SINUS X ANTIBIOTICS = ESTRATÉGIA DE BUSCA

PUBMED – 24/10/2008.

DOENÇA	**TOTAL DE ESTUDOS**
("Sinusitis"[Mesh]) OR (Sinusitis)OR (Sinusitides) OR ("Rhinitis"[Mesh]) OR (Rhinitis) OR (Rhinitides) OR ("Paranasal Sinus Diseases"[Mesh]) OR (Paranasal Sinus Diseases) OR (Disease, Paranasal Sinus) OR (Diseases, Paranasal Sinus) OR (Paranasal Sinus Disease) OR (Sinus Disease, Paranasal) OR (Sinus Diseases, Paranasal) OR ("Nasopharyngitis"[Mesh]) OR (Nasopharyngitis) OR (Nasopharyngitides) OR ("Common Cold"[Mesh]) OR (Common Cold) OR (Cold, Common) OR (Colds, Common) OR (Common Colds) OR (Coryza, Acute) OR (Acute Coryza) OR (rhinorrhoea OR rhinorrhea) OR (Rhinosinusitis) OR (Persistent Nasal Discharge) OR (Nasal Discharge)	**57696**
INTERVENÇÃO • ("Anti-Bacterial Agents"[Mesh])OR (Anti-Bacterial Agents**)** OR (Agents, Anti-Bacterial) OR (Anti Bacterial Agents) OR (Antibacterial Agents) OR (Agents, Antibacterial) OR (Antibiotics) OR (Bacteriocidal Agents) OR (Agents, Bacteriocidal) OR (Bacteriocides) OR (Anti-Mycobacterial Agents) OR (Agents, Anti-Mycobacterial) OR (Anti Mycobacterial Agents) OR (Antimycobacterial Agents) OR (Agents, Antimycobacterial) OR (Antibiotics or antibiotic) OR ("Anti-Infective Agents"[Mesh]) OR(Anti-Infective Agents) OR (Agents, Anti-Infective) OR (Anti Infective Agents) OR (Antiinfective Agents) OR (Agents, Antiinfective) OR (Microbicides) OR (Antimicrobial Agents) OR (Agents, Antimicrobial) OR (Anti-Microbial Agents) OR (Agents, Anti-Microbial) OR (Anti Microbial Agents) OR • ("Amoxicillin"[Mesh]) OR (Amoxycillin) OR (Amoxicilline) OR (Hydroxyampicillin) OR (Amoxicillin, (R*)-isomer) OR (Amoxil) OR (BRL-2333) OR (BRL 2333) OR (BRL2333) OR (Clamoxyl) OR (Penamox) OR (Clamoxyl G.A.) OR (G.A., Clamoxyl) OR (Pfizer Brand of Amoxicillin Sodium Salt) OR (SmithKline Beecham Brand of Amoxicillin Sodium Salt) OR (Clamoxyl parenteral) OR (parenteral, Clamoxyl) OR (Amoxicillin monosodium salt) OR (Trimox)	

OR (Wymox) OR (Actimoxi) OR (Clariana Brand of Amoxicillin) OR (Amoxicillin Clariana Brand) OR (Amoxicillin monopotassium salt) OR (Amoxicillin trihydrate) OR (trihydrate, Amoxicillin) OR (Polymox) • ("Ampicillin"[Mesh]) OR (Ampicillin) OR(Aminobenzylpenicillin) OR (Penicillin, Aminobenzyl) OR (Aminobenzyl Penicillin) OR (Ampicillin Sodium) OR (Sodium, Ampicillin) OR (Ampicillin Trihydrate) OR (Trihydrate, Ampicillin) OR (Ukapen) OR (Omnipen) OR (Pentrexyl) OR (Polycillin) OR (Amcill) OR (KS-R1) OR (KS R1) OR (KSR1) • ("Azithromycin"[Mesh])OR (**Azithromycin)OR** (Azythromycin) OR (Azithromycin Monohydrate) OR (Monohydrate, Azithromycin) OR (CP-62993) OR (CP 62993) OR (CP62993) OR (Zithromax) OR (Azitrocin) OR (Bayer Brand of Azithromycin Dihydrate) OR (Pfizer Brand of Azithromycin) OR (Azithromycin Pfizer Brand) OR (Pfizer Brand of Azithromycin Dihydrate) OR (Ultreon) OR (Zitromax) OR (Azadose) OR (Mack Brand of Azithromycin Dihydrate) OR (Sumamed) OR (Toraseptol) OR (Lesvi Brand of Azithromycin Dihydrate) OR (Vinzam) OR (Funk Brand of Azithromycin Dihydrate) OR (Zentavion) OR (Vita Brand of Azithromycin Dihydrate) OR (Azithromycin Dihydrate) OR (Dihydrate, Azithromycin) OR (Goxal) OR (Pharmacia Brand of Azithromycin Dihydrate) • ("Cefaclor"[Mesh]) OR (Ceflacor) OR (S-6472) OR (S 6472) OR (S6472) OR (Lilly 99638) OR (Ceclor) OR (Keclor) • ("Penicillins"[Mesh]) OR (Penicillins) OR (Antibiotics, Penicillin) OR (Penicillin Antibiotics) OR (Penicillin) • ("Sulfamethoxazole"[Mesh])OR (**Sulfamethoxazole) OR** (Sulfisomezole) OR (Sulphamethoxazole) OR (Sulfamethylisoxazole) OR (Gantanol) • ("Sulfisoxazole"[Mesh]) OR (Sulfisoxazole) OR (Sulfasoxizole) OR (Sulfadimethyloxazole) OR (Sulfafurazole) OR (Neoxazoi) OR (Sulfafurazol FNA) OR (FNA Brand of Sulfisoxazole) OR (Sulfisoxazole Diolamine) OR (Diolamine, Sulfisoxazole) OR (V-Sul) OR	

(V Sul) OR (Vangard Brand of Sulfisoxazole) OR (Sulfisoxazole, Monolithium Salt) OR (Monolithium Salt Sulfisoxazole) OR (Sulfisoxazole, Monosodium Salt) OR (Monosodium Salt Sulfisoxazole) OR (Sulfisoxazole, Monosodium, Monomesylate Salt) OR (Sulfisoxazole, Triammonium Salt) OR (Triammonium Salt Sulfisoxazole) OR (TL-azole) OR (TL azole) OR (Zenith Brand of Sulfisoxazole) OR (Gantrisin) OR (Gantrisin Pediatric) OR (Pediatric, Gantrisin) OR (Roche Brand of Sulfisoxazole Diolamine) OR (Roche Brand of Sulfisoxazole) OR (Sulfisoxazole Roche Brand) OR (Roche Brand of Sulfisoxazole Acetate) OR (Sulfisoxazole, Ammonium Salt) OR (Ammonium Salt Sulfisoxazole)	
TIPO DE ESTUDO - RCT ((randomized controlled trial [pt]) OR (controlled clinical trial [pt]) OR (randomized [tiab]) OR (placebo [tiab]) OR (drug therapy [sh]) OR (randomly [tiab]) OR (trial [tiab]) OR (groups [tiab])) AND (humans [mh])	
LIMITE CRIANÇA	
PERÍODO 2002 A 2008 25/10/2008	

All MeSH Categories
Diseases Category
Respiratory Tract Diseases
Nose Diseases
Paranasal Sinus Diseases
Sinusitis
Ethmoid Sinusitis
Frontal Sinusitis
Maxillary Sinusitis
Sphenoid Sinusitis

All MeSH Categories
Diseases Category
Respiratory Tract Diseases
Nose Diseases
Rhinitis
Rhinitis, Allergic, Perennial
Rhinitis, Allergic, Seasonal
Rhinitis, Atrophic
Rhinitis, Vasomotor

All MeSH Categories
Diseases Category
Respiratory Tract Diseases
Nose Diseases
Paranasal Sinus Diseases
Paranasal Sinus Neoplasms
Maxillary Sinus Neoplasms
Sinusitis
Ethmoid Sinusitis
Frontal Sinusitis
Maxillary Sinusitis
Sphenoid Sinusitis

All MeSH Categories
Diseases Category
Stomatognathic Diseases
Pharyngeal Diseases
Nasopharyngeal Diseases
Nasopharyngitis
All MeSH Categories
Diseases Category
Otorhinolaryngologic Diseases
Pharyngeal Diseases
Nasopharyngeal Diseases
Nasopharyngitis

#24	Search **((#10) AND (#22)) AND (#21)** Limits: **Publication Date from 2002, Preschool Child: 2-5 years, Child: 6-12 years**	08:18:11	287
#23	Search **((#10) AND (#22)) AND (#21)**	08:11:55	3720
#22	Search **(((((((#11) OR (#12)) OR (#13)) OR (#16)) OR (#17)) OR (#18)) OR (#19)) OR (#20)**	08:09:47	1151914
#21	Search **((randomized controlled trial [pt]) OR (controlled clinical trial [pt]) OR (randomized [tiab]) OR (placebo [tiab]) OR (drug therapy [sh]) OR (randomly [tiab]) OR (trial [tiab]) OR (groups [tiab])) AND (humans [mh])**	08:07:43	1880230
#20	Search **("Sulfisoxazole"[Mesh]) OR (Sulfisoxazole) OR (Sulfasoxizole) OR (Sulfadimethyloxazole) OR (Sulfafurazole) OR (Neoxazoi) OR (Sulfafurazol FNA) OR (FNA Brand of Sulfisoxazole) OR (Sulfisoxazole Diolamine) OR (Diolamine, Sulfisoxazole) OR (V-Sul) OR (V Sul) OR (Vangard Brand of Sulfisoxazole) OR (Sulfisoxazole, Monolithium Salt) OR (Monolithium Salt Sulfisoxazole) OR (Sulfisoxazole, Monosodium Salt) OR (Monosodium Salt Sulfisoxazole) OR (Sulfisoxazole, Monosodium, Monomesylate Salt) OR (Sulfisoxazole, Triammonium Salt) OR (Triammonium Salt Sulfisoxazole) OR (TL-azole) OR**	08:05:36	1153

	(TL azole) OR (Zenith Brand of Sulfisoxazole) OR (Gantrisin) OR (Gantrisin Pediatric) OR (Pediatric, Gantrisin) OR (Roche Brand of Sulfisoxazole Diolamine) OR (Roche Brand of Sulfisoxazole) OR (Sulfisoxazole Roche Brand) OR (Roche Brand of Sulfisoxazole Acetate) OR (Sulfisoxazole, Ammonium Salt) OR (Ammonium Salt Sulfisoxazole)		
#19	Search **("Sulfamethoxazole"[Mesh])OR (Sulfamethoxazole) OR (Sulfisomezole) OR (Sulphamethoxazole) OR (Sulfamethylisoxazole) OR (Gantanol)**	08:05:06	11551
#18	Search **("Penicillins"[Mesh]) OR (Penicillins) OR (Antibiotics, Penicillin) OR (Penicillin Antibiotics) OR (Penicillin)**	08:04:39	81402
#17	Search **("Cefaclor"[Mesh]) OR (Ceflacor) OR (S-6472) OR (S 6472) OR (S6472) OR (Lilly 99638) OR (Ceclor) OR (Keclor)**	08:03:45	1536
#16	Search **("Azithromycin"[Mesh])OR (Azithromycin)OR (Azythromycin) OR (Azithromycin Monohydrate) OR (Monohydrate, Azithromycin) OR (CP-62993) OR (CP 62993) OR (CP62993) OR (Zithromax) OR (Azitrocin) OR (Bayer Brand of Azithromycin Dihydrate) OR (Pfizer Brand of Azithromycin) OR (Azithromycin Pfizer Brand) OR (Pfizer Brand of Azithromycin Dihydrate) OR (Ultreon) OR (Zitromax) OR (Azadose) OR (Mack Brand of Azithromycin Dihydrate) OR (Sumamed) OR (Toraseptol) OR (Lesvi Brand of Azithromycin Dihydrate) OR (Vinzam) OR (Funk Brand of Azithromycin Dihydrate) OR (Zentavion) OR (Vita Brand of Azithromycin Dihydrate) OR (Azithromycin Dihydrate) OR (Dihydrate, Azithromycin) OR (Goxal) OR (Pharmacia Brand of Azithromycin Dihydrate)**	08:03:11	3819
#14	Search **("Ampicillin"[Mesh]) OR (Ampicillin) OR(Aminobenzylpenicillin) OR (Penicillin, Aminobenzyl) OR (Aminobenzyl Penicillin) OR (Ampicillin Sodium) OR (Sodium, Ampicillin) OR (Ampicillin Trihydrate) OR (Trihydrate, Ampicillin) OR (Ukapen) OR (Omnipen) OR (Pentrexyl) OR (Polycillin) OR (Amcill) OR (KS-R1) OR (KS R1) OR (KSR1)**	08:02:32	29674
#13	Search • **("Ampicillin"[Mesh]) OR (Ampicillin) OR(Aminobenzylpenicillin) OR (Penicillin, Aminobenzyl) OR (Aminobenzyl Penicillin) OR (Ampicillin Sodium) OR (Sodium, Ampicillin) OR (Ampicillin Trihydrate) OR (Trihydrate, Ampicillin) OR (Ukapen) OR (Omnipen) OR (Pentrexyl) OR (Polycillin) OR (Amcill) OR (KS-R1) OR (KS R1) OR (KSR1)**	08:02:16	29674
#12	Search **("Anti-Bacterial Agents"[Mesh])OR (Anti-Bacterial Agents) OR (Agents, Anti-Bacterial) OR (Anti Bacterial Agents) OR (Antibacterial Agents) OR (Agents, Antibacterial) OR (Antibiotics) OR (Bacteriocidal Agents) OR (Agents, Bacteriocidal) OR (Bacteriocides) OR (Anti-**	08:00:45	1126861

Mycobacterial Agents) OR (Agents, Anti-Mycobacterial) OR (Anti Mycobacterial Agents) OR (Antimycobacterial Agents) OR (Agents, Antimycobacterial) OR (Antibiotics or antibiotic) OR ("Anti-Infective Agents"[Mesh]) OR(Anti-Infective Agents) OR (Agents, Anti-Infective) OR (Anti Infective Agents) OR (Antiinfective Agents) OR (Agents, Antiinfective) OR (Microbicides) OR (Antimicrobial Agents) OR (Agents, Antimicrobial) OR (Anti-Microbial Agents) OR (Agents, Anti-Microbial) OR (Anti Microbial Agents) OR

#11 Search • **("Anti-Bacterial Agents"[Mesh])OR (Anti-Bacterial Agents) OR (Agents, Anti-Bacterial) OR (Anti Bacterial Agents) OR (Antibacterial Agents) OR (Agents, Antibacterial) OR (Antibiotics) OR (Bacteriocidal Agents) OR (Agents, Bacteriocidal) OR (Bacteriocides) OR (Anti-Mycobacterial Agents) OR (Agents, Anti-Mycobacterial) OR (Anti Mycobacterial Agents) OR (Antimycobacterial Agents) OR (Agents, Antimycobacterial) OR (Antibiotics or antibiotic) OR ("Anti-Infective Agents"[Mesh]) OR(Anti-Infective Agents) OR (Agents, Anti-Infective) OR (Anti Infective Agents) OR (Antiinfective Agents) OR (Agents, Antiinfective) OR (Microbicides) OR (Antimicrobial Agents) OR (Agents, Antimicrobial) OR (Anti-Microbial Agents) OR (Agents, Anti-Microbial) OR (Anti Microbial Agents) OR** 08:00:05 1126861

#10 Search **("Sinusitis"[Mesh]) OR (Sinusitis)OR (Sinusitides) OR ("Rhinitis"[Mesh]) OR (Rhinitis) OR (Rhinitides) OR ("Paranasal Sinus Diseases"[Mesh]) OR (Paranasal Sinus Diseases) OR (Disease, Paranasal Sinus) OR (Diseases, Paranasal Sinus) OR (Paranasal Sinus Disease) OR (Sinus Disease, Paranasal) OR (Sinus Diseases, Paranasal) OR ("Nasopharyngitis"[Mesh]) OR (Nasopharyngitis) OR (Nasopharyngitides) OR ("Common Cold"[Mesh]) OR (Common Cold) OR (Cold, Common) OR (Colds, Common) OR (Common Colds) OR (Coryza, Acute) OR (Acute Coryza) OR (rhinorrhoea OR rhinorrhea) OR (Rhinosinusitis) OR (Persistent Nasal Discharge) OR (Nasal Discharge)** 07:58:36 57766

RESULTADO PUBMED – 287

1: Praxis (Bern 1994). 2008 Jun 11;97(12):651-2.

[Antibiotics in the treatment of adults with clinically diagnosed acute
rhinosinusitis]

[Article in German]

Nüesch R.

Publication Types:

Editorial

PMID: 18661884 [PubMed - indexed for MEDLINE]

2: Ambul Pediatr. 2008 Jul-Aug;8(4):250-4. Epub 2008 Apr 28.

Criteria-based diagnosis and antibiotic overuse for upper respiratory infections.

Cox ED, Saluja S.

Department of Pediatrics, University of Wisconsin School of Medicine and Public
Health, Madison, Wisconsin 53792, USA.

OBJECTIVE: Studies of antibiotic overuse often rely on physicians' reports of
diagnoses, which can overestimate bacterial illness. To assess potential
overdiagnosis, we determine bacterial upper respiratory infection diagnoses by
direct observation of visit videotapes. DESIGN: From an observational study of
videotaped visits for upper respiratory symptoms (N = 66), coders assessed
diagnostic criteria (symptoms, physician description of physical examination
findings, and diagnostic tests), physician diagnosis, and prescribing. Survey
data included patient demographics and health care utilization as well as
physician/practice characteristics (n = 15). OUTCOMES: Criteria-based diagnoses
were determined from coded diagnostic criteria. Interrater reliabilities were
determined for 33% (n = 22) of visits. Chi-square tests assessed concordance
between the physician's diagnosis and the criteria-based diagnosis and compared
rates of antibiotic overuse as determined from physician and criteria-based
diagnoses. RESULTS: The criteria-based diagnosis agreed with 100% of physicians'
diagnoses of streptococcal pharyngitis and 73% of physicians' acute otitis media
diagnoses but with only 17% of physicians' sinusitis diagnoses. Antibiotic
overuse occurred in 11% of visits based on physicians' diagnoses but in 32% of
visits when criteria-based diagnoses were considered, a difference of 21% (95%
confidence interval, 2%-38%; P < 0.05). CONCLUSIONS: Criteria-based diagnoses
revealed that antibiotic overuse occurred 3 times more frequently than suggested
by physician diagnoses. Concordance between physician and criteria-based
diagnoses was lowest for sinusitis. Future studies should consider the
contribution of overdiagnosis to antibiotic overuse and target this practice to
further reduce overuse.

Publication Types:
    Comparative Study
    Research Support, U.S. Gov't, P.H.S.

PMID: 18644547 [PubMed - indexed for MEDLINE]

3: Mo Med. 2008 May-Jun;105(3):224-8; quiz 228-9.

Sinusitis in the pediatric population.

Donovan TJ.

Saint Louis University School of Medicine, USA. donovant@slu.edu

A greater utilization of endoscopes in the evaluation and surgical management of pediatric sinus disease, in addition to the increased sensitivity added by CT diagnosis of sinusitis, has given physicians a heightened awareness of sinusitis in children. Advances in immunology, both diagnostic and therapeutic, have created a more multidisciplinary approach to the management of sinusitis in the pediatric patient. This article will discuss important co-existent diseases, the medical management of pediatric sinusitis, the indications for surgical intervention and outcomes and sequellae of the management of this disease process.

PMID: 18630301 [PubMed - indexed for MEDLINE]

4: Ann Allergy Asthma Immunol. 2008 Jun;100(6):608-11.

Efficacy of nasal Staphylococcus aureus eradication by topical nasal mupirocin in patients with perennial allergic rhinitis.

Zeldin Y, Weiler Z, Cohen A, Kalinin M, Schlesinger M, Kidon M, Magen E.

Allergy & Clinical Immunology Unit, Barzilai Medical Center, Ben Gurion University of the Negev, Ashkelon, Israel.

BACKGROUND: Staphylococcus aureus (SA) colonization is frequent in patients with perennial allergic rhinitis (PAR). Mupirocin has well-recognized antistaphylococcal activity, and its nasal formulation is approved for the eradication of SA nasal colonization. OBJECTIVE: To investigate the frequency of SA nasal carriage, its possible influence on AR severity, and nasal mupirocin's role on AR clinical severity. METHODS: Sixty patients, aged 5 to 60 years, with AR were included, and 55 healthy individuals served as a control group. Nasal

smear specimens were drawn from both nares. A skin prick test to inhalational allergens and a score-graded clinical evaluation of AR were performed. Carriers of SA were treated with topical nasal mupirocin. RESULTS: The SA carrier (SAC) state was found in 23 (38%) of the patients with AR and in 8 (15%) of the healthy controls (P = .004). Comparing SACs with AR SA noncarriers, nasal symptom scores (SSs) tended to be higher in the SAC group (mean [SD], 11.09 [2.16] vs 8.86 [1.43]; P < .005). Treatment with topical nasal mupirocin diminished the SAC state to 10% (P = .009) but did not change AR clinical severity, as assessed by the SS. CONCLUSIONS: In patients with PAR, the SAC state is more prevalent compared with the healthy population. Topical nasal mupirocin reduces the SAC state but fails to clinically improve PAR, as assessed by the SS.

Publication Types:
    Clinical Trial

PMID: 18592827 [PubMed - indexed for MEDLINE]

5: Ann Allergy Asthma Immunol. 2008 Jun;100(6):529-32.

Comment in:
    Ann Allergy Asthma Immunol. 2008 Jun;100(6):516.

Radiologic outcomes in children with chronic rhinosinusitis and ostiomeatal complex obstruction after medical management.

Skorpinski EW, Vannelli PM, Yousef E, Brunell T, McGeady SJ.

Berkshire Allergy and Asthma Center, Inc., Wyomissing, Pennsylvania, USA.

BACKGROUND: The presence of ostiomeatal complex obstruction can be a key component in chronic rhinosinusitis, and the medical management of this condition has not been well studied, particularly in children. OBJECTIVE: To compare the effectiveness of antibiotics, intranasal topical corticosteroids, and oral systemic corticosteroids on radiologic outcomes in children with chronic rhinosinusitis and ostiomeatal complex obstruction. METHODS: We reviewed the reports of 1,741 computed tomography scans performed on children at Alfred I. duPont Hospital for Children, Wilmington, Delaware, from October 1, 2001, through February 28, 2007, identifying those patients who had 2 scans performed at least 2 weeks apart but no more than 6 months apart. Forty-five instances involving

abnormal ostiomeatal complex anatomy documented on the initial study with
obtainable treatment information were selected for further review. RESULTS: Of
the 3 treatment modalities examined, only oral systemic corticosteroids (P = .03)
and intranasal topical corticosteroids (P = .03) were found to provide
significant independent contributions to predicting treatment outcome, with the
former promoting a positive outcome and the latter predicting a negative outcome.
The model that contained just these 2 factors also provided a significant fit to
the outcome data (P = .01), producing a diminished rate of improvement expected
from a combination of positive and negative influences. Neither antibiotics nor
any other combination of modalities contributed to a significant improvement in
model fit. CONCLUSION: The use of oral systemic corticosteroids was found to be
the only beneficial intervention, with regard to radiologic improvement, in the
treatment of ostiomeatal complex obstruction in children.

PMID: 18592814 [PubMed - indexed for MEDLINE]

6: Ann Allergy Asthma Immunol. 2008 Jun;100(6):516.

Comment on:
    Ann Allergy Asthma Immunol. 2008 Jun;100(6):529-32.

What really works in treating chronic rhinosinusitis in children?

Weber RW.

Publication Types:
    Comment
    Editorial

PMID: 18592812 [PubMed - indexed for MEDLINE]

7: Arch Pediatr. 2008 Aug;15(8):1283-8. Epub 2008 Jun 30.

[Impact of rapid influenza test during influenza epidemic in all febrile children
less than 6 years old in a pediatric emergency department]

[Article in French]

Pierron S, Haas H, Berlioz M, Ollier L, Albertini M.

Service de pédiatrie, hôpital l'Archet-2, CHU de Nice, 151 route de Saint-Antoine-de-Ginestière, 06202 Nice, France.
microsoff@libertysurf.fr

AIM: To determine the impact of rapid influenza test (RIT) on the prescription of
additional tests, antibiotics and oseltamivir, and the influence of oseltamivir

on clinical signs and parents' day work stoppage. METHODS: Prospective study in
the pediatric emergency department of Nice University Hospital from 29th January
2007 to 3rd March 2007 including children from 1 month to 6 years old with fever
greater or equal to 38.5 degrees C for less than 48 h. Virologic research on
nasopharyngeal aspiration was: immunofluorescence, cell culture and RIT Quickvue.
Clinical informations, additional tests and treatments were registered for each
child. An antiviral treatment (oseltamivir) was proposed to children older than 1
year with positive RIT. Evolution at 7 days was evaluated by phone contact.
RESULTS: One hundred and seventy-seven children were included (mean age 24
months, sex-ratio 1.88). The RIT was positive in 42.3% (n=75). Compared with cell
culture, the sensibility, specificity, positive predictive value and negative
predictive value of the RIT were, respectively, 95.6, 91.6, 88 and 97%. Clinical
signs significantly correlated to influenza were: impairment, rhinitis and acute
otitis media. In the RIT positive group, there were significantly less additional
tests (13 versus 36) and particularly urinalysis (5 versus 19), and more
spreading in the family (p=0.0002). There was not any significant difference
concerning hospitalizations, antibiotic prescriptions, or parents' day work
stoppage. CONCLUSION: During influenza epidemic, in a pediatric emergency
department, RIT allows a reduction of additional tests in febrile young children,
particularly urinalysis.

Publication Types:
    Comparative Study
    English Abstract
    Evaluation Studies

PMID: 18586472 [PubMed - indexed for MEDLINE]

8: Arch Pediatr. 2008 Jun;15(5):495-7.

[Antibiotic therapy for head and neck abscesses in children in an emergency
department]

[Article in French]

Haas H.

Urgences pédiatriques, CHU de Nice, 151 rte de St Antoine de Ginestière, 06202
Nice cedex 3. haas.h@chu-nice.fr <haas.h@chu-nice.fr>

PMID: 18582648 [PubMed - indexed for MEDLINE]

9: Orbit. 2008;27(3):161-3.

Ethmoidal pneumocele following drainage of an ethmoidal mucocele.

Gupta A, Durkin SR, Muecke JS, Casson RJ, Wormald PJ, Selva D.

Department of Ophthalmology and Visual Sciences and South Australian Institute of
Ophthalmology, University of Adelaide, Adelaide, Australia. gupta aanchal@yahoo.com.au

Ethmoidal pneumocele is a rare condition with little known about its etiology. We
report a 5-year-old boy who had recurrent right orbital cellulitis, non-axial
proptosis, and inferolateral globe displacement. Initial radiological investigations demonstrated an ethmoidal mucocele. There was complete resolution
of inflammatory signs with endoscopic drainage of the mucocele; however, repeat
CT revealed a residual pneumocele with continued proptosis and lateral displacement of the globe. This case illustrates the potential for chronic
sinusitis and iatrogenic drainage of an ethmoidal mucocele to progress to a
pneumocele.

Publication Types:
    Case Reports

PMID: 18569820 [PubMed - indexed for MEDLINE]

10: Clin Infect Dis. 2008 Aug 1;47(3):364-71.

Combination polyene-caspofungin treatment of rhino-orbital-cerebral mucormycosis.

Reed C, Bryant R, Ibrahim AS, Edwards J Jr, Filler SG, Goldberg R, Spellberg B.

Division of Infectious Diseases, Los Angeles Biomedical Research Institute at
Harbor, University of California at Los Angeles Medical Center, Torrance, CA,
USA.

BACKGROUND: It has been axiomatic that echinocandins (e.g., caspofungin) are
ineffective against mucormycosis. However, on the basis of preclinical data, we
recently began treating rhino-orbital-cerebral mucormycosis (ROCM) with
combination polyene-caspofungin therapy. METHODS: To determine the impact of
polyene-caspofungin therapy, ROCM cases identified by an International Classification of Diseases, Ninth Revision search were retrospectively reviewed
to gather data on demographic characteristics, clinical history, and outcomes.

The predefined primary end point was success (i.e., the patients was alive and
not in hospice care) at 30 days after hospital discharge. RESULTS: Forty-one
patients with biopsy-proven ROCM were identified over 12 years; 23 (56%) of these
patients were Hispanic, and 34 (83%) were diabetic. Patients treated with
polyene-caspofungin therapy (6 evaluable patients) had superior success (100% vs.
45%; Pp.02) and Kaplan-Meier survival time (Pp.02), compared with patients
treated with polyene monotherapy. Patients treated with amphotericin B lipid
complex had inferior success (37% vs. 72%; Pp.03) and a higher clinical failure
rate (45% vs. 21%; Pp.04), compared with patients who received other polyenes.
However, patients treated with amphotericin B lipid complex plus caspofungin had
superior success (100% vs. 20%; Pp.009) and survival time (Pp.01), compared with
patients who received amphotericin B lipid complex alone. The benefit of
combination therapy, compared with monotherapy, was most pronounced in patients
with cerebral involvement (success rate, 100% vs. 25%; Pp.01). In multivariate
analysis, only receipt of combination therapy was significantly associated with
improved outcomes (odds ratio, 10.9; 95% confidence interval, 1.3-
;Pp.02).
CONCLUSIONS: Combination polyene-caspofungin therapy represents a promising
potential alternative to polyene monotherapy for patients with ROCM. Randomized,
prospective investigation of these findings is warranted.

Publication Types:
    Multicenter Study
    Research Support, N.I.H., Extramural
    Research Support, Non-U.S. Gov't

PMID: 18558882 [PubMed - indexed for MEDLINE]

11: Otolaryngol Pol. 2007;61(5):814-6.

[Surgical treatment of chronic sinusitis in children]

[Article in Polish]

Misiołek M, Mrówka-Kata K, Namysłowski G, Scierski W, Fira R, Lisowska G, Czecior
E, Pawlas P, Orecka B, Misiołek H.

Katedra i Oddział Kliniczny Laryngologii Sl. AM w Zabrzu.

INTRODUCTION: Chronic sinusitis presents important problem in children. General
approach in chronic sinusitis in children consists of: findings the proper

diagnosis, optimal pharmacotherapy (oral or intravenous antibiotics), treatment
coexisting allergic or systemic diseases and considering employing surgical
treatment. The main surgical procedures in the treatment of chronic sinusitis in
children are adenoidectomy and functional endoscopic sinus surgery (FESS).
MATERIAL AND METHODS: 32 children with chronic sinusitis treated in ENT
Department Silesian Medical University in Zabrze in the years 2000-2005 were
presented in this study. 26 patients were treated surgically and 6 children by
pharmacotherapy. In the surgically treated patients we performed 10 Functional
Endoscopic Sinus Surgery, 4 unilateral and 8 bilateral sinusoscopy of maxillary
sinus, and in 4 cases we removed choanal polyps. RESULTS: In the group of 26
surgically treated children we did not observed the recurrence of symptoms in the
24 months follow-up period.

Publication Types:
    English Abstract

PMID: 18552026 [PubMed - indexed for MEDLINE]

12: J Antimicrob Chemother. 2008 Sep;62(3):587-92. Epub 2008 Jun 10.

Antibiotics for respiratory, ear and urinary tract disorders and consistency
among GPs.

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OBJECTIVES: To describe specific diagnoses for which systemic antibiotics are
prescribed, to assess adherence of antibiotic choice to national guidelines and
to assess consistency among general practitioners (GPs) in prescribed volumes of
antibiotics for respiratory, ear and urinary tract disorders. METHODS: The
cross-sectional study included 174 GPs from 89 general practices. Data were
derived from the Second Dutch National Survey of General Practice (DNSGP-2) in
2001. Outcome measures were the antibiotic prescriptions for respiratory, ear and
urinary tract disorders defined according to the International Classification of
Primary Care codes, the percentage of first-choice antibiotics complying with

national guidelines and the number of antibiotic prescriptions per 1000 patients
per GP per year. RESULTS: The most antibiotics for respiratory tract infection
(RTI) were prescribed for acute bronchitis (25%), sinusitis (22%) and acute upper
RTI (14%). The most antibiotics were prescribed for acute otitis media (77% of
ear disorders) and cystitis (95% of urinary tract disorders). First-choice
antibiotics were prescribed in approximately 75% of the cases, whereas macrolides
and amoxicillin/clavulanate (second-choice antibiotics) were prescribed in
approximately 25%, especially in lower RTIs. The correlations (Spearman rho)
between prescribed volumes for the three main groups of disorders varied from
0.39 to 0.67. CONCLUSIONS: GPs were consistent in prescribing antibiotics for the
three groups of diseases. Improvement strategies should focus on the management
of acute upper RTIs and acute bronchitis and also on the use of
amoxicillin/clavulanate and macrolides, these being mostly second-choice
antibiotics in national guidelines.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 18544602 [PubMed - indexed for MEDLINE]

13: J Pediatr Hematol Oncol. 2008 Jun;30(6):431-42.

Safety and efficacy of acupuncture in children: a review of the evidence.

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Acupuncture has been used therapeutically in China for thousands of years and is
growing in prominence in Europe and the United States. In a recent review of
complementary and alternative medicine use in the US population, an estimated 2.1
million people or 1.1% of the population sought acupuncture care during the past
12 months. Four percent of the US population used acupuncture at any time in
their lives. We reviewed 31 different published journal articles, including 23
randomized controlled clinical trials and 8 meta-analysis/systematic reviews. We
found evidence of some efficacy and low risk associated with acupuncture in
pediatrics. From all the conditions we reviewed, the most extensive research has

looked into acupuncture's role in managing postoperative and chemotherapy-induced nausea/vomiting. Postoperatively, there is far more evidence of acupuncture's efficacy for pediatrics than for children treated with chemotherapy. Acupuncture seems to be most effective in preventing postoperative induced nausea in children. For adults, research shows that acupuncture can inhibit chemotherapy-related acute vomiting, but conclusions about its effects in pediatrics cannot be made on the basis of the available published clinical trials data to date. Besides nausea and vomiting, research conducted in pain has yielded the most convincing results on acupuncture efficacy. Musculoskeletal and cancer-related pain commonly affects children and adults, but unfortunately, mostly adult studies have been conducted thus far. Because the manifestations of pain can be different in children than in adults, data cannot be extrapolated from adult research. Systematic reviews have shown that existing data often lack adequate control groups and sample sizes. Vas et al, Alimi et al, and Mehling et al demonstrated some relief for adults treated with acupuncture but we could not find any well-conducted randomized controlled studies that looked at pediatrics and acupuncture exclusively. Pain is often unresolved from drug therapy, thus there is a need for more studies in this setting. For seasonal allergic rhinitis, we reviewed studies conducted by Ng et al and Xue et al in children and adults, respectively. Both populations showed some relief of symptoms through acupuncture, but questions remain about treatment logistics. Additionally, there are limited indications that acupuncture may help cure children afflicted with nocturnal enuresis. Systematic reviews show that current published trials have suffered from low trial quality, including small sample sizes. Other areas of pediatric afflictions we reviewed that suffer from lack of research include asthma, other neurologic conditions, gastrointestinal disorders, and addiction.

Acupuncture has become a dominant complementary and alternative modality in clinical practice today, but its associated risk has been questioned. The National Institutes of Health Consensus Statement states "one of the advantages of acupuncture is that the incidence of adverse effects is substantially lower than that of many drugs or other accepted procedures for the same conditions." A

review of serious adverse events by White et al found the risk of a major complication occurring to have an incidence between 1:10,000 and 1:100,000, which is considered "very low." Another study found that the risk of a serious adverse event occurring from acupuncture therapy is the same as taking penicillin. The safety of acupuncture is a serious concern, particularly in pediatrics. Because acupuncture's mechanism is not known, the use of needles in children becomes questionable. For example, acupoints on the vertex of infants should not be needled when the fontanel is not closed. It is also advisable to apply few needles or delay treatment to the children who have overeaten, are overfatigued, or are very weak. Through our review of pediatric adverse events, we found a 1.55 risk of adverse events occurring in 100 treatments of acupuncture that coincides with the low risk detailed in the studies mentioned previously. The actual risk to an individual patient is hard to determine because certain patients, such as an immunosuppressed patient, can be predisposed to an increased risk, acupuncturist's qualifications differ, and practices vary in certain parts of the world. Nevertheless, it seems acupuncture is a safe complementary/alternative medicine modality for pediatric patients on the basis of the data we reviewed.

PMID: 18525459 [PubMed - indexed for MEDLINE]

14: Pediatr Infect Dis J. 2008 Jul;27(7):613-7.

Fusobacterium necrophorum middle ear infections in children and related complications: report of 25 cases and literature review.

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BACKGROUND: Fusobacterium necrophorum is associated with Lemierre syndrome (pharyngitis with septic thrombosis of the internal jugular veins) but it can also be involved in other head and neck infections, including sinusitis, parotitis, dental infections, and otitis media. METHODS: This retrospective study analyzes a series of 25 pediatric cases of acute otitis media caused by F.

necrophorum and treated in our institution between 1995 and 2006. RESULTS: We observed 3 clinical presentations: (1) uncomplicated otitis media (44%; n = 11); (2) acute mastoiditis (40%; n = 10); and (3) otogenic variant of Lemierre syndrome (16%; n = 4) associating acute mastoiditis, suppurative thrombophlebitis of the lateral and/or cavernous sinuses, meningitis syndrome, and sometimes distant septic metastasis or extensive osteolysis of the temporal bone. Sixty percent of these cases were diagnosed during the last 4 years of the study. Children less than 1 year of age were at increased risk for Lemierre syndrome. Broad range 16S rDNA polymerase chain reaction and sequencing were used to confirm the identification of F. necrophroum and to detect secondary sites of infection. All patients had favorable clinical outcome, but complicated cases (mastoiditis and otogenic variant of Lemierre syndrome) required prolonged hospital stays and duration of treatment. CONCLUSIONS: Based on bacteriologic investigation, we recommend systematic culture for anaerobes and that antibiotic treatment of F. necrophorum middle ear infections and subsequent complications includes coverage for anaerobic bacteria.

Publication Types:
    Case Reports
    Review

PMID: 18520974 [PubMed - indexed for MEDLINE]

15: Medscape J Med. 2008 Apr 29;10(4):105.

Therapeutic targets in rhinosinusitis: infection or inflammation?

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CONTEXT: Rhinosinusitis (RS) is an inflammatory condition of the contiguous nasal and paranasal sinuses that is accompanied by a viral or bacterial infection. Controlling the inflammation will attenuate many of the symptoms of RS, including nasal blockage discharge, facial discomfort, headache, and hyposmia, and promote the clearance of the infectious agent. OBJECTIVE: The objective is to review the efficacy of symptomatic treatment with intranasal corticosteroids (INS) for the inflammatory component of acute, recurrent, or chronic RS in adults and children.

DATA SOURCES: Published English-language articles identified in the PubMed and MEDLINE databases. STUDY SELECTION: Only studies about clinical trials that were randomized, double-blind, and controlled for either placebo or active comparator were selected as valid evidence of the efficacy and tolerability of symptomatic treatment. Studies of INS use as monotherapy or adjunctive therapy with an antibiotic were consulted. DATA EXTRACTION: Data from clinical studies included size of patient population, efficacy endpoints, systemic and topical adverse events, and criteria for confirming a diagnosis of RS. DATA SYNTHESIS: Data showed that INS improved many of the symptoms of RS, including nasal blockage and purulence, facial discomfort, and headache. Significant improvement compared with placebo was demonstrated in most studies in adults and children with acute RS and in adults with recurrent or chronic RS, whether INS were used as monotherapy or adjunctive treatment. INS were shown to be well tolerated in all of these studies. CONCLUSION: INS reduce local inflammation and improve drainage, effects that are critical to the resolution of acute RS.

Publication Types:
    Meta-Analysis
    Review

PMID: 18504478 [PubMed - indexed for MEDLINE]

16: Coll Antropol. 2008 Mar;32(1):125-30.

Prescribing antibiotics to preschool children in primary health care in Croatia.

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The use of antibiotics depends on cultural and socioeconomic factors, physician's characteristics as well as on microbiological considerations. Aim of our study was to asses antibiotic prescription among preschool children in primary health care in Croatia in relation to socioeconomic factors, symptoms and diagnoses, and type of health care provider. Retrospective longitudinal survey was conducted in

7 teaching primary health care offices in the Croatian capital of Zagreb during
2004, among 1700 preschool children. Antibiotics were prescribed to 611 (46%)
children. Significantly more antibiotics were prescribed to boys (66.7%, P =
0.024) and to children whose parents had lower educational level. Most frequently
antibiotics were prescribed for the symptoms such as fever (32%), cough (32.5%),
nasal discharge (12%), and for the diagnoses such as respiratory diseases
(J00-J99) (40%), infectious and parasitic diseases (A00-A99) (31%), and diseases
of the middle ear and mastoid (H60-H95) (15%). Logistic regression analyses also
predicted correlation of antibiotic prescriptions with socioeconomic factors,
symptoms and diagnoses and health care of pediatrician. Prescription of
antibiotics for preschool children in primary health care in Croatia related to
socioeconomic factors, type of health care provider, certain symptoms and
diagnosis groups which should be taken into account when assessing and planning
primary health care for preschool children.

PMID: 18494197 [PubMed - indexed for MEDLINE]

17: Arch Neurol. 2008 May;65(5):668-9.

Cerebral abscess due to sinusitis.

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Publication Types:
    Case Reports

PMID: 18474747 [PubMed - indexed for MEDLINE]

18: J Chemother. 2008 Apr;20(2):147-57.

Guidelines for the diagnosis and treatment of acute and subacute rhinosinusitis
in children.

Esposito S, Principi N; Italian Society of Pediatrics; Italian Society of
Pediatric Infectivology; Italian Society of Pediatric Allergology and Immunology;
Italian Society of Pediatric Respiratory Diseases; Italian Society of Preventive
and Social Pediatrics; Italian Society of Otorhinolaryngology; Italian Society of
Chemotherapy; Italian Society of Microbiology.

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Marseglia G, Baldi F, Barberi S, Bellasio M, Boner A, Cuffari A, Decimo F, De
Rosa M, Leo G, Longo G, del Giudice MM, Piacentini G, Tripodi S, Di Mauro G,
Brusoni G, Zuccotti GV, Passali D, Serra A, Pagnataro L, Belussi L, Marchisio P,
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The importance of rhinosinusitis finally reached pediatricians' attention a few
years ago, and it has now been demonstrated that it is medically important and
has a considerable socioeconomic impact in childhood. These guidelines, which
have been prepared with and approved by many Italian Scientific Societies, are
based on the most recent findings in the fields of clinical symptoms, imaging and
microbiology tests for the diagnosis of acute rhinosinusitis, and efficacy
evidence concerning antibiotic treatment and non-antibiotic adjuvant treatment. A
Pubmed search using the key words "sinusitis", "rhinosinusitis", "child" and
"antibiotic treatment", and the limits "human studies" and "English language",
led to the selection of more than 2,700 articles published between 1966 and 2007.
These guidelines are based on the 125 that were considered truly relevant and
reflect the most widely shared positions concerning the diagnosis and treatment
of acute, subacute and recurrent rhinosinusitis in children.

Publication Types:
    Practice Guideline

PMID: 18467238 [PubMed - indexed for MEDLINE]

19: Cochrane Database Syst Rev. 2008 Apr 16;(2):CD001094.

Update of:
    Cochrane Database Syst Rev. 2002;(4):CD001094.

WITHDRAWN: Antibiotics for persistent nasal discharge (rhinosinusitis) in
children.

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BACKGROUND: Nasal discharge (rhinosinusitis) is extremely common in children. It
is the result of inflammation of the mucosa of the upper respiratory tract, and
is usually due to either infection or allergy. Infections may be caused by
bacteria. OBJECTIVES: To determine the effectiveness of antibiotics versus
placebo or standard therapy in treating children with persistent nasal discharge
(rhinosinusitis) for at least 10 days. SEARCH STRATEGY: In this updated review,
we searched the Cochrane Central Register of Controlled Trials (CENTRAL) (The
Cochrane Library Issue 1, 2005) which includes the ARI Group's specialised trials
register; MEDLINE (1966 to April Week 3, 2005) EMBASE (1997 to December 2004),
and the references of relevant articles were searched. Authors and pharmaceutical
companies were contacted. SELECTION CRITERIA: All randomised controlled trials
that compared antibiotics versus placebo or standard therapy. Trials which
included the use of other medications were included if all participants were
allowed equal access to such medications or if the additional or alternative
therapies were regarded as ineffective. Trials that only combined or compared
antibiotics with surgery, or sinus puncture and lavage, were not included in the
review. DATA COLLECTION AND ANALYSIS: Data were extracted by a single author for
the following eight outcomes: overall clinical failure (primary outcome), failure
to cure, failure to improve, clinical improvement, time to resolution,
complications, side-effects and bacteriologic failure. For the dichotomous
outcome variables of each individual study, proportional and absolute risk
reductions were calculated using a modified intention-to-treat analysis. The
summary weighted risk ratio and 95% confidence interval (CI) (fixed effect model)
were calculated using the inverse of the variance of each study result for
weighting (Cochrane statistical package, RevMan version 4.2). MAIN RESULTS: A
total of six studies involving 562 children compared antibiotics with placebo or
standard therapy. All studies were randomised but most were still susceptible to
bias. Five of the studies were conducted in emergency, allergy or ENT clinics.

