptom frequency; however, no effect was found for other fiber supplements (relative risk: 1.17 [95% confidence interval: 0.75 to 1.81]) or a lactose-free diet. Functional disability was not significantly decreased after yoga compared with a wait-list approach. No studies were found concerning lifestyle interventions: gluten-, histamine-, or carbonic acid-free diets; fluid intake; or prebiotics. No serious adverse effects were reported. The quality of evidence was found to be very low to moderate. CONCLUSIONS: Although high-quality studies are lacking, some evidence shows efficacy of hypnotherapy, cognitive behavioral therapy, and probiotics (LGG and VSL#3) in pediatric AP-FGIDs. Data on fiber supplements are inconclusive.

**Publication type:** Journal: Review

**Source:** EMBASE

**Full text:** Available Salisbury EJournals at Pediatrics

---

**Title:** Paediatric mastocytosis: A systematic review of 1747 cases

**Citation:** British Journal of Dermatology, March 2015, vol./is. 172/3(642-651), 0007-0963;1365-2133 (01 Mar 2015)

**Author(s):** Meni C., Bruneau J., Georgin-Lavialle S., Le Sache De Peufeilhoux L., Damag J., Hadj-Rabia S., Fraitag S., Dubreuil P., Hermine O., Bodemer C.

**Language:** English

**Abstract:** Paediatric mastocytosis was previously considered to be a benign and spontaneously regressing disease. However, this evolution is impossible to predict. To clarify the characteristics and course of paediatric mastocytosis, we performed a literature review of 1747 cases published between 1950 and April 2014. Lesions occurred before the age of 2 years in 90% of cases, and presented as urticaria pigmentosa (75% of cases), mastocytoma (20%) or diffuse cutaneous mastocytosis (5%). The male-to-female ratio was 14. KIT D816V mutation was detected in 34% of 215 tested patients. Clinical regression (complete or partial) occurred in 67% of cases and stabilization in 27%. However, the outcome was fatal in 29% of patients.

**Publication type:** Journal: Review

**Source:** EMBASE

**Full text:** Available BRITISH JOURNAL OF DERMATOLOGY at Salisbury District Hospital
22. **Title:** Psychological interventions for mental health disorders in children with chronic physical illness: A systematic review  
**Citation:** Archives of Disease in Childhood, April 2015, vol./is. 100/4(308-316), 0003-9888;1468-2044 (01 Apr 2015)  
**Author(s):** Bennett S., Shafran R., Coughtrey A., Walker S., Heyman I.  
**Language:** English  
**Abstract:** Background: Children with chronic physical illness are significantly more likely to develop common psychiatric symptoms than otherwise healthy children. These children therefore warrant effective integrated healthcare yet it is not established whether the known, effective, psychological treatments for symptoms of common childhood mental health disorders work in children with chronic physical illness. Methods: EMBASE, MEDLINE, PsycINFO and CINAHL databases were searched with predefined terms relating to evidence-based psychological interventions for psychiatric symptoms in children with chronic physical illness. We included all studies (randomised and non-randomised designs) investigating interventions aimed primarily at treating common psychiatric symptoms in children with a chronic physical illness in the review. Two reviewers independently assessed the relevance of abstracts identified, extracted data and undertook quality analysis. Results: Ten studies (209 children, including 70 in control groups) met the criteria for inclusion in the review. All studies demonstrated some positive outcomes of cognitive behavioural therapy for the treatment of psychiatric symptoms in children with chronic physical illness. Only two randomised controlled trials, both investigating interventions for symptoms of depression, were found. Conclusions: There is preliminary evidence that cognitive behavioural therapy has positive effects in the treatment of symptoms of depression and anxiety in children with chronic physical illness. However, the current evidence base is weak and fully powered randomised controlled trials are needed to establish the efficacy of psychological treatments in this vulnerable population.  
**Publication type:** Journal: Review  
**Source:** EMBASE  
**Full text:** Available ARCHIVES OF DISEASE IN CHILDHOOD at Archives of disease in childhood  
**Full text:** Available ARCHIVES OF DISEASE IN CHILDHOOD at Salisbury District Hospital Healthcare Library

