University Hospitals Bristol NHS
NHS Foundation Trust

Paediatric Allergy

Evidence Update

June/ July 2017

Respecting everyone
Embracing change
Recognising success
Working together
Our hospitals.

Training Calendar 2017

All sessions are one hour

June (12.00-13.00)

29th (Thurs) Literature Searching

July (13.00-14.00)

3rd (Mon) Interpreting Statistics
12th (Wed) Critical Appraisal
21st (Fri) Literature Searching
26th (Wed) Interpreting Statistics

Your Outreach Librarian – Helen Pullen

Whatever your information needs, the library is here to help. Just email us at library@uhbristol.nhs.uk

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

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

Journal Tables of Contents

If you would like any of the papers in full text then please email the library: library@uhbristol.nhs.uk

Allergy

July 2017, Volume 72, Issue 7

Estimate of the total costs of allergic rhinitis in specialized care based on real-world data: the FERIN Study (pages 959–966)

Mold and dampness exposure and allergic outcomes from birth to adolescence: data from the BAMSE cohort (pages 967–974)

J. D. Thacher, O. Gruzieva, G. Pershagen, E. Melén, J. C. Lorentzen, I. Kull and A. Bergström

Clinical & Experimental Allergy

June 2017, Volume 47, Issue 6

Journal of Allergy and Clinical Immunology

June 2017. Volume 139, Issue 6

Intraepithelial neutrophils in pediatric severe asthma are associated with better lung function

Pediatric Allergy and Immunology

June 2017. Volume 28, Issue 4

Indoor fungal diversity in primary schools may differently influence allergic sensitization and asthma in children (pages 332–339)

UpToDate is the leading evidence-based clinical decision support system, designed for use at the point of care.

It contains more than 9,500 searchable topics across the following specialities:

- Adult and paediatric emergency medicine
- Allergy and immunology
- Cardiovascular medicine
- Dermatology
- Drug therapy
- Endocrinology and diabetes mellitus
- Family medicine
- Gastroenterology and hepatology
- General surgery
- Geriatrics
- Haematology
- Hospital Medicine
- Infectious diseases
- Nephrology and hypertension
- Neurology
- Obstetrics and gynaecology
- Oncology
- Paediatrics
- Primary care internal medicine
- Psychiatry
- Pulmonary, critical care and sleep medicine
- Rheumatology

How to access UpToDate

You can access UpToDate from any computer via www.uptodate.com. You will need your NHS Athens username/password (register through http://openathens.nice.org.uk/).

1. Coping with asthma in racially and ethnically diverse urban children: The role of emotional problems in disease control.

Author(s): Rodríguez, Erin M.; Kumar, Harsha; Draeger, Annie; Sánchez-Johnsen, Lisa

Source: Children's Health Care; Apr 2017; vol. 46 (no. 2); p. 151-169

Publication Date: Apr 2017

Publication Type(s): Academic Journal

Abstract: This study examined cross-sectional associations among coping, mental health, and asthma outcomes in racially/ethnically diverse urban children. Children (N = 42; 65% female) ages 9 to 17 (M = 11.9) years old and their parents reported on the child's coping, emotional and conduct problems, asthma control, and school missed due to asthma. Higher child and parent reported secondary control coping was correlated with fewer mental health problems and better child reported asthma control. Child reported emotional problems partially accounted for associations between child and parent reported secondary control coping and child reported asthma control. Secondary control coping may improve asthma by reducing emotional difficulties.

Database: CINAHL

2. Clinical pharmacokinetics of magnesium sulfate in the treatment of children with severe acute asthma.

Author(s): Rower, Joseph E; Liu, Xiaoxi; Yu, Tian; Mundorff, Michael; Sherwin, Catherine M T; Johnson, Michael D

Source: European journal of clinical pharmacology; Mar 2017; vol. 73 (no. 3); p. 325-331

Publication Date: Mar 2017

Publication Type(s): Journal Article

PubMedID: 27909740

Abstract:PURPOSEIntravenous (IV) magnesium sulfate (MgSO4) is used as adjunct therapy to treat acute asthma exacerbations. Despite its clinical use, there is a limited understanding of the disposition of magnesium in children.METHODSTo explore the pharmacokinetics (PK) of IV MgSO4 in this population, we collected retrospective data from 54 children who received IV MgSO4 for treatment of an acute asthma exacerbation at Primary Children's Hospital in Salt Lake City, UT. These data were analyzed using population PK modeling techniques in NONMEM® to determine sources of variability affecting the disposition of magnesium, as well as to predict the dose of IV MgSO4 needed to achieve clinical benefit.RESULTSThe covariate analysis found that only weight was a significant predictor of magnesium concentrations in children. Estimated model parameters suggested that magnesium exhibits a short serum half-life (2.7 h) in children. The average endogenous magnesium concentration (prior to administration of IV MgSO4) was estimated to be 21 mg/L. Simulated data suggested that doses between 50 and 75 mg/kg are required to achieve concentration-time profiles within a hypothesized target therapeutic range between 25 and 40 mg/L.CONCLUSIONSThese results provide new insight into the disposition of IV MgSO4 in children and provide dosing guidelines for future prospective studies of IV MgSO4 in children with acute asthma.