Four of the studies required children to have x-ray changes consistent with
sinusitis. Only the primary outcome (overall clinical failure) was reported in
all studies. Around 40% of all randomised children did not have a clinical
success documented when reviewed two to six weeks after randomisation. The
control event rate varied from to 22 to 71% (mean 46%). The risk ratio estimated
using a fixed effects model was 0.75 (95% CI 0.61 to 0.92). There was no evidence
of statistical heterogeneity. Side effects (sufficient to cease treatment)
occurred in 4 of 189 control group children (four studies). More children treated
with antibiotics had side effects (17 of 330), but this difference was not
statistically significant (RR 1.75, 95% CI 0.63 to 4.82). AUTHORS' CONCLUSIONS:
For children with persistent nasal discharge or older children with
radiographically confirmed sinusitis, the available evidence suggests that
antibiotics will reduce the probability of persistence in the short to
medium-term. The benefits appear to be modest and around eight children must be
treated in order to achieve one additional cure (number needed to treat (NNT) 8,
95% CI 5 to 29). No long term benefits have been documented. These conclusions
are based on a small number of small randomised controlled trials and may require
revision as additional data become available.

Publication Types:
    Review

PMID: 18425867 [PubMed - indexed for MEDLINE]

20: J Am Acad Dermatol. 2008 Jul;59(1):41-54. Epub 2008 Apr 18.

Terbinafine hydrochloride oral granules versus oral griseofulvin suspension in
children with tinea capitis: results of two randomized, investigator-blinded,
multicenter, international, controlled trials.

Elewski BE, Cáceres HW, DeLeon L, El Shimy S, Hunter JA, Korotkiy N, Rachesky IJ,
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BACKGROUND: Although griseofulvin is currently considered the primary antifungal
agent used to treat tinea capitis in many countries, increasingly higher doses

and longer durations of treatment are becoming necessary to achieve effective
treatment. Alternative antifungal therapies with shorter/simpler treatment
regimens may be important to develop for this indication. OBJECTIVE: To compare
the efficacy and safety of a new pediatric formulation of terbinafine
hydrochloride oral granules with griseofulvin oral suspension in the treatment of
tinea capitis. METHOD: Children (4-12 years of age) with clinically diagnosed and
potassium hydroxide microscopy-confirmed tinea capitis were randomized in two
identical studies (trial 1, trial 2) to once-daily treatment with terbinafine
(5-8 mg/kg; n = 1040) or griseofulvin administered per label (10-20 mg/kg; n =
509) for a period of 6 weeks followed by 4 weeks of follow-up. End-of-study
complete cure (negative fungal culture and microscopy with Total Signs and
Symptoms Score [TSSS] = 0), and mycologic (negative culture and microscopy) and
clinical cure (TSSS = 0) were primary and secondary efficacy variables,
respectively. Efficacy analysis was based on pooled data using modified
intent-to-treat population (those who received at least one dose of study drug
and had positive baseline fungal culture, N = 1286). Safety assessments included
monitoring of the frequency and severity of adverse events (AEs). RESULTS: Rates
of complete cure and mycologic cure were significantly higher for terbinafine
than for griseofulvin (45.1% vs 39.2% and 61.5% vs 55.5%, respectively; P < .05).
A majority (86.7%) of patients received griseofulvin, 10 to 19.9 mg/kg per day;
complete cure rate was not found to be higher among patients who received
griseofulvin more than 20 mg/kg per day compared with those who received less
than 20 mg/kg per day. Complete cure rate was statistically significantly greater
for terbinafine compared to griseofulvin in trial 1 (46.23% vs 34.01%) but not in
trial 2 (43.99% vs 43.46%). On the basis of pooled data, clinical cure was higher
for terbinafine than for griseofulvin, but the difference was not found to be
statistically significant (P = .10). Subgroup analyses revealed that terbinafine
was significantly better than griseofulvin for all cure rates--mycologic,
clinical, and complete--among patients with Trichophyton tonsurans but not
Microsporum canis (P < .001). For M. canis, mycologic and clinical cure rates
were significantly better with griseofulvin than with terbinafine (P < .05).

Approximately 50% of patients in each group reported an AE; almost all were mild
or moderate in severity. Nasopharyngitis, headache, and pyrexia were most common
in both groups. There were no drug-related serious AEs, no deaths, and no
significant effects on weight or laboratory parameters, including liver
transaminases. LIMITATIONS: In retrospect, a difference in the distribution of
infecting microorganisms between the two trials was a limitation. Stringent
adherence to griseofulvin doses recommended by prescribing information but
smaller than those used in current clinical practice, and exclusion of adjuvant
therapies such as shampoos or topical agents, which are routinely used in
practice, are other limitations. CONCLUSIONS: Data from this largest pediatric
trial of terbinafine to date indicate that terbinafine is efficacious and well
tolerated in the treatment of tinea capitis. Terbinafine is an effective
alternative to griseofulvin against T. tonsurans tinea capitis.

Publication Types:
    Comparative Study
    Multicenter Study
    Randomized Controlled Trial
    Research Support, Non-U.S. Gov't

PMID: 18378354 [PubMed - indexed for MEDLINE]

21: MMW Fortschr Med. 2008 Jan 24;150(3-4):27-30.

[Infections of the respiratory tract--diagnosis and therapy]

[Article in German]

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Publication Types:
    Comparative Study
    Review

PMID: 18326475 [PubMed - indexed for MEDLINE]

22: Allergy. 2008 Mar;63(3):274-83.

Comment in:
    Allergy. 2008 May;63(5):506-8.

Infections presenting for clinical care in early life and later risk of hay fever
in two UK birth cohorts.

Bremner SA, Carey IM, DeWilde S, Richards N, Maier WC, Hilton SR, Strachan DP,
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BACKGROUND: The 'hygiene hypothesis' proposes that infections in infancy protect
against hay fever (HF). We investigated infections during infancy in relation to
HF, including rarer ones not previously researched in this context, while
examining the role of potential confounding variables. METHODS: From birth
cohorts derived within the General Practice Research Database (GPRD) and Doctors
Independent Network (DIN) database of computerized patient records from UK
general practice, we selected 3549 case-control pairs, matched for practice, age,
sex and control follow-up to case diagnosis. Conditional logistic regressions
were fitted for each of 30 infections; behavioural problems (BP) acted as a
control condition unrelated to HF. Odds ratios (OR), adjusted for consultation
frequency were pooled across the databases using fixed effect models. We also
adjusted for sibship size in GPRD and a socioeconomic marker in DIN. RESULTS:
Upper respiratory tract infections, diarrhoea and vomiting and acute otitis media
in infancy were each related with a moderately increased risk of HF in both
databases, as were BP. These associations were lost on adjustment for
consultation frequency. Only bronchiolitis was significantly associated with a
reduced pooled risk of HF after adjustment for consultations (OR = 0.8).
Adjustment for sibship size in GPRD and a socioeconomic marker in DIN had little
impact on the OR. CONCLUSIONS: Of 30 infectious illnesses investigated, none had
strong or consistent associations with HF after adjustment for consultation
frequency. Except for bronchiolitis, possibly a chance finding, none of the
clinically apparent infections considered appear to have an important role in
allergy prevention.

PMID: 18269673 [PubMed - indexed for MEDLINE]

23: Lancet Infect Dis. 2008 Feb;8(2):125-32.

Sustained reduction of antibiotic use and low bacterial resistance: 10-year
follow-up of the Swedish Strama programme.

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Increasing use of antibiotics and the spread of resistant pneumococcal clones in
the early 1990s alarmed the medical profession and medical authorities in Sweden.
Strama (Swedish Strategic Programme for the Rational Use of Antimicrobial Agents
and Surveillance of Resistance) was therefore started in 1994 to provide
surveillance of antibiotic use and resistance, and to implement the rational use
of antibiotics and development of new knowledge. Between 1995 and 2004,
antibiotic use for outpatients decreased from 15.7 to 12.6 defined daily doses
per 1000 inhabitants per day and from 536 to 410 prescriptions per 1000
inhabitants per year. The reduction was most prominent in children aged 5-14
years (52%) and for macrolides (65%). During this period, the number of hospital
admissions for acute mastoiditis, rhinosinusitis, and quinsy (peritonsillar
abscess) was stable or declining. Although the epidemic spread in southern Sweden
of penicillin-resistant Streptococcus pneumoniae was curbed, the national
frequency increased from 4% to 6%. Resistance remained low in most other
bacterial species during this period. This multidisciplinary, coordinated
programme has contributed to the reduction of antibiotic use without measurable
negative consequences. However, antibiotic resistance in several bacterial
species is slowly increasing, which has led to calls for continued sustained
efforts to preserve the effectiveness of available antibiotics.

Publication Types:
    Review

PMID: 18222163 [PubMed - indexed for MEDLINE]

24: Pediatr Allergy Immunol. 2007 Nov;18 Suppl 18:56-61.

Systemic treatment of rhinosinusitis in children.

Novembre E, Mori F, Pucci N, Bernardini R, Vierucci A, de Martino M.

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Systemic acute rhinosinusitis therapy consists mostly of antibiotic treatment
because pathogens play a major role. Amoxicillin is the drug of choice for
treatment of acute rhinosinusitis, with second- and third- generation
cephalosporins, azythromycin, clarithromycin, and telithromycin as possible
options, especially in the case of allergy to amoxicillin. If the clinical course
suggests that an anaerobic pathogen is more likely, clindamycin or metronidazole
can be considered in combination with a broad-spectrum drug. In antimicrobial
treatment of chronic sinusitis there is no consensus on treatment length,
organism coverage, or which antibiotics are most effective because the
bacteriology is variable with polymicrobial anaerobic and aerobic organisms
present. Adjuvant therapies need to be proven by additional studies. Chronic
rhinosinusitis is heterogeneous and treatment should vary according to the
causative factor involved. Short courses of systemic steroids have been found
very useful to decrease mucosal swelling and inflammation in chronic
rhinosinusitis. However, no randomized controlled studies have been performed to
validate their efficacy in children. A variety of other agents are used in the
treatment of chronic rhinosinusitis including antihistamines, decongestants, and
leukotriene modifiers. To date, there is no good evidence from randomized
controlled studies to support the use of any of these agents in the treatment of
this disease in either children or adults.

Publication Types:
    Review

PMID: 17767611 [PubMed - indexed for MEDLINE]

25: Int J Pediatr Otorhinolaryngol. 2008 Mar;72(3):377-83. Epub 2008 Jan 11.

Paediatric pre- and post-septal peri-orbital infections are different diseases. A
retrospective review of 262 cases.

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OBJECTIVE: Peri-orbital infections can be classified as pre-septal or post-septal
depending upon the location of the focus of infection. The ability to
differentiate between these two is frequently difficult at the initial
presentation, with marked orbital edema and pain limiting the ophthalmic

examination. Hence, it is important to identify all the features at presentation
that will lead to an accurate and rapid diagnosis and treatment. Our retrospective review of peri-orbital infections identifies contrasting features
between these two groups that will aid the clinician in the subsequent management
of these infections. DESIGN AND SETTING: A retrospective review over an 11-year
period of children admitted to a tertiary children's hospital for the treatment
of peri-orbital cellulitis was undertaken. The two subgroups were identified,
those suffering from a pre-septal infection and those with a post-septal
infection. The groups were compared with respect to their presentation, clinical
findings, findings on CT and surgical intervention. RESULTS: Two hundred and
sixty-two children were identified with peri-orbital infections, 227 pre-septal,
and 35 post-septal. There were statistically significant differences between the
pre- and post-septal groups with regards to the following: age (3.9 vs. 7.5
years, p<0.001), medical co-morbidities (19% vs. 0%, p<0.01), a history of trauma
(40% vs. 11% of cases, p<0.003), clinical diagnosis of acute sinusitis (9% vs.
91% of cases, p<0.001), and fever (47% vs. 94%, p<0.001). Ophthalmologic
examination identified diplopia (p<0.001), opthalmoplegia (p<0.001) and proptosis
(p<0.001) as significant features of a post-septal infection. Intravenous
antibiotics were successful in treating the majority of cases, with 5% of
pre-septal, and 25% of post-septal infections requiring surgery. CONCLUSION: When
considering the management of a child with a peri-orbital infection, features
from the history and examination such as trauma, medical co-morbidities and
ophthalmic signs will guide management and delineate the indications for early CT
imaging. In the absence of acute visual compromise or other signs of disease
progression, initial management with intravenous antibiotics for 48 h to cover
Staphylococcal aureus and Streptococcal pyogenes with nasal decongestant should
be considered before surgical intervention is contemplated. A multi team approach
is essential in obtaining the best outcome for the child.

Publication Types:
    Case Reports

PMID: 18191234 [PubMed - indexed for MEDLINE]

26: Clin Exp Allergy. 2008 Feb;38(2):260-75. Epub 2007 Dec 20.

BSACI guidelines for the management of rhinosinusitis and nasal polyposis.

Scadding GK, Durham SR, Mirakian R, Jones NS, Drake-Lee AB, Ryan D, Dixon TA,
Huber PA, Nasser SM; British Society for Allergy and Clinical Immunology.

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This guidance for the management of patients with rhinosinusitis and nasal
polyposis has been prepared by the Standards of Care Committee (SOCC) of the
British Society for Allergy and Clinical Immunology (BSACI). The recommendations
are based on evidence and expert opinion and are evidence graded. These
guidelines are for the benefit of both adult physicians and paediatricians
treating allergic conditions. Rhinosinusitis implies inflammation of the nose and
sinuses which may or may not have an infective component and includes nasal
polyposis. Acute rhinosinusitis lasts up to 12 weeks and resolves completely.
Chronic rhinosinusitis persists over 12 weeks and may involve acute
exacerbations. Rhinosinusitis is common, affecting around 15% of the population
and causes significant reduction in quality of life. The diagnosis is based
largely on symptoms with confirmation by nasendoscopy. Computerized tomography
scans and magnetic resonance imaging are abnormal in approximately one third of
the population so are not recommended for routine diagnosis but should be
reserved for those with acute complications, diagnostic uncertainty or failed
medical therapy. Underlying conditions such as immune deficiency, Wegener's
granulomatosis, Churg-Strauss syndrome, aspirin hypersensitivity and allergic
fungal sinusitis may present as rhinosinusitis. There are few good quality trials
in this area but the available evidence suggests that treatment is primarily
medical, involving douching, corticosteroids, antibiotics, anti-leukotrienes, and
anti-histamines. Endoscopic sinus surgery should be considered for complications,
anatomical variations causing local obstruction, allergic fungal disease or
patients who remain very symptomatic despite medical treatment. Further well
conducted trials in clearly defined patient groups are needed to improve
management.

Publication Types:
    Practice Guideline

PMID: 18167126 [PubMed - indexed for MEDLINE]

27: J Infect. 2008 Feb;56(2):156-8. Epub 2007 Dec 26.

Invasive fungal sinusitis in patients treated with fludarabine.

Todd T, Besser M, Gudgin E, Crawley C, Craig JI, Follows G, Marcus RE, Enoch DA,
Cargill JS, Ludlam HA, Min SY, Sartori P.

Publication Types:
    Letter

PMID: 18155770 [PubMed - indexed for MEDLINE]

28: Clin Microbiol Infect. 2008 Apr;14(4):298-306. Epub 2007 Dec 18.

Reducing antibiotic use in influenza: challenges and rewards.

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Respiratory tract infections are a frequent cause of medical consultations.
Although the majority of such infections are viral in aetiology, they account for
three-quarters of all antibiotic consumption, since bacterial infections of the
upper and lower respiratory tract, notably bronchitis, sinusitis and pneumonia,
are the most frequent complications resulting from virus infections, especially
influenza in adults and children. The resulting widespread use of antibiotics is
a primary factor that drives the emergence of antibiotic resistance at both the
local and regional levels. Recent surveys suggest that the proportion of patients
with influenza-like illness who receive antibiotics is at least double the actual
incidence of the infections for which the treatment is intended. Inappropriate
prescribing needs to be tackled by encouraging more rigorous diagnosis,
prevention and treatment of viral infections, specifically influenza. Although
accurate diagnosis of influenza is challenging, rapid tests to identify the
causative pathogen, e.g., RT-PCR tests for influenza viruses, are becoming more
reliable and affordable. The use of antiviral drugs, particularly neuraminidase
inhibitors, is a specific and effective way of preventing and treating influenza,
and has been shown to reduce the incidence of complications and associated

antibiotic use. In contrast to bacterial resistance to antibiotics, viral resistance to neuraminidase inhibitors is low, and their high specificity means that they cannot exert selection pressure on any other species. The widespread adoption of these principles may have a significant effect on antimicrobial use and resistance.

Publication Types:
    Research Support, Non-U.S. Gov't
    Review

PMID: 18093237 [PubMed - indexed for MEDLINE]

29: Am Fam Physician. 2007 Dec 1;76(11):1650-8.

Erratum in:
    Am Fam Physician. 2008 Jul 1;78(1):30. dosage error in text.

Comment in:
    Am Fam Physician. 2008 Jul 1;78(1):28; discussion 30.

Summary for patients in:
    Am Fam Physician. 2007 Dec 1;76(11):1659-60.

Diagnosis and treatment of otitis media.

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Diagnostic criteria for acute otitis media include rapid onset of symptoms, middle ear effusion, and signs and symptoms of middle ear inflammation. Streptococcus pneumoniae, Haemophilus influenzae, and Moraxella catarrhalis are the most common bacterial isolates from the middle ear fluid of children with acute otitis media. Fever, otalgia, headache, irritability, cough, rhinitis, listlessness, anorexia, vomiting, diarrhea, and pulling at the ears are common, but nonspecific symptoms. Detection of middle ear effusion by pneumatic otoscopy is key in establishing the diagnosis. Observation is an acceptable option in healthy children with mild symptoms. Antibiotics are recommended in all children younger than six months, in those between six months and two years if the diagnosis is certain, and in children with severe infection. High-dosage amoxicillin (80 to 90 mg per kg per day) is recommended as first-line therapy. Macrolide antibiotics, clindamycin, and cephalosporins are alternatives in

penicillin-sensitive children and in those with resistant infections. Patients
who do not respond to treatment should be reassessed. Hearing and language
testing is recommended in children with suspected hearing loss or persistent
effusion for at least three months, and in those with developmental problems.

Publication Types:
    Review

PMID: 18092706 [PubMed - indexed for MEDLINE]

30: J Microbiol Immunol Infect. 2007 Dec;40(6):518-24.

Clinical analysis of computed tomography-staged orbital cellulitis in children.

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BACKGROUND AND PURPOSE: Bacterial infection of the orbital structures can affect
all age groups, but is more frequent in pediatric populations. Prompt
recognition, correct diagnosis, and adequate management are important if serious
complications are to be avoided. This study sought to delineate the clinical,
bacteriological and radiological findings, management and outcome of orbital
cellulitis. METHODS: This retrospective study reviewed 80 children admitted to
Chang Gung Children's Hospital with a diagnosis of orbital cellulitis who were
staged by computed tomography (CT), between January 1999 and August 2005. The
staging classification was as follows: stage I, inflammatory edema (preseptal);
stage II, subperiosteal phlegmon and abscess; stage III, orbital cellulitis;
stage IV, orbital abscess; and stage V, ophthalmic vein and cavernous sinus
thrombosis. The patients were categorized into 2 groups: preseptal (stage I) and
postseptal (stage II-V). RESULTS: Of the 80 children, 50 were male and the mean
age was 6.8 years. Sinusitis and upper respiratory tract infection were the most
common predisposing factors. Forty one percent of patients in stage I presented
with symptoms that indicated postseptal involvement. The patients with postseptal
involvement had a significantly higher rate of proptosis and limitation of
extraocular motility. Bacterial pathogens were identified in 31 patients (39%),

the 2 most common pathogens being Staphylococcus and Streptococcus. Ten patients
(13%) had polymicrobial infection. Twenty three patients underwent sinus and/or
orbital and/or intracranial surgery, including all 5 patients (100%) in stage IV,
3 of 6 patients (50%) in stage III, 13 of 35 patients (37%) in stage II, and 2 of
34 patients (6%) in stage I. Complete resolution without complication was
achieved in 72 children. Eight patients had complications, including intracranial
infection in 3, recollection of abscess in 2, ophthalmoplegia in 2, and corneal
scar in 1. CONCLUSIONS: Proptosis and limitation of extraocular motility may be
considered the most important signs on CT examination in children with suspicious
orbital cellulitis. Given that polymicrobial infection is common, broad-spectrum
antibiotics are indicated initially. Surgery should be considered not only when
an abscess is demonstrated by CT scan but also if clinical deterioration occurs
within 24 to 36 h of adequate intravenous antibiotic treatment.

PMID: 18087633 [PubMed - indexed for MEDLINE]

31: Rhinology. 2007 Dec;45(4):286-91.

Association of allergy, asthma and IgE sensitisation to adenoidectomy and
infections in children.

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OBJECTIVE: To find out whether previous adenoidectomy is associated with asthma,
allergic symptoms or allergen-specific IgE antibodies. RECRUITMENT AND METHODS:
We recruited 213 paediatric patients admitted for elective tonsillectomy and 155
paediatric controls. Using a structured questionnaire, we recorded their
respiratory symptoms, allergies, bronchial asthma and environmental factors.
Serum IgE antibodies against respiratory allergens were screened. Patients were
divided into those previously adenoidectomised (n = 100) or not adenoidectomised
(n = 113). RESULTS: Any allergy (p = 0.007) and non-antibiotic allergy diagnosed
by a doctor (p = 0.015), and asthma (p = 0.015) were more common among
adenoidectomised than non-adenoidectomised children under the age of seven.

Between ages 7 and 11, neither any kind of allergy nor asthma were associated with earlier adenoidectomy. In the oldest age group (12 to 17), only antibiotic allergy was more common in adenoidectomised children. Recurrent otitis media ($p < 0.001$) and recurrent sinusitis ($p = 0.007$) were more common in adenoidectomised children. After controlling for recurrent respiratory infections, doctor-diagnosed allergy remained significantly associated with adenoidectomy in the youngest age group. Prevalence of specific IgE did not differ between the patient groups, or between school-aged patients and controls. CONCLUSIONS: Our results suggest that hypersensitivity disorders and infections may share aetiological factors. However, as adenoidectomised children of any age did not have higher levels of specific IgE, it seems possible that allergy is either clinically over-diagnosed or insufficiently detected by serology among young adenoidectomised children.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 18085022 [PubMed - indexed for MEDLINE]

32: Arch Ophthalmol. 2007 Dec;125(12):1714-5.

Use of radiopaque intraorbital catheter in the treatment of sino-orbito-cranial mucormycosis.

Kahana A, Lucarelli MJ.

Publication Types:
    Case Reports
    Letter

PMID: 18071129 [PubMed - indexed for MEDLINE]

33: J Allergy Clin Immunol. 2008 Feb;121(2):530-1. Epub 2007 Dec 3.

Nasal nitric oxide as a noninvasive marker in the antibiotic treatment of acute bacterial sinusitis.

Lanz MJ, Prendes S, Peyrou N, Toledo G, Ferrer CM.

Publication Types:
    Letter

PMID: 18061652 [PubMed - indexed for MEDLINE]

34: Strabismus. 2007 Oct-Dec;15(4):215-9.

Orbital cellulitis after faden operation on the medial rectus.

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BACKGROUND: Orbital cellulitis after strabismus surgery is uncommon, may cause blindness and may lead to death. Very few cases have been described in detail due to the low incidence of this complication. METHODS: We report the first case of orbital cellulitis following Faden operation on the medial rectus muscle. We believe that the infection was due to asymptomatic ethmoid sinusitis. Our case is compared with other cases previously reported. RESULTS: A two-year-old boy was surgically treated for residual esotropia after two botulinum toxin A injections. Two days after surgery, signs of orbital cellulitis developed in his right orbit. CT-scan disclosed right ethmoid sinusitis that spread to the orbit after surgery. After intravenous antibiotic treatment, the infection resolved with full restoration of visual acuity and ocular motility. CONCLUSION: Despite adequate measures to prevent infection, orbital cellulitis may complicate strabismus surgery. Patients must be instructed to recognize early symptoms of this severe infection and call the surgeon immediately. Diagnosis may be confirmed by CT-scanning of the orbits. Prompt treatment with intravenous antibiotics usually leads to full recovery.

Publication Types:
    Case Reports

PMID: 18058359 [PubMed - indexed for MEDLINE]

35: Pediatr Allergy Immunol. 2007 Nov;18 Suppl 18:68-70.

Rhinosinusitis in children: the role of surgery.

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Indications and nature of surgery for chronic rhinosinusitis (CRS) have yet to be elucidated in children. After review of the literature and based on their experience, the authors suggest guidelines for the treatment of CRS in children. They suggest grouping children with rhinosinusitis into two groups: those with

complicated acute rhinosinusitis and those with CRS. For the first group, the
authors suggest an early surgical intervention because of the potential serious
consequences and sometimes irreversible damage. For the second group, most agree
that maximal medical management should be the first line of treatment with
antibiotics, nasal lavage and as a last resort surgery. It is important to
realize that surgery should be considered in these cases if medical treatment
fails. Once surgery is recommended, the kind of surgery then becomes an issue
between adenoidectomy, endoscopic sinus surgery or a combination of the two
depending on the age and other conditions.

Publication Types:
    Review

PMID: 17767613 [PubMed - indexed for MEDLINE]

36: Pediatr Allergy Immunol. 2007 Nov;18 Suppl 18:62-7.

Topical treatment of rhinosinusitis.

Fiocchi A, Sarratud T, Bouygue GR, Ghiglioni D, Bernardo L, Terracciano L.

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We reviewed current clinical evidence for the use of topical treatments in
pediatric rhinosinusitis. Repeated Entrez PubMed searches were done using the
template algorithm [rhinosinusitis AND (...)] with the settings: [Humans;
English; All Child 0-18; Clinical trial; Last 10 yr] for the following
comparators: steroid, irrigation, saline, antihistamine, decongestant,
antibiotic, antimycotic, fungicide. The authors' clinical experience in the
pediatric allergy unit of a university hospital was also drawn upon. Pediatric
studies were retrieved but only one satisfied current evidence-based medicine
standards for reporting clinical trials. Studies could not be systematized
because of methodological, analytical, and interpretation biases. While saline
irrigation, nasal decongestants, steroids, antibiotics, antihistamines and
fungicides are all in widespread pediatric use, comparing studies from the
literature for evidence of efficacy implied subjective appraisal, except in the
case of topical steroids. Evidence for the efficacy of topical treatment for

pediatric rhinosinusitis is narrative albeit this modality cannot be excluded
from individualized patient protocols on the basis of the clinical literature
alone. With the exception of topical steroids, no weighable evidence of
effectiveness supports the premise that topical treatments actually serve the
purpose for which they are widely prescribed in pediatrics.

Publication Types:
    Review

PMID: 17767612 [PubMed - indexed for MEDLINE]

37: Pediatr Allergy Immunol. 2007 Nov;18 Suppl 18:25-7.

Difficult asthma: possible association with rhinosinusitis.

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Difficult asthma is rare in childhood; when child's asthma is difficult to
control, review of the diagnosis and evaluation of the different risk factors for
exacerbations are recommended. The relationship between rhinosinusitis and
bronchial asthma is provided by epidemiologic data. Doubts persist as to whether
rhinosinusitis worsens asthma, or whether these are manifestations in different
parts of the respiratory tract of the same underlying disease process. However,
nasal sinus disease may contribute to less control in asthma, and patients with
severe asthma appear to have the most prominent abnormalities on computed
tomography scanning of the paranasal sinuses. From a pathogenetic point of view,
many inflammatory mediators and the cellular infiltrate are often the same in the
two entities, with a relevant role probably played by eosinophils. Antibiotic
treatment of chronic sinus disease in asthmatic children may improve subjective
asthmatic symptoms, lung function, and decrease bronchial hyperreactivity.
Scientific evidence confirms that there may be an association between asthma and
sinusitis even in childhood asthma: this could be relevant for diagnostic and
therapeutic purposes.

Publication Types:
    Review

PMID: 17767603 [PubMed - indexed for MEDLINE]

38: Pediatr Allergy Immunol. 2007 Nov;18 Suppl 18:22-4.

Chronic and recurrent cough, sinusitis and asthma. Much ado about nothing.

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Respiratory infections are the main causes of chronic or recurrent cough in children. Children present 3.8-8 infective episodes per year with cough lasting, on average, 1-3 wk and 10% will still have cough after 4 wk. There is evidence of over-treatment of cough with antibiotics, anti-asthmatic drugs (in Italy) and symptomatic treatments, all with insufficient evidence of efficacy. The relation between sinusitis, asthma and isolated cough is possibly overemphasized. Cough is a symptom of sinusitis, but one can rarely expect isolated persistent or recurrent cough as the only symptom. The issue of chronic cough as the only sign of asthma has been extensively investigated. Recent literature established that the majority of children with isolated cough do not have asthma in terms of both absence of signs of typical asthma inflammation and response to steroid treatment. This unconfirmed hypothesis has unfortunately often resulted in a misunderstood use of inhaled steroids as 'symptomatic' treatment. Our aim should be to avoid unnecessary medicalization and lessen anxiety not by simply prescribing, but by spending time in evaluating patients and explaining to parents what are mostly physiological events, which should resolve spontaneously over time.

Publication Types:
Review

PMID: 17767602 [PubMed - indexed for MEDLINE]

39: Pediatr Emerg Care. 2007 Nov;23(11):820-2.

Pott puffy tumor in a 4-year-old boy presenting in status epilepticus.

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Pott puffy tumor is an osteomyelitis of the frontal bone with the development of

a subperiosteal abscess manifesting as a puffy swelling of the forehead or scalp.
It is believed to occur as a complication of frontal sinusitis. The modern
antibiotic era has made it a rarely encountered entity. This case describes a
4-year-old boy who presented in status epilepticus secondary to Pott puffy tumor.

Publication Types:
    Case Reports

PMID: 18007214 [PubMed - indexed for MEDLINE]

40: Pediatr Pulmonol. 2007 Dec;42(12):1125-33.

Atopic characteristics of wheezing children and responses to prednisolone.

Jartti T, Lehtinen P, Vanto T, Vuorinen T, Hiekkanen H, Hartiala J, Mäkelä MJ,
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We wanted to test the hypothesis that the efficacy of systemic corticosteroid is
associated with atopic characteristics in wheezing children. A randomized
controlled trial comparing oral prednisolone (2 mg/kg/day in 3 divided doses for
3 days) with placebo in hospitalized wheezing children (n = 266, median 1.6
years, range 3 months to 15.2 years) was conducted. In this post-hoc analysis, we
assessed the link between the efficacy of prednisolone and several atopic
characteristics, such as atopy, aeroallergen sensitization, total IgE level,
number of sensitizations, eczema, atopic eczema, blood or nasal eosinophils,
exhaled nitric oxide, positive modified asthma predictive index/asthma, inhaled
corticosteroid medication and parental asthma/allergy. Virology was studied
comprehensively. Our primary endpoint was the time until ready for discharge, and
the most important secondary endpoint was the occurrence of relapses during the
following 2 months. For statistics, we used interaction analyses in uni- and
multivariate regression models. Overall, prednisolone did not decrease any of our
predefined clinical endpoints. Neither was the efficacy of prednisolone
associated with atopy. However, prednisolone significantly decreased the time
until ready for discharge in children with positive modified asthma predictive

index/asthma, inhaled corticosteroids, or rhinovirus infection and/or in children
without azithromycin treatment. Prednisolone significantly decreased relapses in
children with eczema, nasal eosinophilia and rhinovirus infection. The multiple
clinical, inflammatory and viral markers associating with the efficacy of
prednisolone should be confirmed in prospective trials. It is important that
corticosteroid intervention trials have strict design for these potentially
confounding factors.

Publication Types:
    Comparative Study
    Randomized Controlled Trial
    Research Support, Non-U.S. Gov't

PMID: 17968992 [PubMed - indexed for MEDLINE]

41: J Drugs Dermatol. 2007 Oct;6(10):981-7.

Dapsone gel 5% for the treatment of acne vulgaris: safety and efficacy of
long-term (1 year) treatment.

Lucky AW, Maloney JM, Roberts J, Taylor S, Jones T, Ling M, Garrett S; Dapsone
Gel Long-Term Safety Study Group.

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Dapsone gel 5%, a topical formulation of dapsone, was shown to deliver clinically
effective doses of dapsone with minimal systemic absorption in 2 randomized,
vehicle-controlled, 12-week studies of patients with acne vulgaris. A 12-month,
open-label, long-term safety study further evaluated the safety and efficacy of
dapsone gel. Patients at least 12 years of age with acne vulgaris (N = 486)
applied dapsone gel twice daily for up to 12 months. Application site reactions
related to treatment were reported in 8.2% of the patients and were mostly mild
to moderate in severity. Common nonapplication site adverse events included
headache (20%) and nasopharyngitis (15%). No significant changes in hematology or
blood chemistry parameters were observed. At one month, mean reduction from
baseline in inflammatory lesion counts was 30.6%. At 12 months, mean reduction
from baseline was 58.2%, 19.5%, and 49.0% for inflammatory, noninflammatory, and
total lesion counts, respectively, (all P=.002 compared to baseline). These

results show that dapsone gel 5% is safe and effective for long-term treatment of
acne vulgaris and has a rapid onset of action.

Publication Types:
    Randomized Controlled Trial
    Research Support, Non-U.S. Gov't

PMID: 17966175 [PubMed - indexed for MEDLINE]

42: Rhinology. 2007 Sep;45(3):197-201.

Recommended and prescribed symptomatic treatment for acute maxillary sinusitis in
Finnish primary care.

Pulkki J, Rautakorpi UM, Huikko S, Honkanen P, Klaukkas T, Mäkelä M, Palva E,
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We studied the use of symptomatic medication in the treatment of acute maxillary
sinusitis (AMS) in primary care and whether this use is in accordance with
national guidelines. The data was collected annually in the Antimicrobial
Treatment Strategies (MIKSTRA) Program in 30 primary health care centres
throughout Finland during one week in November in the years from 1998 to 2002.
Physicians and nurses collected the data about the diagnoses, prescription-only
medicines and over the counter medicines prescribed or recommended for all
patients with an infection during the study weeks. The MIKSTRA data comprised of
23.002 first consultations for an infection: 2.448 patients were diagnosed as
having AMS. Altogether, 41% of them received some symptomatic medicine.
Antihistamines with or without sympathomimetics were the most commonly prescribed
or recommended symptomatic medicines (23% of the patients). For comparison,
systemic antibacterial agents were prescribed for 93% of the AMS patients. We
conclude that Finnish physicians recommend or prescribe more symptomatic
medication without proven efficacy for AMS than recommended by the national
guidelines. Especially, the use of antihistamines with or without
sympathomimetics, mostly the combination of acrivastine and pseudoephedrine, was
common although antihistamines were recommended only for patients with allergy or
nasal polyps.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 17956017 [PubMed - indexed for MEDLINE]

43: Otolaryngol Head Neck Surg. 2007 Sep;137(3 Suppl):S32-45.

Systematic review of antimicrobial therapy in patients with acute rhinosinusitis.

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OBJECTIVE: To estimate the natural history of acute rhinosinusitis and the impact
of antimicrobial therapy on clinical outcomes. DATA SOURCES: MEDLINE and Cochrane
Trial Registry through February 2007 combined with manual review of retrieved
article bibliographies. REVIEW METHODS: Systematic review and random-effects
meta-analysis of double-blind, randomized, controlled trials comparing placebo vs
oral antimicrobial for initial therapy of uncomplicated acute rhinosinusitis in
patients aged 12 years or older. RESULTS: Thirteen trials met inclusion criteria
and had data suitable for pooling. Clinical cure occurred in 8% of patients who
received placebo after 3 to 5 days, rising to 35% by 7 to 12 days and 45% by 14
to 15 days. Antimicrobials increased cure rates at 7 to 12 days, with an absolute
rate difference of 15% (95% CI, 4%-25%). Clinical improvement occurred in 30% of
patients who received placebo after 3 to 5 days, rising to 73% by 7 to 12 days
and 14 to 15 days. Antimicrobials increased improvement rates at 7 to 12 days by
14% (95% CI, 1%-28%) and at 14 to 15 days by 7% (95% CI, 2%-13%). Diarrhea and
adverse events were about 80% more common in patients who received antimicrobials
($P < 0.03$). CONCLUSIONS: Over 70% of patients with acute rhinosinusitis are
improved after 7 days, with or without antimicrobial therapy. About 7 patients
must be treated to achieve one additional positive outcome at 7 to 12 days above
and beyond spontaneous resolution. Generalizability of results is limited because
nearly all trials involved a primary care setting and some trials excluded
patients with severe illness.

Publication Types:
    Review

PMID: 17761282 [PubMed - indexed for MEDLINE]

44: Forsch Komplementmed. 2007 Aug;14(4):207-15. Epub 2007 Jul 31.

[Prescribing practices in the treatment of upper respiratory tract infections in
anthroposophic medicine]

[Article in German]

Jeschke E, Lüke C, Ostermann T, Tabali M, Hübner J, Matthes H.

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Germany.

BACKGROUND: Upper respiratory tract infections (URTI) are among the leading
reasons for doctor consultations. This study investigates the prescribing
practices of medical doctors specialized in anthroposophic medicine in the
treatment of URTI with a special focus on the prescription of antibiotics,
complications, recurrence rates and costs. MATERIALS AND METHODS: Starting in May
2004 all prescriptions within a 1-year period by 35 primary care practitioners in
Germany were analysed. Data were extracted from practice software with special
interfaces with additional linking of medications and diagnoses by practitioners.
RESULTS: 21,818 prescriptions for 12,081 patients (73.7%children) with 19,050
cases of URTI were analysed. The most common diagnosis was common cold (63.3%),
followed by acute tonsillitis (12.9%). 63.0% were treated purely with
complementary medicine. Antibiotics were given in 6.3% of cases (minimum: common
cold 1.9%, maximum: tonsillitis 24.3%). Predictive factors for antibiotic
prescribing were the diagnoses tonsillitis (odds ratio [OR]: 6.7; 95% confidence
interval [CI]:4.5-9.9) and sinusitis (OR: 1.9; 95% CI: 1.1-3.1), concomitant
disease (OR: 1.2; 95% CI: 1.0-1.4), complications (OR: 7.2; 95% CI:5.5-9.4) and
the specialty paediatrics (OR: 2.1; 95% CI: 1.7-2.6). In cases that were
initially treated with only complementary medicine, antibiotics were eventually
prescribed in 0.7%. Overall complication rates were 2.9% and follow-up visits
occurred in 6.3%. Patients had an average of 2.4 URTI/year (adults 1.7,children
2.7). Treatment costs did not differ between complementary care and antibiotics.

CONCLUSION: Prescription practices in the treatment of URTI by anthroposophic
practitioners were documented through the processing of routine medical data with
minimal additional data. The therapy was found to be in accordance with the
guidelines, however, the prescription rate for antibiotics was well below the
German average.

Publication Types:
    English Abstract

PMID: 17848797 [PubMed - indexed for MEDLINE]

45: J Infect Chemother. 2007 Aug;13(4):235-54. Epub 2007 Aug 27.

Study of nasopharyngeal bacterial flora. Variations in nasopharyngeal bacterial
flora in schoolchildren and adults when administered antimicrobial agents.

Konno M, Baba S, Mikawa H, Hara K, Matsumoto F, Kaga K, Nishimura T, Kobayashi T,
Furuya N, Moriyama H, Okamoto Y, Furukawa M, Yamanaka N, Matsushima T, Yoshizawa
Y, Kohno S, Kobayashi K, Morikawa A, Koizumi S, Sunakawa K, Inoue M, Ubukata K.

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Changes in nasopharyngeal bacterial flora in adults with acute upper respiratory
tract infection on administration of antimicrobial agents were investigated, and
how these changes contrasted with those in children. Many patients with acute
sinusitis due to allergies, and patients with malignancy and diabetes mellitus
were included in the investigation. The detection rates of Streptococcus
pneumoniae, Haemophilus influenzae, and Moraxella catarrhalis, the major bacteria
of acute otitis media (AOM), were 22%, 10%, and 7% respectively, which were
significantly lower than those for children. Gram stain examination of
nasopharyngeal swab samples showed a significant relation between leukocyte
infiltration and the detection amount of S. pneumoniae (P = 0.0086). A
significant relation (P = 0.0134) was also observed when H. influenzae was
simultaneously detected. No significant change in the three major AOM bacteria
present in nasopharyngeal bacterial flora after administration of antimicrobial
agents was observed. However, all S. pneumoniae and H. influenzae detected after
antimicrobial agent administration had the beta-lactam-resistance gene. It was

observed that a significant improvement in leukocyte infiltration occurred 6 to
10 days after antimicrobial agent administration. In contrast, a significant
improvement in children was observed at 2 to 5 days. In the adult subjects, this
improvement was probably due to spontaneous remission rather than the effect of
the antimicrobial agents. Although investigation of the long-term administration
of antimicrobial agents was also conducted, its benefits for the patients were
not elucidated.

PMID: 17721687 [PubMed - indexed for MEDLINE]

46: Otolaryngol Head Neck Surg. 2007 Aug;137(2):274-9.

The inhibitory effects of macrolide antibiotics on bone remodeling in chronic
rhinosinusitis.

Park CS, Park YS, Park YJ, Cho JH, Kang JM, Kim SY.

Department of Otolaryngology--Head and Neck Surgery, College of Medicine, The
Catholic University of Korea, Seoul, Korea.

OBJECTIVE: To investigate the effect of nasal mucosal inflammation on bone
remodeling and the inhibitory effect of macrolide antibiotics on bone remodeling
through the inhibition of receptor activator of nuclear factor-kappaB ligand
(RANKL) and macrophage colony-stimulating factor (M-CSF). STUDY DESIGN AND
SETTING: Human nasal fibroblasts were primary-cultured from nasal polyp. After
interleukin (IL)-1beta stimulation of fibroblasts with or without macrolide
pretreatment, real-time polymerase chain reaction for RANKL messenger RNA (mRNA)
and enzyme-linked immunosorbent assay for M-CSF were performed at various
intervals. Peripheral blood mononuclear cells (PBMCs) were cultured for 10 days
with M-CSF only, M-CSF plus RANKL, or macrolide antibiotic plus M-CSF and RANKL.
RESULTS: IL-1beta stimulation of nasal polyp fibroblasts induced expression of
RANKL mRNA and secretion of M-CSF. Macrolide antibiotics reduced RANKL mRNA and
M-CSF expression by nasal polyp fibroblasts in a dose-dependent manner, and
inhibited osteoclastogenesis from PBMCs. CONCLUSION: Nasal fibroblasts stimulated
with IL-1beta may take on the role of osteoblasts in osteoclastogenesis, which
may be inhibited by macrolide antibiotics.

PMID: 17666255 [PubMed - indexed for MEDLINE]

47: J Pediatr. 2007 Aug;151(2):134-9, 139.e1. Epub 2007 Jun 22.

Comment in:
J Pediatr. 2007 Aug;151(2):111-3.

Risk factors for rate of decline in forced expiratory volume in one second in children and adolescents with cystic fibrosis.

Konstan MW, Morgan WJ, Butler SM, Pasta DJ, Craib ML, Silva SJ, Stokes DC, Wohl ME, Wagener JS, Regelmann WE, Johnson CA; Scientific Advisory Group and the Investigators and Coordinators of the Epidemiologic Study of Cystic Fibrosis.

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OBJECTIVES: To characterize the rate of decline of forced expiratory volume in 1 second (FEV(1)) in children and adolescents with cystic fibrosis and to identify and compare risk factors associated with FEV(1) decline. STUDY DESIGN: The rate of decline in FEV(1)% predicted over 3 to 6 years in 3 different age groups was determined. Risk factors for decline were identified and compared among and within age groups as a function of disease severity with repeated-measures, mixed-model regression. RESULTS: Mean (+/-SD) baseline FEV(1)% predicted was 88.4% +/- 20.5% for 6- to 8-year-olds (n = 1811), 85.3% +/- 20.8% for 9- to 12-year-olds (n = 1696), and 78.4% +/- 22.0% for 13- to 17-year-olds (n = 1359). Decline in FEV(1)% predicted/year was -1.12, -2.39, and -2.34, respectively. High baseline FEV(1) and persistent crackles were significant independent risk factors for decline across all age groups. Female sex, Pseudomonas aeruginosa infection, low weight-for-age, sputum, wheezing, sinusitis, pulmonary exacerbations treated with intravenous antibiotics, elevated liver test results, and pancreatic insufficiency were also identified as independent risk factors in some age groups. CONCLUSIONS: This study identifies risk factors for FEV(1) decline in children and adolescents with cystic fibrosis. Clinicians should not be reassured by high lung function, particularly in young children, because this factor, among others, is independently associated with steeper decline in FEV(1).

Publication Types:

Comparative Study
Research Support, Non-U.S. Gov't

PMID: 17643762 [PubMed - indexed for MEDLINE]

48: Cochrane Database Syst Rev. 2007 Jul 18;(3):CD001094.

Update of:
Cochrane Database Syst Rev. 2002;(4):CD001094.