23. **Title:** Psychosocial impact of pediatric living-donor kidney and liver transplantation on recipients, donors, and the family: A systematic review  
**Citation:** Transplant International, March 2015, vol./is. 28/3(270-280), 0934-0874;1432-2277 (01 Mar 2015)  
**Author(s):** Thys K., Schwering K.-L., Siebelink M., Dobbels F., Borry P., Schotsmans P., Aujoulat I.  
**Language:** English  
**Abstract:** Living-donor kidney and liver transplantation intend to improve pediatric recipients' psychosocial well-being, but psychosocial impact in recipients strongly depends upon the impact on the donor and the quality of family relations. We systematically reviewed quantitative and qualitative studies addressing the psychosocial impact of pediatric living-donor kidney and liver transplantation in recipients, donors, and the family. In accordance with the PRISMA guidelines, we systematically searched the databases Medline, Web of Knowledge, Cinahl, Embase, ERIC, and Google Scholar. We identified 23 studies that satisfied our inclusion criteria. Recipients had improved coping skills and satisfactory peer relationships, but also reported anxiety and depressive symptoms, worried about the future, and had a negative body image. Similarly, donors experienced increased self-esteem, empowerment, and community awareness, but also complained of postoperative pain and a lack of emotional support. With respect to family impact, transplantation generated a special bond between the donor and the recipient, characterized by gratitude and admiration, but also raised new expectations concerning the recipient’s lifestyle. As psychological problems in recipients were sometimes induced by feelings of guilt and indebtedness toward the donor, we recommend more research on how gift exchange dynamics function within donor-recipient relationships, enrolling donors and recipients within the same study.  
**Publication type:** Journal: Review  
**Source:** EMBASE

24. **Title:** Randomized trial of peanut consumption in infants at risk for peanut allergy  
**Citation:** New England Journal of Medicine, February 2015, vol./is. 372/9(803-813), 0028-4793;1533-4406 (26 Feb 2015)  
**Language:** English  
**Abstract:** Background: The prevalence of peanut allergy among children in Western countries has doubled in the past 10 years, and peanut allergy is becoming apparent in Africa and Asia. We evaluated strategies of peanut
consumption and avoidance to determine which strategy is most effective in preventing the development of peanut allergy in infants at high risk for the allergy. Methods: We randomly assigned 640 infants with severe eczema, egg allergy, or both to consume or avoid peanuts until 60 months of age. Participants, who were at least 4 months but younger than 11 months of age at randomization, were assigned to separate study cohorts on the basis of preexisting sensitivity to peanut extract, which was determined with the use of a skin-prick test - one consisting of participants with no measurable wheal after testing and the other consisting of those with a wheal measuring 1 to 4 mm in diameter. The primary outcome, which was assessed independently in each cohort, was the proportion of participants with peanut allergy at 60 months of age. Results: Among the 530 infants in the intention-to-treat population who initially had negative results on the skin-prick test, the prevalence of peanut allergy at 60 months of age was 13.7% in the avoidance group and 1.9% in the consumption group (P<0.001). Among the 98 participants in the intention-to-treat population who initially had positive test results, the prevalence of peanut allergy was 35.3% in the avoidance group and 10.6% in the consumption group (P = 0.004). There was no significant between-group difference in the incidence of serious adverse events. Increases in levels of peanut-specific IgG4 antibody occurred predominantly in the consumption group; a greater percentage of participants in the avoidance group had elevated titers of peanut-specific IgE antibody. A larger wheal on the skin-prick test and a lower ratio of peanut-specific IgG4:IgE were associated with peanut allergy. Conclusions: The early introduction of peanuts significantly decreased the frequency of the development of peanut allergy among children at high risk for this allergy and modulated immune responses to peanuts.

**Publication type:** Journal: Article
**Source:** EMBASE
**Full text:** Available The New England journal of medicine at New England Journal of Medicine