Database: Medline

3. Presence of Household Mold, Children's Respiratory Health, and School Absenteeism: Cause for Concern.

Author(s): Polyzoi, Eleoussa; Polyzois, Dimos; Koulis, Theo

Source: Journal of Environmental Health; Mar 2017; vol. 79 (no. 7); p. 28-35

Publication Date: Mar 2017

Publication Type(s): Academic Journal

Available in full text at Journal of environmental health [J Environ Health] NLMUID: 0405525 - from EBSCOhost

Available in full text at Journal of Environmental Health - from EBSCOhost

Available in full text at Journal of Environmental Health - from ProQuest

Abstract:A study examining the relationship between housing conditions, respiratory health, and school absenteeism was conducted in the city of Winnipeg in Manitoba, Canada. As part of this study, a survey was completed by 3,424 parents of children in grades 3 and 4 to determine the a) relationship between self-reported visible mold in homes and tested airborne mold; b) relationships of self-reported visible mold, tested airborne mold, and asthma and/or persistent colds; c) school absenteeism rates due to asthma and/or persistent colds; and d) children's socioeconomic status (SES) and incidence of asthma and/or persistent colds. In addition, a complete inspection of a subset of 715 homes was conducted, including the collection of over 1,400 indoor and 500 outdoor air samples for mold analysis. Results indicate a significant association between self-reported visible mold and airborne mold. Additionally, a significant association was found between Cladosporium levels from air samples (the most common genus type found) and children's asthma in combination with persistent colds. Children with persistent colds in combination with asthma miss significantly more school than children who have only asthma or only persistent colds. Children from poorer families reported more persistent colds than children from high-income families. No association was found between income and asthma. Furthermore, SES was not a significant factor for number of school days missed.

Database: CINAHL

5. Air pollution and asthma attacks in children: A case-crossover analysis in the city of Chongqing, China.

Author(s): Ding, Ling; Zhu, Daojuan; Peng, Donghong; Zhao, Yao

Source: Environmental pollution (Barking, Essex : 1987); Jan 2017; vol. 220 ; p. 348-353

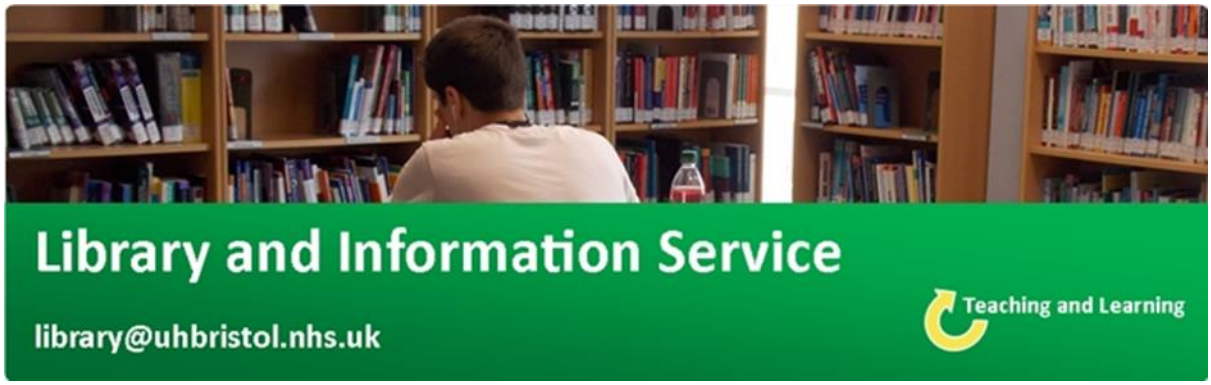
Publication Date: Jan 2017

Publication Type(s): Journal Article

PubMedID: 27692885

Abstract: Data on particulate matter of diameter <2.5 μm (PM2.5) in the city of Chongqing were first announced in 2013. We wished to assess the effects of pollutants on asthmatic children in Chongqing, China. Daily numbers of hospital visits because of asthma attacks in children aged 0-18 years in 2013 were collected from the Children's Hospital of Chongqing Medical University. Data on pollutants were accessed from the nine air quality-monitoring stations in Chongqing. A time-stratified case-crossover design was applied and conditional logistic regression was undertaken to analyze the data. We found that short-term exposure to PM10, PM2.5, sodium dioxide, nitrogen and carbon monoxide could trigger hospital visits for asthma in children. Nitrogen dioxide had an important role, whereas ozone had no effect.

Database: Medline



Library Opening Times

Staffed hours: 8am-5pm, Monday to Friday

Swipe-card access: 7am-11pm, seven days a week

Level Five, Education and Research Centre

University Hospitals Bristol