WITHDRAWN: Antibiotics for persistent nasal discharge (rhinosinusitis) in children.

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BACKGROUND: Nasal discharge (rhinosinusitis) is extremely common in children. It is the result of inflammation of the mucosa of the upper respiratory tract, and is usually due to either infection or allergy. Infections may be caused by bacteria. OBJECTIVES: To determine the effectiveness of antibiotics versus placebo or standard therapy in treating children with persistent nasal discharge (rhinosinusitis) for at least 10 days. SEARCH STRATEGY: In this updated review, we searched the Cochrane Central Register of Controlled Trials (CENTRAL) (The Cochrane Library Issue 1, 2005) which includes the ARI Group's specialised trials register; MEDLINE (1966 to April Week 3, 2005) EMBASE (1997 to December 2004), and the references of relevant articles were searched. Authors and pharmaceutical companies were contacted. SELECTION CRITERIA: All randomised controlled trials that compared antibiotics versus placebo or standard therapy. Trials which included the use of other medications were included if all participants were allowed equal access to such medications or if the additional or alternative therapies were regarded as ineffective. Trials that only combined or compared antibiotics with surgery, or sinus puncture and lavage, were not included in the review. DATA COLLECTION AND ANALYSIS: Data were extracted by a single author for the following eight outcomes: overall clinical failure (primary outcome), failure to cure, failure to improve, clinical improvement, time to resolution, complications, side-effects and bacteriologic failure. For the dichotomous

outcome variables of each individual study, proportional and absolute risk reductions were calculated using a modified intention-to-treat analysis. The summary weighted risk ratio and 95% confidence interval (CI) (fixed effect model) were calculated using the inverse of the variance of each study result for weighting (Cochrane statistical package, RevMan version 4.2). MAIN RESULTS: A total of six studies involving 562 children compared antibiotics with placebo or standard therapy. All studies were randomised but most were still susceptible to bias. Five of the studies were conducted in emergency, allergy or ENT clinics. Four of the studies required children to have x-ray changes consistent with sinusitis. Only the primary outcome (overall clinical failure) was reported in all studies. Around 40% of all randomised children did not have a clinical success documented when reviewed two to six weeks after randomisation. The control event rate varied from to 22 to 71% (mean 46%). The risk ratio estimated using a fixed effects model was 0.75 (95% CI 0.61 to 0.92). There was no evidence of statistical heterogeneity. Side effects (sufficient to cease treatment) occurred in 4 of 189 control group children (four studies). More children treated with antibiotics had side effects (17 of 330), but this difference was not statistically significant (RR 1.75, 95% CI 0.63 to 4.82). AUTHORS' CONCLUSIONS: For children with persistent nasal discharge or older children with radiographically confirmed sinusitis, the available evidence suggests that antibiotics will reduce the probability of persistence in the short to medium-term. The benefits appear to be modest and around eight children must be treated in order to achieve one additional cure (number needed to treat (NNT) 8, 95% CI 5 to 29). No long term benefits have been documented. These conclusions are based on a small number of small randomised controlled trials and may require revision as additional data become available.

Publication Types:
    Review

PMID: 17636651 [PubMed - indexed for MEDLINE]

49: Arch Ophthalmol. 2007 Jun;125(6):848-9.

Rhino-orbital mucormycosis causing cavernous sinus and internal carotid thrombosis treated with posaconazole.

Gelston CD, Durairaj VD, Simoes EA.

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Ave, Room B070, Denver, CO 80218, USA.

Publication Types:
    Case Reports

PMID: 17563004 [PubMed - indexed for MEDLINE]

50: Ann Otol Rhinol Laryngol. 2007 May;116(5):381-5.

Streptococcus viridans has a leading role in rhinosinusitis complications.

Hwang SY, Tan KK.

Department of Otolaryngology, Changi General Hospital, Singapore.

OBJECTIVES: We sought to determine whether the bacteria in complicated rhinosinusitis were the typical acute rhinosinusitis triad of Streptococcus
pneumoniae, Haemophilus influenzae, and Moraxella catarrhalis. We also compared
the difference in yield between infection sites and blood cultures. METHODS: We
performed a retrospective review of all patients who had required surgical
intervention for rhinosinusitis complications over 7 years at a tertiary care
pediatric hospital. RESULTS: There were a total of 28 patients during the review
period. Twenty-five organisms were isolated from 21 patients, of which Streptococcus viridans formed 44% of the isolates (11 of the 25). The typical
triad of bacteria only formed 20% of the isolates (5 of the 25), and none of
these bacteria were found in the group with intracranial complications. Infection
site cultures had a superior yield compared to blood cultures ($p < .001$).
Ninety-six percent of the bacteria were sensitive to a combination of amoxicillin-clavulanate and cloxacillin. CONCLUSIONS: In distinction to the
typical bacteria of acute rhinosinusitis, S. viridans is the leading cause of
rhinosinusitis complications. It is not merely a commensal organism of the upper
respiratory tract.

PMID: 17561768 [PubMed - indexed for MEDLINE]

51: BMC Infect Dis. 2007 May 30;7:47.

Concurrent acute illness and comorbid conditions poorly predict antibiotic use in
upper respiratory tract infections: a cross-sectional analysis.

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BACKGROUND: Inappropriate antibiotic use promotes resistance. Antibiotics are generally not indicated for upper respiratory infections (URIs). Our objectives were to describe patterns of URI treatment and to identify patient and provider factors associated with antibiotic use for URIs. METHODS: This study was a cross-sectional analysis of medical and pharmacy claims data from the Pennsylvania Medicaid fee-for-service program database. We identified Pennsylvania Medicaid recipients with a URI office visit over a one-year period. Our outcome variable was antibiotic use within seven days after the URI visit. Study variables included URI type and presence of concurrent acute illnesses and chronic conditions. We considered the associations of each study variable with antibiotic use in a logistic regression model, stratifying by age group and adjusting for confounders. RESULTS: Among 69,936 recipients with URI, 35,786 (51.2%) received an antibiotic. In all age groups, acute sinusitis, chronic sinusitis, otitis, URI type and season were associated with antibiotic use. Except for the oldest group, physician specialty and streptococcal pharyngitis were associated with antibiotic use. History of chronic conditions was not associated with antibiotic use in any age group. In all age groups, concurrent acute illnesses and history of chronic conditions had only had fair to poor ability to distinguish patients who received an antibiotic from patients who did not. CONCLUSION: Antibiotic prevalence for URIs was high, indicating that potentially inappropriate antibiotic utilization is occurring. Our data suggest that demographic and clinical factors are associated with antibiotic use, but additional reasons remain unexplained. Insight regarding reasons for antibiotic prescribing is needed to develop interventions to address the growing problem of antibiotic resistance.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 17537245 [PubMed - indexed for MEDLINE]

52: J Am Acad Nurse Pract. 2007 Jun;19(6):332-4.

Antibiotic prescribing habits of nurse practitioners treating pediatric patients:
AntiBUGS pediatrics.

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Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 17535344 [PubMed - indexed for MEDLINE]

53: Georgian Med News. 2007 Apr;(145):36-8.

[Estimation of effectiveness of peroral mucolytic agents in treatment of
inflammatory diseases of middle ear and paranasal sinusitis]

[Article in Russian]

Dzhaparidze ShV, Gegenava KhA, Dzhashi MM, Lomidze LS, Nakudashvili NK.

The aim of the work was estimation of perolar mucolytic agents in treatment of
inflammatory diseases of middle ear and paranasal sinusitis. On the basis of
research it was concluded that Sinupret reduced the necessity of grommet.
Sinupret is the best systemic mucolytic in the treatment of inflammatory disease
of middle ear and paranasal sinuses. To treat seros otitis media Sinupret was
used as a monotherapy drug. In treatment of acute otitis media and sinusitis
Sinupret is recommended in the third period of disease in combination with
antibiotics.

Publication Types:
    English Abstract

PMID: 17525496 [PubMed - indexed for MEDLINE]

54: Arzneimittelforschung. 2007;57(4):238-46.

[On-going investigations on efficacy and safety profile of a herbal drug
containing nasturtium herb and horseradish root in acute sinusitis, acute
bronchitis and acute urinary tract infection in children in comparison with other
antibiotic treatments]

[Article in German]

Goos KH, Albrecht U, Schneider B.

Repha GmbH, Biologische Arzneimittel, Langenhagen, Germany.

PATIENTS AND METHODS: In this study which was carried out in the period between
1st May until 4th October 2006 in 65 study sites as a prospective cohort study in
858 children, adolescents and juveniles in the age between 4 and 18 years who
consulted the physician due to an acute sinusitis, acute bronchitis or acute
urinary tract infection (UTI). Data of in total 858 patients were recorded. The
patients were treated either with the herbal drug preparation Angocin Anti-Infekt
N (test group, n = 523, 61%) or with a standard antibiotic (control group, n =
335, 39%) according to the decision of the physician. The duration of treatment
as well as the dosage was determined by the physician. 297 patients suffering
from acute sinusitis (197 test group 66%, 100 control patients 34%), 290 patients
suffering from acute bronchitis (178 test group 61%, 112 control patients 39%)
and 271 patients with acute urinary tract infection (148 test group 55%, 123
control patients 45 %) were included. The patients recorded in a diary the
utilization of the medication, concomitant procedures and adverse events (AEs).
The physician recorded at study start and at the end of the study the compliance
in a standardised form. Single symptoms were recorded according to their
intensity with a score ranging from 0 = no symptom to 3 = severe symptoms. At the
end of the study (disease free or after 7-14 days) the physicians finally judged
on the course of the treatment as well on the efficacy as observed. The patients
recorded their satisfaction with the treatment. Primary efficacy criterion was
the change of the complaints quantified by the change of the relative symptom
score average over all symptoms between result at study start and study end
related to the baseline value. RESULTS: The two therapy groups differ in their
basis data with regard to the mean age (test group 12.2 years, control group 13.5
years; p > 0.001) and the frequency of concomitant diseases (test group 6.3%,
control group 2.4%; p = 0.008). At start of treatment the complaints in the test
group were significantly less severe (mean of the complaint score 1.67) compared
to the control group (mean 2.00; p > 0.001). At the end of treatment there were
no significant differences in the mean complaint score between the groups (test

group 0.41, control group 0.49; p = 0.722). The mean reduction of the complaint score expressed in percentages was for the indication acute sinusitis in the test group 84.8% and in the control group 85.5%, for the indication acute bronchitis in the test group 82.1% and in the control group 77.7% and for the indication acute urinary tract infection in the test group 89.9% and in the control group 93.1%. In total the mean reduction of the complaint score for the test group was 85.3% and in the test group 85.7% (p = 0.828). The 95% confidence interval for difference of the expected reductions between test group and control group ranged from -3.87% up to 3.10%. With a border of +/- 10% the mean reduction for both groups is equivalent, and more importantly non-inferior for the test group compared with the control group. Adverse events were recorded for 3 patients (0.6%) of the test group and for 14 patients (3.9%) of the control group (p = 0.001). In conclusion it was demonstrated that therapy with the herbal drug preparation in the indications acute sinusitis, acute bronchitis and acute urinary tract infection is--with regard to efficacy--comparable to a treatment with standard antibiotics. The test preparation displayed in all indications a significantly lower potential for adverse events compared to a treatment with standard antibiotics and, therefore, a better safety profile could be concluded.

Publication Types:
    English Abstract

PMID: 17515295 [PubMed - indexed for MEDLINE]

55: Int J Pediatr Otorhinolaryngol. 2007 Jul;71(7):1003-6. Epub 2007 May 3.

Prior antibiotic therapy for acute sinusitis in children and the development of subperiosteal orbital abscess.

Sinclair CF, Berkowitz RG.

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OBJECTIVE: To determine the pattern of pre-hospitalization antibiotic use in children developing a subperiosteal orbital abscess (SPA) as a complication of acute sinusitis. STUDY DESIGN AND SETTING: Ten-year retrospective chart review in

a tertiary pediatric center of children under the age of 18 years requiring operative drainage of a SPA as a complication of acute sinusitis. RESULTS: There were 39 children (M 25; F 14). Ten children (26%) received antibiotic therapy prior to admission, for a median duration of 1.6 days. On presentation, 72% had rhinorrhea and/or fever, for average durations of 3.9 and 2.5 days, respectively. Streptococcal species sensitive to penicillin were grown from 51% of SPA cultures. CONCLUSION: Although few children in this series received antibiotics prior to their presentation with a SPA, prodromal sinusitis symptoms were of too short a duration to warrant institution of antibiotic therapy based on the American Academy of Pediatrics guidelines for acute sinusitis. SIGNIFICANCE: SPA may not be a preventable complication of acute sinusitis in children.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 17481738 [PubMed - indexed for MEDLINE]

56: Neurosurgery. 2007 Apr;60(4 Suppl 2):295-303; discussion 303-4.

Graded repair of cranial base defects and cerebrospinal fluid leaks in transsphenoidal surgery.

Esposito F, Dusick JR, Fatemi N, Kelly DF.

Division of Neurosurgery, David Geffen School of Medicine, University of California, Los Angeles, Los Angeles, California, USA.

OBJECTIVE: A graded approach to cerebrospinal fluid (CSF) leak repair after transsphenoidal surgery is presented. METHODS: Patients undergoing endonasal tumor removal during an 8-year period were reviewed. Intraoperative CSF leaks were classified as Grade 0, no leak observed; Grade 1, small leak without obvious diaphragmatic defect; Grade 2, moderate leak; or Grade 3, large diaphragmatic/dural defect. Cranial base repair was tailored to the leak grade as Grade 0, collagen sponge; Grade 1, two-layered collagen sponge repair with intrasellar titanium mesh buttress; Grade 2, intrasellar and sphenoid sinus fat grafts with collagen sponge overlay and titanium buttress; and Grade 3, same as Grade 2 with CSF diversion in most cases. A provocative tilt test was performed before patient discharge to assess the integrity of the CSF leak repair. Protocol modifications adopted in 2003 included an intrasellar fat graft in Grade 1 leaks

with a large intrasellar dead space, frequent use of BioGlue (CryoLife, Inc., Atlanta, GA) in Grade 1, 2, and 3 leaks, and CSF diversion for all Grade 3 leaks. RESULTS: Among 668 cases in 620 patients (475 pituitary adenomas and 145 other lesions), an intraoperative CSF leak was observed in 57% of the cases: 32.5% Grade 1, 15% Grade 2, and 8.7% Grade 3. Postoperative repair failures occurred in 17 cases (2.5%), including 0.7, 3, 1, and 12% of Grade 0, 1, 2, and 3 CSF leaks, respectively. Bacterial meningitis occurred in three patients (0.45%). After protocol modifications in 2003, repair failures decreased from 4 to 1.2% (P = 0.02). CONCLUSION: A graded repair approach to CSF leaks in transsphenoidal surgery avoids tissue grafts and CSF diversion in more than 60% of patients. Protocol modifications adopted in the last 340 cases have reduced the failure rate to 1% overall and 7% for Grade 3 leaks. Provocative tilt testing before patient discharge is helpful in the timely diagnosis of postoperative CSF leaks.

PMID: 17415166 [PubMed - indexed for MEDLINE]

57: Am J Med. 2007 Apr;120(4):289-94.

Judicious antibiotic use and intranasal corticosteroids in acute rhinosinusitis.

Small CB, Bachert C, Lund VJ, Moscatello A, Nayak AS, Berger WE.

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Most patients with symptoms of acute rhinosinusitis are treated with antibiotics. However, many cases of rhinosinusitis are secondary to viral infections and unlikely to benefit from antibiotic therapy. Inappropriate use of antibiotics in patients with acute nonbacterial rhinosinusitis contributes to the increase in bacterial antibiotic resistance. Consequently, safe and effective alternatives to antibiotics are needed in the treatment of acute rhinosinusitis caused by viral infections. Recent results from controlled trials have shown that intranasal corticosteroids, used in combination with antibiotics or as monotherapy in selected cases, provide significant symptom relief and resolution of acute rhinosinusitis. The use of intranasal corticosteroids in acute rhinosinusitis

therefore might reduce the inappropriate use of antimicrobial therapy in acute
rhinosinusitis.

Publication Types:
    Review

PMID: 17398218 [PubMed - indexed for MEDLINE]

58: Enferm Infecc Microbiol Clin. 2007 Apr;25(4):253-62.

[Clinical and therapeutic management of respiratory tract infections. Consensus
document of the Andalusian Infectious Diseases Society and the Andalusian Family
and Community Medicine Society]

[Article in Spanish]

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Lima J, Girón González JA, Lama Herrera C, Morán Rodríguez A, Zapata López A;
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Respiratory tract infections are frequent and they are one of the commonest
causes of antibiotic prescription. However, there are few clinical guidelines
that consider this group of infections. This document has been written by the
Andalusian Infectious Diseases Society and the Andalusian Family and Community
Medicine Society. The primary objective has been to define the recommendations
for the diagnosis and antibiotic treatment of respiratory tract infections apart
from pneumonia. The clinical syndromes evaluated have been: a) pharyngitis; b)
sinusitis; c) acute otitis media and otitis externa; d) acute bronchitis,
laryngitis, epiglottitis; e) acute exacerbation of chronic bronchitis; and f)
respiratory infectious in patients with bronchiectasis. This document has focused
on immunocompetent patients.

Publication Types:
    Consensus Development Conference
    English Abstract

PMID: 17386221 [PubMed - indexed for MEDLINE]

59: Health Educ Res. 2008 Feb;23(1):146-57. Epub 2007 Mar 15.

Reducing antibiotics for colds and flu: a student-taught program.

Cebotarenco N, Bush PJ.

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A student peer-taught program, to decrease antibiotic use for colds and flu, was developed and implemented in one school district (21 schools) in Chisinau, Moldova, in 2003-04. A second district (20 schools) served as the control (C). Students (12-13 years) and adults most responsible for the family's health care completed surveys in March pre-post intervention. The surveys determined the reported incidence of colds and flu during the past winter, treatment, beliefs about cause and usefulness of antibiotics. The intervention included peer-education sessions, parents' meetings, booklet, vignette video, newsletters, poster and poster contest. The intervention also provided basic information on appropriate use of medicines. Pre-post intervention survey results indicated that the intervention was successful. Adjusted for Cs, students who reported they did not treat colds or flu with antibiotics increased 33.7%; the comparable increase for adults was 38.0%. Adjusted for Cs, intervention students who did not know if they had used an antibiotic decreased 15.1% and for intervention adults the comparable decrease was 5.0%. All relative responses related to beliefs about the cause of colds and flu and the usefulness of antibiotics to treat them changed in a positive direction. In all groups, beliefs and behaviors relative to antibiotic use were related.

Publication Types:
    Research Support, Non-U.S. Gov't
    Research Support, U.S. Gov't, Non-P.H.S.

PMID: 17363360 [PubMed - indexed for MEDLINE]

60: Int J Immunopathol Pharmacol. 2007 Jan-Mar;20(1):97-101.

Antibiotic treatment alone for acute rhinosinusitis gives a poor response in allergic children.

Marseglia GL, Klersy C, Barberi S, Marseglia A, Castellazzi AM, Pagella F, Ciprandi G.

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Acute rhinosinusitis (ARS) is frequent in children. Patients with allergic rhinitis show signs of more impaired paranasal sinus functioning than normal subjects during viral colds. This study evaluated the effectiveness of administering antibiotics alone to treat ARS in both allergic and non-allergic children. We obtained informed consent from the parents of each patient enrolled in the study. 97 children, 55 males and 42 females aged between 4 and 9 years (46 of whom were allergic), suffering from ARS, were treated with amoxicilline-clavulanate (50 mg/Kg bid) for 14 days. Symptoms and endoscopic signs of illness were evaluated at baseline and immediately after treatment. Symptoms improved significantly ($p<0.001$) after treatment in 84 patients, equally distributed between allergic and non-allergic subjects. On the contrary, endoscopic signs disappeared only in 49 children, 9 of whom were allergic (OR 14.9, 95%CI 4.6-40.1, $p<0.001$). Slight to fair agreement was observed between clinical symptoms and endoscopic signs (agreement 64% , Kappa=0.28, McNemar test $p<0.001$). Antibiotic therapy alone in the treatment of ARS may be generally insufficient to resolve symptoms, mainly endoscopic signs. Moreover, in allergic children this issue appears to be more evident.

PMID: 17346432 [PubMed - indexed for MEDLINE]

61: Pol Merkur Lekarski. 2006 Nov;21(125):454-8.

[Cetirizine and respiratory tract infections in opinion of Polish doctors]

[Article in Polish]

Jahnz-Rózyk K.

Military Institute of Heath Service in Warsaw, Poland, Ward of Immunology and Clinical Allergology, Central Clinical Hospital of the Ministry of National Defence.

Antihistamines are very popular cold treatments. 9640 prescriptions (4069 men and 5391 women) were analysed during the January -March 2006 period. The informations of polish doctors opinions were gathered from questionnaires. The patients studied suffered from respiratory infections (common cold - 32%, laryngitis - 21%, sinusitis - 19%, bronchitis - 18%, tonsillitis - 10%). In 1621 (16.8%) persons antibiotics were applied. Among them the most common amoxycilline (41%),

macrolides (26,4%) and cephalosporines (22.8%) were prescribed. The coexistence
of repiratory infection with allergic disease was confirmed in 6181 (65%)
patients. The combination of antihistamine - cetirizine (Alermed, Lekam, Poland)
with other medications were applied in every patient treatment. Anti-inflammatory
properties in 36%, allergy in anamnesis in 14% and allergic symptoms in 28% were
pointed out by polish doctors as the main reasons for prescriptions of
cetirizine. Only 7% of doctors admitted in survey that they always prescribed
antihistmines for respiratory infections. Duration of illness was shorter than
seven days in most patients. In polish doctors opinions cetirizine may be applied
in respiratory infections, because of its effects in alleviating clinical
symptoms and in shortening of illness duration. Especially this treatment is
indicated when coexistence of respiratory infection with allergic disease is
confirmed. Additionally cetirizine is safe and good tolerated drug. However,
further controlled studies are necessary to confirm these data.

Publication Types:
    English Abstract

PMID: 17345839 [PubMed - indexed for MEDLINE]

62: Pediatr Allergy Immunol. 2007 Mar;18(2):167-73.

Increases in serum immunoglobulins to age-related normal levels in children with
IgA and/or IgG subclass deficiency.

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Immunoglobulins (Ig) A and G subclass deficiencies are common immune system
disorders which cause morbidity especially between 2 and 6 yr of age. Prognosis
of these defects and therapeutic approach is unclear. The aim of the present
retrospective study was to review the clinical and laboratory records of 87
children with IgA and/or IgG subclass deficiency to determine whether these
patients experience changes in serum Ig concentrations during follow-up and to
give more clinic and laboratory information to the families about the course of
these diseases. Among 87 patients studied, the most frequent defect was partial

IgA deficiency combined with IgG3 subclass deficiency (41%). The other groups
were as follows; partial IgA deficiency (32%), selective IgA deficiency (8%),
partial IgA combined with IgG2-G4 subclass deficiency (6%), and IgG subclass
deficiency (13%). The commonest clinical presentations were recurrent upper
respiratory tract infections (76%), pneumonia (14%), acute gastroenteritis (3%),
urinary tractus infection (3%), sinusitis (2%), and acute otitis media (2%).
Atopy was widely represented in the patients studied (24%). The number of
patients who were given prophylactic treatment with benzathine penicilline,
prophylactic oral antibiotic, or oral bacterial extract to prevent infections was
68 (78%). Frequency of recurrent infections decreased from 7.9 +/- 4.9 per year
to 2.5 +/- 2.3 in 68 patients receiving any prophylactic regimen; however,
decrease in frequency of infections did not show any significant difference
between different prophylactic groups. None of the patients in the selective IgA
deficiency group had reached normal serum levels of IgA. At the age of 58.3 +/-
21.4 months, 52% of patients in partial IgA deficiency group and 51% of patients
in partial IgA + IgG subclass deficiency group, serum IgA increased to normal
ranges. Serum IgG subclass levels increased to normal range for age in 67% of
patients in partial IgA + IgG subclass deficiency group and in 30% of patients in
isolated IgG subclass deficiency group. The mean age for reaching age-related
normal IgG subclass levels for these patients was 69.0 +/- 14.5 months. In
conclusion, findings of this study suggest that IgA and/or IgG subclass
deficiency may be either progressive or reversible disorders and emphasize the
value of monitoring Ig levels in affected individuals.

PMID: 17338791 [PubMed - indexed for MEDLINE]

63: BMC Complement Altern Med. 2007 Mar 2;7:7.

Homeopathic and conventional treatment for acute respiratory and ear complaints:
a comparative study on outcome in the primary care setting.

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BACKGROUND: The aim of this study was to assess the effectiveness of homeopathy
compared to conventional treatment in acute respiratory and ear complaints in a
primary care setting. METHODS: The study was designed as an international,
multi-centre, comparative cohort study of non-randomised design. Patients,
presenting themselves with at least one chief complaint: acute (< or = 7 days)
runny nose, sore throat, ear pain, sinus pain or cough, were recruited at 57
primary care practices in Austria (8), Germany (8), the Netherlands (7), Russia
(6), Spain (6), Ukraine (4), United Kingdom (10) and the USA (8) and given either
homeopathic or conventional treatment. Therapy outcome was measured by using the
response rate, defined as the proportion of patients experiencing 'complete
recovery' or 'major improvement' in each treatment group. The primary outcome
criterion was the response rate after 14 days of therapy. RESULTS: Data of 1,577
patients were evaluated in the full analysis set of which 857 received
homeopathic (H) and 720 conventional (C) treatment. The majority of patients in
both groups reported their outcome after 14 days of treatment as complete
recovery or major improvement (H: 86.9%; C: 86.0%; p = 0.0003 for non-inferiority
testing). In the per-protocol set (H: 576 and C: 540 patients) similar results
were obtained (H: 87.7%; C: 86.9%; p = 0.0019). Further subgroup analysis of the
full analysis set showed no differences of response rates after 14 days in
children (H: 88.5%; C: 84.5%) and adults (H: 85.6%; C: 86.6%). The unadjusted
odds ratio (OR) of the primary outcome criterion was 1.40 (0.89-2.22) in children
and 0.92 (0.63-1.34) in adults. Adjustments for demographic differences at
baseline did not significantly alter the OR. The response rates after 7 and 28
days also showed no significant differences between both treatment groups.
However, onset of improvement within the first 7 days after treatment was
significantly faster upon homeopathic treatment both in children (p = 0.0488) and
adults (p = 0.0001). Adverse drug reactions occurred more frequently in adults of
the conventional group than in the homeopathic group (C: 7.6%; H: 3.1%, p =
0.0032), whereas in children the occurrence of adverse drug reactions was not
significantly different (H: 2.0%; C: 2.4%, p = 0.7838). CONCLUSION: In primary
care, homeopathic treatment for acute respiratory and ear complaints was not

inferior to conventional treatment.

Publication Types:
    Clinical Trial
    Comparative Study
    Multicenter Study

PMID: 17335565 [PubMed - indexed for MEDLINE]

64: Am Fam Physician. 2007 Feb 15;75(4):515-20.

Comment in:
    Am Fam Physician. 2007 Feb 15;75(4):476, 479, 482.   Am Fam Physician. 2007 Oct 15;76(8):1111, 1115.

Treatment of the common cold.

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The common cold is a viral illness that affects persons of all ages, prompting frequent use of over-the-counter and prescription medications and alternative remedies. Treatment focuses on relieving symptoms (e.g., cough, nasal congestion, rhinorrhea). Dextromethorphan may be beneficial in adults with cough, but its effectiveness has not been demonstrated in children and adolescents. Codeine has not been shown to effectively treat cough caused by the common cold. Although hydrocodone is widely used and has been shown to effectively treat cough caused by other conditions, the drug has not been studied in patients with colds. Topical (intranasal) and oral nasal decongestants have been shown to relieve nasal symptoms and can be used in adolescents and adults for up to three days. Antihistamines and combination antihistamine/decongestant therapies can modestly improve symptoms in adults; however, the benefits must be weighed against potential side effects. Newer nonsedating antihistamines are ineffective against cough. Topical ipratropium, a prescription anticholinergic, relieves nasal symptoms in older children and adults. Antibiotics have not been shown to improve symptoms or shorten illness duration. Complementary and alternative therapies (i.e., Echinacea, vitamin C, and zinc) are not recommended for treating common cold symptoms; however, humidified air and fluid intake may be useful without adverse side effects. Vitamin C prophylaxis may modestly reduce the duration and

severity of the common cold in the general population and may reduce the
incidence of the illness in persons exposed to physical and environmental
stresses.

Publication Types:
    Review

PMID: 17323712 [PubMed - indexed for MEDLINE]

65: J Forensic Sci. 2007 Mar;52(2):487-90.

Possible role of pseudoephedrine and other over-the-counter cold medications in
the deaths of very young children.

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The Philadelphia Medical Examiners Office has reported a series of 15 deaths
between February 1999 and June 2005 of infants and toddlers 16 months and younger
in which drugs commonly found in over-the-counter (OTC) cold medications were
present. A total of 10 different drugs were detected: pseudoephedrine,
dextromethorphan, acetaminophen, brompheniramine, carbinoxamine,
chlorpheniramine, ethanol, doxylamine and the anticonvulsants, phenobarbital, and
phenytoin. The drugs were confirmed and quantified by gas chromatography
(GC)-mass spectrometry, with the exception of ethanol, which was analyzed by
headspace GC and of phenobarbital and phenytoin that were quantified by GC with a
nitrogen phosphorus detector. The most predominant drug was pseudoephedrine,
which was found in all of the cases (blood concentration, n=14, range=0.10-17.0
mg/L, mean=3.34 mg/L) and was the sole drug detected in three cases.
Acetaminophen was detected in blood from each of the five cases with sufficient
sample. Other drugs (with frequency of detection) were dextromethorphan (five
cases), carbinoxamine (four cases), chlorpheniramine (two cases) and
brompheniramine, doxylamine, and ethanol (one case each). In the majority of the
cases, toxicity from drugs found in easily available OTC medications was listed
either as the direct cause of death or as a contributory factor. The manner of
death was determined to be natural in only two of the cases. This postmortem
study supports previous evidence that the administration of OTC cold medications
to infants may, under some circumstances, be an unsafe practice and in some cases

may even be fatal. The treating physicians and the general public need to be made more aware of the dangers of using OTC cold medications to treat very young children so that these types of tragedies might be avoided.

PMID: 17316256 [PubMed - indexed for MEDLINE]

66: Child Health Alert. 2006 Nov;24:2-3.

Child health. In the news: a vaccine for hayfever?...and a new treatment for ear infections?

[No authors listed]

PMID: 17288027 [PubMed - indexed for MEDLINE]

67: Ophthalmology. 2007 Feb;114(2):345-54.

Outcome of treated orbital cellulitis in a tertiary eye care center in the middle East.

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PURPOSE: To describe risk factors predisposing patients to orbital cellulitis and potential complications in patients treated at a tertiary eye care referral center in the Middle East. DESIGN: Noncomparative, interventional, retrospective case series. PARTICIPANTS: Patients diagnosed with orbital cellulitis. METHODS: A 15-year clinical review of patients with a diagnosis of orbital cellulitis referred to King Khaled Eye Specialist Hospital, an accredited (Joint Council on Accreditation of Healthcare Organizations, Washington, DC) tertiary care center in Riyadh, Saudi Arabia, was performed. Only those patients who had clinical signs and symptoms or radiologic evidence suggestive of orbital cellulitis were included in the study. MAIN OUTCOME MEASURES: Patient demographics, factors predisposing to orbital cellulitis, and resulting complications. RESULTS: A total of 218 patients (136 male, 82 female) fulfilling the diagnostic criteria for orbital cellulitis were identified. The average age of these patients was 25.7 years (range, 1 month-85 years). On imaging studies, there was evidence of

inflammatory or infective changes to orbital structures; orbital abscesses were identified in 116 patients (53%). Sinus disease was the most common predisposing cause in 86 patients (39.4%), followed by trauma in 43 patients (19.7%). All patients received systemic antibiotic treatment before the identification of any responsible organisms. Of the 116 patients with orbital abscess, 101 patients (87%) required drainage. The results of cultures in patients in whom an orbital abscess was drained were positive for 91 patients (90%). The most common microorganisms isolated from the drained abscesses were Staphylococci and Streptococci species. Blood cultures were positive in only 4 patients from whom blood was drawn for cultures. Visual acuity improved in 34 eyes (16.1%) and worsened in 13 eyes (6.2%), including 9 (4.3%) eyes that sustained complete loss of vision, which was attributed to the delay in correct diagnosis and timely intervention (average 28 days vs. 9 days in patients with no loss of vision; $P<0.05$). There were 9 cases of intracranial extension of orbital abscesses that required either extended treatment with systemic antibiotics alone or in combination with neurosurgical intervention. Most patients received oral antibiotics on discharge for varying periods. There were 6 cases (2.7%) of strabismus and 4 cases (1.8%) of ptosis that persisted after treatment and resolution of orbital cellulitis. CONCLUSIONS: Untreated sinusitis and prior history of orbital trauma were the 2 major causes of orbital cellulitis in patients referred to a tertiary care eye center in the Middle East. Although rare, severe visual loss still remains a serious complication of delayed detection and intervention in most cases of orbital cellulitis.

PMID: 17270683 [PubMed - indexed for MEDLINE]

68: J Ethnobiol Ethnomed. 2006 Dec 27;2:54.

Traditional management of ear, nose and throat (ENT) diseases in Central Kenya.

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Diseases of ear, nose and throat (ENT) often have serious consequences including

hearing impairment, and emotional strain that lower the quality of life of patients. In Kenya, upper respiratory infections are among the most common infections encountered in outpatient facilities. Some of these infections are becoming difficult to control because some of the causing microorganisms have acquired antibiotic resistance and hence the need to develop new drugs with higher efficacy. Ethnobotanical studies have now been found to be instrumental in improving chances of discovering plants with antimicrobial activity in new drug development. In Kenya the majority of local people are turning to herbal remedies for primary health care needs. In most cases the sources of these remedies are undocumented and the knowledge about them passed orally form generation to generation, hence under threat of disappearing with current rates of modernisation. This study explored the traditional remedies used in managing various ENT diseases in seven districts of the Central Province of Kenya. The most common ENT conditions managed using traditional therapies include: common cold, cough, tonsillitis, otitis-media, chest pains and asthma. The results indicate that 67 species belonging to 36 plant families were utilized in this region. These plants were of varying habits; herbs (37.3%), shrubs (34.4%), trees (25.4%) as well as some grasses and sedges (3%). The traditional preparations were found to be made mainly from leaves (49%), roots (20.5%) and barks (12.5%). For each of the ENT conditions multiple species are utilized mainly as individual preparations but occasionally as polyherbal concoctions. In the case of common cold for example, 30 different species are used. Plants reported in this survey are important candidates for antimicrobial tests against ENT disease causing micro-organisms, especially those with antibiotic resistance.

Publication Types:
    Multicenter Study
    Research Support, Non-U.S. Gov't

PMID: 17192184 [PubMed - indexed for MEDLINE]

69: Bosn J Basic Med Sci. 2006 Nov;6(4):76-8.

Azythromicin versus amoxicillin-clavulanate in the treatment of acute sinusitis in children.

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In this prospective study we compared the efficiency of azithromycin and
amoxicillin-clavulanate in treatment of acute sinusitis in children. Seventy
patients were included in the age between 5 and 15 years. Beside ENT and
pediatricians examination, nasal and throat smear on culture and antibiogram is
taken from all the patients, as well as, X-ray of paranasal sinuses and
laboratory findings, followed by check-up of nasal and throat smear and X-ray of
paranasal sinuses. Azithromycin in single daily dose of 10 mg/kg during three
days showed same efficiency as amoxicillin-clavulanate given three times per day
in dose of 45 mg/kg during ten days.

Publication Types:
    Comparative Study

PMID: 17177656 [PubMed - indexed for MEDLINE]

70: Int J Pediatr Otorhinolaryngol. 2007 Mar;71(3):463-71. Epub 2006 Dec 12.

Prevalence and risk factors for allergic rhinitis in primary school children.

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OBJECTIVE: Allergic rhinitis is a common chronic illness of childhood. The aim of
the study was to evaluate the prevalence and risk factors of allergic rhinitis in
6-12-year-old schoolchildren in Istanbul. METHODS: A total of 2500 children aged
between 6 and 12 years in randomly selected six primary schools of Istanbul were
surveyed by using the International Study of Asthma and Allergies in Childhood
(ISAAC) questionnaire between April and May 2004. RESULTS: Of them 2387 (1185
M/1202 F) questionnaires were appropriately completed by the parents with an
overall response of 95.4%. The prevalence of physician-diagnosed allergic
rhinitis was 7.9% (n=189). A family history of atopy (aOR=1.30, 95% CI=1.00-1.68), frequent respiratory tract infection (aOR=1.36, 95% CI=1.08-1.70)
and sinusitis (aOR=2.29, 95% CI=1.64-3.19), antibiotic use in the first year of

life (aOR=1.26, 95% CI=1.01-1.57), cat at home in the first year of life
(aOR=2.21, 95% CI=1.36-3.61), dampness at home (aOR=1.31, 95% CI=1.04-1.65) and
perianal redness (aOR=1.26, 95% CI=1.01-1.57) were significant for increased risk
for allergic rhinitis. Frequent consumption of fruits and vegetables were
inversely, and frequent consumption of lollipops and candies were positively
associated with allergic rhinitis symptoms. CONCLUSION: Our study reconfirmed
that family history of atopy, frequent respiratory tract infections, antibiotics
given in the first year of life, cat at home in the first year of life, dampness
at home, perianal redness and dietary habits are important independent risk
factors for AR. Researchers worldwide should be focused to these factors and try
to develop policies for early intervention, primary and secondary preventions for
allergic diseases.

PMID: 17166597 [PubMed - indexed for MEDLINE]

71: Ann Fam Med. 2006 Nov-Dec;4(6):486-93.

Comment in:
    Ann Fam Med. 2006 Nov-Dec;4(6):484-5.

Predicting prognosis and effect of antibiotic treatment in rhinosinusitis.

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PURPOSE: In evaluating complaints suggestive of rhinosinusitis, family physicians
have to rely chiefly on the findings of a history, a physical examination, and
plain radiographs. Yet, evidence of the value of signs, symptoms, or radiographs
in the management of these patients is sparse. We aimed to determine whether
clinical signs and symptoms or radiographic findings can predict the duration of
the illness, the effect of antibiotic treatment, or both. METHODS: We analyzed
data from 300 patients with rhinosinusitis-like complaints participating in a
randomized controlled trial comparing amoxicillin with placebo. We used Cox
regression analysis to assess the association between the presence at baseline of

rhinosinusitis signs and symptoms or an abnormal radiograph and the subsequent course of the illness. We then tested for interactions to assess whether the presence of any of these findings predicted a beneficial effect of antibiotic treatment. RESULTS: Two factors at baseline were independently associated with a prolonged course of the illness: a general feeling of illness (hazard ratio = 0.77, 95% confidence interval, 0.60-0.99) and reduced productivity (hazard ratio = 0.68, 95% confidence interval, 0.53-0.88). Neither typical sinusitis signs and symptoms nor abnormal radiographs had any prognostic value. Prognosis remained unchanged whether or not patients were treated with antibiotics, no matter what symptoms patients had at baseline. CONCLUSIONS: In a large group of average patients with rhinosinusitis, neither the presence of typical signs or symptoms nor an abnormal radiograph provided information with regard to the prognosis or the effect of amoxicillin. The time to recovery was longer in patients who felt ill at baseline or who did not feel able to work, but the course of their illness was not influenced by antibiotic treatment.

Publication Types:
    Randomized Controlled Trial
    Research Support, Non-U.S. Gov't

PMID: 17148625 [PubMed - indexed for MEDLINE]

72: J Pediatr (Rio J). 2006 Nov;82(5 Suppl):S146-52.

Outpatient antibiotic therapy as a predisposing factor for bacterial resistance: a rational approach to airway infections.

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OBJECTIVES: To present evidence-based recommendations for the use of antibiotics for the treatment of the most common acute respiratory infections (ARI) and the available information on the importance of this type of management. SOURCES: MEDLINE and LILACS databases, technical publications by international organizations, national and international directives. The search terms acute respiratory infection, otitis, sinusitis, tonsillitis, pneumonia, antibiotic, guidelines and bacterial resistance were used. Articles cited by the articles

selected were analyzed for information of interest. SUMMARY OF THE FINDINGS:
Bacterial resistance has grown, to the extent that today it is recognized as a
global public health problem. ARI are the most common cause of antibiotic usage
within the community; yet a large proportion of these cases, compromising the
upper (otitis, sinusitis, tonsillitis) or the lower airways (pneumonia), are the
result of viral infections. Recommendations to rationalize the use of antibiotics
in patients with ARI have the common objective of minimizing unnecessary
antibiotic use, since "antibiotic pressure" is one of the factors triggering
bacterial resistance. CONCLUSIONS: It is of great importance to differentiate
among ARI patients those who will benefit from the use of antibiotics. The
establishment of recommendations for the prescription of antibiotics is one
strategy for minimizing the frequency of bacterial resistance.

Publication Types:
    Review

PMID: 17136290 [PubMed - indexed for MEDLINE]

73: Pediatr Allergy Immunol. 2006 Dec;17(8):620-8.

Asthma and allergy medication use and costs among pediatric primary care patients
on asthma controller therapy.

Sazonov-Kocevar V, Laforest L, Travier N, Yin DD, Van Ganse E.

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As observational studies in children initiating GINA-Step 3 therapies are scarce,
we evaluated outcomes and costs in a primary care cohort. Two-yr retrospective
cohort study included French children (age: 6-14) continuously followed in
BKL-Thalès database who received > or =2 consecutive prescriptions for GINA-Step
3 therapy (=addition of montelukast or other controllers ('other'), such as
increasing inhaled-corticosteroid dose (hICS), adding long-acting beta agonist
(LABA), or ICS + LABA). After matching on gender and propensity score, medication
use [rescue (short-acting beta agonists), acute (antibiotics (AB), oral
corticosteroids (OCS)), allergy (antihistamines, nasal steroids) and other
respiratory] was estimated via mean number of prescriptions and mean cost (per
child/per month), and cost trends. During 12-month follow-up, children adding

montelukast (n = 71) vs. 'other' (n = 213) had similar asthma rescue/acute and allergy medication use. Subgroup with asthma and allergic rhinitis (A + AR) adding montelukast used less OCS and AB (p = 0.014). Two-yr cost trends suggest stable asthma/allergy medication use in montelukast group (0.83 euro) compared with increase in 'other' (5.39 euro), which was driven by nasal steroid use [0.32 euro ('other') vs. -0.04 euro (montelukast), p = 0.0013]. In subgroup with A + AR decline in asthma/allergy medication use in montelukast group (-0.47 euro) vs. increase in 'other' (11.05 euro), p = 0.015, was driven by differences in AB and OCS (p = 0.04) and nasal steroid use (p = 0.001). Concomitant asthma/allergy medication use was similar in children adding montelukast or 'other' controllers (hICS, LABA, ICS + LABA), while children with allergic rhinitis on montelukast used less AB. Concomitant medication costs after addition of montelukast remained stable, while 'other' group experienced increase, especially in children with concomitant allergic rhinitis.

PMID: 17121591 [PubMed - indexed for MEDLINE]

74: Scand J Prim Health Care. 2006 Dec;24(4):231-6.

Primary care management of respiratory tract infections in Dutch preschool children.

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OBJECTIVE: To determine age-specific antibiotic prescription and referral rates in preschool children diagnosed with acute respiratory tract infection (RTI) in primary care. DESIGN: Retrospective cohort study. SETTING: Research database of the Netherlands University Medical Center Utrecht Primary Care Network. SUBJECTS: All children aged 0-5 years within the database were included, covering 1998 to 2002 (18,801 child-years). MAIN OUTCOME MEASURES: Antibiotic prescription and referral rates were determined as percentage of children with at least one prescription or referral within a year, as total number of prescriptions per 1000 child-years, and as percentage of all RTI episodes. RESULTS: Antibiotics, mostly

beta-lactam (80%) and macrolides (16%), were prescribed in 35% of RTI episodes.
Annually 13% of the children received at least one antibiotic following an RTI.
Antibiotics were prescribed in more than half of episodes of LRTI, sinusitis,
AOM, and acute tonsillitis, and in 12-15% of episodes of asthma exacerbation,
acute laryngitis, influenza acute, and acute upper respiratory infection
(including common cold and pharyngitis). Almost 98% of RTIs were managed in
primary care. On average 1% of the children were referred to a paediatrician or
ENT specialist following RTI per year, especially after AOM (59% of referrals).
Compared with older children, those under two years of age were more often
treated with antibiotics (relative risk [RR] 1.4, 95% CI 1.3-1.6) and referred
(RR 2.3; 95% CI 1.8-3.0). CONCLUSION: In the Netherlands most episodes of RTIs in
preschool children were managed in primary care and this often involves
prescription of antibiotics. Children younger than two years of age receive more
often antibiotics for RTI and are also referred more, especially for AOM.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 17118863 [PubMed - indexed for MEDLINE]

75: Am J Otolaryngol. 2006 Nov-Dec;27(6):384-9.

Management of refractory chronic rhinosinusitis in children.