25. **Title:** Sodium valproate for the treatment of Tourette's syndrome in children: A systematic review and meta-analysis
**Citation:** Psychiatry Research, April 2015, vol./is. 226/2-3(411-417), 0165-1781;1872-7123 (30 Apr 2015)
**Author(s):** Yang C.-S., Zhang L.-L., Lin Y.-Z., Guo Q.
**Language:** English
**Abstract:** The aims are to evaluate the efficacy and safety of sodium valproate for children with Tourette's syndrome (TS). We searched PubMed, EMBASE, the Cochrane library, Cochrane Central, CBM, CNKI, VIP, WANG FANG database and relevant reference lists. Five RCTs (N=247) and five case series (N=163) studies were included. Only one RCT (93 patients) evaluated total YGTSS scores and there was significant difference in the reduction of total YGTSS scores between sodium valproate and the control group (3.50+/-4.59 vs 7.86+/-.7.03, P<0.01). One RCT (30 patients) evaluated motor and vocal tics, and there was significant difference in the reduction of motor and vocal tics scores between sodium valproate and haloperidol (10.45+/-4.15 vs 14.92+/-.3.01, P<0.01). Meta-analysis of three RCTs (N=124) showed there was no significant difference in the reduction of the number of tics between sodium valproate and the positive control group [Relative Risk (RR)=1.09, 95%CI (0.92, 1.30], P=0.30]. The pooled proportion in five case series studies which used tics symptom improvement self-defined by authors was 80.7% (95% CI: 73.7-86.2, I<sup>2</sup>=0). No fatal side effects were reported. In conclusion, based on the limited evidence, the routine use of sodium valproate for treatment of TS in children is not recommended. Further well-conducted trials that examine long-term outcomes are required.

**Publication type:** Journal: Article
**Source:** EMBASE

26. **Title:** Sucrose and warmth for analgesia in healthy newborns: An RCT
**Citation:** Pediatrics, March 2015, vol./is. 135/3(e607-e614), 0031-4005;1098-4275 (01 Mar 2015)
**Author(s):** Gray L., Garza E., Zageris D., Heilman K.J., Porges S.W.
**Language:** English
**Abstract:** BACKGROUND AND OBJECTIVE: Increasing data suggest that neonatal pain has long-term consequences. abstract Nonpharmacologic techniques (sucrose taste, pacifier suckling, breastfeeding) are effective and now widely used to combat minor neonatal pain. This study examined the analgesic effect of sucrose combined with radiant warmth compared with the taste of sucrose alone during a painful procedure in healthy full-term newborns.

**METHODS:** A randomized, controlled trial included 29 healthy, full-term newborns born at the University of Chicago Hospital. Both groups of infants were given 1.0 mL of 25% sucrose solution 2 minutes before the vaccination, and 1 group additionally was given radiant warmth from an infant warmer before the vaccination. We assessed pain by comparing differences in cry, grimace, heart rate variability (ie, respiratory sinus arrhythmia), and heart rate between the groups. RESULTS: The sucrose plus warmer group cried and grimaced for 50% less time after the vaccination than the sucrose alone group (P < .05, respectively). The sucrose plus warmer group had lower heart rate
and heart rate variability (ie, respiratory sinus arrhythmia) responses compared with the sucrose alone group (P < .01), reflecting a greater ability to physiologically regulate in response to the painful vaccination. CONCLUSIONS: The combination of sucrose and radiant warmth is an effective analgesic in newborns and reduces pain better than sucrose alone. The ready availability of this practical nonpharmacologic technique has the potential to reduce the burden of newborn pain.

**Publication type:** Journal: Article  
**Source:** EMBASE  
**Full text:** Available Salisbury E Journals at Pediatrics

### 27. Title: Systematic review of neonatal seizure management strategies provides guidance on anti-epileptic treatment  
**Citation:** Acta Paediatrica, International Journal of Paediatrics, February 2015, vol./is. 104/2(123-129), 0803-5253;1651-2227 (01 Feb 2015)  
**Author(s):** Hellstrom-Westas L., Boylan G., Agren J.  
**Language:** English  
**Abstract:** There is a lack of scientific evidence to support the best management of neonatal seizures. Current strategies for neonatal seizure management were investigated by analysis of all surveys published during the time period 2000-2012. Methods for seizure diagnosis and availability of electroencephalogram (EEG), including monitoring, varied. Phenobarbital was the drug of first choice, and the use of off-label drugs and treatment times varied. Conclusion: We conclude that there is an urgent need for more evidence-based studies to guide neonatal seizure management.