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OBJECTIVE: Pediatric chronic rhinosinusitis (CRS) continues to be a difficult
problem for the medical community. Traditionally, oral antibiotic therapy has
been the cornerstone of treatment, but some patients, who are resistant to
multiple trials of oral antibiotics, require alternative therapeutic modalities.
One such option, the use of intravenous (IV) antibiotics, has shown a high
success rate in a limited study. Our goal is to estimate the success of a therapy
consisting of culture directed IV antibiotics, adenoidectomy, and sinus
aspiration in ameliorating long-term (>12 months) clinical symptoms of CRS in
pediatric patients who are resistant to oral antibiotic therapy.
METHODS: We

conducted a retrospective review of the medical records of 22 patients who received treatment, focusing on patient age, initial CRS presenting symptoms, computed tomography scan finding, length, duration, and type of prior oral antibiotic treatment, length and type of IV antibiotic treatment, and long-term follow-up of clinical symptom resolution. RESULTS: Initial clinical improvement after cessation of IV therapy was achieved in all 22 (100%) patients. Seventeen (77%) of the patients demonstrated long-term resolution of clinical symptoms of CRS. Excluding 4 immunocompromised patients, 16 of 18 (89%) of patients demonstrated long-term amelioration of CRS symptoms. CONCLUSIONS: The results suggest that IV antibiotics may prove beneficial for pediatric patients who demonstrate CRS not responsive to traditional oral therapy. Although other treatment options are currently available for this subpopulation of patients, this IV antibiotic therapy provides both a maximally effective outcome while using a relatively minimally invasive intervention.

PMID: 17084221 [PubMed - indexed for MEDLINE]

76: Pediatr Rev. 2006 Nov;27(11):434-6.

Ampicillin and amoxicillin.

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Publication Types:
    Review

PMID: 17079510 [PubMed - indexed for MEDLINE]

77: Invest Ophthalmol Vis Sci. 2006 Nov;47(11):4767-71.

Chlamydial positivity of nasal discharge at baseline is associated with ocular chlamydial positivity 2 months following azithromycin treatment.

Gower EW, Solomon AW, Burton MJ, Aguirre A, Muñoz B, Bailey R, Holland M, Makalo P, Massae P, Mkocha H, Mabey DC, West SK.

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BACKGROUND: Trachoma is the leading infectious cause of blindness. Routes of

transmission remain unclear. In this study, the relationship between Chlamydia trachomatis Amplicor-positive nasal discharge and Amplicor-positive ocular swabs was investigated (Amplicor; Roche, Indianapolis, IN). METHODS: A longitudinal study was conducted in Tanzania and The Gambia. Eyes were graded for active trachoma; ocular swabs were taken to test for C. trachomatis. Children with visible nasal discharge had swabs taken of this material. Participants were offered systemic antibiotics. Two months after treatment, participants were re-examined. RESULTS: Of the 1128 children participating, 188 (17%) had nasal discharge. Among 188 children with nasal discharge, 64 (34%) nasal swabs were PCR positive. There was a strong correlation between active disease/ocular chlamydial positivity and positive nasal discharge. Children with Amplicor-positive ocular swabs were 9.9 times more likely to have Amplicor-positive nasal discharge than were children without ocular positivity (95% CI: 4.34-22.53). Two months after treatment, 16% had an Amplicor-positive ocular swab. Children with positive nasal discharge at baseline were 5.2 times more likely to have an Amplicor-positive ocular swab at 2 months than were children without Amplicor-positive nasal discharge at baseline (95% CI: 1.54-17.23), after adjusting for baseline ocular positivity, gender, and study site. CONCLUSIONS: Nasal discharge may provide a source of reinfection with C. trachomatis, after antibiotic treatment for trachoma, either through transfer of secretions from nose to eye or from nasal secretions transferred to bed sheets or dirty clothes and back to the eye; alternatively, nasal discharge may be an indicator of severe persistent ocular chlamydial infection that is not cleared with a single dose of antibiotics.

Publication Types:
    Multicenter Study
    Research Support, Non-U.S. Gov't

PMID: 17065486 [PubMed - indexed for MEDLINE]

78: J Laryngol Otol. 2006 Oct;120(10):845-8.

Management of clinically diagnosed subacute rhinosinusitis in children under the age of two years: a randomized, controlled study.

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BACKGROUND: In children, a diagnosis of rhinosinusitis is usually made on clinical grounds. Subacute rhinosinusitis (SRS) may be the cause of persistent cough, low-grade fever, snoring, ear problems and difficult feeding in children under the age of two years. OBJECTIVE: To compare the efficacy of culture-based antibiotics and empiric amoxicillin-clavulanate (40 mg/kg/day) in treating SRS in children under the age of two years. STUDY DESIGN: Randomized, controlled study. POPULATION: Sixty children with persistent nasal discharge and nasal obstruction (and other related symptoms) for 30-90 days. METHODS: Group one (n = 30) received culture-based antibiotics and group two (n = 30) were treated empirically with 40 mg/kg/day of amoxicillin-clavulanate. Treatment was continued for two weeks. RESULTS: At the end of the three-week follow-up period, statistically significant greater improvements in nasal obstruction (p = 0.037) and nasal discharge (p = 0.003) were seen in group one compared with group two. CONCLUSION: culture-based antibiotics were more efficacious than empiric amoxicillin-clavulanate (40 mg/kg/day) in treating SRS in children under the age of two years.

Publication Types:
Randomized Controlled Trial

PMID: 17038230 [PubMed - indexed for MEDLINE]

79: Pediatr Rev. 2006 Oct;27(10):395-7; discussion 397.

Sinusitis.

Taylor A.

Children's Hospital at Montefiore Bronx, NY, USA.

Publication Types:
Review

PMID: 17012491 [PubMed - indexed for MEDLINE]

80: Am Fam Physician. 2006 Sep 15;74(6):956-66.

Guidelines for the use of antibiotics in acute upper respiratory tract infections.

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California 92324, USA.

To help physicians with the appropriate use of antibiotics in children and adults
with upper respiratory tract infection, a multidisciplinary team evaluated
existing guidelines and summarized key practice points. Acute otitis media in
children should be diagnosed only if there is abrupt onset, signs of middle ear
effusion, and symptoms of inflammation. A period of observation without immediate
use of antibiotics is an option for certain children. In patients with sinus
infection, acute bacterial rhinosinusitis should be diagnosed and treated with
antibiotics only if symptoms have not improved after 10 days or have worsened
after five to seven days. In patients with sore throat, a diagnosis of group A
beta-hemolytic streptococcus pharyngitis generally requires confirmation with
rapid antigen testing, although other guidelines allow for empiric therapy if a
validated clinical rule suggests a high likelihood of infection. Acute bronchitis
in otherwise healthy adults should not be treated with antibiotics; delayed
prescriptions may help ease patient fears and simultaneously reduce inappropriate
use of antibiotics.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 17002029 [PubMed - indexed for MEDLINE]

81: Acta Paediatr. 2006 Oct;95(10):1175-81.

The prophylactic and therapeutic effectiveness of zinc sulphate on common cold in
children.

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AIM: To determine the efficacy of prophylactic administration of zinc sulphate in
reducing the occurrence of the common cold in children, and to evaluate the
efficacy of zinc sulphate in reducing the duration and severity of cold symptoms.
METHODS: A total of 200 healthy children were randomly assigned to receive oral
zinc sulphate (zinc group, n=100) or placebo (placebo group, n=100). Zinc
sulphate (15 mg of zinc) or placebo syrup were administered for prophylaxis once

daily during a 7-mo study period. The dose was increased to two times per day (30
mg of zinc) at the onset of cold, until symptoms resolved. RESULTS: The mean
number of colds in the zinc group was significantly less than in the placebo
group (1.2 vs 1.7 colds per child; p=0.003). The mean cold-related school absence
was 0.9 d per child in the zinc group versus 1.3 d in the placebo group (p=0.04).
Compared to the placebo group, the zinc group had shorter mean duration of cold
symptoms and decreased total severity scores for cold symptoms (p<0.0001).
Adverse effects were mild and similar in both groups. CONCLUSION: Zinc sulphate
appears to be an easily administered, safe and well-tolerated alternative for the
prevention and treatment of the common cold in children.

Publication Types:
    Randomized Controlled Trial

PMID: 16982486 [PubMed - indexed for MEDLINE]

82: Mycoses. 2006;49 Suppl 1:37-41.

Posaconazole for treatment of refractory invasive fungal disease.

Notheis G, Tarani L, Costantino F, Jansson A, Rosenecker J, Friederici D,
Belohradsky BH, Reinhardt D, Seger R, Schweinitz DV, Wintergerst U.

University Childrens Hospital, Munich, Germany.

Invasive fungal infections are usually associated with immunocompromised states
About 40-60% of these patients are refractory to standard antifungal therapy We
describe the effect of posaconazole in the treatment of a 12 years-old girl with
uncontrolled diabetes mellitus with life-threatening cerebral mucor mycosis and a
4 year old girl boy with chronic granulomatous disease presenting with invasive
Aspergillus nidulans infection.

Publication Types:
    Case Reports

PMID: 16961581 [PubMed - indexed for MEDLINE]

83: Mycoses. 2006;49 Suppl 1:31-6.

Rhinocerebral zygomycosis in a young girl undergoing allogeneic stem cell
transplantation for severe aplastic anaemia.

Sörensen J, Becker M, Porto L, Lambrecht E, Schuster T, Beske F, Rickerts V,
Klingebiel T, Lehrnbecher T.

Department of Pediatric Hematology and Oncology, University of Frankfurt,
Frankfurt, Germany.

We report on a 10-year-old girl with severe aplastic anaemia who developed
rhinocerebral infection caused by Absidia corymbifera and a possible co-infection
caused by Alternaria alternata. Despite prolonged neutropenia, therapy with
liposomal amphotericin B and posaconazole improved the clinical condition.
Subsequently, the girl underwent allogeneic haematopoietic stem cell
transplantation (HSCT) for the underlying disease, but the fungal infection
remained under control with the antifungal treatment. No severe side effect of
the antifungal drugs was noted. Unfortunately, the girl died 5 months after HSCT
due to disseminated adenovirus infection.

Publication Types:
    Case Reports

PMID: 16961580 [PubMed - indexed for MEDLINE]

84: Allergy Asthma Proc. 2006 Jul-Aug;27(4):325-33.

Identification of asthma risk factors in Mexico City in an International Study of
Asthma and Allergy in Childhood survey.

Del-Rio-Navarro B, Berber A, Blandón-Vijil V, Ramírez-Aguilar M, Romieu I,
Ramírez-Chanona N, Heras-Acevedo S, Serrano-Sierra A, Barraza-Villareal A,
Baeza-Bacab M, Sienra-Monge JJ.

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The International Study of Asthma and Allergy in Childhood (ISAAC) has assessed
the prevalence of asthma, as well as the factors related to the disease in
different countries. The aim of this study was to identify asthma risks factors
in Mexico City. Data were obtained from questionnaires of children participating
in a phase 3b ISAAC survey. Two thousand ninety-eight boys and 2008 girls were
recruited in the 6- to 7-year-old group and 3243 boy and 3333 girls were
recruited in the 13- to 14-year-old group. Logistic regression was used to
determine the asthma risks factors. In the logistic regression for cumulative and
current asthma prevalence, the variables allergic rhinitis and atopic dermatitis

were the most important risk factors with the highest odds ratios (OR > 1.5; p < 0.05). The use of antibiotics and paracetamol in the first 12 months of life were related to cumulative asthma in both genders in the 6- to 7-year-old group. Contact of pregnant mother with farm animals was positively related with cumulative asthma in boys in the 6- to 7-year-old group. The main factors associated with the cumulative and current prevalence of asthma in both age groups were atopic dermatitis and allergic rhinitis. Future interventions for the prevention and early diagnosis and treatment could be focused in the natural history of the atopic march.

Publication Types:
Multicenter Study

PMID: 16948345 [PubMed - indexed for MEDLINE]

85: J R Soc Med. 2006 Sep;99(9):474-6.

Bilateral cavernous sinus thrombosis complicating sinusitis.

Absoud M, Hikmet F, Dey P, Joffe M, Thambapillai E.

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Publication Types:
Case Reports

PMID: 16946393 [PubMed - indexed for MEDLINE]

86: Allergy. 2006 Oct;61(10):1184-90.

Sublingual immunotherapy in children modulates allergen-induced in vitro expression of cytokine mRNA in PBMC.

Savolainen J, Jacobsen L, Valovirta E.

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BACKGROUND: During subcutaneous immunotherapy (SCIT), there is a local mucosal shift from Th2 to Th1 type cytokine predominance and downregulation of interleukin (IL)-5 and eosinophilia. According to recent studies IL-10- and transforming growth factor (TGF)-beta-induced tolerance is another key phenomenon in SCIT. Few data to date is available on mechanisms and roles of these cytokines in sublingual immunotherapy (SLIT). SCOPE: This study was undertaken to analyse

the allergen-induced in vitro mRNA expression of IL-4, IL-5, IL-10, TGF-beta and
interferon (IFN)-gamma during SLIT in peripheral blood mononuclear cells (PBMC)
of children with allergic rhinitis (AR). METHODS: Ten patients with AR undergoing
pollen SLIT with a weekly dose of 200,000 SQ-U, 10 with a weekly dose of 24,000
SQ-U of glycerinated mixture of Betula verrucosa, Corylus avellana and Alnus
glutinosa and 10 with placebo were included in the study. Peripheral blood
mononuclear cell samples were collected and stimulated with pollen allergen
extract prior to the treatment, after 1 and 2 years of the treatment. The
cytokine mRNA expression was assessed using kinetic real time reverse
transcription polymerase chain reaction (RT-PCR; TaqMan). RESULTS: The in vitro
allergen-induced mRNA expression of IL-5 by PBMC in the placebo group at 1 (P =
0.0065) and 2 (P = 0.013) years of therapy were increased in comparison with the
highest dose. The expression of IL-10 mRNA was increased in the highest dose
group (P = 0.0016) and the lower dose group (P = 0.034) at 2 years of therapy
when compared with placebo. The change in the expression of allergen-induced
TGF-beta had an inversed correlation with the change of IL-5 (r = -0.38, P =
0.036) and positive correlation with the change of IL-10 (r = 0.58, P = 0.0019).
CONCLUSIONS: Sublingual immunotherapy induced a dose-dependent systemic
allergen-specific immunological response in children with AR. During high-dose
SLIT, there was activation of regulatory cytokine IL-10 and an inhibitory effect
on IL-5 expression increase that was associated with TGF-beta.

Publication Types:
    Comparative Study
    In Vitro
    Randomized Controlled Trial

PMID: 16942566 [PubMed - indexed for MEDLINE]

87: Clin Pediatr (Phila). 2006 Sep;45(7):641-8.

Comparative tolerability, safety and efficacy of tablet formulations of
twice-daily clarithromycin 250 mg versus once-daily extended-release
clarithromycin 500 mg in pediatric and adolescent patients.

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Clarithromycin is widely used to treat respiratory tract and superficial skin

infections in pediatric and adult populations. Using clinical endpoints and 7-day therapy, we compared the efficacy of clarithromycin 250 mg tablets given twice daily versus clarithromycin 500 mg extendedrelease tablets given once daily in ambulatory children and adolescents 6 to 16 years old. Of the 199 evaluable patients, 124 were infected with group A streptococcal pharyngitis, 39 with sinusitis, 21 with ambulatory pneumonia, and 15 with superficial skin infections. The overall cure rate exceeded 90% for each treatment group. Discontinuation rates and adverse events were 4.5% and 24.6%, respectively.

Publication Types:
    Clinical Trial
    Comparative Study
    Research Support, Non-U.S. Gov't

PMID: 16928842 [PubMed - indexed for MEDLINE]

88: J Neurosurg. 2006 Aug;105(2 Suppl):143-9.

The Pott puffy tumor revisited: neurosurgical implications of this unforgotten entity. Case report and review of the literature.

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The Pott puffy tumor is a subperiosteal abscess of the frontal bone that appears as a localized swelling of the overlying region of the forehead associated with frontal osteomyelitis. The authors report the case of an 11-year-old boy who presented with a 6-week history of frontal headaches and a recent sudden-onset, progressively enlarging swelling of his midline forehead associated with immediate relief of headaches. A computed tomography (CT) study revealed 1) a subperiosteal abscess with intracranial extension through the perforated posterior table of the frontal sinus and 2) a large epidural abscess overlying a compressed and narrowed superior sagittal sinus. Emergency surgical relief of the epidural abscess, curettage of the osteomyelitic bone, and excision of the periosteal granulomatous puffy lump were performed. A 6-week course of intravenous antibiotic medication was completed, and the patient had an excellent recovery. The Pott puffy tumor remains a serious complication of frontal

sinusitis. In the past 5 years, the frequency of published pediatric cases has
increased. Undiagnosed or partially treated frontal sinusitis may lead to this
serious complication, and the apparent increase in incidence rate may suggest
that this complication of frontal sinusitis could be underestimated in clinical
practice. The authors conclude that early diagnosis and complete treatment of
frontal sinusitis is crucial.

Publication Types:
    Case Reports
    Review

PMID: 16922077 [PubMed - indexed for MEDLINE]

89: Laryngoscope. 2006 Aug;116(8):1368-71.

Comment in:
    Laryngoscope. 2007 Aug;117(8):1505; author reply 1505-6.

Orbital sequelae of rhinosinusitis after cochlear implantation in children.

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OBJECTIVES: The objectives of this retrospective case review were to describe
orbital complications in children after cochlear implantation, to define
rhinosinusitis as a possible preoperative risk factor, and to suggest a possible
pathophysiological mechanism for this previously unreported occurrence. METHODS:
Records of children undergoing cochlear implantation over a 7-year period at a
tertiary academic medical center were reviewed. Four children who experienced
postoperative orbital sequelae were identified. We describe the demographics,
clinical course, and radiologic findings in these children. RESULTS: The records
of 91 children who underwent cochlear implantation were reviewed. The mean age
was 6.0 years (range, 0.9-16.9 years). Forty-nine children (54%) were female and
51 (56%) were white. Four children developed postoperative orbital complications
on the ipsilateral side to implantation. Orbital complications were characterized
by periorbital edema and preseptal cellulitis necessitating prolonged
hospitalization in all four children (mean length of stay, 3.3 days). Each

child's orbital complication resolved with medical therapy that included
intravenous antibiotics and nasal saline. Temporal bone images before
implantation showed evidence of rhinosinusitis in all four cases. Of 76 available
preoperative scans from the unaffected children, only 11 (14%) studies showed
evidence of rhinosinusitis. CONCLUSIONS: Children with preoperative radiologic
evidence of rhinosinusitis may be at risk of orbital sequelae after cochlear
implantation. Positioning of the patient during surgery, length of surgery, and
minor trauma to the lamina papyracea during drilling of the mastoid may be
important etiologic factors. A careful review of medical history and computed
tomography imaging before implantation may identify at-risk children.

PMID: 16885737 [PubMed - indexed for MEDLINE]

90: Am J Rhinol. 2006 May-Jun;20(3):251-4.

Systemic absorption of gentamicin nasal irrigations.

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OBJECTIVE: To determine if gentamicin nasal irrigation is systemically absorbed,
and to identify any ototoxic side effects related to its use. DESIGN:
Retrospective review of 12 patients treated with gentamicin nasal irrigations (30
cc of 80 mg/L solution used bilaterally twice daily). METHODS: Serum gentamicin
levels were assayed after the course treatment. Pure tone audiometry (250-8000
Hz) and distortion product otoacoustic emissions (DP-OAEs) at 7280, 5133, 3640
and 2560 Hz were obtained before and after therapy. RESULTS: Twelve patients (age
4 to 74, mean 43) with chronic rhinosinusitis were treated for 3-15 weeks (mean 7
weeks). All patients had undergone previous endoscopic sinus surgery. Ten
patients had pretreatment cultures that grew organisms sensitive to gentamicin
(Pseudomonas, Proteus, or methacillin resistant Staphylococcus aureus), and three
patients had cystic fibrosis. Ten of 12 patients (83%) had detectable
posttreatment levels of gentamicin, with a mean serum level of 0.42 mcg/mL (range
0.3 to 0.7 mcg/mL). Four of 12 patients (33%) had serum gentamicin levels within
the normal range for gentamicin trough (0.5 to 2 mcg/mL). Comparison of pre- and
posttreatment audiologic data revealed no significant change in PTA or DP-OAE,

except for the right ear at 8000 Hz on PTA (p = 0.035) where a mean of 7 dB loss
was observed. No patient reported hearing loss or vertigo during treatment.
CONCLUSION: Gentamicin nasal irrigation may be systemically absorbed. Although
the otologic consequences of this finding are questionable, patients receiving
gentamicin nasal irrigations should be counseled regarding this hypothetical
possibility.

PMID: 16871924 [PubMed - indexed for MEDLINE]

91: Fundam Clin Pharmacol. 2006 Aug;20(4):385-90.

Medication use for pediatric upper respiratory tract infections.

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The present study monitored medication prescribing patterns to patients treated
for upper respiratory tract infections (URTIs) in the pediatric outpatient
department (OPD) at Central Referral Hospital (CRH), Gangtok, Sikkim. A total of
562 URTI prescriptions of children, aged 0-12 years attending pediatric OPD at
CRH, Sikkim were collected by a random once-weekly survey between May 2002 and
April 2003. Males numbered 284 (50.5%), and females 278 (49.5%). Most of the
patients in our study were aged 2-5 years (preschool children) (44.8%). The
average number of medications prescribed per encounter was 2.37; 59.2% (789) of
medicines were fixed-dose combination (FDC) products and two-thirds of FDCs were
respiratory medicines (521). The most commonly prescribed medicines were
respiratory medicines (47% of the total medicines prescribed). Others were
antimicrobials (30.7%) and analgesic-antipyretics (18.8%). Among respiratory
medicines, cough and cold preparations (prescribed in 13 different FDC products
in 25 brand names) were prescribed most frequently (62%) followed by nasal
preparations (21%) and beta(2) adrenergic agonist inhalers (9.2%). Ninety-eight
percent of nasal preparations were isotonic saline drops (129). Antihistaminics
(41.8%), non-opioid antitussives (13.5%), alpha agonist oral decongestants
(42.3%), expectorants (32.2%), mucolytics (18.7%), paracetamol (14.7%), and

beta(2) agonists (17.2%) were common ingredients of respiratory medicine
combinations. Antihistamines (2.5%) and beta(2) agonists (9.2%) were used alone.
The most commonly prescribed antimicrobial was amoxicillin with clavulanate
(28.4%) followed by cefadroxil (20%), cotrimoxazole (9.5%) and amoxicillin alone
(9.3%). Average number of antimicrobials prescribed was 0.7 (409/562). The most
commonly prescribed analgesic-antipyretic was paracetamol (81.3%) followed by
combination of ibuprofen and paracetamol (12.4%) and nimesulide (5.6%).
Medication selection was rational in few cases. Various anomalies were observed
in various aspects of drug use in children for URTI's. The main aim of the
initiative is the need for more rational medicine use in URTIs in children for
improvement of clinical effectiveness, cost effectiveness and reduction of
potential useless risk of side effects.

PMID: 16867023 [PubMed - indexed for MEDLINE]

92: Ambul Pediatr. 2006 Jul-Aug;6(4):225-9.

Decline in inappropriate antibiotic use over a decade by pediatricians in a
Tennessee community.

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OBJECTIVE: Published data indicates that antibiotic use for pediatric respiratory
tract infections has declined across the United States. We reviewed antibiotic
use in 2 pediatrics practices in Memphis, Tennessee, to determine whether there
has been a reduction in inappropriate antibiotic use in this region.
METHODS:
Randomly selected charts in 7 offices of 2 practices were reviewed for
respiratory tract infection visits during alternate years between 1992 and 2002.
Antibiotics were considered inappropriate for viral respiratory tract and other
viral syndromes, asthma, allergic rhinitis, and otitis media with effusion.
Changes in inappropriate prescribing were evaluated by generalized estimating
equations with year of visit as the explanatory variable and visits clustered by
practice. RESULTS: There were 1504 unique patient visits reviewed. The number of

visits with an antibiotic prescription fell from 85% in 1992 to 67% in 2002. The likelihood of inappropriately prescribing an antibiotic declined between 1992 and 2002 (odds ratio 0.28, 95% confidence interval 0.20-0.38). Use of amoxicillin-clavulanic acid and azithromycin increased, and amoxicillin use decreased. CONCLUSIONS: There has been a marked decline in inappropriate antibiotic use in this region with high prescribing rates. Pediatricians have increased their use of broad-spectrum antibiotic agents for respiratory tract infections. Continuing education of physicians regarding appropriate use should continue to maintain and improve on the gains achieved in the last decade.

Publication Types:
    Multicenter Study
    Research Support, Non-U.S. Gov't

PMID: 16843255 [PubMed - indexed for MEDLINE]

93: Przegl Lek. 2005;62(12):1343-5.

[Exhaled hydrogen peroxide (H2O2) in allergic and non-allergic stable mild asthmatic children]

[Article in Polish]

Doniec Z, Nowak D, Tomalak W, Kurzawa R.

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The evaluation of breath condensate (BC) composition is a new, non-invasive method studying inflammation processes in several respiratory diseases. Among many inflammation markers, hydrogen peroxide (H2O2) is the most common one, and its increased level was found in BC of cystic fibrosis and asthma patients. As in children's asthma, H2O2 is present and could correlates with the severity of the disease. The aim of our study was to check whether there exist differences between levels of H2O2 in children with allergic and non-allergic asthma. 83 allergic and 33 non-allergic children with mild asthma (50 girls and 66 boys, aged 7-17 years) were included in the study. All patients were clinically stable and used inhaled corticosteroids daily, and an inhaled bronchodilator on demand. Exhaled BC was obtained by spontaneously tidal volume breathing with EcoScreen (Jaeger, Germany). The content of H2O2 in the BC was measured

spectrofluorometrically (homovanillic acid method). All subjects underwent
flow-volume measurements immediately after collection of the condensate. Lung
function in asthmatic allergic and non-allergic children showed near normal
values and did not differ between groups. In the allergic group, the median H2O2
level in the expired condensate was 0.238 (0-1.86) microM, and in non-allergic
0.192 (0-0.78) microM (p > 0.05). We conclude that hydrogen peroxide in exhaled
breath condensate of children with stable mild asthma does not differ
significantly in allergic and non-allergic children and activity of airway
inflammation seems to independent on allergic status of patients.

Publication Types:
    Clinical Trial
    English Abstract

PMID: 16786744 [PubMed - indexed for MEDLINE]

94: Acta Otorhinolaryngol Ital. 2006 Feb;26(1 Suppl 82):5-22.

[Rhinosinusitis: etiopathogenesis and antimicrobial therapy, an update]

[Article in Italian]

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The aim of the current study is to underline once again the etiopathogenetic
aspects of rhinosinusitis, by a revision of most significative and updated study
in otorhinolaryngologic literature to guide the right management of this disease.
The focal role of ostio-meatal complex is reported; epidemiological data on old
and emergent pathogens are described together with their role on acute or chronic
or recurrent rhinosinusitis pathogenesis. According to recent evidence based
medicine documents, diagnostic criteria and methodologies are reported to control
surgical and medical long-term results. On the bases of the current
etiopathogenetic concepts, medical treatment is suggested. The central role of
medical management is based on the choice of antimicrobial treatment. The
fundamental concepts on pharmacocinetic and pharmacodinamic are reported, togther
with updated data on antimicrobial resistance.

Publication Types:
    Comparative Study

English Abstract
Review

PMID: 16752855 [PubMed - indexed for MEDLINE]

95: Ann Otol Rhinol Laryngol. 2006 May;115(5):350-6.

Erratum in:
Ann Otol Rhinol Laryngol. 2006 Jul;115(7):4a. Hasse, Elaine [corrected to Haase, Elaine].

Bacterial interference of penicillin-sensitive and -resistant Streptococcus pneumoniae by Streptococcus oralis in an adenoid organ culture: implications for the treatment of recurrent upper respiratory tract infections in children and adults.

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OBJECTIVES: The role of the viridans group of streptococci (Streptococcus oralis) in the prevention of colonization with Streptococcus pneumoniae was investigated in an adenoid organ culture system. METHODS: The adenoids from 10 patients who were undergoing adenoidectomy for either hypertrophy or recurrent otitis media were used. RESULTS: Streptococcus oralis Parker and S. oralis Booth (two organisms isolated from the nasopharynges of patients undergoing adenoidectomy only and patients undergoing adenoidectomy and bilateral tympanostomy with tubes, respectively) uniformly inhibited both penicillin-sensitive and penicillin-resistant S. pneumoniae. Although both strains of S. oralis inhibited the growth of both S. pneumoniae strains, strain Parker provided more complete inhibition than did strain Booth. CONCLUSIONS: The results indicate that some strains of S. oralis may inhibit the growth of the most serious pathogens in the nasopharynx. It is therefore possible that colonization of inhibitory strains of viridans streptococci may be used in the nasopharynx as a relatively safe and inexpensive approach to prevention of recurrent otitis media in some children and of recurrent suppurative sinusitis in both children and adults.

Publication Types:
Comparative Study

PMID: 16739666 [PubMed - indexed for MEDLINE]

96: Acta Otolaryngol. 2006 May;126(5):489-97.

Bacteriological findings and antimicrobial susceptibility in chronic sinusitis
with nasal polyp.

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CONCLUSIONS: We recommend amoxacillin/clavulanate, cephalosporins and macrolides
rather than penicillin as the first-line drug in chronic sinusitis with nasal
polyps. In cases where there is no improvement of symptoms, cultures should be
taken from the middle meatus, followed by appropriate selection of second-line
antibiotics according to the sensitivity test results. OBJECTIVE: To investigate
the causative bacteria and the antimicrobial susceptibility in patients with
chronic sinusitis and nasal polyps in Korea. MATERIALS AND METHODS: The
bacteriology and antimicrobial susceptibility of maxillary sinus aspirates from
81 patients were evaluated. RESULTS: Aerobes were isolated from 58.0% of the
cultures from the middle meatus and from 48.1% of those from the maxillary sinus.
Staphylococcus aureus, Haemophilus influenzae, and Streptococcus pneumoniae were
the most prevalent aerobic pathogens. Anaerobes were isolated from 8.6% of the
cultures from the middle meatus and from 18.5% of the cultures from the maxillary
sinus. The predominant anaerobic organisms were Prevotella and Peptostreptococcus
in adults but none of them were cultured in children. A high rate of concordance
of the middle meatus and maxillary sinus was noted. Monomicrobial infection was
most commonly observed. Ampicillin-resistant H. influenzae isolates were cultured
in 46% of the cases. Penicillin resistance rates were 93% for Staph. aureus; 25%
of Strep. pneumoniae were intermediate and 25% were resistant.

Publication Types:
    Comparative Study

PMID: 16698698 [PubMed - indexed for MEDLINE]

97: Otolaryngol Head Neck Surg. 2006 May;134(5):733-6.

Intracranial complications of pediatric sinusitis.

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OBJECTIVE: To study intracranial extension of pediatric sinusitis, an infrequent
but potentially fatal complication. STUDY DESIGN AND SETTING: Ten-year
retrospective review at a tertiary children's hospital identified 21 cases of
intracranial complications of sinusitis. RESULTS: Thirteen males and eight
females with mean age of 13.3 years were identified. Overall 18 of 21 (81%)
exhibited abscess formation, most commonly epidural. Only 3 of 21 (14%) had
meningitis alone. All but 4 patients were managed surgically, requiring
craniotomy in 13 of 21 (61.9%) and endoscopic sinus surgery (ESS) in 10 of 21
(48%). Seven patients (33%) required multiple operations during admission.
Nineteen patients (90%) had a total of 30 organisms cultured. Oral flora was
observed in 12 of 21 (57%). Polymicrobial infections, seen in 9 of 21 (43%), were
significantly associated with the need for craniotomy (P=0.02). Mean hospital
stay was 15 days, and mean length of IV antibiotic was 5 weeks. CONCLUSIONS:
Intracranial complications of pediatric sinusitis often require craniotomy. Oral
flora and polymicrobial infections were prominent in this series. EBM rating:
C-4.

Publication Types:
    Comparative Study

PMID: 16647525 [PubMed - indexed for MEDLINE]

98: Cochrane Database Syst Rev. 2006 Apr 19;(2):CD001933.

Interventions for ear discharge associated with grommets (ventilation tubes).

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BACKGROUND: The insertion of grommets (also known as ventilation or tympanostomy
tubes) is one of the most common surgical procedures performed on children.
Postoperative otorrhoea (discharge) is the most common complication with a
reported incidence ranging from 10% to 50%. In the UK, many ENT surgeons treat

with topical antibiotics/steroid combinations, but general practitioners, mainly through fears of ototoxicity, are unlikely to prescribe these and choose systemic broad-spectrum antibiotics. OBJECTIVES: 1. To identify the most effective non-surgical management of discharge from ears with grommets in place.2. To identify the risks of non-surgical management for this condition (e.g. ototoxicity), and to set benefits of treatment against these risks. SEARCH STRATEGY: We searched the Cochrane Ear, Nose and Throat Disorders Group Specialised Register, the Cochrane Central Register of Controlled Trials (CENTRAL) (The Cochrane Library, Issue 1, 2005), MEDLINE (1966 to 2005) and EMBASE (1974 to 2005). We also searched the CINAHL, AMED, LILACS, ISI WEB OF KNOWLEDGE, ISI PROCEEDINGS, mRCT, NNR, ZETOC, KOREAMED, CSA, MEDCARIB, INDMED and SAMED databases. The date of the last search was February 2005. SELECTION CRITERIA: Randomised controlled trials of adults or children, with any type of grommet and an ear with discharge were included. The trials compared treatment with placebo or one treatment with another. The primary outcome measure was the duration of the discharge. DATA COLLECTION AND ANALYSIS: The trials were selected independently according to the above criteria by the four reviewers. Differences in opinion over the inclusion of studies were resolved by discussion. The studies were graded using the CASP critical appraisal tool. Analyses were based on the presence of discharge seven days from the onset of treatment. MAIN RESULTS: There was very little good quality evidence. Four studies were included, all of them investigating different interventions and therefore a meta-analysis was not possible.Only one study demonstrated a significant difference. Oral amoxicillin clavulanate was compared to placebo in 79 patients. The odds of having a discharge persisting eight days after starting treatment was 0.19 (95% CI 0.07 to 0.49) . The number needed to treat to achieve that benefit is 2.5. Participants in both arms of this study also received daily aural toilet. The results will therefore not be applicable to most settings including primary care.No significant benefit was shown in the two studies investigating steroids (oral prednisolone with oral amoxicillin clavulanate and topical dexamethasone with topical ciprofloxacin ear drops), or the one study comparing an antibiotic-steroid combination (Otosporin(R)) drops versus spray (Otomize(R))

(although more patients preferred the spray form). AUTHORS' CONCLUSIONS: The authors of this review have been unable to identify the most effective intervention or to assess the associated risks. Research is urgently needed into the effectiveness of oral versus topical antibiotics in this group of patients. Clinicians considering antibiotic treatment need to balance any potential benefit against the risks of side effects and antibiotic resistance.

Publication Types:
Review

PMID: 16625551 [PubMed - indexed for MEDLINE]

99: Respir Med. 2006 Nov;100(11):2004-11. Epub 2006 Apr 17.

Antibiotic prescribing in Australian general practice: how has it changed from 1990-91 to 2002-03?

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There is increasing evidence that antibiotics have limited value for many respiratory illnesses. This study investigates changes in overall antibiotic prescribing rates, and rates for specific conditions, by Australian general practitioners (GPs) between 1990-91 and 2002-03. This is a comparative study of two cross-sectional surveys of general practice activity, the Australian Morbidity and Treatment Survey (AMTS) 1990-91 and Bettering Evaluation and Care of Health (BEACH) 2002-03. Both studies used random samples of GPs, each providing data about a cluster of patient encounters. Outcome measures are the antibiotic prescribing rate per 100 encounters or per 100 selected problems managed. Between 1990-91 and 2002-03, the overall antibiotic prescribing rate decreased 24.3% from 18.9 prescriptions per 100 encounters to 14.3 ($P<0.001$). For children, the decrease for acute upper respiratory tract infection (URTI) was from 39.0 per 100 URTI problems to 24.4 ($P<0.001$), while the antibiotic prescribing rate increased for acute otitis media, decreased for bronchitis/bronchiolitis, and remained unchanged for other respiratory problems analysed. For adults the antibiotic prescribing rate for URTI decreased from 58.2 per 100 URTI problems to 40.0 ($P<0.001$), increased significantly for sinusitis

and remained unchanged for all other respiratory problems. Antibiotic prescribing
decreased significantly between 1990-91 and 2002-03 but the decrease was
selective. The decline has been more pronounced among children than adults, and
particularly for URTI. While the message of educators may be achieving its goal
for URTI, other approaches targeting specific respiratory problems may be
required to reduce antibiotic prescribing in these areas.

Publication Types:
    Comparative Study
    Research Support, Non-U.S. Gov't

PMID: 16616483 [PubMed - indexed for MEDLINE]

100: Clin Infect Dis. 2006 May 1;42(9):1221-30. Epub 2006 Mar 30.

Comment in:
    Clin Infect Dis. 2006 May 1;42(9):1231-3.

The Antimicrobial Treatment Strategies (MIKSTRA) program: a 5-year follow-up of
infection-specific antibiotic use in primary health care and the effect of
implementation of treatment guidelines.

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Sarkkinen H, Varonen H, Huovinen P; MIKSTRA Collaborative Study Group.

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BACKGROUND: A national 5-year follow-up study of infection-specific antibiotic
use in primary care was conducted to see if prescribing practices change after
implementing new treatment guidelines. METHODS: The data were collected during 1
week of November each year from 1998 to 2002 from 30 health care centers that
covered a total population of 819,777 persons and in 2002 from 20 control health
care centers that covered a population of 545,098 persons. National guidelines
for 6 major infections (otitis media, sinusitis, throat infection, acute
bronchitis, urinary tract infection, and bacterial skin infection) were published
in 1999-2000. Multifaceted interventions were performed by local trainers
teaching his or her coworkers, supported by feedback and patient and public
information. RESULTS: The 6 infections targeted for intervention, together with
unspecified upper respiratory tract infection constituted 80%-85% of all

infections. The proportion of patients who received prescriptions for antibiotics
did not change significantly. However, use of first-line antibiotics increased
for all infections, and the change was significant for sinusitis (P<.001), acute
bronchitis (P=.015), and urinary tract infections (P=.009). Also, the percentage
of antibiotic treatments prescribed for the recommended duration increased
significantly. Correct prescribing for respiratory tract infections improved by
6.4 percentage units (P<.001). However, there was no statistically significant
difference in performance between study and control health care centers at
follow-up. CONCLUSIONS: Moderate qualitative improvements in antibiotic use were
observed after multifaceted intervention, but prescribing for unjustified
indications, mainly acute bronchitis, did not decrease. Obtained
infection-specific information on management of patients with infections in
primary health care is an important basis for planning targeted interventions in
the future.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 16586379 [PubMed - indexed for MEDLINE]

101: Singapore Med J. 2006 Apr;47(4):266-70.

Parental knowledge, attitudes and antibiotic use for acute upper respiratory
tract infection in children attending a primary healthcare clinic in Malaysia.

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INTRODUCTION: A study was carried out in a primary healthcare clinic in the Hulu
Langat district of Malaysia to assess the parental knowledge, attitudes and
antibiotic use for common childhood acute upper respiratory tract infection
(URTI). METHODS: A cross-sectional study involving 421 parents, who were surveyed
by using an interviewer-administered questionnaire, from April to June 2001.
RESULTS: Approximately 59 percent of parents from this study believed that
weather was the main cause of acute URTI of their children, 13 percent thought it
was due to food, and only about 27 percent said it was caused by germs. Nearly 68

percent, 69 percent and 76 percent of them believed that antibiotics was helpful
in treating the common cold, cough and fever, respectively. 29 percent of parents
who thought that their child with acute URTI needed antibiotics were not
prescribed with any. On the other hand, 17 percent believed that antibiotics were
unnecessary when prescribed. 28 percent of parents had requested for antibiotics,
and 93 percent received what they requested for their child with acute URTI.
About 31 percent of parents who did not request any antibiotics claimed that
private general practitioners habitually prescribed antibiotics. The antibiotic
compliance was poor with only 74 percent completing the entire course, with 85
percent of them stopping once they improved symptomatically. 15 percent of
parents gave "leftover" antibiotics, 24 percent gave "shared" antibiotics, and
5.5 percent bought antibiotics for their child with acute URTI without consulting
a doctor. CONCLUSION: This study shows that parents often have inadequate
knowledge and misconceptions on antibiotic use for acute URTI in children.
Improved parental education may reduce unnecessary antibiotic prescription and
antimicrobial resistance in the community.

PMID: 16572235 [PubMed - indexed for MEDLINE]

102: Int J Immunopathol Pharmacol. 2006 Jan-Mar;19(1):131-40.

Inhaled tobramycin in children with acute bacterial rhinopharyngitis.

Varricchio A, Tricarico D, De Lucia A, Utili R, Tripodi MF, Miraglia Del Giudice
M, Capasso M, Sabatino G, Sgarrella M, Marseglia GL, Ciprandi G.

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Antibiotic abuse for treating rhinopharyngitis induces the occurrence of
resistant bacteria. As topical drugs might reduce this phenomenon, the aims of
our study were to evaluate inhaled tobramycin in children with acute bacterial
rhinopharyngitis and to compare it with oral amoxicillin/clavulanate. The trial
was conducted as randomized, parallel group and double blind. Children, aged 3-6
years, with acute bacterial rhinopharyngitis were treated with 15 mg of

aerosolized tobramycin (Group A) or 50 mg/Kg of amoxicillin/clavulanate (Group B) twice daily for 10 days. The following parameters were assessed: nasal obstruction, mucopurulent rhinorrhea, post-nasal drip, adenoidal hypertrophy, tympanic inflammation, tympanogram, rhinomanometry and cultures. Of 416 patients screened, 311 children (178 females and 133 males), median age 4.5 years, completed the study: 156 in Group A and 155 in Group B. Both treatments improved all parameters ($p<0.01$ for all). Intergroup analysis showed that inhaled tobramycin induced a better improvement versus amoxicillin/clavulanate concerning nasal obstruction ($p<0.05$), adenoidal hypertrophy ($p<0.01$), tympanic inflammation ($p<0.01$), rhinomanometry ($p<0.01$) and cultures ($p<0.05$). In conclusion, inhaled tobramycin may represent a valid treatment for acute bacterial rhinopharyngitis in children, as it is effective, safe, economic and simple to use.

Publication Types:
    Comparative Study
    Randomized Controlled Trial

PMID: 16569351 [PubMed - indexed for MEDLINE]

103: Med Mal Infect. 2005 Dec;35(12):578-618.

[Antibiotic therapy in general and current practice in upper respiratory tract infections in adults and children. Arguments]

[Article in French]

Agence française de sécurité sanitaire des produits de santé.

Publication Types:
    Review

PMID: 16535779 [PubMed - indexed for MEDLINE]

104: Med Mal Infect. 2005 Dec;35(12):566-77.

[Antibiotic therapy in general and current practices in upper respiratory tract infections in adults and children. Recommendations]

[Article in French]

Agence française de sécurité sanitaire des produits de santé.

PMID: 16535778 [PubMed - indexed for MEDLINE]

105: Otolaryngol Pol. 2005;59(6):865-9.

[Nasal septal abscess and palatine process of the maxilla abscess complicating acute rhinosinusitis in a 12-year old boy]

[Article in Polish]

Zielnik-Jurkiewicz B, Sosińska OO, Fudalej P.

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Warszawie.

We report a case of nasal septal abscess and palatine process of the maxilla
abscess secondary to acute rhinosinusitis in an 12-year-old boy. Rare complication of acute sinusitis is the nasal septum abscess; even rarer is the
abscess of the palatine process of the maxilla, which our patient presented.
Nasal septum abscess is an reservoir of suppurative secretion between cartilage
or bone of the septum and their periostium or perichondrium. Nasal septum abscess
is most often bilateral, causing nasal cavities obstruction. Other symptoms are:
nasal pain, fever, headache, nasal tenderness, bad general feeling. Spontaneous
abscesses of nasal septum are rare and occur due to acute ethmoid or sphenoid
sinusitis and inflammations originating from teeth. Patophysiology of nasal
septum abscess depends on its etiology. The isolated acute sphenoid sinusitis may
lead to occurrence of nasal septum abscess by spreading of inflammatory changes
under periostium along the anterior surface of sphenoid bone and damaging the
periostium of vomer and perpendicular lamina of ethmoid bone into subperichondrial space of quadrangular cartilage. Inflammation of inferior wall
of sphenoid sinus located over fornix of nasopharynx might have lead to
appearance of the palatine process of the maxilla abscess. We consider this
mechanism of abscess creation occurred in our patient. Another possible mechanism
comprehends spreading of inflammatory process through bone fissures, congenital
bone malformations of due to thrombophlebitis. Recommended procedure in cases of
confirmed nasal septum abscess is surgical decompression from semitransverse
incision of the column and abscess drainage. Aspiration and bacteriological
culture allow for exact establishment of proper antibiotic treatment. Antibiotic
therapy should be conducted for 2-3 weeks according to bacterial sensitivity to
chemotherapeutics. In reexamination of our boy's nasal septum cavity of abscess
was assessed and a small cartilage defect was noted. Necrotic changes in nasal
septum cartilages arise due to ischemia and compression by residual pathological

contents between perichondrium and cartilage. Proper recognition and surgical and
preservative treatment lead to total recovery. In our boy, control examinations
after 2 and 6 months confirmed recovery without recurrence and later complications.