**Publication type:** Journal: Review  
**Source:** EMBASE

### 28. Title: The pharmacological management of oppositional behaviour, conduct problems, and aggression in children and adolescents with attention-deficit hyperactivity disorder, oppositional defiant disorder, and conduct disorder: A systematic review and meta-analysis. Part 2: Psychostimulants, alpha-2 agonists, and atomoxetine  
**Citation:** Canadian Journal of Psychiatry, February 2015, vol./is. 60/2(42-51), 0706-7437;1497-0015 (01 Feb 2015)  
**Author(s):** Pringsheim T., Hirsch L., Gardner D., Gorman D.A.  
**Language:** English  
**Abstract:** Objective: Children with attention-deficit hyperactivity disorder (ADHD) may have oppositional behaviour, conduct problems, and aggression. These symptoms vary in severity, and may be related to a comorbid diagnosis of oppositional defiant disorder (ODD) or conduct disorder (CD). Critical evaluation of the efficacy of ADHD medications may guide the clinician regarding the usefulness of medications for these symptoms. Method: We performed a systematic review and meta-analysis of psychostimulants, alpha-2 agonists, and atomoxetine for oppositional behaviour, conduct problems, and aggression in youth with ADHD, ODD, and CD. The quality of evidence for medications was rated using the Grading of Recommendations Assessment, Development and Evaluation approach. Results: Two systematic reviews and 20 randomized controlled trials were included. There is high-quality evidence that psychostimulants have a moderate-to-large effect on oppositional behaviour, conduct problems, and aggression in youth with ADHD, with and without ODD or CD. There is very-low-quality evidence that clonidine has a small effect on oppositional behaviour and conduct problems in youth with ADHD, with and without ODD or CD. There is moderate-quality evidence that guanfacine has a small-to-moderate effect on oppositional behaviour in youth with ADHD, with and without ODD. There is high-quality evidence that atomoxetine has a small effect on oppositional behaviour in youth with ADHD, with and without ODD or CD. Conclusions: Evidence indicates that psychostimulants, alpha-2 agonists, and atomoxetine can be beneficial for disruptive and aggressive behaviours in addition to core ADHD symptoms; however, psychostimulants generally provide the most benefit.

**Publication type:** Journal: Review  
**Source:** EMBASE  
**Full text:** Available Canadian journal of psychiatry. Revue canadienne de psychiatrie at Canadian Journal of Psychiatry

### 29. Title: The pharmacological management of oppositional behaviour, conduct problems, and Aggression in children and adolescents with Attention-deficit hyperactivity disorder, oppositional defiant disorder, and conduct disorder: A systematic review and meta-analysis. Part 2: Antipsychotics and traditional mood stabilizers  
**Citation:** Canadian Journal of Psychiatry, February 2015, vol./is. 60/2(52-61), 0706-7437;1497-0015 (01 Feb 2015)  
**Author(s):** Pringsheim T., Hirsch L., Gardner D., Gorman D.A.  
**Language:** English  
**Abstract:** Objective: Attention-deficit hyperactivity disorder (ADHD), oppositional defiant disorder (ODD), and
Conduct disorder (CD) are among the most common psychiatric diagnoses in childhood. Aggression and conduct problems are a major source of disability and a risk factor for poor long-term outcomes. Methods: We performed a systematic review and meta-analysis of randomized controlled trials (RCTs) of antipsychotics, lithium, and anticonvulsants for aggression and conduct problems in youth with ADHD, ODD, and CD. Each medication was given an overall quality of evidence rating based on the Grading of Recommendations Assessment, Development and Evaluation approach. Results: Eleven RCTs of antipsychotics and 7 RCTs of lithium and anticonvulsants were included. There is moderate-quality evidence that risperidone has a moderate-to-large effect on conduct problems and aggression in youth with subaverage IQ and ODD, CD, or disruptive behaviour disorder not otherwise specified, with and without ADHD, and high-quality evidence that risperidone has a moderate effect on disruptive and aggressive behaviour in youth with average IQ and ODD or CD, with and without ADHD. Evidence supporting the use of haloperidol, thioridazine, quetiapine, and lithium in aggressive youth with CD is of low or very-low quality, and evidence supporting the use of divalproex in aggressive youth with ODD or CD is of low quality. There is very-low-quality evidence that carbamazepine is no different from placebo for the management of aggression in youth with CD. Conclusion: With the exception of risperidone, the evidence to support the use of antipsychotics and mood stabilizers is of low quality.