Publication Types:
    Case Reports
    English Abstract

PMID: 16521453 [PubMed - indexed for MEDLINE]

106: Acta Otorhinolaryngol Ital. 2005 Aug;25(4 Suppl 80):3-29.

[Rational treatment of nasal polyposis]

[Article in Italian]

Castelnuovo P, De Bernardi F, Delù G, Padoan G, Bignami M, De Zen M, Latorre P,
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Despite the therapeutical advances of the last decade, nasal polyposis represents
still a problem for rhinology, practitioners. A number of hypotheses have been
formulated about its etiopathogenesis, but no one is confirmed, so that nowadays
therapy continues to be only symptomatic and does not cure definitively the
underlying pathology. Recurrences are frequent and discourage both the
practitioner and the patient. Purpose of this paper is to illustrate Authors'
therapeutical rationale aimed to reestablish nasal flow, reduce rhinorrhea,
improve olfaction, decrease rhinosinusinusal infection rate and maintain as long
as possible such a symptomatic improvement. These targets are best achieved by a
combination of medical and surgical treatments in order to optimize the results
and reduce the side-effects of both the therapeutical options. Moreover the
treatment should be tailored on each patient and follow up should be careful and
performed at regular interval. Authors reviewed the clinical records of patients
who underwent surgery for nasal polyposis between 2002 and 2004 at Ospedale di
Circolo e Fondazione Macchi, University of Insubria, Varese, Italy, with a
minimum follow-up of 12 months. All patients underwent the complete set of
diagnostic work-up. The choice between surgical or medical options was based on

both the kind of the polyposis and the staging of the pathology. The therapy was
as more "personalized" as possible, but a homogeneity of treatment was maintained. The results show that a correct "staging" of the patient allows an
appropriate therapy and reduces recurrence rate. In conclusion, authors report
their experience and propose a scheme of diagnostic work-up in order to define
grading/staging of the pathology and establish a "tailored" therapeutic protocol
aimed to control a pathology which is rarely definitively treated.

Publication Types:
    Comparative Study
    English Abstract

PMID: 16506398 [PubMed - indexed for MEDLINE]

107: Laryngoscope. 2006 Feb;116(2):288-91.

Methicillin-resistant Staphylococcus aureus infections in acute rhinosinusitis.

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OBJECTIVE/HYPOTHESIS: Methicillin-resistant Staphylococcus aureus (MRSA) has
recently become a serious problem in various fields of medicine. However, it has
rarely been studied in acute rhinosinusitis. The aim of this study was to
identify the clinical manifestations and treatment outcome of community-acquired
methicillin-resistant S. aureus in acute rhinosinusitis. STUDY DESIGN: This was a
prospectively collected case series. METHODS: Since 2000, we have launched a
prospective long-term study for bacteriology, drug susceptibility, and their
changing trend in acute rhinosinusitis. Patients with the diagnosis of acute
rhinosinusitis were enrolled from October 2000 through March 2003. Their middle
meatus discharge was taken for aerobic culture. Antibiotic sensitivity test was
performed for each isolate. RESULTS: A total of 601 patients with the diagnosis
of acute rhinosinusitis were included in this study. MRSA was isolated in 16
specimens. Its prevalence rate in acute rhinosinusitis was 2.7% (16 of 601).
Multiple pathogens were more frequently found in children with MRSA infection.
Five of seven adults had previous nasal procedures. Eight of nine children had a

history of antibiotic use. Except for two patients without follow up, the
remaining 14 patients resolved after receiving oral antibiotics according to
culture results. CONCLUSIONS: The incidence of MRSA infection in acute
rhinosinusitis was 2.7% in our study. The most important risk factor was nasal
surgeries in adults and previous antibiotic use in children. The treatment
outcome of community-acquired MRSA was excellent with oral antibiotics.

PMID: 16467721 [PubMed - indexed for MEDLINE]

108: Drugs Exp Clin Res. 2005;31 Suppl:1-5.

Twice-daily dosing of loracarbef 15 mg/kg versus 30 mg/kg in the treatment of
children with acute sinusitis.

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Loracarbef is an oral synthetic beta-lactam antibiotic of the carbacephem class.
The aim of this study was to compare the efficacy and safety of loracarbef 15
mg/kg versus 30 mg/kg in children with acute sinusitis. A randomized,
parallel-group, clinical study was conducted. Fifty-eight children aged 5-12
years with acute sinusitis were divided into two groups, which received either
loracarbef 15 mg/kg/day or 30 mg/kg/day orally, divided in two doses for 10 days.
Clinical examination, anterior rhinoscopy and sinus radiographs were performed at
the beginning of treatment. Clinical evaluation was repeated in a second session,
0-2 days after the final dose, and in a third session, 30 days after the
beginning of the treatment. Sinus X-rays were repeated selectively in the second
session and in all patients in the third session. Nineteen of 29 (65.5%) patients
in the 15 mg/kg/day group and 26 of 29 (89.6%) in the 30 mg/kg/day group were
characterized as completely or clinically cured at the end of the study. In
conclusion, a statistically significant difference between the two treatment
groups was shown with better results in the 30 mg/kg group. Despite the slight
difference in adverse events between the two groups (with fewer adverse events in
the 15 mg/kg group), we recommend that if loracarbef is chosen as initial therapy
in acute sinusitis, a regimen of 30 mg/kg/day in two doses is followed.

Publication Types:
    Randomized Controlled Trial

PMID: 16444905 [PubMed - indexed for MEDLINE]

109: Chang Gung Med J. 2005 Nov;28(11):758-64.

Use of antimicrobial agents for upper respiratory tract infections in Taiwanese
children.

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Upper respiratory tract infections (URTIs) are mostly caused by viruses.
Antibiotic misuse for viral URTIs in children is a serious problem that not only
results in selection of resistant strains of bacteria but also wastes millions of
dollars each year in Taiwan. Antibiotic resistance among common respiratory
bacterial pathogens such as Streptococcus pneumoniae, Haemophilus influenzae,
Staphylococcus aureus, and Moraxella catarrhalis has become a major issue for
public health. The common cold, acute pharyngotonsillitis, acute otitis media,
acute sinusitis, acute bronchitis, influenza and acute epiglottitis are the most
frequently encountered acute URTIs in out-patient clinics. This article
recommends the judicious use of antimicrobial agents for these seven common
pediatric URTIs, based on local epidemiological data and the recommendations of
the Infectious Disease Society of Taiwan and the American Academy of Pediatrics.
With education and behavior modification, practitioners will help to reduce
antibiotic overuse, and the goal of reducing antimicrobial resistance may be
accomplished.

Publication Types:
    Review

PMID: 16422181 [PubMed - indexed for MEDLINE]

110: Acta Paediatr. 2005 Dec;94(12):1784-90.

Prescribers' indications for drugs in childhood: a survey of five European
countries (Spain, France, Bulgaria, Slovakia and Russia).

Sanz EJ, Hernández MA, Ratchina S, Stratchounsky L, Peiré MA, Mestre ML, Horen B,

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BACKGROUND: Indication-based, in comparison to diagnoses-based, drug utilization
studies in children are scarce in the literature. AIM: To determine the adequacy
of the prescriber's indications for specific drug treatments compared to the
current literature in five different European countries; and to show the
possibilities of performing indication-based drug utilization studies. DESIGN: a
descriptive, cross-sectional, international study. PATIENTS AND METHODS: Randomly
selected sample of 12,264 paediatric outpatients seen in consultation rooms
attended by paediatricians or general practitioners. Data on patient
demographics, diagnoses, and pharmacological treatment, with therapeutic
indications for each drug, were collected in pre-designed forms. Diagnoses and
indications were coded using the ICD-9 and drugs according to the ATC
classifications. RESULTS: Indications were registered for every drug prescribed
in all locations. Antibiotic indications considered incorrect (common cold, upper
respiratory tract infections, viral infections, general symptoms or "not
specified") accounted from 24.1% of the total antibiotics prescribed in Tenerife
to 67.4% in Slovakia. Incorrect indication of first-choice antibiotics prescribed
in acute otitis media and tonsillitis ranged from 28.9% of total antibiotics use
in Russia to 75.4% in Tenerife. Correct antibiotic indications ranged from 23.4%
of total antibiotics used in Slovakia to 65.7% in Tenerife. Aspirin use in
febrile viral conditions was detected mainly in Toulouse and Russia. CONCLUSION:
The main areas for improvement detected were high use of mucolytics, prescription
of aspirin in potential or established viral infections, overuse of antibiotics
and identification of specific patterns of incorrect antibiotic prescription and
clinical entities associated with each location.

Publication Types:
    Comparative Study

PMID: 16421040 [PubMed - indexed for MEDLINE]

111: Int J Pediatr Otorhinolaryngol. 2006 Jun;70(6):1089-96. Epub 2006 Jan 6.

Oral lesions in Brazilian HIV-infected children undergoing HAART.

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INTRODUCTION: The advent of new antiretroviral drugs such as protease inhibitors
(PI) has generated sensible changes in oral manifestation patterns in human
immunodeficiency virus (HIV) infected adult patients. OBJECTIVES: The purpose of
the present study was to assess whether the use of highly active antiretroviral
therapy (HAART) has brought changes to pattern and prevalence of oral lesions
related to HIV in the HIV-infected pediatric population. CASUISTIC AND METHOD: We
analyzed medical charts of 471 children aged zero to 12 years and 11 months with
HIV infection and followed up by the Ambulatory of AIDS, Clinical
Otorhinolaryngology, Hospital das Clinicas, Medical School, Sao Paulo University,
from January 1990 to December 2004. Four hundred and fifty-nine children were
divided into two groups, according to age range: X (0-5 years and 11 months) and
Y (6-12 years and 11 months). These groups were subdivided into four subgroups,
according to use of ART (antiretroviral therapy without PI) or HAART. We recorded
data related to type of oral lesion presented, as well as serum CD4+ lymphocyte
count. The groups were compared concerning prevalence and presentation pattern of
oral manifestations. RESULTS: Out of 459 children, 144 (31.4%) had oral lesions.
We observed that in children aged 6-12 years and 11 months who were taking HAART,
there was lower prevalence of oral lesions (p=0.005), specially hairy leukoplakia
(p<0.02), without any affection to the common presentation pattern of these
lesions. The same subgroup also had higher serum CD4+ lymphocyte counts
(p<0.001). CONCLUSION: We concluded that use of HAART could lead to reduction in
prevalence of oral lesions in HIV-infected children.

Publication Types:
    Comparative Study

PMID: 16406081 [PubMed - indexed for MEDLINE]

112: Scand J Infect Dis. 2005;37(11-12):863-9.

The management of infections in children in general practice in Sweden: a

repeated 1-week diagnosis-prescribing study in 5 counties in 2000 and 2002.

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A diagnosis-prescribing study was performed in 5 Swedish counties during 1 week in November in 2000 and repeated in 2002. The aim of the present study was to analyse data for children 0-15y of age who consulted a general practitioner with symptoms of an infection. During the 2 weeks studied, 4049 children were consulted. Respiratory tract infections (RTI) were the predominant diagnoses, above all among the youngest children, while the proportion of urinary tract infections and skin infections increased with increasing age. Between the y 2000 and 2002, the proportion of children allocated the diagnosis streptococcal tonsillitis and pneumonia decreased ($p<0.01$ and $p<0.001$, respectively) while the proportion of common cold increased ($p<0.001$). Antibiotic prescribing decreased from 55% to 48% ($p<0.001$) for respiratory infections between the years studied. The only significant changes in type of antibiotics prescribed were the increase of isoxazolylpenicillins ($p<0.001$) used for skin infection and the decrease of macrolides ($p=0.001$). A diagnostic test was used in more than half of the consultations. Of children allocated a RTI diagnosis, 36% were prescribed antibiotics when a C-reactive protein test was performed compared to 58% in those not tested. Further studies are needed in general practice to determine the optimal use of near-patient tests in children with RTI.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 16358447 [PubMed - indexed for MEDLINE]

113: J Allergy Clin Immunol. 2005 Dec;116(6):1289-95. Epub 2005 Oct 24.

Comment in:
    Evid Based Med. 2006 Aug;11(4):114.

Treating acute rhinosinusitis: comparing efficacy and safety of mometasone furoate nasal spray, amoxicillin, and placebo.

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BACKGROUND: Intranasal corticosteroids used with antibiotics are known to improve rhinosinusitis symptoms compared with antibiotic therapy alone. However, the efficacy of intranasal corticosteroid monotherapy for acute, uncomplicated rhinosinusitis is not established. OBJECTIVES: To evaluate efficacy and safety of mometasone furoate nasal spray (MFNS) versus amoxicillin and placebo in patients with acute, uncomplicated rhinosinusitis. METHODS: In this double-blind, double-dummy trial, subjects (> or =12 years; N = 981) were randomized to MFNS 200 microg once daily or twice daily for 15 days, amoxicillin 500 mg 3 times daily for 10 days, or respective placebo. Follow-up was 14 days. The primary efficacy endpoint was mean am/pm major symptom score over the treatment phase. Secondary efficacy endpoints included total symptom score. Safety assessments included disease recurrence during follow-up and adverse event monitoring. RESULTS: Mometasone furoate nasal spray 200 microg twice daily was significantly superior to placebo (P < .001) and amoxicillin (P = .002) at improving major symptom score. Starting on day 2, MFNS 200 microg twice daily improved total symptom score throughout treatment versus amoxicillin (P = .012) and placebo (P < .001). Global response to treatment was significantly greater with MFNS 200 microg twice daily versus amoxicillin (P = .013) and placebo (P = .001). Although significantly superior to placebo, MFNS 200 microg once daily was not superior to amoxicillin for the primary or secondary efficacy endpoints. All treatments were well tolerated with a similar incidence of adverse events. CONCLUSION: In patients with acute, uncomplicated rhinosinusitis, MFNS 200 microg twice daily produced significant symptom improvements versus amoxicillin and placebo, without predisposing the patient to disease recurrence or bacterial infection.

Publication Types:
    Comparative Study
    Randomized Controlled Trial
    Research Support, Non-U.S. Gov't

PMID: 16337461 [PubMed - indexed for MEDLINE]

114: Respir Med. 2005 Dec;99(12):1477-84.

Non-antibiotic treatments for upper-respiratory tract infections (common cold).

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OBJECTIVES: To review the seven Cochrane reviews of non-antibiotic treatment for the common cold. METHODS: Each Cochrane review was read and summarized, and results presented as relative risks and, where possible, numbers needed to treat.
RESULTS: The main theme that runs through these Cochrane reviews is the variable quality of the primary studies. In general, the reviewers are fairly cautious about the benefits of any of the treatments other than first-dose decongestants and antihistamine-decongestant combinations. For antihistamines alone, the reviewers were clear about the lack of efficacy except in the high-quality studies in which a global improvement in symptoms was noted. Some studies were statistically significant, but the Cochrane reviewers were guarded about how clinically significant they were. For Echinacea, problems were found with the quality of the studies and the wide range of different forms of this substance.
Heated humidified air seemed to be effective in the UK and Israel, but not the USA, making definitive statements about efficacy difficult. Over-the-counter medication for cough seemed to have no documented benefit in children under the age of 5 years. Letosteine (a mucolytic) may be effective in children but is not available in the UK. Bisolvon (a mucolytic) was found to be effective for cough in only one study. For older children and adults, dextromethorphan may be effective (two out of three studies showed benefit), and guiafenesin (an expectorant) showed mixed benefit in two trials. Dexbrompheniramine (a sedating antihistamine)/pseudoephedrine (6 mg/120 mg twice daily for 1 week) was significantly more effective than placebo for severity of cough, whereas, in another study, loratadine (a non-sedating antihistamine)/pseudoephedrine (5 mg/120 mg twice daily for 4 days) did not show any difference between the study groups. Vitamin C may have a small role in preventing the common cold, with

possibly a greater role in high-intensity physical activity and sub-arctic
conditions. Zinc lozenges seemed to be effective, but the issue of unblinding due
to taste was a methodological issue of concern to the reviewers. The benefits and
harms are calculated as numbers needed to treat for one person to benefit (NNTB)
and numbers needed to treat for one person to harm (NNTH), and were calculated by
the author. CONCLUSION: Most non-antibiotic treatments for the common cold are
probably not effective. The most promising are dextromethorphan, bisolvon and
guiaphenesin for cough, antihistamine-decongestant combinations for a wide range
of symptoms, nasal decongestants (at least for the first dose) and possibly zinc
lozenges.

Publication Types:
    Meta-Analysis

PMID: 16291073 [PubMed - indexed for MEDLINE]

115: Acta Paediatr. 2005 Sep;94(9):1208-13.

Cefuroxime axetil versus placebo for children with acute respiratory infection
and imaging evidence of sinusitis: a randomized, controlled trial.

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AIM: To evaluate the efficacy of antibiotic treatment in children who presented
in medical care with respiratory infection and had imaging evidence of sinusitis.
METHODS: Eighty-two children (4-10 y) with acute respiratory symptoms and
ultrasonography findings suggestive of acute rhinosinusitis were enrolled in a
randomized, double-blind trial. The sinus findings were confirmed with plain
radiographs. The children received either cefuroxime axetil in 125-mg capsules
twice a day for 10 d or placebo. Main outcome measures were complete cure in 2 wk
and absence of prolonged symptoms or complications. RESULTS: A total of 72
children (88%) completed follow-up. The sinusitis findings in the ultrasound
could be confirmed with plain radiographs in 65 of the 72 patients (90%). The
proportion of children completely cured by day 14 was similar in both groups
(difference 6%, 95% confidence interval -16% to 29%). Similarly, there was no

significant difference in the proportions of children who escaped prolonged disease and complications between the groups (difference 7%, -9% to 24%). CONCLUSION: A 10-d course of cefuroxime axetil offered no clinical benefit to children with an acute respiratory illness and imaging evidence of acute sinusitis.

Publication Types:
Randomized Controlled Trial

PMID: 16278986 [PubMed - indexed for MEDLINE]

116: Arch Pediatr. 2006 Jan;13(1):6-10. Epub 2005 Nov 3.

[Acute ethmoiditis in children, a series of 125 cases]

[Article in French]

François M, Mariani-Kurkdjian P, Dupont E, Bingen E.

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Acute ethmoiditis are bacterial infections of ethmoid sinuses, which may spread to the orbital or the endocranial spaces. It is essential to fit the antibiotherapy to the bacteria responsible for these infections. POPULATION AND METHODS: The charts of children hospitalized from 1995 to 2003 for an acute ethmoiditis were reviewed, particularly the results of bacterial exams and the antibiotics delivered. RESULTS: Over this 9-year period, 125 children (mean age 4.5 years) were hospitalized for acute ethmoiditis. Eighty were checked for blood cultures, which were sterile in 73 cases, and in the other cases, grew Staphylococcus, S. Pneumoniae or Streptococcus pyogenes. Seric soluble antigens were absent in the 5 cases where they were looked for. Ten children had a puncture of a subperiostal abscess: it was sterile in 5 cases, Staphylococcus was found in 4 cases, S. pneumoniae in the last case. Most children received an association of cefotaxim and fosfomycine for a mean duration of 5.6 days. Thirteen per cent of the children received 3 or 4 antibiotics. DISCUSSION: It is always difficult to found the bacteria responsible for an acute ethmoiditis. In our serie as in others, the most frequent bacteria were Staphylococcus, S. pneumoniae and S. pyogenes. CONCLUSION: In view of the bacteria responsible for

these infections and their antibiotic resistance, we suggest the association of
cefotaxim and fosfomycin for the first line of treatment of acute ethmoiditis.

Publication Types:
    English Abstract

PMID: 16271452 [PubMed - indexed for MEDLINE]

117: Vestn Otorinolaringol. 2005;(5):44-6.

[Bioparox in therapy of acute rhinosinusitis]

[Article in Russian]

Kozlov VS.

Publication Types:
    Multicenter Study
    Randomized Controlled Trial

PMID: 16247369 [PubMed - indexed for MEDLINE]

118: Am J Respir Crit Care Med. 2005 Oct 15;172(8):941-3.

Comment on:
    Am J Respir Crit Care Med. 2005 Oct 15;172(8):1037-40.

Exacerbations: the asthma paradox.

Holgate ST.

Publication Types:
    Comment
    Editorial
    Review

PMID: 16216836 [PubMed - indexed for MEDLINE]

119: Clin Pediatr (Phila). 2005 Oct;44(8):675-82.

Suppurative complications of frontal sinusitis in children.

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A retrospective review of children diagnosed and treated for suppurative
complications of paranasal sinusitis was undertaken to describe clinical
presentation, microbiology, and treatment. This review includes children with
subgaleal abscess and osteomyelitis of the frontal bone, subdural empyema,
frontal lobe abscess, meningitis, and encephalitis. Staphylococcus aureus and
group C beta-hemolytic Streptococcus were isolated agents. All children were

treated with intravenous antibiotics with drainage of both the sinus and
extracranial and intracranial suppurations. Results of treatment in the series
support the opinion that combined aggressive surgical and antibiotic treatment is
a preferred method in complicated sinusitis in children.

Publication Types:
    Case Reports

PMID: 16211191 [PubMed - indexed for MEDLINE]

120: Pediatrics. 2005 Oct;116(4):826-32.

Erratum in:
    Pediatrics. 2006 Sep;118(3):1323.

Antibiotic prescribing for children with nasopharyngitis (common colds), upper
respiratory infections, and bronchitis who have health-professional parents.

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OBJECTIVE: Antibiotic resistance might be reduced if patients could be better
informed regarding the lack of benefits of antibiotics for children with viral
infections and avoid antibiotic prescriptions in these circumstances. This study
investigated whether children having health professionals as parents, a group
whose parents are expected to have more medical knowledge and expertise, are less
likely than other children to receive antibiotics for nasopharyngitis (common
colds), upper respiratory tract infections (URIs), and acute bronchitis. METHODS:
Retrospective analyses were conducted by using National Health Insurance data for
children of physicians, nurses, pharmacists, and non-health personnel, who had
visited hospital outpatient departments or physician clinics for common colds,
URIs, and acute bronchitis in Taiwan in 2000. A total of 53733 episodes of care
for common colds, URIs, and acute bronchitis in a nationally representative
sample of children (aged < or =18 years) living in nonremote areas were analyzed.
RESULTS: The study found that, after adjusting for characteristics of the
children (demographic, socioeconomic, and health status) and the treating
physicians (demographic, practice style, and setting), children with a physician
(odds ratio [OR]: 0.50; 95% confidence interval [CI]: 0.36-0.68) or a pharmacist

(OR: 0.69; 95% CI: 0.52-0.91) as a parent were significantly less likely than
other children to receive antibiotic prescriptions. The likelihood of receiving
an antibiotic for the children of nurses (OR: 0.91; 95% CI: 0.77-1.09) was
similar to that for children in the comparison group. CONCLUSIONS: This finding
supports our hypothesis that better parental education does help to reduce the
frequency of injudicious antibiotic prescribing. Medical knowledge alone,
however, may not fully reduce the overuse of antibiotics. Physician-parents, the
expected medically savvy parents, can serve as a benchmark for the improvement
potentially achievable in Taiwan through a combination of educational,
regulatory, communication, and policy efforts targeted at more appropriate
antibiotic prescribing in ambulatory settings.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 16199689 [PubMed - indexed for MEDLINE]

121: Ann Otol Rhinol Laryngol. 2005 Aug;114(8):638-44.

Medical treatment for rhinosinusitis associated with adenoidal hypertrophy in
children: an evaluation of clinical response and changes on magnetic resonance
imaging.

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OBJECTIVES: The association between adenoidal hypertrophy and rhinosinusitis with
upper airway inflammation is increasingly recognized; however, no study has used
magnetic resonance imaging (MRI) to assess the changes in adenoid size after
medical treatment of rhinosinusitis. METHODS: Thirteen children referred to a
tertiary allergy clinic with symptoms of rhinosinusitis received medical
treatment over a 4-month period. All underwent MRI before and after treatment.
The medical treatment regimen comprised a short course of oral antibiotics and
oral steroids and a longer course of oral antihistamines and intranasal steroids.
RESULTS: The pretreatment MRI demonstrated enlarged adenoids and rhinosinusitis
in all 13 children, with evidence of extensive rhinosinusitis in 9 of the 13. The
treatment resulted in an improvement in overall symptom score; the most

significant improvement was seen in mouth breathing. The posttreatment MRI showed
a statistically significant reduction in adenoid size and adenoid/nasopharynx
ratio, which was associated with a significant decrease in sinus involvement on
MRI. CONCLUSIONS: There is a high association between adenoidal hypertrophy and
rhinosinusitis in the context of an allergy clinic. Magnetic resonance imaging
can document the changes in adenoid size associated with resolution of
rhinosinusitis. Further studies are necessary to validate these pilot data and
further assess the effects of medical treatment and the role of MRI in adenoidal
hypertrophy.

PMID: 16190098 [PubMed - indexed for MEDLINE]

122: J Antimicrob Chemother. 2005 Nov;56(5):937-40. Epub 2005 Sep 27.

Effect of educational intervention on antibiotic prescription practices for upper
respiratory infections in children: a multicentre study.

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OBJECTIVES: To evaluate the impact of an educational intervention on judicious
antibiotic prescription for upper respiratory diseases in children. METHODS: A
multicentre before-and-after study was conducted in five major community child
healthcentres in Israel. Antibiotic prescription data were collected for all
visits of patients aged 3 months to 18 years with a diagnosis of acute otitis
media, tonsillopharyngitis, sinusitis or upper respiratory tract infection from
November 1999 through February 2000 (pre-intervention period) and from November
2000 through February 2001 (post-intervention period). The intervention consisted
of a 1 day seminar on the diagnosis and judicious treatment of respiratory tract
infections in children according to the recommendations of the Centers of Disease
Control and Prevention. The patient files were reviewed for patient
characteristics, specific respiratory disease, and specific antibiotics
prescribed. The main outcome measures were the rates and appropriateness of
antibiotic prescribing for the different respiratory diseases before and after an

educational intervention for practising paediatricians. RESULTS: A total of 4580
clinic visits were eligible for analysis in the pre-intervention period and 4364
in the post-intervention period. From the pre- to the post-intervention period,
the odds ratio for appropriate antibiotic treatment was 1.8 for acute otitis
media (95% CI 1.52-2.11, P < 0.01) and 1.35 for pharyngitis (95% CI 1.13-1.61, P
< 0.01). Overall, use of antibiotics for acute otitis media decreased from 93% to
87.4% (P < 0.05), and for upper respiratory tract infection, from 13.8% to 11.5%
(P < 0.05). There were no significant changes in these factors for sinusitis.
CONCLUSIONS: A targeted educational intervention can improve antibiotic
prescription practices for respiratory infections in children and decrease
unnecessary antibiotic use. Such studies can also pinpoint areas that require
further attention.

Publication Types:
    Multicenter Study

PMID: 16188917 [PubMed - indexed for MEDLINE]

123: Acta Paediatr. 2005 Aug;94(8):1038-42.

A clinical decision rule for management of streptococcal pharyngitis in
low-resource settings.

Steinhoff MC, Walker CF, Rimoin AW, Hamza HS.

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BACKGROUND: Most of the world's children live in regions where laboratory
facilities are not available. In these regions, clinical prediction rules can be
useful to guide clinicians' decisions on antibiotic therapy for streptococcal
pharyngitis, and to reduce routine presumptive antibiotic therapy for all
pharyngitis. METHODS: Prospective cohort study to assess diagnostic signs and
develop a prediction rule. Bivariate and multivariate analyses were used to
develop clinical rules. Participants were 410 children in Cairo, Egypt, aged from
2 to 12 y, presenting with complaint of sore throat and whose parents provided
consent. Main outcome measures included presence of signs and symptoms, and

positive group A beta hemolytic streptococcal (GABHS) culture. RESULTS: 101 (24.6%) children had positive GABHS culture. Pharyngeal exudate, tender or enlarged anterior cervical lymph nodes, season, absence of rash, or cough or rhinitis were associated with positive culture in bivariate and multivariate analyses. Three variables (enlarged nodes, no rash, no rhinitis), when used in a cumulative score, showed 92% sensitivity and 38% specificity in these children. CONCLUSIONS: The proposed three-variable clinical prediction rule for GABHS may be useful when diagnostic laboratories are not available. In this setting, the rule identified more than 90% of true cases. Compared to universal treatment of all pharyngitis, the rule will reduce antibiotic use in GABHS-negative cases by about 40%.

Publication Types:
    Comparative Study
    Research Support, Non-U.S. Gov't

PMID: 16188846 [PubMed - indexed for MEDLINE]

124: Ophthalmology. 2005 Nov;112(11):2030-4. Epub 2005 Sep 12.

Orbital cellulitis: a rare complication after orbital blowout fracture.

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PURPOSE: To report the incidence of orbital cellulitis after orbital blowout fracture. DESIGN: Retrospective, noncomparative, interventional case series. PARTICIPANTS: All patients with orbital cellulitis and a history of recent orbital fracture. METHODS: A medical record review of clinical history, imaging studies, and surgical and treatment outcome was performed. MAIN OUTCOME MEASURES: Resolution of orbital cellulitis and surgical and imaging findings. RESULTS: Four patients (3 male; mean age, 30 years [range, 4.5-58]) were treated for orbital cellulitis complicating orbital fracture. All patients had evidence of paranasal sinusitis before or after the orbital injury, and 2 also reported forceful nose blowing after sustaining orbital trauma. Although 3 patients received prophylactic oral antibiotics after the fracture, this failed to prevent

infection. Sinusitis commenced 1 to 2 weeks before and as late as 5 weeks after
orbital injury. All patients were treated with IV antibiotics. Two developed an
orbital abscess that required surgical drainage; 1 patient improved after an
endonasal maxillary antrostomy. One patient improved on IV antibiotics alone and
underwent fracture repair at a later stage. These 4 patients represent 0.8% of
all cases of orbital fractures treated in the study period. CONCLUSIONS: Orbital
cellulitis is a rare complication of orbital fracture, and seems to be more
common when paranasal sinus infection preexists or occurs within several weeks of
the injury. Oral antibiotics given after the orbital injury may not prevent
orbital cellulitis or abscess formation. Surgery may be required to drain orbital
abscess or in nonresolving cellulitis to drain the paranasal sinuses. Fracture
repair, if indicated, should be delayed, particularly if an alloplastic implant
is used.

Publication Types:
    Case Reports

PMID: 16157384 [PubMed - indexed for MEDLINE]

125: Int J Pediatr Otorhinolaryngol. 2006 Mar;70(3):445-52. Epub 2005 Sep 2.

Activity of budesonide on nasal neutrophilic inflammation and obstruction in
children with recurrent upper airway infections. A preliminary investigation.

Bellodi S, Tosca MA, Pulvirenti G, Petecchia L, Serpero L, Silvestri M, Sabatini
F, Battistini E, Rossi GA.

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OBJECTIVE: While it is widely accepted that inhaled glucocorticosteroids
represent an effective treatment for allergic rhinitis, little is known on the
specific effects of this therapeutic approach in other upper airway disorders of
childhood. The aim of the study was to evaluate the improvement of clinical
symptoms and changes in local cellular inflammatory reaction induced by
budesonide inhalation suspension in children with recurrent nasal infections
using budesonide inhalation suspension delivered by Rinowash, a nebulizer

designed to treat upper airway structures. METHODS: In a randomized, controlled-open study, 14 children (5.88+/-0.56 years of age) with recurrent upper airway infections and chronic nasal obstruction were enrolled and randomly treated for 7-10 days either with budesonide inhalation suspension (250 microg/bidie) (nine patients) or with saline solution (five patients). Before and after treatment, inflammatory cells in nasal brushing and nasal symptom score were evaluated. RESULTS: Out of the nine patients treated with budesonide, two were excluded from the analysis because of acute respiratory infections requiring systemic antibiotic treatment. A significant decrease in nasal brushing neutrophil percentage was observed after treatment with budesonide (P=0.016) but not after saline solution treatment (P=1.00). No significant changes in nasal brushing mononuclear cell or eosinophil proportions were observed after treatment with budesonide inhalation suspension or saline solution (P=NS, each comparison). Treatment with budesonide, but not with saline solution, was associated with a significant reduction in nasal obstruction (P=0.016). CONCLUSIONS: These preliminary data indicate that short-term treatment with budesonide inhalation suspension, used for an indication out of label, may significantly reduce local neutrophilic inflammation and nasal obstruction in children with recurrent upper airway infections.

Publication Types:
    Randomized Controlled Trial

PMID: 16140398 [PubMed - indexed for MEDLINE]

126: Int J Pediatr Otorhinolaryngol. 2005 Oct;69(10):1359-65.

The value of Ems Mineral Salts in the treatment of rhinosinusitis in children.
Prospective study on the efficacy of mineral salts versus xylometazoline in the topical nasal treatment of children.

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The treatment of rhinosinusitis seen in the light of uncertain pathogenesis and variable symptoms is under discussion and ranges from the administration of

antibiotics, decongestants and anti-allergic agents to no treatment. In this
randomized, prospective, double-blind and controlled study the effect of a 14-day
treatment (1-2 sprays into each nostril t.d.) with either isotonic Ems Mineral
Salts (EMS) solution (Siemens & Co., Bad Ems, Germany) or xylometazoline solution
(0.05%) was tested in children (n=66) aged 2-6 years. Main outcomes: the degree
of mucosal inflammation, nasal patency, general state of health, condition of the
middle ear, auditory function as well as an assessment of complaints by the
parents. With the exception of the hearing defects, all parameters showed a clear
improvement in both treatment groups at the end of the observation period
(p>0.001). The hearing defects showed only a trend towards improvement. At the
end of the study no differences between the treatment groups could be determined.
However, at the intermediate examination after the first 7 days of treatment more
favourable results were seen in the group treated with EMS. No undesired
medicinal effects were observed, although in 7 out of 34 cases the nasal spray
was improperly used in the group treated with xylometazoline. The results of the
study show that there is no difference in efficacy between an exclusive treatment
by EMS solution in children aged 2-6 years and a treatment with xylometazoline,
but with the distinction that with EMS the length of use was not restricted,
there were not the potential side effects of nasal decongestants, and there was
no contraindication in the newborn and infants.

Publication Types:
    Comparative Study
    Multicenter Study
    Randomized Controlled Trial

PMID: 16098615 [PubMed - indexed for MEDLINE]

127: J Otolaryngol. 2005 Jun;34 Suppl 1:S14-7.

Pediatric sinusitis: update.

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Sinusitis in children is a very common condition. It is being seen more and more
by primary care physicians and pediatricians. Children average six to eight colds

per year. Of those, 0.5 to 5% will develop a sinus infection. Symptoms of a cold
or allergy overlap with those of rhinosinusitis in the child. Distinguishing
rhinosinusitis from a cold or allergy may be challenging. It is agreed that if
cold symptoms are not improving by 7 to 10 days, a sinus infection should be
seriously considered. Plain radiographs can be helpful for maxillary sinusitis
especially if an air-fluid level is seen; otherwise, the sensitivity and
specificity of plain radiographs are poor. Computed tomography (CT) should not be
used for diagnostic purposes. The role of CTis mainly in children with chronic
rhinosinusitis when surgery is being considered. In cases of complicated
sinusitis, a CT scan is necessary. Treatment of most rhinosinusitis cases in
children is medical. Antibiotics constitute the mainstay of medical treatment.
Medical treatment should be with an appropriate antibiotic and for at least 14
days. Adjunctive treatment with saline irrigations and topical and systemic
decongestants may be helpful. Surgical intervention is necessary for complicated
cases and for cases that do not respond to prolonged course of medical
management. Currently adenoidectomy and endoscopic sinus surgery are the most
common procedures used. Children needing surgical intervention are a small
percentage because of the success of medical treatment. When and which surgical
procedure to use are discussed in detail.

Publication Types:
    Review

PMID: 16089235 [PubMed - indexed for MEDLINE]

128: Antibiot Khimioter. 2004;49(12):14-20.

[Haemophilus influenzae antibiotic resistant strains isolated in Moscow in
2002-2004]

[Article in Russian]

Filimonova OIu, Grudinina SA, Sidorenko SV, Katosova LK, Fatova MA, Stoliarova
LG, Dubrovskaia NV.

The results of 3-year observation on emergence of H. influenzae antibiotic
resistant strains in Moscow are summarized. The study included 566 strains
isolated from patients in 2002-2004. The susceptibility was determined by the

2-fold microdilution method on the Haemophilus test medium. The percentage of the resistant strains isolated in 2002, 2003 and 2004 was the following: ampicillin --4.9, 3.2 and 3.6%, tetracycline--3.3, 3.2 and 1.8% and co-trimoxazole--10.9, 20.9 and 20% respectively. The strains isolated in 2003 and 2004 were resistant to azithromycin in 0.6 and 1.8% of the isolates and to clarithromycin in 1.3 and 3.2% of the isolates respectively. Five isolates differed by the minimum resistance to ampicillin whereas producing no beta-lactamase (BLNAR strains). The drugs of choice for the treatment of respiratory tract infections mainly due to H. influenzae, i.e. acute otitis and sinusitis, chronic bronchitis exacerbation and sometimes pneumonia remain betalactam antibiotics. From the microbiological viewpoint the inhibitor-protected aminopenicillins, cefuroxime and cefotaxime have no significant advantages vs. amoxycillin. The use of cotrimoxazole and chloramphenicol should be considered inexpedient.

Publication Types:
    English Abstract

PMID: 16050495 [PubMed - indexed for MEDLINE]

129: Vestn Otorinolaringol. 2005;(3):62-3.

[Initial antibiotic therapy in acute otitis media and acute sinusitis in children]

[Article in Russian]

Garashchenko TI, Denisova OA, Kotov RV.

PMID: 16034353 [PubMed - indexed for MEDLINE]

130: Clin Infect Dis. 2005 Aug 15;41(4):490-7. Epub 2005 Jul 15.

Comment in:
    Clin Infect Dis. 2005 Aug 15;41(4):503-6.

A case-control study of acute respiratory tract infection in general practice patients in The Netherlands.

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BACKGROUND: Acute respiratory tract infections (ARTIs) are responsible for considerable morbidity in the community, but little is known about the presence of respiratory pathogens in asymptomatic individuals. We hypothesized that asymptomatic persons could have a subclinical infection and thus act as a source of transmission. METHODS: During the period of 2000-2003, all patients with ARTI who visited their sentinel general practitioner had their data reported to estimate the incidence of ARTI in Dutch general practices. A random selection of these patients (case patients) and an equal number of asymptomatic persons visiting for other complaints (control subjects) were included in a case-control study. Nose and throat swabs of participants were tested for a broad range of pathogens. RESULTS: The overall incidence of ARTI was 545 cases per 10,000 person-years, suggesting that, in the Dutch population, an estimated 900,000 persons annually consult their general practitioner for respiratory complaints. Rhinovirus was most common in case patients (24%), followed by influenza virus type A (11%) and coronavirus (7%). Viruses were detected in 58% of the case patients, beta -hemolytic streptococci group A were detected in 11%, and mixed infections were detected in 3%. Pathogens were detected in approximately 30% of control subjects, particularly in the youngest age groups. CONCLUSION: This study confirms that most ARTIs are viral and supports the reserved policy of prescribing antibiotics. In both case and control subjects, rhinovirus was the most common pathogen. Of bacterial infections, only group A beta-hemolytic streptococci were more common in case patients than in control subjects. Furthermore, we demonstrated that asymptomatic persons might be a neglected source of transmission.

PMID: 16028157 [PubMed - indexed for MEDLINE]

131: Int J Pediatr Otorhinolaryngol. 2006 Jan;70(1):53-7. Epub 2005 Jun 22.

Drug eruptions in children with ENT infections.

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OBJECTIVE: A common problem for the clinician in an outpatient clinic is to distinguish a drug eruption from a viral exanthem in a child. The aim of this study was to describe the common drug eruptions seen in children with ENT infections, suggesting an approach to this problem. METHODS: We studied the cases of ENT patients aged 15-years-old and below, with the clinical diagnosis of cutaneous adverse reactions. Main variables in the assessment of drug etiology in skin eruptions were previous experience with the drug in the general population, alternative explanation for the eruption, timing between the ingestion of the drug and the appearance of the lesions, drug levels or evidence of overdose or long-acting drug, subsequent progression of the eruption and reactions to dechallenge and rechallenge. RESULTS: A total of 47 children were examined during a period of 11 months. The indications for drug prescribed were tonsillitis, pharyngitis, rhinitis, otitis and sinusitis. The most usually implicated drugs were amoxycillin-clavulanic acid, cephalosporin, clindamycin, erythromycin, clarithromycin and paracetamol. The main clinical patterns of the eruptions seen were urticaria, maculopapular rash, fixed drug eruption and erythema multiforme. CONCLUSIONS: Careful clinical examination, detailed history, knowledge of the numerous clinical patterns of the eruptions and the drugs specific reaction rates, as well as oral drug rechallenge, RAST and patch tests if indicated, are essential factors in the management of patients with drug eruptions.

PMID: 15978677 [PubMed - indexed for MEDLINE]

132: Med J Aust. 2005 Jun 20;182(12):617-20.

A community-based intervention to reduce antibiotic use for upper respiratory tract infections in regional South Australia.

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OBJECTIVE: To evaluate the effectiveness of a community-based and GP-based intervention in reducing unnecessary antibiotic prescribing for upper respiratory tract infections (URTIs) including sore throats, sinusitis and otitis media.

DESIGN: Analysis of pharmacy dispensing data in June to October before (2000) and after (2001) the intervention, which commenced on 25 June 2001. SETTING AND PARTICIPANTS: Local consumers, health professionals, the Adelaide Southern Division of General Practice, the South Australian Government, and the local media in a rural region of South Australia, covering about 2000 square kilometres, with a population of over 20 000. INTERVENTION: Community dissemination of consumer information on antibiotic use for URTIs (including a local media campaign) and education of health professionals (including sessions with general practitioners at the four practices in the study area) on current Australian therapeutic guidelines for antibiotics, and a validated clinical scoring system for decision making in managing sore throat. MAIN OUTCOME MEASURES: Total dispensing data from local pharmacies for the months of June to October in 2000 and 2001, covering the six antibiotics considered most likely to be used for URTIs (amoxycillin, amoxycillin/clavulanic acid, cefaclor, doxycycline, erythromycin and roxithromycin). RESULTS: The dispensing of the six antibiotics reduced by 32% overall, from 77.1 to 52.9 defined daily doses per 1000 population per day, with statistically significant reductions in the range of 31%-70% for individual antibiotics; there was no reduction for amoxycillin with or without clavulanic acid. CONCLUSION: The intervention was associated with reduced dispensing of unnecessary antibiotics for URTIs.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 15963017 [PubMed - indexed for MEDLINE]

133: Lin Chuang Er Bi Yan Hou Ke Za Zhi. 2005 Mar;19(5):209-11.

[Possibility probe on glucocorticoid treating primary child epistaxis]

[Article in Chinese]

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OBJECTIVE: To probe the curative effect of glucocorticoid (GCD) on primary child epistaxis (PCE). METHOD: (1) Make rabbit model with nasal allergic reaction and nasal septum mucosa erosion, by dropping nose with toluene diisocyanate then

curettaging front-middle-part of nasal septum mucosa. Divide them into two groups
dexamethasone group and antibiotics group. (2) Questioning investigate the
relationship between PCE and nasal allergic reaction to 1000 school children. (3)
Two hundred cases of nasal bleeding children were divided into two groups
dexamethasone-therapy-group and control-group. RESULT: (1) The healing period of
rabbit nasal septum mucosa is much shorter in dexamethasone group than in another
group. (2) The genesis rate of school-children nasal bleeding is significantly
higher in those with allergic rhinitis than in those without it. (3) The curative
effect of therapy-group is much higher than that of control-group, there is
significant difference. CONCLUSION: There is close relationship between PCE and
nasal allergic reaction. Nasal allergic reaction is one of the most important
reasons for child epistaxis. Through inhibiting the allergic reaction, GCD can
promote the erosive nasal septum mucosa healing. GCD has great curative effect on
PCE.

Publication Types:
    English Abstract

PMID: 15934287 [PubMed - indexed for MEDLINE]

134: Pediatr Infect Dis J. 2005 Jun;24(6):489-93.

Effectiveness of a parental educational intervention in reducing antibiotic use
in children: a randomized controlled trial.

Taylor JA, Kwan-Gett TS, McMahon EM Jr.

Child Health Institute, University of Washington, Seattle, USA.

OBJECTIVE: To determine whether an educational intervention aimed at parents
leads to fewer antibiotic prescriptions for their children. DESIGN:
Placebo-controlled, randomized controlled trial. SETTING: Offices of primary care
pediatricians who are members of a regional practice-based research network.
PARTICIPANTS: Healthy children younger than 24 months old enrolled at the time of
an office visit. INTERVENTIONS: Parents of study children were randomized to
receive either a pamphlet and videotape (featuring one of their child's
pediatricians) promoting the judicious use of antibiotics (intervention group) or
brochures about injury prevention (control group). A total of 499 eligible

children were enrolled, and data on outpatient visits during a 12-month
observation period were collected. MAIN OUTCOME MEASURES: We compared the number
of visits for upper respiratory tract infections (URIs), number of diagnoses and
antibiotic prescriptions for otitis media and/or sinusitis and total number of
antibiotics per patient among children in the intervention and control groups
using Poisson regression analysis, adjusted for clustering into different
practices. RESULTS:: Data on 4924 visits were reviewed; 28.8% of these visits
were because of URI symptoms. The mean number of visits per study patient for URI
symptoms was 2.8. Including all visits, the mean number of diagnoses of otitis
media in study children was 2.1, mean number of diagnoses of otitis media and/or
sinusitis was 2.3 and mean number of antibiotic prescriptions was 2.4; there were
no significant differences between children in the intervention and control
groups for any of these outcomes. Overall physicians prescribed 1 or more
antibiotics during 45.9% of visits for a chief complaint of URI symptoms; 92% of
antibiotic usage in children presenting with URI symptoms was for a diagnosis of
otitis media and/or sinusitis. CONCLUSIONS: An educational intervention aimed at
parents did not result in a decrease in the number of antibiotic prescriptions in
their children. The use of antibiotics among children with URI symptoms was
common; other interventions promoting the judicious use of these medications are
needed.

Publication Types:
    Clinical Trial
    Randomized Controlled Trial
    Research Support, Non-U.S. Gov't

PMID: 15933556 [PubMed - indexed for MEDLINE]

135: Scand J Infect Dis. 2005;37(4):245-50.

Acute sinusitis: Finnish clinical practice guidelines.

Blomgren K, Alho OP, Ertama L, Huovinen P, Korppi M, Mäkelä M, Penttilä M,
Pitkäranta A, Savolainen S, Varonen H, Suonpää J; Finnish Society of
Otorhinolaryngology committee.

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These clinical practice guidelines aim at providing assistance mainly to primary health care physicians for the diagnosis and management of acute sinusitis. Despite the huge impact of upper respiratory infections, criteria for diagnoses are often vague, and physicians are often uncertain of their diagnoses. This is not surprising, as the sole definition of acute sinusitis is somewhat confusing, not to mention the existing discrepancies between treatments, even among specialists. The Finnish Society of Otorhinolaryngology has set up a committee to evaluate existing data on acute sinusitis and to formulate these guidelines. The committee comprised Finnish experts in adult and paediatric otorhinolaryngology, clinical microbiology, radiology, paediatrics, and epidemiology. Recommendations given are based on the principles of evidence-based medicine, with the level of evidence presented.

Publication Types:
    Guideline
    Practice Guideline
    Research Support, Non-U.S. Gov't

PMID: 15871161 [PubMed - indexed for MEDLINE]

136: Harefuah. 2005 Mar;144(3):181-6, 231, 230.

[Reported practices of antimicrobial use for upper respiratory tract infections]

[Article in Hebrew]

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AIM: To determine the reported antibiotic prescribing practices for upper respiratory tract infections in children among pediatricians and family physicians. METHODS: Regional survey of practicing pediatricians and family physicians and comparison of the survey responses of 81 physicians with the recently published recommendations of the Centers for Disease Control and Prevention. RESULTS: Whereas almost all the physicians agreed that a diagnosis of acute otitis media required documentation of middle ear effusion and acute illness, 28% of family physicians and 12% of pediatricians reported that they routinely prescribed antibiotics for children with bronchitis, even though this

is not recommended. In this survey 39% of pediatricians and 47% of family physicians reported that they omitted laboratory testing for the diagnosis of group A streptococcal pharyngitis, and of those who submitted samples for testing, most reported that they prescribed antibiotics immediately without waiting for the results. Even though these recommendations state that sinus tenderness is rare in young children with sinusitis, more than 48% of the physicians believed that both this and the presence of purulent rhinitis were essential to confirm this diagnosis. While none of the pediatricians reported prescribing antibiotics for the common cold, 17% of the family physicians did so (p = 0.006). CONCLUSIONS: The reported prescribing practices of the physicians in this survey are not in line with the recommendations. Effective intervention is needed to encourage the judicious use of antibiotics in Israel.

Publication Types:
    English Abstract

PMID: 15844457 [PubMed - indexed for MEDLINE]

137: Clin Ther. 2004 Dec;26(12):2153-62.

Patterns of health care resource utilization after macrolide treatment failure: results from a large, population-based cohort with acute sinusitis, acute bronchitis, and community-acquired pneumonia.

Wu JH, Howard DH, McGowan JE Jr, Frau LM, Dai WS.

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BACKGROUND: Macrolide antibiotics are used as first-line therapy for the treatment of respiratory tract infections. The recent emergence of macrolide-resistant pathogens is a major concern. OBJECTIVE: This study quantifies the frequency of macrolide treatment failure in respiratory infections and examines its impact on health care use. METHODS: Patients with respiratory infections treated with macrolides in outpatient clinics from January to December 2002 were identified from a health insurance claims database. Macrolide treatment failure was defined as the receipt of a second antibiotic, different from the first, within 4 weeks after the initial macrolide. The end points were numbers of

hospitalizations and emergency department and office visits within 1 month after
the initial macrolide. We examined diagnostic codes on claim forms for posttreatment hospitalizations and visits to identify those most likely to be
related to treatment failure as opposed to other causes. Utilization data were
analyzed by Poisson regression to control for confounding variables. RESULTS: The
patients were divided into acute sinusitis (n = 111,135), acute bronchitis (n =
157,360), and community-acquired pneumonia (n = 36,212). Of these respective
groups, 11,285 (10.2%), 15,498 (9.9%), and 4144 (11.4%) received a second
antibiotic within 4 weeks. This subgroup with macrolide treatment failure was
older, included more women, and had used more medical care before the index visit
compared with patients with treatment success. After adjustment for age, sex, and
previous health care use, patients experiencing treatment failure were more
likely to be admitted to the hospital or to use emergency department or
outpatient care after the index visit. This association was strongest for
admissions and visits pertaining to the care of respiratory infections.
CONCLUSIONS: By our definition, about 10% of patients with respiratory infections
who were treated with macrolide antibiotics experienced treatment failure within
4 weeks. Macrolide treatment failure was associated with increased health care
utilization.

PMID: 15823779 [PubMed - indexed for MEDLINE]

138: J Coll Physicians Surg Pak. 2005 Mar;15(3):157-9.

Frequency and effective treatment of ulcers and sinuses in cases of tuberculous
cervical lymphadenitis.

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OBJECTIVE: To investigate the frequency and effective treatment of ulcers and
sinuses in cases of tuberculous cervical lymphadenitis (TCL). DESIGN:
Observational cross-sectional study. PLACE AND DURATION OF STUDY: Department of
ENT, Head and Neck Surgery of Tribhuvan University Teaching Hospital (TUTH),
Kathmandu, Nepal, during the period of two years from March, 2000 to February,

2002. PATIENTS AND METHODS: A hundred cases of histopathologically confirmed cases of tuberculous cervical lymphadenitis of more than six weeks of duration were included in the study. Overall frequency of the complication as well as the efficacy of treatment regime was considered. RESULTS: Out of 100 patients, 8 (8%) were found to develop ulcers and/or sinuses during the process of development of TCL which were effectively treated (100% cure rate). Mode of treatment was surgical excision of ulcers/sinuses along with affected underlying lymph nodes, followed by short course of anti-tubercular chemotherapy. Not a single case recurred during their follow-up period. CONCLUSION: In this series there was a low frequency of formation of ulcers/sinuses during the process of development of TCL. Surgical excision of ulcers/sinuses along with affected underlying lymph nodes, followed by short course of anti-tubercular chemotherapy is the effective methods of their treatment.

Publication Types:
    Comparative Study

PMID: 15808094 [PubMed - indexed for MEDLINE]

139: Homeopathy. 2005 Jan;94(1):3-9.

Comment in:
    Homeopathy. 2005 Jan;94(1):1-2.   Homeopathy. 2005 Oct;94(4):264; author reply 264.

Pharmacoeconomic comparison between homeopathic and antibiotic treatment strategies in recurrent acute rhinopharyngitis in children.

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OBJECTIVES: A pharmacoeconomic study to compare, in terms of: medical effectiveness, quality of life and costs two treatment strategies ('homeopathic strategy' vs 'antibiotic strategy') used in routine medical practice by allopathic and homeopathic GPs in the treatment of recurrent acute rhinopharyngitis in 18-month to 4-year-old children. METHODS: Statistical analysis of data obtained from a population of 499 patients included in a previous 6-month prospective, pragmatic study. The patients were regrouped according to type of drug prescribed. Medical effectiveness was assessed in terms

of (i) episodes of acute rhinopharyngitis, (ii) complications, (iii) adverse
effects. Quality of life was assessed using the Par-Ent-Qol scale. Direct medical
costs (medical consultations, drug prescriptions, prescriptions for further
tests) and indirect medical costs (sick-leave) were evaluated from three
viewpoints (society, patient, Social Security) using public prices and French
Social Security tariffs. RESULTS: The 'homeopathic strategy' yielded
significantly better results than the 'antibiotic strategy' in terms of medical
effectiveness (number of episodes of rhinopharyngitis: 2.71 vs 3.97, P<0.001;
number of complications: 1.25 vs 1.95, P<0.001), and quality of life (global
score: 21.38 vs 30.43, P<0.001), with lower direct medical costs covered by
Social Security (88 Euros vs 99 Euros, P<0.05) and significantly less sick-leave
(9.5% of parents vs 31.6% of parents, P<0.001). CONCLUSIONS: Homeopathy may be a
cost-effective alternative to antibiotics in the treatment of recurrent infantile
rhinopharyngitis.

Publication Types:
    Comparative Study
    Research Support, Non-U.S. Gov't

PMID: 15751328 [PubMed - indexed for MEDLINE]

140: Homeopathy. 2005 Jan;94(1):1-2.

Comment on:
    Homeopathy. 2005 Jan;94(1):3-9.

The cost-effectiveness of homeopathy: the perspective of a scientist and mother.

Güthlin C.

Publication Types:
    Comment
    Editorial

PMID: 15751327 [PubMed - indexed for MEDLINE]

141: Med Care. 2005 Mar;43(3 Suppl):I58-63.

Children's Health Care in the First National Healthcare Quality Report and
National Healthcare Disparities Report.

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BACKGROUND: The first National Healthcare Quality Report (NHQR) and National
Healthcare Disparities Report (NHDR) are landmark events for children's health
care quality and are expected to stimulate local measurement, benchmarking, and
quality improvement efforts. METHOD: The authors select findings from the NHQR
and NHDR, focusing on topics reflecting a range of health care and health care
settings affecting children. They highlight disparities by race/ethnicity,
socioeconomic status, and insurance source. They critique the first NHQR and NHDR
from a child health perspective. SELECT NHQR/DR FINDINGS: Quality-of-care issues
in the effectiveness domain were identified for black infant mortality, low and
very low birth weight rates, antibiotic use for the common cold, and childhood
hospitalizations for asthma. Immunization rates have improved. Patient
centeredness and timeliness results vary by race, ethnicity and income. The NHDR
found that Hispanic and low-income children are most likely to be uninsured for
part of the year. Groups of children most likely to have public coverage are
American Indian/Alaska native, black, and Hispanic. CRITIQUE OF REPORTS: The
structure and criteria used for the first reports limit their usefulness from a
child health perspective. A basic problem is that the conceptualizations of
health and health care that are driving national initiatives on quality are based
largely on an adult chronic care model focused on conditions with high
expenditures as treated in the mainstream health care delivery system.
CONCLUSION: NHQR and NHDR provide essential information on children's health care
quality. Future reports can be improved by including child-relevant perspectives
in priority-setting and data-gathering efforts.

PMID: 15746592 [PubMed - indexed for MEDLINE]

142: Pediatrics. 2005 Mar;115(3):635-41.

Provider and practice characteristics associated with antibiotic use in children
with presumed viral respiratory tract infections.

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OBJECTIVE: Although overuse of antibiotics in children has been well documented,
relatively little information is known about provider and facility

characteristics associated with this prescribing practice. This study was done to
evaluate the differences in overuse of antibiotics among staff physicians and
resident/interns (housestaff [HS]) who work in hospital-based outpatient clinics.
METHODS: This cross-sectional study involved patient encounters in outpatient
departments that were included in the US National Hospital Ambulatory Medical
Care Survey database from 1995 to 2000. Encounters with patients who were aged
<18 years and had a primary diagnosis suggestive of viral respiratory tract
infection were evaluated. Patients with comorbid conditions that might justify
antibiotic use were excluded. RESULTS: This study included 1952 patient
encounters with a primary diagnosis suggestive of a viral infection and 33.2% of
these patients receiving antibiotics. Overall, antibiotic use was significantly
less among HS (19.5%) than staff physicians (36.4%; odds ratio [OR]: 0.44; 95%
confidence interval [CI]: 0.33-0.59). This difference between HS (19.5%) and
staff physicians (32.5%) persisted even within teaching hospitals (OR: 0.5; 95%
CI: 0.4-0.7). Among staff physicians, antibiotic use was greater among those who
work in nonteaching (39.6%) compared with teaching hospitals (32.5%; OR: 1.51;
95%: CI 1.15-1.98). Controlling for other patient and provider variables,
antibiotic use occurred less among HS than among staff physicians in teaching
hospitals (OR: 0.53; 95% CI: 0.38-0.75). CONCLUSIONS: Antibiotic prescribing in
the context of an outpatient visit for a diagnosis suggestive of a viral
respiratory tract illness occurs more commonly among staff physicians than
trainees and among staff physicians more commonly in nonteaching compared with
teaching institutions.

Publication Types:
    Research Support, N.I.H., Extramural
    Research Support, Non-U.S. Gov't
    Research Support, U.S. Gov't, P.H.S.

PMID: 15741365 [PubMed - indexed for MEDLINE]

143: Surg Neurol. 2005 Mar;63(3):254-60; discussion 260.

Intracranial fungal granuloma: analysis of 40 patients and review of the
literature.

Dubey A, Patwardhan RV, Sampth S, Santosh V, Kolluri S, Nanda A.

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Shreveport, Shreveport, LA 71130-3932, USA.

OBJECTIVE: To describe the characteristics of patients diagnosed with intracranial fungal granuloma (IFG) in the largest reported series to date (to
our knowledge). METHODS: A 22-year retrospective, multi-institutional review of
40 patients, aged 16 to 62 years (mean, 40.2 years), was performed in patients
with histopathologically confirmed IFG. The variables were symptoms/signs at
presentation, predisposing factors, location of granuloma, involvement of
paranasal sinuses, diagnostic studies including blood and urine cultures,
surgical procedures performed, specific organism identified, treatment, and
prognosis. Plain x-rays, computed tomography, and/or magnetic resonance imaging
scans were performed. RESULTS: Predominant symptoms included headache (83%),
vomiting (65%), proptosis (48%), and visual disturbances (48%). Other symptoms
were fever, nasal congestion, and seizures (7 [18%]). Common signs included
papilledema (12 [30%]), with cranial neuropathy (I, III/IV/VI, and V in 4, 7, and
2 patients, respectively), hemiparesis (3), and meningismus (3). Predisposing
factors were diabetes (16 [40%]), tuberculosis (7 [18%]), and immunocompromise
related to renal transplant (2), non-Hodgkin's lymphoma (1), and human
immunodeficiency virus (1). Location was primarily frontal (10 [25%]), with
anterior cranial fossa involved in 8 (20%) patients; 6 (15%) patients had
sellar/parasellar involvement. Eighteen (40%) had paranasal sinus involvement.
Twenty-nine patients underwent craniotomy for resection, with 11 undergoing
biopsy (of which 3 were transsphenoidally approached). Histopathology revealed
aspergilloma (25 [63%]), mucormycosis (7 [18%]), cryptococcoma (3),
cladosporidium (3), Bipolaris hawaiiensis (1), and Candida species(1).
Microbiological analysis of the specimen was positive in 28 (60%) patients. All
patients were treated with amphotericin B, fluconazole, and/or flucytosine. Only
26 patients completed amphotericin B therapy (due to nephrotoxicity). Mortality
was 63%, most commonly due to meningoencephalitis (16 [36%]). CONCLUSIONS: High
index of suspicion of IFG should exist for the following groups: (1)
immunocompromised patients with intracranial lesions and (2) diabetic patients
with intracranial and rhinocerebral mass lesions. Early diagnosis, surgical
decompression, and a complete course of promptly initiated antifungal therapy are

associated with better prognosis.

PMID: 15734518 [PubMed - indexed for MEDLINE]

144: Br J Gen Pract. 2005 Feb;55(511):114-8.

Prescribing antibiotics for respiratory tract infections by GPs: management and
prescriber characteristics.

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BACKGROUND: Due to clinical and non-clinical factors, considerable variation
exists in the prescribing of antibiotics for respiratory tract infections (RTIs)
by GPs based in the Netherlands. AIM: To assess, in patients with RTIs in Dutch
general practice: the prescribing rates of antibiotics; the relationship between
GP characteristics and antibiotic prescribing; and the type of antibiotics
prescribed. DESIGN OF STUDY: Descriptive and prognostic. SETTING: Eighty-four GPs
in the middle region of the Netherlands. METHOD: All patient consultations for
RTIs were registered by 84 GPs during 3 weeks in autumn and winter 2001 and 2002.
In addition, all GPs completed a questionnaire related to individual and practice
characteristics. RESULTS: The mean proportion of consultations in which GPs
prescribed antibiotics was 33% (95% CI = 29 to 35%) of all RTIs. This proportion
varied from 21% for patients with upper RTIs or an exacerbation of asthma/COPD,
to about 70% when patients had sinusitis-like complaints or pneumonia.
Amoxycillin and doxycycline were the most frequently prescribed antibiotics,
while 17% of the antibiotics prescribed were macrolides. Multiple linear
regression analysis showed that the longer GPs had practised, the more frequently
they prescribed antibiotics, especially in combination with relatively little
knowledge about RTIs or the less time GPs felt they had available per patient.
The final model, with seven factors, explained 29% of the variance of antibiotic
prescribing. CONCLUSION: The prescribing behaviour of Dutch GPs might be improved
with regard to choice of type and indication of antibiotics.

Publication Types:
    Multicenter Study
    Research Support, Non-U.S. Gov't

PMID: 15720932 [PubMed - indexed for MEDLINE]

145: Am J Rhinol. 2004 Nov-Dec;18(6):387-91.

High prevalence of antibiotic resistance in isolates from the middle meatus of
children and adults with acute rhinosinusitis.

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Road, Chia-Yi City, Taiwan.

BACKGROUND: The pathogens in acute rhinosinusitis are similar worldwide. An
increase in antibiotic resistance has been shown in a large number of studies in
recent years. The prevalence of resistance varies greatly in different countries.
This study was performed to determine the endemic prevalence of antibiotic
resistance in pathogens of acute rhinosinusitis in Taiwan. METHODS: Middle meatus
discharge was taken for aerobic culture in 133 outpatients with the diagnosis of
acute rhinosinusitis. RESULTS: One hundred two isolates of pathogens were found,
including three major bacteria: Haemophilus influenzae (37.3%), Streptococcus
pneumoniae (28.4%), and Moraxella catarrhalis (11.8%). Polymicrobial infections
and positive cultures occurred more frequently in pediatric patients, as did
recovery of M. catarrhalis infection. An extremely high percentage of resistance
to first-line antibiotics was noted, viz., penicillin-nonsusceptible S.
pneumoniae (PNSSP) (72.4%), ampicillin-resistant H. influenzae (60.5%), and M.
catarrhalis (58.3%). CONCLUSION: The high prevalence of drug resistance is a
great threat to public health. Antibiotic use should be more prudent, especially
in pediatric patients, who were found to be more susceptible to bacterial
rhinosinusitis and multiple pathogenic infection.

PMID: 15706987 [PubMed - indexed for MEDLINE]

146: HNO. 2005 Aug;53(8):735-40.

[The pathogen spectrum of acute bacterial rhinitis/sinusitis and antibiotic
resistance]

[Article in German]

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BACKGROUND AND OBJECTIVE: Bacterial rhinosinusitis is one of the most frequent indications for an antibiotic therapy. The objective of this study was the analysis of the current pathogen spectrum and its antimicrobial susceptibility.
MATERIAL AND METHODS: Between 1999 and 2004, 188 specimens obtained from 170 patients with acute, purulent rhinosinusitis were analysed. RESULTS: A total of 217 pathogens were isolated. The most common isolates were Streptococcus pneumoniae (33%), Haemophilus influenzae (27%), Staphylococcus aureus (13%), Moraxella catarrhalis (11%) and streptococci (7%). S. pneumoniae, H. influenzae and M. catarrhalis were the predominant pathogens in children. S. pneumoniae, S. aureus and streptococci, however, dominated in specimens from adults. CONCLUSION:
Based on these results, adults should be treated with an aminopenicillin with beta-lactamase inhibitor or a cephalosporin of the second generation. For children , however, the first line antibiotic is an aminopenicillin.

Publication Types:
Clinical Trial
English Abstract

PMID: 15702353 [PubMed - indexed for MEDLINE]

147: J Sch Nurs. 2005 Feb;21(1):10-6.

The significance of herpes simplex for school nurses.

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Herpes simplex is a common recurrent viral infection caused by the herpes simplex virus. The two closely related but distinct viruses that cause herpes simplex infections are herpes simplex 1 (HSV-1) and herpes simplex 2 (HSV-2). HSV-1 is commonly associated with infections around the oral mucosa and is the cause of herpes labialis, often referred to as a fever blister or cold sore. HSV-2 infections are usually acquired sexually. Genital herpes is a sexually transmitted disease with the highest prevalence among adolescents and young adults. Knowledge of viral activity, disease management, and community resources will assist the school nurse in developing and implementing strategies to prevent and manage this chronic disease.

Publication Types:
    Review

PMID: 15660490 [PubMed - indexed for MEDLINE]

148: Laryngoscope. 2005 Jan;115(1):78-80.

Trends in the management of pediatric chronic sinusitis: survey of the American
Society of Pediatric Otolaryngology.

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Medicine, Atlanta, GA, USA.

BACKGROUND: The management of chronic sinusitis (CS) in children has yet to be
fully elucidated. The objective of this study is to assess practice trends within
the pediatric otolaryngology community for the management of children with CS.
METHODS: A multiple choice survey of the members of the American Society of
Pediatric Otolaryngology (ASPO) was performed to assess for various factors
related to the management of CS in children. RESULTS: A total of 175 ASPO members
responded to the survey. The majority of respondents initially treat patients
medically with oral antibiotics (95%), topical steroids (90%), and nasal saline
sprays (68%). Fifty-five percent performed adenoidectomy as part of the treatment
of CS, with 81% performing the operation before endoscopic sinus surgery (ESS).
Compared with 3 years before the survey, 47% of respondents performed
approximately the same number of ESS cases, whereas 35% reported doing fewer
cases annually. Seventy-two percent of practitioners do not routinely perform a
second-look surgery. CONCLUSIONS: The majority of pediatric otolaryngologists use
oral antibiotics, nasal steroids, and saline lavage, and will perform
adenoidectomy when managing patients with CS. More than a third of pediatric
otolaryngologists are using more stringent criteria for surgery and performing
less extensive surgery than 3 years before the survey. Surgical outcomes for CS
do not appear to have changed over the past 3 years.

PMID: 15630371 [PubMed - indexed for MEDLINE]

149: Pediatr Rev. 2004 Dec;25(12):418-24.

Pneumococcal infections.

Durbin WJ.

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Publication Types:
    Review

PMID: 15574538 [PubMed - indexed for MEDLINE]

150: J Antimicrob Chemother. 2004 Dec;54(6):1116-21. Epub 2004 Nov 16.

Antibiotic prescribing for respiratory tract infections in Dutch primary care in
relation to patient age and clinical entities.

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OBJECTIVES: To obtain detailed information on current prescribing rates of
antibiotics for respiratory tract infections (RTIs) in Dutch general practice and
its relation with age and respiratory tract clinical entities. METHODS: We
assessed the mean proportion of antibiotics prescribed for RTIs per age group,
contact-based and population-based using all patient contacts concerning RTIs in
the year 2000 selected from the IPCI database, containing information on general
practice consultations of 235,290 patients. RESULTS: In one-third of all contacts
concerning RTIs, antibiotics were prescribed, with much variation between age
groups and clinical entities. For children (0-15 years) and the elderly (over 75
years), the lowest contact-based percentages of prescribed antibiotics for RTIs
were found, while population-based, children of age 0-5 years received far more
antibiotics for RTIs. High prescribing rates were seen in patients with
sinusitis-like complaints (67%) or pneumonia (78%), whereas low rates were found
for patients with upper RTIs (16%). CONCLUSIONS: Potential over-prescribing of
antibiotics for RTIs occurs in the age group 31-65 years, not in children and the
elderly, and in patients with upper RTIs, sinusitis and most likely acute
bronchitis (contact-based). The management of these subgroups of patients should
be addressed in quality assurance programmes. Children and the elderly visit the
GP much more often than adults, which can be explained by more frequent

(children) or more severe (elderly) RTI morbidity, but in proportion they do not
receive more antibiotics.

PMID: 15546973 [PubMed - indexed for MEDLINE]

151: Arch Pediatr Adolesc Med. 2004 Nov;158(11):1037-42.

Childhood severe acute respiratory syndrome in Taiwan and how to differentiate it
from childhood influenza infection.

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OBJECTIVE: To investigate clinical features and outcomes of children in Taiwan
with laboratory-confirmed severe acute respiratory syndrome (SARS) vs those of
children with influenza to differentiate the 2 diseases. DESIGN, SETTING, AND
PARTICIPANTS: Patients 20 years or younger with clinical, epidemiological, and
laboratory evidence of SARS from March to July 2003 vs children with virus
culture-confirmed influenza in a 1:1 age- and sex-matched control group. MAIN
OUTCOME MEASURES: Rates of symptoms, abnormal laboratory data, and outcomes of
recovery, sequelae, or death. RESULTS: The 15 SARS patients (9 girls and 6 boys)
had a median age of 17 years (age range, 4-20 years). Nine patients (60%) were
infected through household contact, 4 (27%) nosocomially, 1 (7%) through contact
with a neighbor, and 1 (7%) after returning from Hong Kong. All 15 patients had
fever, 3 (20%) had chills, and 11 (73%) had cough. Only 1 patient (7%) had sputum
production; 1 (7%) had rhinorrhea. At presentation, 5 patients (33%) had
leukopenia, 6 (40%) had lymphopenia, and 5 (33%) had monocytopenia. All children
recovered without sequelae. Children with SARS had significantly lower incidences
of rhinorrhea (odds ratio [OR], 0.01; 95% confidence interval [CI], 0.00-0.09),
sputum production (OR, 0.10; 95% CI, 0.02-0.63), and sore throat (OR, 0.17; 95%
CI, 0.03-0.85) than children with influenza. Both groups had similar incidences
of leukopenia or lymphopenia, but SARS patients had a significantly higher
incidence of monocytopenia (33% vs 0%, P = .04). CONCLUSIONS: Childhood SARS is

usually not fatal. The absence of rhinorrhea and presence of monocytopenia in
SARS may distinguish it from influenza.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 15520340 [PubMed - indexed for MEDLINE]

152: Vestn Otorinolaringol. 2004;(4):46-8.

[Elimination therapy in the treatment of adenoiditis in children with acute
sinusitis]

[Article in Russian]

Bogomil'skiĭ MR, Garashenko TI, Shishmareva EV.

Publication Types:
    Comparative Study

PMID: 15496844 [PubMed - indexed for MEDLINE]

153: J Am Dent Assoc. 2004 Sep;135(9):1311-8.

The efficacy of valacyclovir in preventing recurrent herpes simplex virus
infections associated with dental procedures.

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BACKGROUND: Oral herpes simplex virus, or HSV, infections recur after trauma and
stress. The prevalence of these infections after dental procedures is not known.
Also, it is unclear whether antiviral agents are effective in preventing dental
procedure-induced HSV recurrences. This study determined the efficacy and safety
of oral valacyclovir in suppressing dentally related cold sore outbreak and HSV
shedding. METHODS: The authors enrolled 125 otherwise healthy HSV-seropositive
adults who reported having recurrent herpes labialis (more than one episode per
year and at least one episode in the previous year) in a randomized, double-blind, placebo-controlled study and gave them valacyclovir prophylactically (2 grams taken twice on the day of dental treatment and 1 g
taken twice the next day) or a matching placebo. To detect the presence of the
virus, the authors used clinical examinations, viral cultures and real-time
polymerase chain reaction analysis of saliva. RESULTS: During the one-week

observation period after treatment, there were more clinical lesions (20.6
percent versus 11.3 percent), more HSV-1-positive culture specimens (7.9 percent
versus 1.6 percent) and more HSV-1-positive saliva specimens (7.9 percent versus
4.0 percent) in placebo than in valacyclovir-treated patients, respectively. The
percentage of patients who developed recurrences and shed HSV-1 in saliva 72
hours after dental procedures was significantly smaller in the valacyclovir group
than in the placebo group (11.3 percent versus 27 percent; P = .026). The mean
time to pain cessation was significantly less in the valacyclovir group (3.2
days) than in the placebo group (6.2 days) (P = .006). CONCLUSION: HSV
recrudescence after routine dental treatment is suppressed by valacyclovir
prophylaxis. CLINICAL IMPLICATIONS: HSV recrudescence is common after routine
dental treatment. Clinicians should consider antiviral therapy for patients at
risk of experiencing a recurrence, as well as to minimize transmission of the
disease.

Publication Types:
    Clinical Trial
    Randomized Controlled Trial
    Research Support, Non-U.S. Gov't

PMID: 15493396 [PubMed - indexed for MEDLINE]

154: Curr Allergy Asthma Rep. 2004 Nov;4(6):471-7.

Treatment options for acute sinusitis in children.

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Much controversy exists regarding the best diagnostic method for acute sinusitis,
the efficacy of antibiotics, the best choice of antibiotics, the most appropriate
duration of therapy, and the efficacy of ancillary measures and nasal
corticosteroids. The therapeutic goal is to identify those children who are more
likely to have bacterial sinusitis and unlikely to resolve spontaneously, who may
require treatment with antibiotics. The inaccuracy of clinical signs and symptoms
complicates further the management of these children. Acute sinusitis is expected
to resolve spontaneously in most cases, including many cases of bacterial
sinusitis. Antibiotics are needed only for a minority of non-self-resolving

infections. Based on current resistance considerations, approximately 80% of
bacterial infections are expected to respond to standard doses of amoxicillin.
High-dose amoxicillin, amoxicillin/clavulanate, or other b-lactam antibiotics
should be considered for children at high risk for carrying resistant organisms.
Evidence for the effectiveness of ancillary measures is limited.

Publication Types:
    Review

PMID: 15462714 [PubMed - indexed for MEDLINE]

155: Rev Prat. 2004 Jun 30;54(12):1339-42.

[Naso-sinusoidal infections in children and adults. Part I: Children]

[Article in French]

François M, Barry B.

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Publication Types:
    Review

PMID: 15461054 [PubMed - indexed for MEDLINE]

156: J Public Health (Oxf). 2004 Sep;26(3):268-74.

Comment in:
    J Public Health (Oxf). 2005 Jun;27(2):228-9; author reply 229-31.

Why has antibiotic prescribing for respiratory illness declined in primary care?
A longitudinal study using the General Practice Research Database.

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BACKGROUND: Antibiotic prescribing by general practitioners (GPs) increased in
the 1980s and peaked in 1995. Prescribing volumes subsequently fell by over a
quarter between 1995 and 2000, mostly accounted for by reduced antibiotic
prescribing for acute respiratory illnesses. We aimed to investigate changes in
consultation rates and the proportion of consultations with antibiotics
prescribed for different types of respiratory tract infections. METHODS: Data
were derived from 108 UK general practices, covering a mean of 642,685 patients,
reporting data to the General Practice Research Database (GPRD) continuously

between 1994 and 2000. Outcome measures: annual age- and sex-standardized consultation rates for 11 different acute respiratory infections per 1000 registered patients and proportions of these consultations resulting in an antibiotic prescription. RESULTS: The standardized consultation rate for 'any respiratory infection' declined by 35 per cent from 422 to 273 per 1000 registered patients, per year. The largest relative reductions in consultation rates were observed for 'common cold' (50 per cent), 'laryngitis' (43 per cent) and 'sore throat' (43 per cent). The standardized proportion of consultations that resulted in an antibiotic prescription for 'any respiratory infection' declined from 79 per cent in 1994 to 67 per cent in 2000. The largest relative reductions in antibiotic prescribing rates occurred in patients recorded as suffering from 'influenza' (52 per cent), 'upper respiratory tract infections' (33 per cent) and 'laryngitis' (30 per cent). Overall, antibiotic prescriptions for all acute respiratory infections declined by 45 per cent. CONCLUSION: The reduction in antibiotic prescribing in common respiratory infections between 1994 and 2000 has occurred partly because GPs are prescribing antibiotics less frequently when patients consult but mainly because there are fewer consultations with these conditions. Further work should aim to understand the reasons for the decline in consultations for respiratory infections and whether further reductions in antibiotic prescribing are feasible.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 15454595 [PubMed - indexed for MEDLINE]

157: Ambul Pediatr. 2004 Sep-Oct;4(5):455-60.

Child care center policies and practices for management of ill children.

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OBJECTIVES: The objectives of this study were to 1) describe child care staff knowledge and beliefs regarding upper respiratory tract infections and antibiotic

indications and 2) evaluate child care staff reported reasons for a) exclusion
from child care, b) referral to a health care provider, and c) recommending
antibiotics for an ill child. METHODS: A longitudinal study based in randomly
selected child care centers in Massachusetts. Staff completed a survey to assess
knowledge regarding common infections. For six weeks, staff completed a record of
absences each day, describing the reason for an absence, and advice given to the
parents regarding exclusion, referral to a health care provider, and obtaining
antibiotics. Exclusions for the specific illness/symptom were defined as
appropriate or inappropriate based on national guidelines. RESULTS: A large
proportion of child care staff incorrectly believed that antibiotics are
indicated for bronchitis (80.5%) and green rhinorrhea (80.5%) in children. For
82.2% of absences, the circumstances or reasons for the absence were discussed
with a child care staff member. Of 538 absences due to illness that child care
staff discussed with parents, there were 45 inappropriate exclusions (8.4% of
illnesses discussed), 91 appropriate exclusions (16.9% of illnesses discussed),
and 402 cases (74.7%) in which no recommendation for exclusion was made.
CONCLUSIONS: Misconceptions regarding the need for antibiotics for URIs are
common among child care staff. However, day care staff do not pressure parents to
seek medical attention or antibiotics.

Publication Types:
    Research Support, U.S. Gov't, P.H.S.

PMID: 15369413 [PubMed - indexed for MEDLINE]

158: J Epidemiol Community Health. 2004 Oct;58(10):852-7.

Infections, medication use, and the prevalence of symptoms of asthma, rhinitis,
and eczema in childhood.

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BACKGROUND: The "hygiene hypothesis" postulates that infections during infancy

may protect against asthma and atopy. There is also some evidence that antibiotic
and/or paracetamol use may increase the risk of asthma. METHODS: The study
measured the association between infections, and medication use early in life and
the risk of asthma at age 6-7 years. It involved 1584 children who had been
notified to public health services with serious infections at age 0-4 years, and
2539 children sampled from the general population. For both groups, postal
questionnaires were completed by parents. RESULTS: There was little difference in
the prevalence of current wheezing between the childhood infections group
(prevalence = 23.5%) and the general population group (prevalence = 24.3%). There
was also little difference whether the major site of infection was
gastrointestinal (prevalence = 24.1%), invasive (prevalence = 24.6%) or
respiratory (prevalence = 21.1%). However, in both groups, there were
associations with antibiotic (OR = 1.78, 95% CI 1.49 to 2.14) or paracetamol (OR
= 1.38, 95% CI 1.04 to 1.83) use in the first year of life or recent paracetamol
use (OR = 2.10, 95% CI 1.78 to 2.49) and current wheezing. There was a weak
protective effect of childhood infections in children who had not used
antibiotics in the first year of life (OR = 0.78, 95% CI 0.55 to 1.10).
CONCLUSIONS: These findings are consistent with other evidence that antibiotic
use early in life may increase the risk of asthma. They are also consistent with
some preliminary evidence associating paracetamol use with an increased risk of
asthma. Any protective effect of notifiable childhood infections was weak.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 15365112 [PubMed - indexed for MEDLINE]

159: Pharmacoeconomics. 2004;22(13):829-37.

Acute rhinosinusitis : a pharmacoeconomic review of antibacterial use.

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Acute rhinosinusitis is a common disease, in both children and adult patients,
and happens most often in the setting of a viral infection with or without
bacterial superinfection. Although spontaneous resolution is common,

antibacterials are often prescribed and have a tremendous impact on costs, either directly or through the emergence of resistance in causative or colonising micro-organisms. The purpose of this work was to review published literature from 1989 to 2002 on antibacterial treatment in acute rhinosinusitis from a clinical and economical perspective. A relatively small number of studies have compared antibacterials with placebo and few have suggested that antibacterials are superior to placebo, except when a bacterial cause is established or in the presence of specific CT-scan findings. On the other hand, 58 randomised controlled trials were published between 1989 and 2002, that compared the relative efficacy of various antibacterials. Most of these studies had serious methodological flaws, and no single antibacterial proved superior to its comparators. Economic data are scarce and indicate cost of disease is high. Of the different treatment strategies assessed symptomatic treatment (patients being treated with antibacterials only if they failed to improve after 7 days) was the most cost-effective approach, compared with treating patients on the basis of specific clinical criteria, empirical treatment (all patients initially treated with antibacterials), or radiology-guided treatment. Cost effectiveness varied with disease prevalence. In conclusion, this pharmacoeconomic review of antibacterial use in acute rhinosinusitis shows the need for improvement in the quality of the studies feeding economic analyses, but suggests that huge financial interests are at stake. Savings achievable, by better targeting patients needing antibacterial treatment, could be substantial, and more practical and precise diagnostic procedures are clearly needed. Acute rhinosinusitis is a typical example of a clinical dilemma in which good clinical practice must be balanced against imperfect information and patients' individual interests balanced against society's interest.

Publication Types:
    Review

PMID: 15329029 [PubMed - indexed for MEDLINE]

160: Mycoses. 2004 Aug;47(7):277-83.

Paranasal sinus aspergillosis: its categorization to develop a treatment protocol.

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A prospective study was conducted in 25 consecutive patients of paranasal sinus
aspergillosis to categorize and treat them based on a fixed treatment protocol.
The three types of aspergillosis categorized as per definitive criteria were
chronic invasive (six), non-invasive (fungus ball) (seven) and non-invasive
destructive (12). Adjuvant chemotherapy was employed in non-invasive destructive
and chronic invasive disease. Ketoconazole was used in the first variety and
itroconazole in the latter. Only two patients had recurrence after a mean
follow-up of 11 months (range: 6-20 months). They belonged to the non-invasive
destructive category and the recurrence had progressed to invasive variety. It is
suggested that non-invasive destructive disease should be followed up regularly
with endoscopic examination, CT and fungal serology to detect recurrence.
Categorization of the paranasal sinus aspergillosis helps to institute proper
treatment. Adjuvant chemotherapy in the form of ketoconazole along with surgery
is effective in non-invasive destructive disease to prevent recurrence and
progression to invasive disease. Chronic invasive disease with its propensity to
involve orbit and intracranial cavity should be managed at the earliest with
surgery and itraconazole.

PMID: 15310329 [PubMed - indexed for MEDLINE]

161: Pediatr Infect Dis J. 2004 Aug;23(8):769-73.

Interferon-gamma and colony-stimulating factors as adjuvant therapy for
refractory fungal infections in children.

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A human immunodeficiency virus-infected boy with Scedosporium apiospermum
otomastoiditis and a girl with diabetes mellitus and Mucor sinusitis and orbital

cellulitis had life-threatening disease progression despite antifungal treatment.
Interferon-gamma and granulocyte-macrophage or granulocyte colony-stimulating
factor were added, with good functional outcome in both children. Adjunctive
therapy with interferon-gamma, granulocyte-macrophage colony-stimulating factor
and granulocyte colony-stimulating factor can be considered for refractory
invasive fungal infections.

Publication Types:
    Case Reports

PMID: 15295229 [PubMed - indexed for MEDLINE]

162: Pediatrics. 2004 Aug;114(2):342-7.

Developing community-specific recommendations for first-line treatment of acute
otitis media: is high-dose amoxicillin necessary?

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OBJECTIVES: National recommendations are to use high-dose amoxicillin (80-90
mg/kg per day) to treat uncomplicated acute otitis media (AOM) in children who
are at high risk for infection with nonsusceptible Streptococcus pneumoniae
(NSSP). However, high-dose treatment may not be necessary if the local prevalence
of NSSP is low. The objective of this study was to estimate the local prevalence
of NSSP in children with acute upper respiratory illnesses and to develop
community-specific recommendations for first-line empiric treatment of AOM.
METHODS: We conducted a cross-sectional prevalence study in the offices of 7
community pediatricians in St Louis, Missouri. S pneumoniae was isolated from
nasopharyngeal swabs collected from children who were younger than 7 years and
had AOM, nonspecific upper respiratory infection, cough, acute sinusitis, or
pharyngitis. Children were excluded from the study when they had received an
antibiotic in the previous 4-week period. Parents and providers completed a brief
questionnaire to assess risk factors for carriage of NSSP. On the basis of
National Clinical Chemistry Laboratory Standards, isolates with a penicillin
minimum inhibitory concentration > or =0.12 microg/mL were considered to be

nonsusceptible to penicillin (NSSP), and isolates with a penicillin minimum
inhibitory concentration >2 microg/mL were categorized as nonsusceptible to
standard-dose amoxicillin (35-45 mg/kg per day; NSSP-A). RESULTS: S pneumoniae
was isolated from the nasopharynx of 85 (40%) of 212 study patients (95%
confidence interval [CI]: 33%-47%); 41 (48%) of 85 isolates were NSSP (95% CI:
37%-59%), and 6 (7%) were NSSP-A (95% CI: 1.5%-13%). Among the 212 study
patients, the prevalence of NSSP was 19% (95% CI: 14%-25%), and the prevalence of
NSSP-A was 3% (95% CI: 0.6%-5%). Carriage of NSSP was increased in child care
attendees compared with nonattendees (29% vs 14%; odds ratio: 2.6; 95% CI:
1.3-5.2). CONCLUSIONS: In our community, although the prevalence of NSSP among
isolates of S pneumoniae identified from the nasopharynx of symptomatic children
is high (48%), the probability of NSSP-A infection among symptomatic children is
<5%. Our data support a recommendation to treat most children who have
uncomplicated AOM with standard-dose amoxicillin. Children who attend child care
or have recently received an antibiotic may require treatment with high-dose
amoxicillin. Other communities may benefit from a similar assessment of the
prevalence of NSSP and NSSP-A.

Publication Types:
    Multicenter Study

PMID: 15286214 [PubMed - indexed for MEDLINE]

163: Cochrane Database Syst Rev. 2004;(3):CD003996.

Antibiotic prophylaxis in clean and clean-contaminated ear surgery.

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BACKGROUND: Ear surgery may be performed in the treatment of chronic otitis
media, ossicular chain disorders, tympanic membrane perforations and otitis media
with effusion. Postoperative infection in ear surgery may result in: Wound
infections Infection of the middle ear or mastoid resulting in discharge from the
ear canal Failure of the tympanic membrane to close Labyrinthitis due to
infection in, or adjacent to, the inner ear These complications may be associated

with discomfort and inconvenience for the patient, an increase in morbidity and an increase in the costs of medical care. OBJECTIVES: The objective of this review was to assess the effects of local and/or systemic antibiotics for preventing complications such as postoperative discharge, graft failure and labyrinthitis in patients undergoing clean or clean-contaminated ear surgery.
SEARCH STRATEGY: We searched MEDLINE (searched January 1966 to December 2002), EMBASE (searched January 1980 to December 2002), the Science Citation Index, The Cochrane Central Register of Controlled Trials (CENTRAL) (Cochrane Library, Issue 4 2002); the Cochrane Acute Respiratory Infections Group and Cochrane Ear, Nose and Throat Group Specialised Registers and proceedings of scientific meetings.
The date of the last search was December 2002. We also contacted investigators in the field (Govaerts, Antwerp). Bibliographies of identified articles were screened for further relevant trials. No language restriction was applied.
SELECTION CRITERIA: Randomised or quasi-randomised trials involving:
Participants: patients undergoing clean or clean-contaminated types of ear surgery. Skull base surgery was excluded. Intervention: any regimen of local and/or systemic antibiotic prophylaxis administered at or around the time of surgery compared to placebo, no antibiotic, or an alternative intervention group.
Outcome measures: infection, discharge, graft failure, labyrinthitis, adverse effects of prophylaxis. DATA COLLECTION AND ANALYSIS: When possible, investigators were contacted for additional information on data and methodological issues. At least two reviewers independently extracted data and assessed trial quality. MAIN RESULTS: Eleven studies were included in the review.
The methodological quality of the trials was fair to good. However, most studies presented insufficient detail on methodological data. Although definitions of outcome measures were heterogeneous, pooling of results was possible. There were no significant differences between antibiotic prophylaxis groups and control groups in terms of reduction of postoperative infections, graft failures, draining outer ear canals and adverse drug effects. REVIEWERS' CONCLUSIONS: There is no strong evidence that the large scale use of prophylactic of antibiotics in clean and clean-contaminated ear surgery is helpful in reducing postoperative complications such as wound infection, discharge from the outer ear canal,

labyrinthitis and graft failure.