**Publication type:** Journal: Review

**Source:** EMBASE

**Full text:** Available Canadian journal of psychiatry. Revue canadienne de psychiatrie at Canadian Journal of Psychiatry

30. **Title:** Tonsillectomy versus tonsillotomy for sleep-disordered breathing in children: A meta analysis

**Citation:** PLoS ONE, March 2015, vol./is. 10/3, 1932-6203 (25 Mar 2015)

**Author(s):** Wang H., Fu Y., Feng Y., Guan J., Yin S.

**Language:** English

**Abstract:** Objectives: Tonsillotomy has gained popular acceptance as an alternative to the traditional tonsillectomy in the management of sleep-disordered breathing in children. Many studies have evaluated the outcomes of the two techniques, but uncertainty remains with regard to the efficacy and complications of tonsillotomy versus a traditional tonsillectomy. This study was designed to investigate the efficacy and complications of tonsillotomy versus tonsillectomy, in terms of the short- and long-term results. Methods: We collected data from electronic databases including MEDLINE, EMBASE, and the Cochrane Library. The following inclusion criteria were applied: English language, children, and prospective studies that directly compared tonsillotomy and tonsillectomy in the management of sleep disordered breathing. Subgroup analysis was then performed. Results: In total, 10 eligible studies with 1029 participants were included. Tonsillotomy was shown to be advantageous over tonsillectomy in short-term measures, such as a lower hemorrhage rate, shorter operation time, and faster pain relief. In long-term follow-up, there was no significant difference in resolution of upper-airway obstructive symptoms, the quality of life, or postoperative immune function between the tonsillectomy and tonsillotomy groups. The risk ratio of SDB recurrence was 3.33 (95% confidence interval = 1.62 6.82, P = 0.001), favoring tonsillectomy at an average follow-up of 31 months. Conclusions: Tonsillotomy may be advantageous over tonsillectomy in the short term measures and there are no significant difference of resolving obstructive symptoms, quality of life and postoperative immune function. For the long run, the dominance of tonsillotomy may be less than tonsillectomy with regard to the rate of sleep-disordered breathing recurrence.

**Publication type:** Journal: Article

**Source:** EMBASE

**Full text:** Available ProQuest at PLoS ONE

31. **Title:** Tuberculosis as a cause or comorbidity of childhood pneumonia in tuberculosis-endemic areas: A systematic review

**Citation:** The Lancet Respiratory Medicine, March 2015, vol./is. 3/3(235-243), 2213-2600;2213-2619 (01 Mar 2015)

**Author(s):** Oliwa J.N., Karumbi J.M., Marais B.J., Madhi S.A., Graham S.M.

**Language:** English

**Abstract:** Pneumonia is a major cause of morbidity and mortality in infants and children worldwide, with most cases occurring in tuberculosis-endemic settings. Studies have emphasised the potential importance of Mycobacterium tuberculosis in acute severe pneumonia in children as a primary cause or underlying comorbidity, further emphasised by the changing aetiological range with rollout of bacterial conjugate vaccines in high mortality settings. We systematically reviewed clinical and autopsy studies done in tuberculosis-endemic settings that enrolled at least 100 children aged younger than 5 years with severe pneumonia, and that prospectively included a diagnostic approach to tuberculosis in all study participants. We noted substantial heterogeneity between studies in terms of
study population and diagnostic methods. Of the 3644 patients who had culture of respiratory specimens for M tuberculosis undertaken, 275 (75%) were culture positive, and an acute presentation was common. Inpatient case-fatality rate for pneumonia associated with tuberculosis ranged from 4% to 21% in the four clinical studies that reported pathogen-related outcomes. Prospective studies are needed in high tuberculosis-burden settings to address whether tuberculosis is a cause or comorbidity of childhood acute severe pneumonia.

**Publication type:** Journal: Review  
**Source:** EMBASE

---

**32. Title:** Validity and reliability of measurement of capillary refill time in children: A systematic review  
**Citation:** Archives of Disease in Childhood, March 2015, vol./is. 100/3(239-249), 0003-9888;1468-2044 (01 Mar 2015)  
**Author(s):** Fleming S., Gill P., Jones C., Taylor J.A., Van Den Bruel A., Heneghan C., Thompson M.  
**Language:** English  
**Abstract:** Background: Most guidelines recommend the use of capillary refill time (CRT) as part of the routine assessment of unwell children, but there is little consensus on the optimum method of measurement and cut-off time. Methods: We searched Medline (from 1948), Embase (from 1980) and CINAHL (from 1991) to June 2014 to identify studies with information on the normal range of CRT in healthy children, the validity of CRT compared with reference standard measures of haemodynamic status, reliability and factors influencing measurement of CRT, such as body site, pressing time and temperature. Findings: We included 21 studies on 1915 children. Four studies provided information on the relationship between CRT and measures of cardiovascular status, 13 provided data on the normal range of CRT, 7 provided data on reliability and 10 assessed the effect of various confounding factors. In children over 7 days of age, the upper limit of normal CRT is approximately 2 s when measured on a finger, and 4 s when measured on the chest or foot, irrespective of whether the child is feverish or not. Longer pressing times and ambient temperature outside 20degreeC-25degreeC are associated with longer CRT. Evidence suggests that the use of stopwatches reduces variability between observers. Interpretation: We recommend use of the following standardised CRT method of measurement: press on the finger for 5 s using moderate pressure at an ambient temperature of 20degreeC-25degreeC. A capillary refill time of 3 s or more should be considered abnormal.  
**Publication type:** Journal: Review  
**Source:** EMBASE  
**Full text:** Available ARCHIVES OF DISEASE IN CHILDHOOD at Archives of disease in childhood  
**Full text:** Available ARCHIVES OF DISEASE IN CHILDHOOD at Salisbury District Hospital Healthcare Library

---

**33. Title:** Variation in incidence of pediatric Crohn's disease in relation to latitude and ambient ultraviolet radiation: A systematic review and analysis  
**Citation:** Inflammatory Bowel Diseases, March 2015, vol./is. 21/4(809-817), 1078-0998;1536-4844 (06 Mar 2015)  
**Author(s):** Holmes E.A., Xiang F., Lucas R.M.  
**Language:** English  
**Abstract:** Background: Pediatric Crohn’s disease (CD) is a lifelong, debilitating, and costly disease. In previous studies, CD incidence increased with higher geographic latitude in the Northern Hemisphere. This may indicate a role for lower vitamin D status as a risk factor for CD. Analysis of worldwide incidence of pediatric CD has not been previously reported. Methods: We undertook a systematic review of population-based studies reporting incidence of pediatric CD and published between 2003 and 2013. Included studies had well-defined diagnostic criteria for CD, evidence of high case ascertainment, reported incidence according to age group, and provided a specific location. Average daily ambient ultraviolet radiation (UVR) for each location was derived from satellite data. Negative binomial regression was used to assess the association between pediatric CD incidence and latitude and ambient UVR, adjusting for the study year. Results: Twenty-eight articles provided 39 incidence data points. Incidence of pediatric CD increased with higher latitude, and in association with a greater number of months where the average daily UVR was lower than a previously published threshold of 1.488 kJ/m 2. Incidence of pediatric CD increased over calendar time. Conclusions: After applying rigorous quality assessment criteria, and including only population-based studies, there was a modest increase in incidence of pediatric CD with higher latitude and greater number of months with low ambient UVR. Reporting using nonconsistent diagnostic criteria and age groups, with poorly defined geographic locations, makes it difficult to compare data across different studies.  
**Publication type:** Journal: Article  
**Source:** EMBASE  
**Full text:** Available Inflammatory bowel diseases at Inflammatory Bowel Diseases

---

**34. Title:** Visual-perceptual impairment in children with cerebral palsy: A systematic review  
**Citation:** Developmental Medicine and Child Neurology, April 2015, vol./is. 57/s2(46-51), 0012-1622;1469-8749 (01
**Aim:** Visual perception is one of the cognitive functions often impaired in children with cerebral palsy (CP). The aim of this systematic literature review was to assess the frequency of visual-perceptual impairment (VPI) and its relationship with patient characteristics.

**Method:** Eligible studies were relevant papers assessing visual perception with five common standardized assessment instruments in children with CP published from January 1990 to August 2011. Results: Of the 84 studies selected, 15 were retained. In children with CP, the proportion of VPI ranged from 40% to 50% and the mean visual perception quotient from 70 to 90. None of the studies reported a significant influence of CP subtype, IQ level, side of motor impairment, neuro-ophthalmological outcomes, or seizures. The severity of neuroradiological lesions seemed associated with VPI. The influence of prematurity was controversial, but a lower gestational age was more often associated with lower visual motor skills than with decreased visual-perceptual abilities. Interpretation: The impairment of visual perception in children with CP should be considered a core disorder within the CP syndrome. Further research, including a more systematic approach to neuropsychological testing, is needed to explore the specific impact of CP subgroups and of neuroradiological features on visual-perceptual development.