Publication Types:
    Review

PMID: 15266512 [PubMed - indexed for MEDLINE]

164: Scand J Prim Health Care. 2004 Jun;22(2):122-7.

Management of acute maxillary sinusitis in Finnish primary care. Results from the
nationwide MIKSTRA study.

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OBJECTIVES: To study the management of acute maxillary sinusitis (AMS) in Finnish
primary care and to compare it both to recommendations in national guidelines and
to the management of other upper respiratory tract infections (URTI). DESIGN: A
cross-sectional multi-centre epidemiological survey. SETTING: Thirty primary care
health centres in Finland. SUBJECTS: 7284 patients with symptoms of possible
acute rhinosinusitis during one week in both November 1998 and November 1999.
MAIN OUTCOME MEASURE: Symptoms and their duration, use of diagnostic tools,
choice of antibiotics, patient outcomes. RESULTS: A total of 1601 patients were
diagnosed as having AMS (12% of all patients with infectious disease). In 45% of
cases the differentiation between AMS and URTI was based on clinical examination
alone. Sinus ultrasound was the most common diagnostic tool used (38%). Sinus
radiography or blood tests (CRP or leukocytes) were both studied in 8% of cases.
AMS was diagnosed and treated with antibiotics also in the early stages of URTI
when viruses are the most likely explanation. In total, 83% of patients with AMS
received a prescription for antibiotics; the most common choice was amoxycillin
(37%), doxycycline was used in 29% of cases, and macrolides in 15%. CONCLUSIONS:
Antibiotics are prescribed for AMS 2 to 5 times more often than true disease
incidence would suggest in Finland. The choice of antibiotics follows the
guideline recommendations; however, use of macrolides is higher than recommended.
Physicians feel strong pressure from patients to prescribe antibiotics for AMS.

Primary care physicians need better support in the accurate diagnosis of AMS.

Publication Types:
    Comparative Study
    Multicenter Study

PMID: 15255494 [PubMed - indexed for MEDLINE]

165: Laryngoscope. 2004 Jul;114(7):1318; author reply 1318.

Comment on:
    Laryngoscope. 2003 Oct;113(10):1780-5.

Is it spontaneous resolution or macrolide efficacy?

Ferguson BJ.

Publication Types:
    Comment
    Letter

PMID: 15235369 [PubMed - indexed for MEDLINE]

166: Respir Care. 2004 Jul;49(7):783-92.

Evidence-based asthma management.

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In 2002 the National Asthma Education and Prevention Program published evidence-based guidelines for the diagnosis and management of asthma, but there are some unresolved asthma-management issues that need further research. For asthmatic children inhaled corticosteroids are more beneficial than as-needed use of beta(2) agonists, long-acting beta(2) agonists, theophylline, cromolyn sodium, nedocromil, or any combination of those. Leukotriene modifiers are an alternative but not a preferred treatment; they should be considered if the medication needs to be administered orally rather than via inhalation. Cromolyn sodium and nedocromil are effective long-term asthma-control medications, but they are not as effective as inhaled corticosteroids. There is insufficient evidence to determine whether cromolyn benefits maintenance of childhood asthma. Cromolyn sodium and nedocromil are alternatives, but not preferred treatments for mild persistent asthma. Cromolyn may be useful as a preventive therapy prior to exertion or unavoidable exposure to allergens. Regular inhalation of corticosteroids controls asthma significantly better than as-needed beta(2)

agonists. No studies have examined the long-term impact of regular inhaled
corticosteroids on lung function in children <or= 5 years old. As monotherapy,
inhaled corticosteroids are more effective than long-acting beta(2) agonists. The
asthma-control benefit of inhaled corticosteroids decidedly outweighs the risks
from inhaled corticosteroids. There is no high-level evidence that
low-to-medium-dose inhaled corticosteroids have ocular toxicity or important
effects on hypothalamic-pituitary-adrenal function in children. Antibiotic
therapy has no role in asthma management unless there is a bacterial comorbidity,
but further research is needed on the relationship between sinusitis and asthma
exacerbation. The asthma care plan should include a written asthma action plan
for the patient, but there is inadequate evidence as to whether the asthma action
plan should be based on symptoms or on peak flow monitoring. There is low-level
evidence that helium-oxygen mixture (heliox) may be of benefit in the first hour
of an acute asthma attack but less advantageous after that first hour.
Metered-dose inhalers are no more or less effective, overall, than other
aerosol-delivery devices for the delivery of beta(2) agonists or inhaled
corticosteroids, so the least expensive delivery method should be chosen.

Publication Types:
    Comparative Study
    Review

PMID: 15222910 [PubMed - indexed for MEDLINE]

167: Drugs. 2004;64(13):1433-64.

Cefdinir: a review of its use in the management of mild-to-moderate bacterial
infections.

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Cefdinir (Omnicef) is an oral third-generation cephalosporin with good in vitro
activity against many pathogens commonly causative in community-acquired
infections. The drug provides good coverage against Haemophilus influenzae,
Moraxella catarrhalis and penicillin-susceptible Streptococcus pneumoniae, the
most common respiratory tract pathogens. Cefdinir is stable to hydrolysis by

commonly occurring plasmid-mediated beta-lactamases and retains good activity against beta-lactamase-producing strains of H. influenzae and M. catarrhalis. The drug distributes into various tissues (e.g. sinus and tonsil) and fluids (e.g. middle ear), and has a pharmacokinetic profile that allows for once- or twice-daily administration.Cefdinir, administered for 5 or 10 days, has shown good clinical and bacteriological efficacy in the treatment of a wide range of mild-to-moderate infections of the respiratory tract and skin in adults, adolescents and paediatric patients in randomised, controlled trials. In adults and adolescents, cefdinir is an effective treatment for both lower (acute bacterial exacerbations of chronic bronchitis [ABECB], community-acquired pneumonia) and upper (acute bacterial rhinosinusitis, streptococcal pharyngitis) respiratory tract infections, and uncomplicated skin infections. Its bacteriological and clinical efficacy in patients with lower respiratory tract infections was equivalent to that of comparator agents (cefprozil [bacteriological only], loracarbef, cefuroxime axetil and cefaclor). In one trial in patients with ABECB, cefdinir produced a higher rate of clinical cure than cefprozil (95% CIs indicated nonequivalence). Cefdinir also produced good clinical and bacteriological responses equivalent to responses with amoxicillin/clavulanic acid in patients with acute bacterial rhinosinusitis. In addition, it was at least as effective as penicillin V (phenoxymethylpenicillin) in streptococcal pharyngitis/tonsillitis and as effective as cefalexin in uncomplicated skin infections. In paediatric patients aged > or =6 months, cefdinir showed similar efficacy to that of amoxicillin/clavulanic acid or cefprozil in acute otitis media, and cefalexin in uncomplicated skin infections.
Cefdinir given for 5 or 10 days was at least as effective as penicillin V for 10 days in patients with streptococcal pharyngitis/tonsillitis. Cefdinir is usually well tolerated. Diarrhoea was the most common adverse event in trials in all age groups. Although the incidence of diarrhoea in cefdinir recipients was generally higher than in adults and adolescents treated with comparators, discontinuation rates due to adverse events were generally similar for cefdinir and comparator groups.In conclusion, cefdinir is a third-generation cephalosporin with a broad spectrum of antibacterial activity encompassing pathogens that are commonly

causative in infections of the respiratory tract or skin and skin structure.
Depending on the infection being treated, cefdinir can be administered as a
convenient once- or twice-daily 5- or 10-day regimen. Clinical evidence indicates
that cefdinir is an effective and generally well tolerated drug with superior
taste over comparator antibacterial agents and is therefore a good option for the
treatment of adults, adolescents and paediatric patients with specific
mild-to-moderate respiratory tract or skin infections, particularly in areas
where beta-lactamase-mediated resistance among common community-acquired
pathogens is a concern.

Publication Types:
    Review

PMID: 15212560 [PubMed - indexed for MEDLINE]

168: Zhonghua Liu Xing Bing Xue Za Zhi. 2004 Mar;25(3):261-4.

[A case-control study on risk factors of hypospadias]

[Article in Chinese]

Wang JP, Wang BY.

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Daqing 163001, China.

OBJECTIVE: Hypospadias is one of the most commonly seen urogenital congenital
malformations in males and to identify its etiological factors.
METHODS: A
hospital-based case-control study was conducted, with 107 hypospadias cases. Two
matched controls per case were randomly selected. Both cases and controls were
face to face interviewed with a uniformed questionnaire. Conditional logistic
regression model was used for univariable and multivariate analysis on SAS 6.12
to estimate odds ratios (OR) and 95 per cent confidence internals (95% CI).
RESULTS: Data from multiple conditional logistic regression analysis showed that
hypospadias was positively associated with maternal history of spontaneous
abortion (OR = 3.87, 95% CI: 1.60 - 9.39), with threatened abortion in the first
or second trimester (OR = 3.57, 95% CI: 1.31 - 9.64), with common cold
accompanied fever in the first trimester (OR = 7.63, 95% CI: 2.50 - 23.24), with
maternal drug (antibiotic, analgesiscs) exposure during the second trimester (OR
= 16.46, 95% CI: 3.46 - 78.21), with paternal exposure to pesticides

occupationally (OR = 3.70,95% CI: 1.49 - 9.16), with neonatal low birth weight
(OR = 12.62, 95% CI: 2.97 - 53.67), but was negatively associated with maternal
diet supplemented with protein in the first trimester (OR = 0.33, 95% CI: 0.15 -
0.74). CONCLUSIONS: The risk factors of hypospadias seemed to include maternal
history of spontaneous abortion, threatened abortion in the first or second
trimester, maternal common cold accompanied fever in the first trimester,
maternal drug exposure during the second trimester, paternal occupational
exposure to pesticides, neonatal low birth weight. However, maternal diet
supplemented with protein probably acted as the protective factor for neonatal
hypospadias in the first trimester.

Publication Types:
    English Abstract

PMID: 15200944 [PubMed - indexed for MEDLINE]

169: Ophthal Plast Reconstr Surg. 2004 May;20(3):217-23.

Manifestations of fungal cellulitis of the orbit in children with neutropenia and
fever.

McCarty ML, Wilson MW, Fleming JC, Thompson JW, Sandlund JT, Flynn PM, Knapp KM,
Haik BG, Ribeiro RC.

Department of Ophthalmology, University of Tennessee Health Science Center,
Memphis, Tennessee, USA.

PURPOSE: To delineate clinical manifestations of fungal orbital cellulitis in
immunocompromized patients. METHODS: The charts of 7 pediatric patients with
fungal orbital cellulitis treated at a tertiary children's cancer hospital were
reviewed retrospectively for histologically confirmed fungal sinusitis with
associated orbital cellulitis. Patients underwent CT and/or MRI of the orbits,
sinuses, and brain; surgery; and therapy with antifungal medications. Main
outcome measures were presenting signs and patient survival. RESULTS: Twenty-four
patients with fungal sinusitis were identified, 7 of whom (4 months to 15 years
of age) had documented orbital fungal cellulitis. All 7 patients presented with
neutropenia and fever. Presenting symptoms included edema of the upper eyelid
(n=4), headache (n=1), and facial pain (n=1). One patient was asymptomatic.

Although antifungal therapy was initiated within 24 hours of presentation,
disease progressed, and 5 patients eventually died of their infections.
CONCLUSIONS: Because fungal orbital cellulitis can be fatal even if detected
early in patients who are immunocompromised, ophthalmologists and otolaryngologists should be alert to the disease's subtle clinical manifestations.

Publication Types:
    Case Reports
    Research Support, Non-U.S. Gov't

PMID: 15167730 [PubMed - indexed for MEDLINE]

170: J Clin Epidemiol. 2004 Apr;57(4):429-34.

Back-up antibiotic prescriptions could reduce unnecessary antibiotic use in
rhinosinusitis.

Martin CL, Njike VY, Katz DL.

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OBJECTIVES: To examine the attitudes of patients with rhinosinusitis toward the
availability of "back-up" antibiotics, and potential implications for antibiotic
use rates. STUDY DESIGN AND SETTING: A survey that assessed actual and hypothetical antibiotic prescription patterns was administered to a convenience
sample of patients treated for rhinosinusitis in one acute care facility between
September 1 and December 1, 2001. RESULTS: Of 386 eligible patients, 114
completed the survey. Seventy-six percent of patients expected antibiotic
treatment; satisfaction rates were significantly associated with receiving an
antibiotic prescription (P <.05). Over two-thirds of patients (69.7%) reported
preference for back-up antibiotic prescriptions in the future, with 91.1% stating
they would wait at least 1 day, and 52.7% at least 7 days, to fill a backup
prescription. In sensitivity analysis, back-up prescriptions significantly
reduced antibiotic use over a wide range of assumptions. CONCLUSIONS: The
majority of patients with rhinosinusitis in this study expected antibiotic
prescriptions, and were more satisfied if they were received. Back-up antibiotics
have the potential to reduce unnecessary antibiotic use, mitigate risk of
nontreatment, and preserve high levels of patient satisfaction.

Publication Types:

Research Support, Non-U.S. Gov't
Research Support, U.S. Gov't, P.H.S.

PMID: 15135847 [PubMed - indexed for MEDLINE]

171: Int J Pediatr Otorhinolaryngol. 2004 Jun;68(6):785-93.

Nutritional supplements as adjunctive therapy for children with chronic/recurrent sinusitis: pilot research.

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OBJECTIVE: Inflammation and edema of the sinonasal mucosa are important in the pathophysiology of sinusitis. Based on the similarities between otitis media (OM) and sinusitis, and our previous research on OM, we hypothesized that nutritional supplements would be effective adjunctive therapy for the treatment of children with chronic/recurrent sinusitis. METHODS: We performed a 4 month, open-label, dose-titration study; subjects were enrolled from late January to early March 2003. Each subject served as his own control. Study supplements were a lemon-flavored cod liver oil and a children's multivitamin-mineral with selenium, prescribed in escalating doses; at higher doses, fish oil was substituted for cod liver oil. Subjects were private pediatric otolaryngology outpatients with a clinical diagnosis of chronic/recurrent sinusitis, whose symptoms were refractory to treatment with antibiotics. RESULTS: Our four subjects were Caucasian males, ranging in age from 4.2 to 9.8 years, with chronic/recurrent sinusitis for at least 3 years prior to entry in the study. Three subjects had a positive response; one subject dropped out for administrative reasons. Four, six, and eight weeks after beginning study supplements, the responders had decreased sinus symptoms, fewer episodes of acute sinusitis, and fewer doctor visits for acute illnesses. Their parents reported that they had begun to recover from upper respiratory illnesses without complications, which was unusual for these children, as was improvement in springtime; their improvement had previously been limited to the summer months or periods of home-schooling. CONCLUSIONS: Use of flavored cod liver oil and a multivitamin-mineral with selenium as adjunctive

therapy for children with chronic/recurrent sinusitis is an inexpensive, non-invasive intervention that clinicians can use for selected patients, pending the performance of definitive, large, well-controlled studies.

Publication Types:
    Case Reports
    Clinical Trial
    Controlled Clinical Trial
    Research Support, Non-U.S. Gov't

PMID: 15126020 [PubMed - indexed for MEDLINE]

172: Scand J Infect Dis. 2004;36(3):213-8.

Excessive use of rapid tests in respiratory tract infections in Swedish primary health care.

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A 1-y retrospective study of problem oriented electronic patient records, for encounters concerning respiratory tract infection, was performed. The aim was to analyse the management of respiratory tract infections in primary health care in terms of diagnostic coding, tests and antibiotic treatment using data from electronic patient records. 12 primary health care centres with a registered population of 102,050 residents in 3 counties in southeast Sweden participated. Data were retrieved electronically from records of patient encounters concerning respiratory tract infections. The data were: patient age and gender, date of contact, diagnostic code, CRP and GABHS tests and results, as well as antibiotic prescriptions. In a total of 19,965 encounters, the most frequent diagnoses were common cold (40%), acute tonsillitis (18%), and acute bronchitis (15%). A total of 4445 GABHS tests (in 22% of encounters) and 6141 CRP tests (31%) were performed, and both tests were done in 1910 encounters (10%). A total of 7934 antibiotic prescriptions were registered. The proportion of patients tested and prescribed an antibiotic varied greatly between centres. We found an excessive, and much varying, use of rapid tests in encounters for respiratory tract infections. Data retrieval from electronic patient record systems was a feasible method to study the use of laboratory tests in relation to pharmacological treatment.

Publication Types:
    Comparative Study
    Research Support, Non-U.S. Gov't

PMID: 15119368 [PubMed - indexed for MEDLINE]

173: Indian J Pediatr. 2004 Apr;71(4):319-24.

Efficacy and tolerability assessment of cefprozil in children with acute otitis media.

Gupta N, Bagga V, Parmar BJ, Kar K, Mukherjee A, Mehta S, Moharana AK.

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Young children contract as many as six to eight upper respiratory tract viral infections per year, and these infections frequently lead to secondary bacterial infections such as acute otitis media and sinusitis. Cefprozil is an orally active third generation cephalosporin which has demonstrated activity against the gram-positive organisms Streptococcus pyogenes, pneumoniae and agalactiae and against methicilin-susceptible Staphylococcus aureus. Cefprozil is also active against various gram-ves and certain anaerobic organisms, and is stable to hydrolysis by a number of b-lactamases. Present study is an effort to study the efficacy and safety of cefprozil in children with acute otitis media. Three hundred and thirty four children aged 6 months through 12 years with clinical symptoms and tympanic membrane signs of AOM received cefprozil 30 mg/kg/day in two divided doses per day for 10 days. Clinically, 96.6% patients were cured, 2.4% improved and there was failure of therapy in 1% of the patients. There was no need for any rescue medication and any change in antibiotic in any patient. A satisfactory bacteriological outcome was (i.e. cure, presumed cure, and cure plus reinfection with a different pathogen) was achieved in 95% of patients. In conclusion, cefprozil is a well tolerated and effective drug for acute otitis media in children. Moreover, its expanded spectrum of activity, ability to achieve adequate concentrations in tissues, suitability for twice-daily dosing, and proven tolerability suggest that it is a better alternative to agents conventionally used in acute otitis media.

Publication Types:

Clinical Trial
Multicenter Study

PMID: 15107512 [PubMed - indexed for MEDLINE]

174: Ann Pharmacother. 2004 Jun;38(6):928-35. Epub 2004 Apr 20.

Trends in emergency department antibiotic prescribing for acute respiratory tract infections.

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BACKGROUND: Injudicious use of antibiotics is associated with the reported rise in antibiotic-resistant bacteria. With an estimated 26 million antibiotics being prescribed annually in the emergency department (ED), the ED represents an important setting for targeting interventions. OBJECTIVE: To provide national estimates of potentially inappropriate antibiotic prescribing during ED visits for acute respiratory tract infections (ARTIs) and examine associations between patient, provider, visit characteristics, and antibiotic prescribing patterns.
METHODS: A cross-sectional study was conducted of ED visits for ARTIs, identified from pooled 1995-2000 National Hospital Ambulatory Medical Care Survey data. National estimates, descriptive statistics, and multivariate analyses were used to assess antibiotic prescribing patterns. RESULTS: An estimated 51.3 million ED visits for ARTIs occurred during the study period, 62% of which had an antibiotic prescribed. For a narrowly defined subset of ARTIs, where antibiotic therapy is nearly always inappropriate (eg, nasopharyngitis, ARTI of multiple or unspecified sites, acute bronchitis), the percentage decreased over the 6-year period from 57% to 44% ($p < 0.01$). For children ED visits, however, the downward trend occurred almost exclusively in urban EDs. Compared with visits in which a resident or intern physician was involved, the odds of antibiotic prescribing for child ED ARTI visits were 2.2 times higher for staff physicians (95% CI 1.3 to 3.6) and 1.8 times higher for nonphysicians with prescribing privileges (95% CI 1.3 to 2.4). CONCLUSIONS: ED antibiotic prescribing for ARTIs has decreased from

1995 to 2000, but still is occurring in well over half of ED visits for ARTI.
Further research assessing knowledge and attitudes of patients and providers
about antibiotic prescribing is needed.

Publication Types:
    Research Support, Non-U.S. Gov't
    Research Support, U.S. Gov't, P.H.S.

PMID: 15100390 [PubMed - indexed for MEDLINE]

175: Pediatr Pulmonol. 2004 May;37(5):400-6.

Pulmonary exacerbations in cystic fibrosis.

Rabin HR, Butler SM, Wohl ME, Geller DE, Colin AA, Schidlow DV, Johnson CA,
Konstan MW, Regelmann WE; Epidemiologic Study of Cystic Fibrosis.

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The clinical characteristics most relevant to the decision to treat for a
pulmonary exacerbation with antibiotics in cystic fibrosis patients were
determined. Variables including age, increased cough frequency and sputum
production, new crackles and wheezing, asthma, symptomatic sinusitis, hemoptysis,
decreased lung function, weight loss, and new acquisition of Pseudomonas
aeruginosa were collected in a large prospective multicenter database
(Epidemiologic Study of Cystic Fibrosis). During a 12-month baseline period, data
from 11692 patients were compared with data collected during the subsequent
6-month study period. Because pulmonary function assessments were unavailable for
patients <6 years of age, separate analyses were done for those <6 and >or=6
years of age. The outcome of interest was any antibiotic treatment in the 6-month
study period reported as indicated for an exacerbation. Characteristics with the
most discriminatory power were determined using stepwise multiple logistic
regression. For patients <6 years of age, the strongest independent associations
with treatment for a pulmonary exacerbation were new crackles, increased cough
frequency, decline in weight, and increased sputum production. For those patients
>or=6 years of age, the strongest independent associations were a relative
decrease in percent predicted forced expired volume in 1 sec, increased cough
frequency, new crackles, and hemoptysis. The presence of three or more of these

key characteristics was strongly associated with the occurrence of a treated
exacerbation. The reproducibility of the model over time was confirmed by
application to a subsequent set of data. This model has potential for use as an
outcome measure in clinical trials, and to assist in treatment decisions for
individual patients. Copyright 2004 Wiely-Liss, Inc.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 15095322 [PubMed - indexed for MEDLINE]

176: An Otorrinolaringol Ibero Am. 2004;31(1):77-86.

[Brain abscess secondary to rhinosinusitis. Therapeutical modalities. Exposition
of one case]

[Article in Spanish]

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Brain abscess (BA) as complication of sinusitis represent around 3% of the cases.
Other suppurative intracraneal complications such as epidural abscess, subdural
empyema and meningitis are more common than BA. The frontal and ethmoid sinuses
form an integral part of anterior and to a lesser extent middle skull base to
which the dura is intimately related. Thrombophlebitis of veins associated with
paranasal sinuses is considered to be the main route of intracraneal spread of
infection. However, osteitis is an uncommon mechanism that typically involves
frontal sinus. Chronic sinusitis more than fulminant course of acute sinusitis is
often responsible for BA. Epidemiology of BA has changed with the increasing
incidence of this infection in inmunocompromised patient and the decreasing
incidence related to sinus infection. Mortality rate of BA were around 35-55%
before CT scan era and with surgical excision as the rule of surgical treatment.

Publication Types:
    Case Reports
    English Abstract

PMID: 15074275 [PubMed - indexed for MEDLINE]

177: Scand J Infect Dis. 2004;36(2):139-43.

Data from electronic patient records are suitable for surveillance of antibiotic
prescriptions for respiratory tract infections in primary health care.

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Diagnoses and antibiotic treatments were analysed in relation to respiratory
tract infections (RTI). A 1-y retrospective study was made of electronic patient
records (EPR) for encounters concerning RTIs in primary health care in Sweden.
The study covered a registered population of 102,050 individuals at 12 primary
health care centres in 3 counties. Data were recorded on number of episodes,
encounters, diagnostic codes and antibiotic prescriptions. The yearly number of
episodes of RTIs was 16,964 or 166 per 1000 inhabitants per y. The total number
of encounters was 19,965. The most frequent diagnoses were common cold (40%),
acute tonsillitis (18%), and acute bronchitis (15%). The yearly number of
antibiotic prescriptions was 7961, accounting for 47% of the episodes or 78 per
1000 inhabitants per y. The most frequently prescribed antibiotics were
phenoxymethylpenicillin (61%), tetracyclines (18%) and macrolides 8%). Standard
EPRs provide a feasible source of clinical information which, taking limitations
into consideration, could be used for the follow-up of trends in antibiotic
prescribing and of adherence to guidelines with regard to RTIs.

Publication Types:
    Comparative Study
    Research Support, Non-U.S. Gov't

PMID: 15061670 [PubMed - indexed for MEDLINE]

178: Otolaryngol Pol. 2003;57(6):829-33.

[Efficacy of clarithromycin (Fromilid) in treatment of uncomplicated acute
bacterial rhinosinusitis in children]

[Article in Polish]

Hassmann-Poznańska E, Skotnicka B, Baczek M.

Klinika Otolaryngologii Dzieciecej AM w Białymstoku.

The results of treatment of acute rhinosinusitis in children are presented. The
study was based on retrospective analysis of data of 34 children treated with

clarithromycin (Fromilid). The clinical efficacy of this drug was confirmed by
the study.

Publication Types:
    English Abstract

PMID: 15049183 [PubMed - indexed for MEDLINE]

179: Pediatr Pulmonol Suppl. 2004;26:95-7.

New treatments for pediatric sinusitis.

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Sciences, New University of Lisbon, Portugal. carlosruah@netcabo.pt

PMID: 15029612 [PubMed - indexed for MEDLINE]

180: Ann Pharmacother. 2004 May;38(5):749-54. Epub 2004 Mar 16.

Clinical experience with moxifloxacin in patients with respiratory tract
infections.

Faich GA, Morganroth J, Whitehouse AB, Brar JS, Arcuri P, Kowalsky SF, Haverstock
DC, Celesk RA, Church DA.

Pharmaceutical Safety Assessments, Inc., Narberth, PA 19072-2156, USA. gfaich@yahoo.com

BACKGROUND: Moxifloxacin is an advanced-generation fluoroquinolone used primarily
for the treatment of respiratory tract infections. OBJECTIVE: To further
investigate moxifloxacin's general and cardiac safety and evaluate its efficacy
in the community practice setting in a large surveillance study. METHODS: A total
of 18,409 outpatients with suspected bacterial episodes of acute sinusitis, acute
exacerbation of chronic bronchitis, or community-acquired pneumonia of mild to
moderate severity were enrolled at 3377 community practice sites. Patients with
sinusitis or pneumonia received once-daily oral moxifloxacin 400 mg for 10 days;
those with bronchitis received 5 days' treatment. At follow-up, within 48 hours
after the end of treatment, adverse event information was collected. An external
safety committee assessed possible cardiac-related events. Efficacy was also
evaluated at follow-up via the degree of resolution of clinical signs and
symptoms. RESULTS: Of 18,374 safety-valid patients, 17.7% experienced adverse

events and 14.3% experienced drug-related adverse events. The most common drug-related adverse events were nausea (5.3%), diarrhea (2.2%), and dizziness (2.0%). There was no clinical evidence of increased risk of cardiac arrhythmias with moxifloxacin treatment. Of 17,137 patients included in the efficacy analysis, 92.9% overall experienced clinical cure or improvement (92.8% with sinusitis, 92.9% with bronchitis, 94.1% with pneumonia). CONCLUSIONS: Once-daily oral moxifloxacin 400 mg was shown to be safe and effective in this trial for the treatment of respiratory tract infections of suspected bacterial origin in the clinical practice setting.

Publication Types:
    Clinical Trial
    Research Support, Non-U.S. Gov't

PMID: 15026565 [PubMed - indexed for MEDLINE]

181: Rev Prat. 2003 Nov 30;53(18):2064-70.

[Cough in the child and in the adult (with treatment)]

[Article in French]

Menetrey C, Melloni B.

Service de pêdiatrie, CHU Limoges.

Publication Types:
    Comparative Study
    Review

PMID: 15008223 [PubMed - indexed for MEDLINE]

182: Clin Exp Allergy. 2004 Mar;34(3):398-405.

Bacillus Calmette-Guérin-induced interleukin-12 did not additionally improve clinical and immunologic parameters in asthmatic children treated with sublingual immunotherapy.

Arikan C, Bahceciler NN, Deniz G, Akdis M, Akkoc T, Akdis CA, Barlan IB.

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OBJECTIVE: To evaluate the effect of bacillus Calmette-Guérin (BCG) as an adjuvant to specific sublingual immunotherapy (SLIT) on the cytokine profile of peripheral blood mononuclear cells (PBMCs) and clinical outcome. METHODS:

Thirty-two children with asthma and rhinitis allergic to house dust mite (HDM)
with negative purified protein derivative (PPD) skin test response were enrolled.
After a run-in period of 8 weeks, patients were randomized to receive either SLIT
only (n=16) or one dose of BCG immunization before initiation of SLIT (n=16) with
a standardized Dermatophagoides pteronyssinus (D. pteronyssinus)+D. farinea 50/50
extract. PPD-negative asthmatics (n=5) allergic to HDM receiving inhaled therapy
only were included for comparison of cytokine levels in PBMC cultures. Efficacy
was assessed both at the end of run-in and 6 months of treatment periods with
criteria including symptom, medication and quality-of-life (QoL) scores, IgE
levels, lung function, provocation concentration (PC20), eosinophil count and
skin prick tests. IL-4, IL-5, IL-10, IL-12, IL-13 and IFN-gamma levels were
determined in antigen specifically and polyclonally stimulated PBMC cultures.
RESULTS: Both treatment groups showed significant improvement at the end of 6
months for asthma and rhinitis scores and QoL, number of asthma attacks, amount
of beta2-agonists, inhaled and intranasal steroids, blood eosinophil counts and
PC20. Interestingly, phytohaemagglutinin (PHA)-stimulated IL-12 and D.
pteronyssinus-stimulated IFN-gamma in PBMC were significantly higher in the
treatment groups than controls. In addition, IL-12 levels in response to D.
pteronyssinus and PHA stimulation were significantly higher in the SLIT+BCG group
than the SLIT alone group and controls. CONCLUSION: The present study
demonstrates that successful SLIT is parallel to increased IFN-gamma production
by PBMC. Although simultaneous BCG vaccination enhanced IL-12 production, it did
not additionally improve the clinical outcome.

Publication Types:
    Clinical Trial
    Comparative Study
    Randomized Controlled Trial
    Research Support, Non-U.S. Gov't

PMID: 15005733 [PubMed - indexed for MEDLINE]

183: J Fam Pract. 2004 Mar;53(3):237-40.

Clinical inquiries. Do antibiotics improve outcomes in chronic rhinosinusitis?

Duiker SS, Parker S, Hensel WA.

Department of Family Medicine, University of Colorado Health Sciences Center,

Denver, CO, USA.

Publication Types:
    Review

PMID: 15000933 [PubMed - indexed for MEDLINE]

184: Arch Otolaryngol Head Neck Surg. 2004 Feb;130(2):201-7.

Age-, site-, and time-specific differences in pediatric deep neck abscesses.

Coticchia JM, Getnick GS, Yun RD, Arnold JE.

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OBJECTIVE: To clarify presentations, organisms, and locations of deep neck abscesses in children. DESIGN: Retrospective review. SETTING: Tertiary children's hospital. The study population comprised 169 patients younger than 19 years who were surgically treated for deep neck abscesses between 1989 and 1999. MAIN OUTCOME MEASURE: Resolution of abscess. RESULTS: Neck mass (91%), fever (86%), cervical adenopathy (83%), poor oral intake (66%), and neck stiffness (59%) were common in all ages. Patients younger than 4 years, compared with patients 4 years or older, presented with agitation (50% vs 14%), cough (35% vs 14%), drooling (27% vs 12%), lethargy (46% vs 33%), oropharyngeal abnormalities (45% vs 60%), respiratory distress (5% vs 2%), retractions (5% vs 2%), rhinorrhea (53% vs 15%), stridor (4% vs 2%), and trismus (14% vs 53%). Children younger than 1 year were infected with Staphylococcus aureus (79%) vs group A streptococcus (6%). Children 1 year or older were infected with group A streptococcus (29%) vs S aureus (16%). Retropharyngeal or parapharyngeal regions were involved in children 1 year or older (49%) vs younger than 1 year (21%). Anterior or posterior triangles and submandibular or submental regions were involved in 39% and 36%, respectively, of children younger than 1 year vs 30% and 23%, respectively, of children 1 year or older. Retropharyngeal and parapharyngeal abscesses yielded group A streptococcus (34%) vs S aureus (11%). Anterior and posterior triangle abscesses yielded S aureus (35%) vs group A streptococcus (19%), as did submandibular and submental abscesses (42% vs 19%). CONCLUSIONS: Abscesses in children younger than 1 year

affected anterior or posterior triangles and submandibular or submental regions,
yielding S aureus. Abscesses in children 1 year or older affected retropharyngeal
or parapharyngeal regions, yielding group A streptococcus.

PMID: 14967751 [PubMed - indexed for MEDLINE]

185: Allergy. 2004 Feb;59(2):192-7.

Monosodium benzoate hypersensitivity in subjects with persistent rhinitis.

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Verona, Verona, Italy.

BACKGROUND: Very few data are available from the literature on whether nonatopic
subjects affected by persistent rhinitis may show the appearance of objective
symptoms of rhinitis after the ingestion of food additives such as tartrazine
(E102), erythrosine (E127), monosodium benzoate (E211), p-hydroxybenzoate (E218),
sodium metabisulphite (E223), and monosodium glutamate (E620). It is still
unclear whether the ingestion of food additive may cause, as well, a consensual
reduction of nasal peak inspiratory flow (NPIFR). Therefore, we used a
double-blind placebo-controlled (DBPC) study to evaluate this hypothesis.
PATIENTS AND METHODS: Two hundred and twenty-six consecutive patients (76 males
and 150 females) aged 12-60 years (mean age 40.2 +/- 16.3 years). After 1 month
of an additive-free diet regimen, an open challenge was carried out (food
additive-rich diet for 2 weeks). After this period, challenges were administered
in a DBPC manner using the above-mentioned substances under investigation.
RESULTS: Twenty of 226 subjects (8.8%) reported an improvement of the symptoms of
rhinitis after additive-free diet. More precisely, six of 226 (2.6%) were
symptom-free and 14 of 226 (6.2%) showed an improvement in their symptoms after
an additive-free diet. As far as the results for DBPC are concerned, 20
challenges with monosodium benzoate induced both objective (i.e. sneezing and
rhinorrhoea) and subjective symptoms (nasal blockage and nasal itching) of
rhinitis with reduction of NPIFR >/=20%, 45 challenges induced subjective
symptoms of rhinitis (i.e. nasal blockage and nasal itching), without reduction

of NPIFR >/=20% of the basal value, two with tartrazine, seven with erythrosine, 19 with monosodium benzoate, three with p-hydroxybenzoate, six with sodium metabisulphite, and eight with monosodium glutamate, respectively. CONCLUSIONS: The observation that nonatopic persistent rhinitis may be caused by the frequent, probably daily, ingestion of small doses of a nontolerated substance is intriguing and suggests that at least some patients with 'chronic vasomotor rhinitis' may be intolerant to a particular food additive. Therefore, food additives can be considered triggers or aggravating factors, rather than aetiological factors.

Publication Types:
Research Support, Non-U.S. Gov't

PMID: 14763933 [PubMed - indexed for MEDLINE]

186: J Antimicrob Chemother. 2004 Feb;53(2):399-402. Epub 2004 Jan 16.

Antimicrobial resistance in the nasopharyngeal flora of children with acute maxillary sinusitis and maxillary sinusitis recurring after amoxicillin therapy.

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OBJECTIVE: To investigate the antimicrobial susceptibility of the organisms isolated from the nasopharynx of children who present with acute maxillary sinusitis (AMS) or maxillary sinusitis that recurred (RMS) after amoxicillin therapy. METHODS: Analysis of nasopharyngeal cultures obtained from 70 patients, 42 with AMS and 28 with RMS. RESULTS: Thirty-eight potentially pathogenic organisms were recovered in 36 (86%) of the children from the AMS group, and 40 were isolated from 26 (93%) of the children from the RMS group. The organisms isolated were Streptococcus pneumoniae (21 isolates), Haemophilus influenzae non-type b (17), Moraxella catarrhalis (15), Streptococcus pyogenes (13) and Staphylococcus aureus (12). Resistance to the eight antimicrobial agents used was found in 34 instances in the AMS group compared to 93 instances in the RMS group ($P < 0.005$). The difference between AMS and RMS was significant with S.

pneumoniae resistance to amoxicillin (P < 0.0025), to co-amoxiclav (P < 0.0025),
to trimethoprim-sulfamethoxazole (P < 0.05), to cefixime (P < 0.05), and to
azithromycin (P < 0.05), and for H. influenzae to amoxicillin (P < 0.025).
CONCLUSIONS: These data illustrate the higher recovery rate of antimicrobial-resistant S. pneumoniae and H. influenzae from the nasopharynx of
children who had maxillary sinusitis that recurred after amoxicillin therapy than
those with AMS.

PMID: 14729759 [PubMed - indexed for MEDLINE]

187: Transplantation. 2004 Jan 15;77(1):134-6.

Effects of sinus surgery in patients with cystic fibrosis after lung transplantation: a 10-year experience.

Holzmann D, Speich R, Kaufmann T, Laube I, Russi EW, Simmen D, Weder W, Boehler
A.

Department of Otorhinolaryngology, Head and Neck Surgery, University Hospital,
Zurich, Switzerland.

Chronic infectious rhinosinusitis with Pseudomonas aeruginosa is common in cystic
fibrosis and may result in allograft infection after lung transplantation. Sinus
surgery followed by nasal care may reduce these adverse effects. Sinus surgery
was performed in 37 patients with cystic fibrosis after transplantation.
Bacteriology of sinus aspirates (n=771) and bronchoalveolar lavage (BAL) (n=256)
was correlated with clinical data. Sinus surgery was successful in 54% and
partially successful in 27% of patients. A significant correlation between
negative sinus aspirates and negative BAL and between positive sinus aspirates
and positive BAL (P<0.0001) was found. Successful sinus management led to a lower
incidence of tracheobronchitis and pneumonia (P=0.009) and a trend toward a lower
incidence of bronchiolitis obliterans syndrome (P=0.23). Sinus surgery followed
by daily nasal douching may control posttransplant lower airway colonization and
infection. In the long term, this concept may lead to less bronchiolitis
obliterans syndrome by decreasing bronchiolar inflammation.

PMID: 14724449 [PubMed - indexed for MEDLINE]

188: Jpn J Antibiot. 2003 Apr;56 Suppl A:167-70.

[Guidelines in macrolide therapy for children with suppurative otitis media]

[Article in Japanese]

Iino Y, Esawa T, Kobayashi H, Enomoto F, Suzaki H, Hashiba M, Mashima Y, Baba S.

Publication Types:
    Review

PMID: 14679776 [PubMed - indexed for MEDLINE]

189: Jpn J Antibiot. 2003 Apr;56 Suppl A:154-7.

[Combined therapy for patients with chronic paranasal sinusitis using a macrolide
antibiotic and YAMIK catheter]

[Article in Japanese]

Watanabe T, Ichinomiya K, Suzuki M.

Publication Types:
    Clinical Trial
    Comparative Study

PMID: 14679773 [PubMed - indexed for MEDLINE]

190: Pediatr Emerg Care. 2003 Dec;19(6):415-7.

Fulminant bacterial meningitis complicating sphenoid sinusitis.

Saitoh A, Beall B, Nizet V.

Division of Pediatric Infectious Diseases, University of California, San Diego,
La Jolla 92093, USA.

Publication Types:
    Case Reports
    Review

PMID: 14676492 [PubMed - indexed for MEDLINE]

191: Rev Esp Quimioter. 2003 Jun;16(2):239-51; discussion 252-3.

[Diagnosis and antimicrobial treatment of sinusitis]

[Article in Spanish]

Sociedad Española de Quimioterapia; Sociedad Española de Otorrinolaringología y
Patología Cérvico-Facial.

Sociedad Española de Quimioterapia, Spain.

Publication Types:
    Review

PMID: 14650422 [PubMed - indexed for MEDLINE]

192: Paediatr Drugs. 2003;5 Suppl 1:25-33.

Acute bacterial rhinosinusitis in pediatric medicine: current issues in diagnosis and management.

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In children, acute bacterial rhinosinusitis is a common infection and although rare, carries a potential for serious, life threatening complications. Bacterial rhinosinusitis usually follows a viral infection or allergic rhinitis. Early, effective antibacterial therapy is essential to shorten the duration of infection and illness, to diminish mucosal damage, and to prevent contiguous infectious involvement of the orbit or central nervous system. Because the signs and symptoms of acute bacterial rhinosinusitis are similar to those of viral upper respiratory tract infection, establishing an accurate diagnosis in children poses a clinical challenge. Infection with Streptococcus pneumoniae accounts for 30-66% of episodes of acute bacterial rhinosinusitis in children. Other important pathogens include Haemophilus influenzae (20-30%) and Moraxella catarrhalis (12-28%). In selecting initial antimicrobial therapy, priority should be given to drugs with activity against S. pneumoniae. The oral agents that currently offer the greatest activity against this pathogen include amoxicillin, amoxicillin-clavulanate, cefdinir, cefpodoxime proxetil, and cefuroxime axetil; all are considered appropriate for the initial treatment of acute bacterial rhinosinusitis in children. Amoxicillin is customarily used as first-line therapy for uncomplicated acute bacterial rhinosinusitis. For patients who are allergic to amoxicillin, second- or third-generation oral cephalosporins may be used as first-line therapy. Clarithromycin has been suggested as an alternative to amoxicillin or cephalosporins in beta-lactam allergic patients. Clindamycin may also be indicated as first-line treatment in patients who have culture-proven penicillin-resistant S. pneumoniae. If no clinical response occurs within 72 hours, the choice of a second-line antibiotic is governed by the drug's known

antimicrobial efficacy, resistance patterns, dosing schedules, the potential for
compliance, and knowledge of the patient's drug allergies. High-dose
amoxicillin-clavulanate (90 mg/kg/d of the amoxicillin component) has been
recommended for high-risk children (e.g. those in day care, and those who have
recently received antibiotics) who show no improvement after treatment with the
usual dose of amoxicillin (45 mg/kg/d). Broad-spectrum, third-generation oral
cephalosporins, such as cefdinir, should be considered as second-line agents when
standard therapy has failed or when patients show hypersensitivity to penicillin.
Intramuscular ceftriaxone may be appropriate for patients who fail on a second
course of antibiotic treatment.

Publication Types:
    Review

PMID: 14632103 [PubMed - indexed for MEDLINE]

193: Curr Opin Otolaryngol Head Neck Surg. 2003 Dec;11(6):409-15.

Current concepts in antibiotic resistance.

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Hospital, St. Petersburg, USA.

PURPOSE OF REVIEW: Although antibiotic resistance is not often considered an
exciting topic for pediatric surgical subspecialists, we face the consequences of
increasing antibiotic resistance daily in our clinical practice. By the very
nature that our patients are often referred to us after extended periods of
medical therapy, antibiotic resistance becomes a significant factor in management
of patients both medically and surgically. Antibiotic resistance is increasing,
and a number of organisms demonstrate multiple-drug resistance. The purpose of
this review is to outline the scope of antibiotic resistance as it relates to
pediatric otolaryngology. Specifically, the mechanisms of resistance, the
pharmacodynamics involved, and selected infections are discussed. RECENT
FINDINGS: The children particularly at risk for infections with resistant
organisms are those 2 years of age or younger with exposure to daycare and
treatment with antimicrobials within the last 30 days. Although there is

increasing resistance to antibiotics commonly used for outpatient infections such as otitis media, sinusitis, and tonsillitis, many of the first-line therapies still show significant therapeutic advantage. Vaccines to pneumococcal bacteria have been shown to decrease severe infections. However, there has been only a slight decline in the number of outpatient otolaryngologic infections after vaccination. SUMMARY: Therefore, children who have received multiple courses of antibiotics, are 2 years of age or younger, attend daycare, or have received antimicrobial therapy within the last 30 days may need high-dose therapy or antimicrobial therapy with an increased spectrum of coverage. Those children with infections that do not respond clinically to appropriate therapy should be treated with the suspicion of multiple-drug resistant strains being present. Continued surveillance of resistance patterns within individual communities, especially areas served by children's hospitals, are important, as there are distinct local and regional differences in antimicrobial resistance.

Publication Types:
    Review

PMID: 14631171 [PubMed - indexed for MEDLINE]

194: Clin Microbiol Infect. 2003 Aug;9(8):803-9.

A twelve-year review of central nervous system bacterial abscesses; presentation and aetiology.

Roche M, Humphreys H, Smyth E, Phillips J, Cunney R, McNamara E, O'Brien D, McArdle O.

Department of Microbiology, Beaumont Hospital, Dublin, Ireland.