**Title:** When should clinicians search for GLUT1 deficiency syndrome in childhood generalized epilepsies?

**Citation:** European Journal of Paediatric Neurology, March 2015, vol./is. 19/2(170-175), 1090-3798;1532-2130 (01 Mar 2015)

**Author(s):** Lebon S., Suarez P., Alija S., Korff C.M., Fluss J., Mercati D., Datta A.N., Poloni C., Marcoz J.-P., Campos-Xavier A.B., Bonafe L., Roulet-Perez E.

**Abstract:** GLUT1 deficiency (GLUT1D) has recently been identified as an important cause of generalized epilepsies in childhood. As it is a treatable condition, it is crucial to determine which patients should be investigated.

**Methods:** We analyzed SLC2A1 for mutations in a group of 93 unrelated children with generalized epilepsies. Fasting lumbar puncture was performed following the identification of a mutation. We compared our results with a systematic review of 7 publications of series of patients with generalized epilepsies screened for SLC2A1 mutations.

**Results:** We found 2/93 (2.1%) patients with a SLC2A1 mutation. One, carrying a novel de novo deletion had epilepsy with myoclonic-atonic seizures (MAE), mild slowing of head growth, choreiform movements and developmental delay. The other, with a paternally inherited missense mutation, had childhood absence epilepsy with atypical EEG features and paroxysmal exercise-induced dyskinesia (PED) initially misdiagnosed as myoclonic seizures. Out of a total of 1110 screened patients with generalized epilepsies from 7 studies, 2.4% (29/1110) had GLUT1D. This rate was higher (5.6%) among 303 patients with early onset absence epilepsy (EOAE) from 4 studies. About 50% of GLUT1D patients had abnormal movements and 41% a family history of seizures, abnormal movements or both. **Conclusion:** GLUT1D is most likely to be found in MAE and in EOAE. The probability of finding GLUT1D in the classical idiopathic generalized epilepsies is very low. Pointers to GLUT1D include an increase in seizures before meals, cognitive impairment, or PED which can easily be overlooked.

**Publication type:** Journal: Article

**Source:** EMBASE

---

**NHS Choices**

**Meningitis B jab to be added to NHS child vaccine schedule**
Monday Mar 30 2015

"Britain will become the first country in the world to offer a nationwide vaccination programme against meningitis," The Independent reports. A vaccine against the potentially life-threatening bacterial infection will be provided later this year...

**Parents fail to spot that their kids are obese**
Monday Mar 30 2015

"Parents hardly ever spot obesity in their children, resulting in damaging consequences for health," BBC News reports after a new study found a third of UK parents underestimated the weight of their child...
**Do antibiotics in pregnancy cause cerebral palsy and epilepsy?**
Thursday Mar 26 2015
"Antibiotic used in pregnancy linked to risk of epilepsy and cerebral palsy," The Guardian reports. The results of a new study suggest women who take macrolide antibiotics were slightly more likely to give birth to a child with one (or both)...

**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...

---

**New Books**

New books related to the topic of Paediatrics available from Healthcare Library. To search the library catalogue visit [www.swims.nhs.uk](http://www.swims.nhs.uk)

- **Oxford handbook of paediatrics.**
  Shelfmark: WS100

- **Play in healthcare: using play to promote child development and wellbeing.**
  Shelfmark: WS255

- **Rennie and Roberton's textbook of neonatology.**
  Shelfmark: WS800

- **Managing pain in children: a clinical guide for nurses and healthcare professionals.**
  Shelfmark: WS416 TWY

- **Children and young people's nursing at a glance.**
  Shelfmark: WS405

- **Postgraduate paediatric orthopaedics: the candidate's guide to the FRCS (Tr & Orth) examination.**
  Shelfmark: WS430 ALS
This current awareness bulletin contains a selection of information which is not intended to be exhaustive, and although library staff have made every effort to link only to reputable and reliable websites, the information contained in this bulletin has not been critically appraised by library staff. It is therefore the responsibility of the reader to appraise this information for accuracy and relevance.

This bulletin was produced by Caroline Thomas, Librarian, Salisbury NHS Foundation Trust Healthcare Library. If you have any comments to make about this bulletin please contact caroline.thomas@salisbury.nhs.uk