OBJECTIVES: To review and document the changing patterns in diagnosis, causes and treatment of bacterial infections of the central nervous system (CNS) in a national neurosurgical unit only in patients from whom a specimen was obtained for culture. METHODS: The case notes, radiological results and laboratory records of all 163 patients in our institution who underwent a neurosurgical procedure between 1988 and 2000 for a CNS abscess in a national center were reviewed retrospectively. Those patients from whom there were no operative specimens (i.e. neurosurgical intervention was not performed) and who were treated empirically

were excluded, as were patients with mycobacterial infection. RESULTS: The mean
age of the 163 patients was 35.2 years. Headache, pyrexia and an altered mental
state were the commonest presentations. The frontal lobe was the commonest
anatomical site (62 patients, 38%) and the majority of abscesses occurred
following community infections such as sinusitis and mastoiditis; no primary
source could be identified in 32 (20%) patients. Bacteria were isolated from 73%
of patients and polymicrobial infections occurred in 29 (17.7%) patients.
Anaerobes accounted for only 13.6% of isolates and methicillin-resistant
Staphylococcus aureus (MRSA) was isolated on five occasions, all in the last five
years of this review. Sixteen (9.8%) patients died prior to discharge or transfer
back to the original referring hospital and 18 (11%) patients developed epilepsy.
CONCLUSION: There was a relatively high incidence of polymicrobial infection but
the number of specimens with anaerobes was small, which may be because of the use
of empiric metronidazole before surgical intervention. Most infections were
community-acquired and responded well to a combination of surgical drainage and
antibiotic therapy. The emergence of MRSA in this group of patients is, however,
worrying.

PMID: 14616700 [PubMed - indexed for MEDLINE]

195: J Manag Care Pharm. 2003 May-Jun;9(3):232-7.

Comment in:
    J Manag Care Pharm. 2003 May-Jun;9(3):274-5.

Analysis of medication use patterns:apparent overuse of antibiotics and underuse
of prescription drugs for asthma, depression, and CHF.

Gilberg K, Laouri M, Wade S, Isonaka S.

Protocare Sciences, Santa Monica, Ca 90404, USA.

OBJECTIVE: To assess the appropriateness of prescription medication use based
upon widely accepted treatment guidelines. METHODS: We analyzed administrative
claims for the period October 1, 1998, through September 20, 1999, supplied by 3
California health plans to determine medication use patterns for outpatient
prescriptions. We compared these patterns to those expected in the presence of
adherence to treatment guidelines. RESULTS: During the study period, only 27.5%

of antidepressant users received the recommended 6 months of continuous therapy, only 49.0% of diagnosed asthma patients received at least one inhaled corticosteroid prescription (compared to 67.1% who received at least one inhaled beta-agonist prescription), and only 54.5% of patients diagnosed with congestive heart failure (CHF) received an angiotensin-converting enzyme (ACE) inhibitor. Of patients who had a diagnosis of common cold or upper respiratory tract infection, 35.7% received antibiotics. CONCLUSION: There is a remarkable degree of apparent overuse and underuse of prescription medications despite the existence of clinical guidelines to support appropriate use in the conditions studied. Effective medications appear to be underused for patients with asthma, CHF, and depression. Antibiotics appear to be overused for the common cold and upper respiratory infections. More effective efforts must be made to address appropriate use of medications. Without these efforts, improved quality of care and decreased total health system costs are unlikely to be realized.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 14613466 [PubMed - indexed for MEDLINE]

196: MMW Fortschr Med. 2002 Dec 12;144(50):66.

[Benign common cold or real influenza? Deciding without laboratory tests!]

[Article in German]

[No authors listed]

Publication Types:
    News

PMID: 14610876 [PubMed - indexed for MEDLINE]

197: Int J Antimicrob Agents. 2003 Nov;22(5):548-50.

Surveillance of Haemophilus influenzae among respiratory tract samples of Turkish children.

Yagci A, Ilki A, Akbenlioglu C, Ulger N, Inanli S, Söyletir G, Bakir M.

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We conducted three prospective studies of Haemophilus influenzae in different

groups of children. Pharyngeal swab samples were taken (i). from 1382 healthy
infants and children between 0 and 10 years of age (group 1), attending well
child clinics (n=438), day care centres (n=440) and elementary schools (n=504),
and (ii). from 322 children aged 2-10 years (group 2), clinically diagnosed as
having upper respiratory tract infection. Pharyngeal swab samples and sinus
aspirates were obtained from 49 children between 2 and 9 years of age (group 3),
clinically diagnosed as having sinusitis. H. influenzae was isolated in similar
rates from 315 (22.7%) of children in group 1, 72 (22.3%) of children in group 2
and 12 (24.4%) of children in group 3. Serotype b comprised 7, 5.2 and 2% of all
H. influenzae isolates for group 1, 2 and 3, respectively. Production of
beta-lactamase was detected in 1.0% of H. influenzae type b isolates in group 1,
1.2 and 6.1% of all isolates in group 2 and 3, respectively. There were no
beta-lactamase negative ampicillin-resistant strains.

PMID: 14602378 [PubMed - indexed for MEDLINE]

198: Am J Public Health. 2003 Nov;93(11):1910-4.

Trends in antimicrobial prescribing for bronchitis and upper respiratory
infections among adults and children.

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OBJECTIVES: This study examined antimicrobial prescribing patterns for adults and
children with bronchitis or upper respiratory infections (URIs) before and after
release of nationally disseminated pediatric practice recommendations.
METHODS:
Data from the 1993, 1995, 1997, and 1999 National Ambulatory Medical Care Survey
were used to evaluate prescriptions for antimicrobials for URIs and bronchitis.
RESULTS: From 1993 to 1999, the proportion of children receiving antimicrobials
after visits for URIs and bronchitis decreased. However, the use of
broad-spectrum antimicrobials rose from 10.6% of bronchitis visits to 40.5%.
Prescriptions of antimicrobials for adults with URIs or bronchitis showed a
decrease between 1993 and 1999. CONCLUSIONS: Although antimicrobial prescribing
for URIs and bronchitis has decreased for both children and adults, the

prescribing of broad-spectrum antibiotics among children has shown a proportional
rise.

Publication Types:
    Research Support, U.S. Gov't, P.H.S.

PMID: 14600065 [PubMed - indexed for MEDLINE]

199: Pediatr Infect Dis J. 2003 Aug;22(8 Suppl):S131-8.

Macrolide resistance: an increasing concern for treatment failure in children.

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BACKGROUND: Antimicrobial treatment of pediatric respiratory tract infections has
evolved during the past 30 years as a result of antimicrobial resistance. The
focus of antimicrobial therapy in these conditions has shifted from penicillins
to other agents because of the dramatic increase in antimicrobial resistance
among common respiratory pathogens, including Streptococcus pneumoniae,
Haemophilus influenzae and Moraxella catarrhalis. It is important for clinicians
to understand how resistance develops so that they can help prevent this
phenomenon from occurring with other antimicrobials. METHODS: This article
reviews the published literature on resistance to macrolide antimicrobials among
common pediatric respiratory tract pathogens and clinical and bacteriologic
outcomes of infections with these pathogens. RESULTS: Resistance among common
pediatric respiratory tract pathogens to macrolides occurs through two main
mechanisms, alteration of the target site and active efflux. Although resistance
patterns vary by geographic region, the widespread use of macrolides has
contributed to the emergence of both types of macrolide-resistant organisms.
Conditions that favor the selection and proliferation of resistant strains
include children with repeated, close contact who frequently receive
antimicrobial treatment or prophylaxis, such as children who attend day care.
Recent US surveillance data show that 20 to 30% of S. pneumoniae are resistant to
macrolides, with approximately two-thirds of macrolide-resistant strains
associated with an efflux mechanism and the remainder associated with a ribosomal

methylase. Additionally, although less well-known, virtually all strains of H.
influenzae have an intrinsic macrolide efflux pump. As resistance to macrolides
has increased, clinical failures have resulted, and these agents are no longer
considered appropriate for empiric first line antimicrobial therapy of acute
otitis media and sinusitis unless patients are truly penicillin-allergic.
Therefore, other antimicrobials are recommended for the empiric treatment of
children with respiratory tract infections, including higher doses of amoxicillin
and amoxicillin/clavulanate (90 mg/kg/day amoxicillin), cefuroxime axetil and
intramuscular ceftriaxone. CONCLUSIONS: As resistance to macrolides increases and
clinical failures in children become more common with this class of
antimicrobials, judicious use of antimicrobials is needed. This includes limiting
antimicrobial use for viral infections and using the most effective agents when
antimicrobials are clinically indicated, such as higher doses of amoxicillin and
amoxicillin/clavulanate. Application of these principles may prevent
proliferation and further development of resistance.

Publication Types:
    Review

PMID: 14566999 [PubMed - indexed for MEDLINE]

200: Eur J Epidemiol. 2003;18(9):899-902.

Is asthma in 2-12 year-old children associated with physician-attended recurrent
upper respiratory tract infections?

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In a prevalence study, we evaluated whether recurrent physician-attended URTI
episodes are more common in asthmatic children as compared to age- and
gender-matched controls. URTI proneness, defined as > or = 5 episodes of
rhinitis/pharyngitis, sinusitis, laryngitis/tracheitis or otitis media in a
24-month period, was more common in asthmatics than controls (adjusted odds ratio
2.5, 95% confidence interval: 1.1-6.1). As a consequence, antibiotic
prescriptions and referrals to hospitals occurred more frequently among
asthmatics than controls.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 14561050 [PubMed - indexed for MEDLINE]

201: Int J Pediatr Otorhinolaryngol. 2003 Oct;67(10):1047-53.

Microbial dynamics of purulent nasopharyngitis in children.

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This review presents the microbiological dynamic and therapeutic options in the
management of purulent nasopharyngitis (NPT). The nasopharynx (NP) of healthy
children is generally colonized by relatively non-pathogenic aerobic and
anaerobic organisms, some of, which possess the ability to interfere with the
growth of potential pathogens. Conversely, carriage of potential respiratory
aerobic pathogen such as Streptococcus pneumoniae, Haemophilus influenzae and
Moraxella catarrhalis, as well as some anaerobic bacteria (Peptostreptococcus,
Fusobacterium and Prevotella spp.) increases during purulent NPT. The development
of purulent NPT in children is associated with the pre-existing colonization by
potential pathogens and the absence of interfering organisms in the NP.
Controversy exists regarding the management of NPT as no conclusive evidence
exists to date that the administration of antimicrobials will shorten the
illness.

Publication Types:
    Review

PMID: 14550957 [PubMed - indexed for MEDLINE]

202: MMW Fortschr Med. 2003 Aug 7;145(31-32):51.

[Common airway ailments. What does homeopathy bring?]

[Article in German]

[No authors listed]

Publication Types:
    Comparative Study

PMID: 14524076 [PubMed - indexed for MEDLINE]

203: Pediatrics. 2003 Oct;112(4):e261.

Children hospitalized with severe acute respiratory syndrome-related illness in

Toronto.

Bitnun A, Allen U, Heurter H, King SM, Opavsky MA, Ford-Jones EL, Matlow A, Kitai
I, Tellier R, Richardson S, Manson D, Babyn P, Read S; Other Members of the
Hospital for Sick Children SARS Investigation Team.

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Children, University of Toronto, Toronto, Ontario, Canada.

OBJECTIVE: An outbreak of severe acute respiratory syndrome (SARS) occurred in
the greater Toronto area between February and June 2003. We describe the
clinical, laboratory, and epidemiologic features of children who were admitted to
the Hospital for Sick Children, Toronto, with a presumptive diagnosis of suspect
or probable SARS. METHODS: A prospective investigational study protocol was
established for the management of children with a presumptive diagnosis of
suspect or probable SARS. All were ultimately classified as having probable SARS,
suspect SARS, or another cause on the basis of their epidemiologic exposure,
clinical and radiologic features, and results of microbiologic investigations.
RESULTS: Twenty-five children were included; 10 were classified as probable SARS
and 5 were classified as suspect SARS, and in 10 another cause was identified.
The exposure consisted of direct contact with at least 1 adult probable SARS case
in 11 children, travel from a World Health Organization-designated affected area
in Asia in 9 children, and presence in a Toronto area hospital in which secondary
SARS spread had occurred in 5 children. The predominant clinical manifestations
of probable cases were fever, cough, and rhinorrhea. With the exception of 1
teenager, none of the children developed respiratory distress or an oxygen
requirement, and all made full recoveries. Mild focal alveolar infiltrates were
the predominant chest radiograph abnormality. Lymphopenia; neutropenia;
thrombocytopenia; and elevated alanine aminotransferase, aspartate
aminotransferase, and creatine kinase were present in some cases. Nasopharyngeal
swab specimens were negative for the SARS-associated coronavirus by an in-house
reverse transcriptase-polymerase chain reaction in all 25 children. CONCLUSIONS:
Our results indicate that SARS is a relatively mild and nonspecific respiratory
illness in previously healthy young children. The presence of fever in

conjunction with a SARS exposure history should prompt one to consider SARS as a possible diagnosis in children irrespective of the presence or absence of respiratory symptoms. Reverse-transcriptase polymerase chain reaction analysis of nasopharyngeal specimens seems to be of little utility for the diagnosis of SARS during the early symptomatic phase of this illness in young children.

PMID: 14523209 [PubMed - indexed for MEDLINE]

204: Laryngoscope. 2003 Oct;113(10):1780-5.

Comment in:
Laryngoscope. 2004 Jul;114(7):1318; author reply 1318.

Nasopharyngeal flora and drug susceptibility in children with macrolide therapy.

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OBJECTIVES/HYPOTHESIS: Low-dose, long-term administration of macrolides (macrolide therapy) has been used as an effective treatment for chronic respiratory tract diseases. The authors reported on the nasopharyngeal flora in children treated with macrolide therapy. STUDY DESIGN: Prospective study.
METHODS: Nasopharyngeal cultures were obtained from 73 children with chronic rhinosinusitis and/or otitis media with effusion at the end of the low-dose administration of clarithromycin (macrolide group). As control subjects, 98 children with chronic rhinosinusitis and/or otitis media with effusion who were not given macrolides were also included in the study. The culture results were evaluated with respect to antimicrobial susceptibility patterns, risk factors for carriage of erythromycin-resistant Streptococcus pneumoniae, and the clinical efficacy of the therapy. RESULTS: The macrolide therapy did not have a significant effect on the incidence or the susceptibility patterns of potential pathogens except for Moraxella catarrhalis. Most of children in the macrolide group possessed a normal flora compared with the control children. The risk factors for carriage of erythromycin-resistant S pneumoniae were male gender in the macrolide group and age under 6 years and use of antimicrobial drugs other than macrolides in the control group. The clinical efficacy of the therapy was

independent of carriage of erythromycin-resistant S pneumoniae.
CONCLUSION:
Macrolide therapy has little effect on carriage of drug-resistant pathogens, and
the efficacy of the therapy depends on the anti-inflammatory effect of the drugs,
which is independent of their antimicrobial effect.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 14520106 [PubMed - indexed for MEDLINE]

205: Neurosurgery. 2003 Oct;53(4):893-7; discussion 897-8.

Comment in:
    Neurosurgery. 2004 Jul;55(1):263-4; author reply 264.

Conservative neurosurgical management of intracranial epidural abscesses in
children.

Heran NS, Steinbok P, Cochrane DD.

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Columbia, and British Columbia's Children's Hospital, Children and Women's Health
Centre, Vancouver, British Columbia, Canada.

OBJECTIVE: Traditional management of epidural abscesses caused by sinusitis in
children involves neurosurgical drainage. With better techniques to drain
affected sinuses, to identify causative organisms, and to guide medical therapy,
some pediatric epidural intracranial abscesses may be treated effectively with
sinus drainage and antibiotics, without an intracranial procedure.
METHODS:
Charts and computed tomographic scans of children with isolated intracranial
epidural abscess associated with sinusitis who were treated in a pediatric
hospital were reviewed retrospectively. RESULTS: Eight patients were treated
between 1982 and 2002. All patients received antibiotic therapy appropriate to
the causative organism(s). Four patients treated before mid-1997 had an
intracranial procedure additionally (operative group, Group 1), and four patients
treated thereafter did not (conservative group, Group 2). Abscesses had a mean
size of 3 x 3 x 1 cm (length x width x depth) in both groups. All patients
experienced clinical and radiographic resolution of the infection with treatment.
In Group 1, neurosurgical management consisted of burr hole drainage in two

patients and craniotomy in two patients. Extranasal otorhinolaryngological procedures for sinus drainage were performed in two patients. In Group 2, endonasal procedures were used in three patients for paranasal sinus infections to effect drainage and obtain specimens for culture. A radical mastoidectomy was required in the single patient with mastoiditis. Although two of four patients initially demonstrated transient worsening of headaches, all patients subsequently improved rapidly after the first week of treatment. Computed tomographic follow-up revealed minimal or no enlargement of the abscess or mass effect at 1 week, decrease or stable size at 2 weeks, and resolution by 6 weeks.
CONCLUSION: Sinus-related intracranial epidural abscesses in children may be managed without neurosurgical procedures in the setting of adequate sinus drainage, appropriate antibiotic therapy, and minimal extradural mass effect from the abscess. Symptomatic worsening without significant increase in mass effect during the first week of therapy is not necessarily an indication for an intracranial drainage procedure.

PMID: 14519222 [PubMed - indexed for MEDLINE]

206: Pharmacoeconomics. 2003;21(14):1053-68.

Prevention of recurrent rhinopharyngitis in at-risk children in France: a cost-effectiveness model for a nonspecific immunostimulating bacterial extract (OM-85 BV).

Pessey JJ, Mégas F, Arnould B, Baron-Papillon F.

ENT Ward, Facial Surgery, University Hospital of Rangueuil, Toulouse, France.

OBJECTIVE: To estimate the pharmacoeconomic impact for the French Social Security System of preventing recurrent acute rhinopharyngitis (RARP) in at-risk children with OM-85 BV, an immunostimulating agent indicated for the prevention of recurrences. DESIGN: A decision-analysis model. The probability of progression of the infection and of its associated care, the principal direct costs linked to them, and the effectiveness of OM-85 BV were established or calculated by reviewing the available literature (published between 1984 and 2000). Four experts validated the parameters and the model. RESULTS: For the French Social

Security System, the mean direct cost for an acute rhinopharyngitis (ARP)
infection was 49.39 Euro(2000 values). By using OM-85 BV prevention, 1.52
infections were prevented in 6 months saving 67.83 Euro on the costs of care for
the recurrently infected child. Sensitivity analyses confirmed the robustness of
the model and indicated a saving of between 6.28 Euro and 303.64 Euro in direct
costs for each individual treated preventively. Threshold analyses showed that
OM-85 BV prophylaxis is economically profitable if more than 0.15 infections are
prevented and if direct costs of care of an ARP are greater than 4.78 Euro.
CONCLUSION: Non-specific immunotherapy should be considered for the child at risk
of RARP and administered in addition to other recommended measures. The economic
savings for the community of using a medication for which the clinical
effectiveness has been demonstrated should also be taken into account in
assessing its usefulness.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 13129417 [PubMed - indexed for MEDLINE]

207: Am J Ther. 2003 Sep-Oct;10(5):324-9.

An open-label, single-center, phase IV clinical study of the effectiveness of
zinc gluconate glycine lozenges (Cold-Eeze) in reducing the duration and symptoms
of the common cold in school-aged subjects.

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Each year, more than 62 million cases of the common cold in the United States
require medical attention and more than 80% affect school-aged children. The
objective of this prospective, intent-to-treat, phase IV study was to determine
the therapeutic and prophylactic effectiveness of zinc gluconate glycine lozenges
(Cold-Eeze) for the common cold. Zinc lozenges were administered once daily
during the cold season for prophylaxis. For therapeutic purposes, lozenges were
given 4 times per day. The primary objective of the study was the treatment
effect on cold duration, and the secondary objective was the effect on the number
of common colds. A putative control from our previous study was used for

comparison. A total of 178 children, ages 12 to 18 years, was enrolled, of which
134 met criteria for efficacy analysis. The average cold duration with therapeutic lozenge use was 6.9 +/- 3.1 days, significantly shorter than the 9.0
+/- 3.5 days found in the control group (P < 0.001). The mean number of colds was
1.28 +/- 1.03 with zinc lozenge prophylaxis versus 1.7 +/- 1.91 without
prophylaxis (P < 0.05), a 25% reduction. With prophylaxis, 25% of the subjects
did not experience a cold and two-thirds never had a cold or only had 1 cold.
There was no antibiotic use for any cold, and there were no adverse events
reported. Results of this study are consistent with those from our previous
retrospective study showing significantly shorter cold duration and fewer colds
with the use of zinc gluconate glycine lozenges. The zinc gluconate glycine
lozenges are well tolerated and are an easy-to-administer therapy that has the
potential to substantially reduce cold-related school absences and antibiotic use
and misuse as well as to provide a cost saving.

Publication Types:
    Clinical Trial
    Clinical Trial, Phase IV

PMID: 12975716 [PubMed - indexed for MEDLINE]

208: Vestn Otorinolaringol. 2003;(2):46-54.

[Acute bacterial rhinosinusitis: current approaches to diagnosis and antibacterial therapy in out patient setting (recommendations of American Academy
of otolaryngology, head and neck surgery, American Association of rhinologists,
American Academy of ENT allergic diseases, 2000, Clinical consultative Committee
for sinusitis in children and adults, 2000, American Academy of pediatrics, 2001,
Center of disease and control, USA, 2001)]

[Article in Russian]

Tarasov AA, Kamanin EI, Kriukov AI, Strachunskiĭ LS.

Publication Types:
    Review

PMID: 12958867 [PubMed - indexed for MEDLINE]

209: Int J Pediatr Otorhinolaryngol. 2003 Sep;67(9):1023-6.

An 8-year-old boy with a Pott's puffy tumor.

Huijssoon E, Woerdeman PA, van Diemen-Steenvoorde RA, Hanlo PW, Plötz FB.

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An 8-year old boy with a history of trauma, sinusitis and a swelling of the
frontal bone with somnolence was diagnosed with a Pott's puffy tumor (PPT).
Minimal invasive surgical intervention was performed together with a strict
regimen of antibiotic therapy. In this case debridement of the frontal bone was
not necessary. Serial X-ray imaging of the skull showed complete ossification of
the frontal bone lesion. Early diagnosis using thorough radiological evaluation
is necessary to effectuate the proper therapeutic approach. For this reason, a
patient with a forehead swelling and a history of trauma and/or sinusitis should
be suspected for a PPT.

Publication Types:
    Case Reports

PMID: 12907061 [PubMed - indexed for MEDLINE]

210: Ambul Pediatr. 2003 Jul-Aug;3(4):203-10.

Correlates of parental antibiotic knowledge, demand, and reported use.

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Ambulatory Care and Prevention, Harvard Medical School and Harvard Pilgrim Health
Care, Boston, Mass 02215, USA.

BACKGROUND: Clinicians cite parental misconceptions and requests for antibiotics
as reasons for inappropriate prescribing. AIMS: To identify misconceptions
regarding antibiotics and predictors of parental demand for antibiotics and to
determine if parental knowledge and attitudes are associated with use. METHODS:
Survey of parents in 16 Massachusetts communities. Domains included
antibiotic-related knowledge, attitudes about antibiotics, antibiotic use during
a 12-month period, demographics, and access to health information. Bivariate and
multivariate analyses evaluated predictors of knowledge and proclivity to demand
antibiotics. A multivariate model evaluated the associations of knowledge,
demand, and demographic factors with parent-reported antibiotic use. RESULTS: A
total of 1106 surveys were returned (response rates: 54% and 32% for
commercially-insured and Medicaid-insured families). Misconceptions were common

regarding bronchitis (92%) and green nasal discharge (78%). Two hundred sixty-five (24%) gave responses suggesting a proclivity to demand antibiotics. Antibiotic knowledge was associated with increased parental age and education, having more than 1 child, white race, and receipt of media information on resistance. Factors associated with a proclivity to demand antibiotics included decreased knowledge, pressure from day-care settings, lack of alternatives offered by clinicians, and lack of access to media information. Among all respondents, reported antibiotic use was associated with younger child age and day-care attendance. Among Medicaid-insured children only, less antibiotic knowledge and tendency to demand antibiotics were associated with higher rates of antibiotic use. CONCLUSIONS: Misconceptions regarding antibiotic use are widespread and potentially modifiable by clinicians and media sources. Particular attention should be paid to Medicaid-insured patients in whom such misconceptions may contribute to inappropriate prescribing.

Publication Types:
    Research Support, Non-U.S. Gov't
    Research Support, U.S. Gov't, P.H.S.

PMID: 12882598 [PubMed - indexed for MEDLINE]

211: Semin Pediatr Infect Dis. 2003 Apr;14(2):108-14.

Brain abscess in children.

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Brain abscess is a relatively uncommon but life-threatening infection in children. It can originate from contiguous site infections (eg, chronic otitis media, mastoiditis, sinusitis, meningitis), from distant pathologic states (eg, cyanotic congenital heart disease, chronic lung infections), after head trauma or neurosurgical procedures, or from cryptogenic sources. Predominant etiologic microorganisms vary depending on these predisposing factors. Computed tomography and magnetic resonance imaging are essential tools that enable the physician to make an accurate diagnosis of intracranial purulent collections. Proper selection

of antimicrobial agents with good penetration of the central nervous system and with adequate coverage of both anaerobic and aerobic bacteria is critical for the medical management of brain abscess. Delay in surgical drainage can be associated with high morbidity and case-fatality rates. In the early phase of cerebritis, however, infection can respond to antibiotic therapy alone. Advances in diagnostic and therapeutic modalities during the last decade have improved the prognosis of this serious disease.

Publication Types:
Review

PMID: 12881798 [PubMed - indexed for MEDLINE]

212: Ann Allergy Asthma Immunol. 2003 Jul;91(1):71-8.

Improvement of clinical and immunopathologic parameters in asthmatic children treated for concomitant chronic rhinosinusitis.

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BACKGROUND: Chronic rhinosinusitis is frequently associated with asthma. A Th2 cytokine pattern has been recently reported in chronic rhinosinusitis in asthmatic children. OBJECTIVE: To evaluate the effects of treating concomitant chronic rhinosinusitis on respiratory symptoms and function and immunopathological parameters in asthmatic children. METHODS: Eighteen children with moderate asthma (age range, 5 to 12 years) poorly controlled by high doses of inhaled corticosteroids and chronic rhinosinusitis were evaluated for symptoms, spirometry, and inflammation at baseline, after treatment, and 1 month after suspension of treatment. All of the children were treated with a combination of amoxicillin and clavulanate (20 mg/kg twice daily) and fluticasone propionate aqueous nasal spray (100 microg/d) for 14 days. A short course of oral corticosteroids was also prescribed (deflazacort, 1 mg/kg daily for 2 days, 0.5 mg/kg daily for 4 days, and 0.25 mg/kg daily for 4 days). Rhinosinusal lavage for cytokine measurements and a nasal scraping for cytologic analysis were performed in all patients before and after medical treatment. RESULTS: A negative endoscopy

result was demonstrated in 15 children after treatment. Symptoms and respiratory function significantly improved after treatment and 1 month later; 8 children had intermittent asthma and 10 had mild asthma. A significant reduction of inflammatory cell numbers was detected in all asthmatic children. Interleukin 4 levels significantly decreased ($P < 0.001$), whereas interferon-y levels increased ($P < 0.001$). CONCLUSION: Treatment of chronic rhinosinusitis is able to improve symptoms and respiratory function in asthmatic children, reducing inflammatory cells and reversing the cytokine pattern from a Th2 toward a Th1 profile.

Publication Types:
    Clinical Trial

PMID: 12877453 [PubMed - indexed for MEDLINE]

213: Salud Publica Mex. 2003 May-Jun;45(3):159-64.

Use of antibiotics in upper respiratory infections on patients under 16 years old in private ambulatory medicine.

Peláez-Ballestas I, Hernández-Garduño A, Arredondo-García JL, Viramontes-Madrid JL, Aguilar-Chiu A.

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OBJECTIVE: To assess antibiotic use for upper respiratory infections (URI) treatment on patients under 16 years-old who are beneficiaries of a pre-paid health care scheme. MATERIAL AND METHODS: A database containing the record of all the medical prescriptions for URI treatment, from May 1997 to April 1998 was analyzed. Patients were under 16 years old and had been diagnosed with common colds, pharyngitis, bronchitis, sinusitis, otitis, and other unspecified upper respiratory tract infections. Three hundred and fifty-one physicians of seven different specialties who attended 25,300 beneficiaries wrote such prescriptions. RESULTS: A total of 30,889 assorted medications were prescribed to 5,533 patients with the above diagnoses. Antibiotics were prescribed for 77.5% of all diagnoses, ranging from 58% for pharyngitis to 91% for laryngitis. The most frequently used antibiotics were: penicillin, cephalosporins, and macrolides. CONCLUSIONS: This study presents the information of antibiotics prescription practices for URI in a

pre-paid health plan in Mexico. These findings may be used to support specific
campaigns for rational use of antibiotics among children attended at private
ambulatory health care practices.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 12870416 [PubMed - indexed for MEDLINE]

214: Clin Pediatr (Phila). 2003 Jun;42(5):443-6.

Judicious antibiotic use for purulent rhinorrhea: do pediatric infectious disease
specialists practice what they preach?

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Department of Pediatrics, Inova Hospital for Children, Falls Church, Virginia,
USA.

Publication Types:
    Case Reports

PMID: 12862349 [PubMed - indexed for MEDLINE]

215: Acta Paediatr Taiwan. 2003 Mar-Apr;44(2):67-74.

Pneumococcal infection in children: rational antibiotic choice for drug-resistant
Streptococcus pneumoniae.

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Streptococcus pneumoniae is one of the most common bacterial causes of otitis
media, sinusitis, bacteremia, pneumonia and bacterial meningitis in the pediatric
population. The resistance of S. pneumoniae to penicillin and other antimicrobial
agents is increasing in many parts of the world. In Taiwan, extremely high
prevalence (70%) of penicillin-resistant S. pneumoniae among children with
nasopharyngeal carriage has been reported. The mechanism of resistance to
penicillin is the alteration of penicillin binding protein (PBP) instead of the
production of beta-lactamase. Thus beta-lactamase inhibitors are not the solution
to the treatment of infections caused by penicillin-resistant S. pneumoniae. The
adequate treatment of infections caused by penicillin-resistant S. pneumoniae

should be based on (1) site of infection (2) degree of resistance. Currently, the
MIC breakpoints for S. pneumoniae are divided to 2 categories; one for CNS
infection and the other for non-CNS infections. For non-CNS infections caused by
susceptible or intermediate S. pneumoniae, penicillin still remains the drug of
choice with excellent bactericidal activity. Vancomycin should not be the first
choice in treating all pneumococcal infections.

Publication Types:
    Review

PMID: 12845845 [PubMed - indexed for MEDLINE]

216: Int J Infect Dis. 2003 Mar;7 Suppl 1:S5-12.

Why do we need to eradicate pathogens in respiratory tract infections?

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Evidence from studies in otitis media, acute bacterial sinusitis and acute
exacerbations of chronic bronchitis indicate that clinical efficacy is dependent
on bacterial eradication. Failure to eradicate bacterial pathogens increases the
potential for clinical failure, incurring further costs, and may also select and
maintain bacteria that are resistant to a wide range of antimicrobials.
Bacteriologically confirmed clinical failures have been reported in pneumococcal
pneumonia with both macrolides and older fluoroquinolones (ciprofloxacin,
ofloxacin, and levofloxacin). These failures were due to the involvement of
resistant pathogens (macrolides) or suboptimal pharmacokinetics/pharmacodynamics
(PK/PD) (quinolones). However, persistent positive blood cultures have not been
reported during therapy with adequate doses of benzylpenicillins or
aminopenicillins. Treatment failure, driven by the failure to eradicate
pathogens, leads to both economic and environmental costs, hospitalization being
the major cost driver. Failure to achieve bacterial eradication may also lead to
the development and spread of resistance. Different types of antimicrobials
appear to be driving resistance to different extents, and this may be due to
suboptimal PK/PD. In conclusion, factors to consider when prescribing include an
accurate diagnosis, knowledge of local epidemiology, the role of PK/PD principles

in antimicrobial choice, clinical outcomes in relation to bacteriologic efficacy, and resistance and its bacteriologic and clinical impact. The vicious cycle of infection, inappropriate therapy, bacteriologic failure, selection/spread of resistance and further infection needs to be broken by the use of appropriate treatments to achieve bacterial eradication.

Publication Types:
    Review

PMID: 12839702 [PubMed - indexed for MEDLINE]

217: Ned Tijdschr Geneeskd. 2003 Jun 7;147(23):1126-8.

[Invasive infection with Moraxella catarrhalis in two children with lymphatic leukemia and granulocytopenia]

[Article in Dutch]

Ernst-Kruis MR, Rutgers MI, Révész T, Wolfs TF, Fleer A, Geelen SP.

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In two young children with leukaemia, a girl and a boy aged 5 and 4 years, respectively, an invasive infection due to Moraxella catarrhalis was diagnosed at the time of granulocytopenia. They were treated with antibiotics. The first child developed pneumonia and recovered, the other developed severe septic shock and died. M. catarrhalis is a Gram-negative diplococcus, frequently colonising the upper respiratory tract in young children. In childhood this pathogen mainly causes infections such as otitis media and sinusitis, while in adults it primarily causes laryngitis, bronchitis and pneumonia. Immunocompromised patients or patients with chronic cardiopulmonary disease have an increased risk of severe infections.

Publication Types:
    Case Reports
    English Abstract

PMID: 12822523 [PubMed - indexed for MEDLINE]

218: Pediatr Allergy Immunol. 2003 Jun;14(3):238-41.

Medical treatment reverses cytokine pattern in allergic and nonallergic chronic rhinosinusitis in asthmatic children.

Tosca MA, Cosentino C, Pallestrini E, Riccio AM, Milanese M, Canonica GW,
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A Th2 cytokine pattern has recently been reported both in allergic and nonallergic chronic rhinosinusitis in asthmatic children. The aim of the study was to evaluate the cytokine pattern in chronic rhinosinusitis in allergic and nonallergic asthmatic children before and after medical treatment. Thirty asthmatic children were evaluated, 18 males and 12 females (mean age 9.1 years). Sixteen were allergic and 14 were nonallergic. All children were asthmatic and suffered from chronic rhinosinusitis, whose diagnosis was confirmed by endoscopy. All of them were treated with amoxicilline-clavulanate (20 mg/kg b.i.d.) and fluticasone propionate aqueous nasal spray (100 microg daily) for 14 days; a short course of oral corticosteroid was also prescribed (deflazacort 1 mg/kg daily for 2 days, 0.5 mg/kg daily for 4 days and 0.25 mg/kg daily for 4 days). Rhinosinusal lavage and nasal cytology were performed in all subjects before and after medical treatment. IL4 and IFNgamma were measured by immunoassay and inflammatory cells were counted by conventional staining. Thirteen allergic children and 12 nonallergic children showed a negative endoscopy after the treatment. Allergic subjects showed a significant decrease of IL4 ($p = 0.0002$) and a significant increase of IFNgamma ($p = 0.03$) after the treatment. Nonallergic children showed a significant decrease of IL4 ($p = 0.0007$) and a nonsignificant increase of IFNgamma. A significant reduction of the inflammatory infiltrate was detected in all asthmatic children ($p < 0.05$). This study confirms a Th2 polarization in chronic rhinosinusitis both in allergic and nonallergic asthmatic children. Moreover, the medical treatment of chronic rhinosinusitis reversed the cytokine pattern from a Th2 towards a Th1 profile both in allergic and nonallergic children.

Publication Types:
    Comparative Study
    Research Support, Non-U.S. Gov't

PMID: 12787306 [PubMed - indexed for MEDLINE]

219: Pediatrics. 2003 Jun;111(6 Pt 1):e714-9.

Fluoroquinolone safety in pediatric patients: a prospective, multicenter, comparative cohort study in France.

Chalumeau M, Tonnelier S, D'Athis P, Tréluyer JM, Gendrel D, Bréart G, Pons G;
Pediatric Fluoroquinolone Safety Study Investigators.

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OBJECTIVE: To evaluate the safety of fluoroquinolones (FQ) in comparison with other antibiotics in pediatric patients. METHODS: A multicenter, observational, comparative cohort study was conducted between 1998 and 2000 in French pediatric departments. Patients who were receiving systemic FQ were included and matched to control patients who were receiving other antibiotics. Antibiotic-associated potential adverse events (PAEs) were recorded prospectively in both groups, and their rates were compared using univariate and multivariate analyses. RESULTS: Patients were recruited from 73 centers: 276 patients were exposed to FQ, and 249 composed the control group. Among patients who were exposed to FQ, 23% were younger than 2 years, 33% had cystic fibrosis, and PAEs occurred in 52 patients, leading to withdrawal for 11. The odds ratio for PAE in the FQ group was 3.7 (95% confidence interval: 1.9-7.5) and was not significantly modified after adjustment for potential confounders. Musculoskeletal PAEs also occurred more frequently in the FQ group (3.8%) than in controls (0.4%); they were recorded in 10 patients who were receiving standard FQ doses and were of moderate intensity and transient. CONCLUSION: The rates of PAEs and musculoskeletal PAEs were higher for the FQ group than the control group. This observation supports the American Academy of Pediatrics statement restricting off-label FQ use in pediatric patients to second-line treatment in a limited number of situations.

Publication Types:
    Clinical Trial
    Comparative Study
    Controlled Clinical Trial
    Multicenter Study
    Research Support, Non-U.S. Gov't

PMID: 12777590 [PubMed - indexed for MEDLINE]

220: Arch Otolaryngol Head Neck Surg. 2003 May;129(5):563-9.

Effects of exogenous interferon gamma on patients with treatment-resistant chronic rhinosinusitis and dysregulated interferon gamma production: a pilot study.

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OBJECTIVE: To evaluate the effects of exogenous interferon gamma treatment in patients with chronic rhinosinusitis and evidence of aberrant production of interferon gamma (IFN-gamma) and its regulatory cytokines. METHODS: Ten patients with treatment-resistant chronic rhinosinusitis (4 males and 6 females) treated with exogenous interferon gamma (50 micro g/m2) were retrospectively evaluated by assessing clinical outcomes compared with clinical and laboratory findings before interferon gamma treatment. RESULTS: Dysregulated IFN-gamma production was suspected to be characterized by (1) decreased interleukin 12 production (n = 1), (2) defects in interleukin 12 receptor signaling (n = 4), (3) intrinsic defects in interleukin 12 (n = 4), and (4) decreased IFN-gamma production. Eight patients had a history of chronic otitis media with positive bacterial cultures of sinus lavage samples. Adverse skin reactions to various antibiotics were reported in 7 patients. Asthma was reported in 4 patients. Along with sinusitis symptoms, these conditions were better controlled in all 9 patients who received exogenous interferon gamma for longer than 3 months. In 1 patient, interferon gamma treatment was discontinued after 3 weeks secondary to "presumed" tremor that was later diagnosed as a tic. Repeated surgical procedures and hospitalizations were reported in 2 patients after interferon gamma treatment secondary to recurrent chronic otitis media/mastoiditis/catheter infection and G-tube leakage. Interferon gamma treatment was discontinued in 1 of these patients because of a concern about neutropenia that occurred after catheter infection. Adverse effects of using exogenous interferon gamma were generally limited to local skin reactions. CONCLUSION: Exogenous interferon gamma may be a therapeutic option in a subset of patients with treatment-resistant chronic rhinosinusitis and evidence of dysregulated IFN-gamma production.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 12759271 [PubMed - indexed for MEDLINE]

221: Ann Otol Rhinol Laryngol. 2003 Apr;112(4):370-2.

Isolated inflammatory sphenoid sinus disease in children.

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Isolated inflammatory disease of the sphenoid sinus is very uncommon in the pediatric population. A 10-year review of all patients at our institution 16 years of age or younger with inflammatory sphenoid sinus disease found 8 patients with isolated sphenoid sinusitis and 3 with sphenoid mucoceles. The most common symptoms were headache and visual disturbance. Five patients with uncomplicated sinusitis were successfully managed medically, while 3 with either complicated sinusitis or sinusitis not responding to antibiotics were treated by endoscopic sphenoidotomy. All patients with a mucocele were treated surgically. Isolated inflammatory sphenoid sinusitis should be considered in children age 7 years or older who present with headache that does not respond to simple analgesia. Delayed diagnosis and advanced disease may lead to life-threatening complications.

PMID: 12731634 [PubMed - indexed for MEDLINE]

222: Pediatrics. 2003 May;111(5 Pt 1):e586-9.

Paranasal sinus findings in children during respiratory infection evaluated with magnetic resonance imaging.

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OBJECTIVE: The spreading of acute respiratory infection into the paranasal sinuses in children is poorly defined. The main objective of this study was to evaluate the frequency and spontaneous resolution of paranasal sinus abnormalities in children with acute respiratory infection using magnetic resonance imaging (MRI). METHODS: We examined 60 children with MRI (mean age: 5.7

years) with symptoms of acute respiratory infection. Twenty-six children with major abnormalities in the first MRI scan had a follow-up MRI taken 2 weeks later. RESULTS: The children had had symptoms of uncomplicated acute respiratory infection for an average of 6 days before the first examination (mean duration: 6.5; standard deviation: 3.0). Approximately 60% of the children had major abnormalities in their maxillary and ethmoidal sinuses, 35% in the sphenoidal sinuses, and 18% in the frontal sinuses. The most common abnormal finding was mucosal swelling. The mean overall MRI scores correlated significantly with the symptom scores (r(s) = 0.3). Of the individual symptoms, nasal obstruction, nasal discharge, and fever were significantly related to the MRI scores. Among the 26 children with major abnormalities in the first MRI, the findings subsequently improved significantly (mean [standard deviation] score: 12.7 [5.6] to 5.7 [5.2]), irrespective of the resolution of symptoms. CONCLUSIONS: These observations indicate that acute respiratory infection mostly spreads into the paranasal sinuses of children in the form of mucosal edema and that these abnormalities tend to resolve spontaneously without antimicrobial treatment.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 12728114 [PubMed - indexed for MEDLINE]

223: Presse Med. 2003 Apr 5;32(13 Pt 1):615-9.

[The impact of fusafungine on the prescription of antibiotics in the treatment of rhinopharyngitis]

[Article in French]

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OBJECTIVE: The analysis in France, during the period 01/12/99 to 30/11/2000, of the prescription of systemic antibiotics in patients with rhinopharyngitis and of the variables statistically related to such prescriptions and the potential role of fusafungine in the form of a rhinopharyngeal spray. METHODS: A retrospective study, based on a panel of 1,010 general practitioners, in a cohort of 30,568

patients presenting with rhinopharyngitis. The fusafungine group consisted of
16,076 patients who had rhinopharyngitis and in whom fusafungine was prescribed.
The control group consisted of 14,492 patients with rhinopharyngitis without
prescription of fusafungine. The overall rate of antibiotic prescription was
documented. A stepwise statistical analysis was conducted to specify the
variables statistically associated with the prescription of a systemic
antibiotic. The rate of prescription of a systemic antibiotic and the cost of the
treatment were also compared within both groups. RESULTS: The overall rate of
systemic antibiotic prescription was 52.9%, falling from 60.4% in the group
without fusafungine down to 46.2% in the group with fusafungine (p<0.01)
whichever the systemic antibiotic prescribed. The stepwise analysis documented
various variables that appear to be related to the systemic antibiotic
prescription. A saving of 0.7 euros per prescription was noted in the fusafungine
group. CONCLUSION: Although various variables appear to influence systemic
antibiotic prescription in patients with rhinopharyngitis, our study shows that
prescription of fusafungine in spray from led to statistically significant
reduction in systemic antibiotic prescription.

Publication Types:
    Comparative Study
    English Abstract

PMID: 12714916 [PubMed - indexed for MEDLINE]

224: Arch Pediatr Adolesc Med. 2003 Apr;157(4):369-74.

Acute care and antibiotic seeking for upper respiratory tract infections for
children in day care: parental knowledge and day care center policies.

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BACKGROUND: Children who attend day care are high consumers of antibiotics.
Studies suggest that physicians prescribe unnecessary antibiotics for upper
respiratory tract infections (URIs) for children who attend day care on the basis
of perceived pressure from parents and/or day care centers. OBJECTIVE: To
determine both parental and day care-level predictors of acute care and

antibiotic seeking for children who attend day care. METHODS: We conducted a day
care center-based cross-sectional survey of parents and day care center staff.
Two hundred eleven parents of children attending 36 day care centers in
Massachusetts completed a survey. Day care center staff completed a separate
survey addressing their day care center's policies for ill children. RESULTS: Few
parents reported day care staff pressure to seek care from a physician (3.9%) or
antibiotics (1.9%). In multivariate models, higher parental knowledge about URIs
was related to decreased acute care seeking for 3 upper respiratory symptoms
(clear rhinorrhea, green rhinorrhea, and cough) in the absence of fever (odds
ratios and 95% confidence intervals: 0.45 [0.31-0.65], 0.66 [0.52-0.85], and 0.57
[0.45-0.72], respectively). Parent-reported acute care seeking was not related to
a day care center's polices for exclusion or physician clearance for these
illnesses. Similar results were also found for the parental belief that
antibiotics expedite return to day care for these symptoms. CONCLUSION: Although
it has been suggested that inappropriate day care center policies for exclusion
motivate parental acute care and antibiotic seeking, this study suggests that
parental knowledge is a more important predictor of these reported behaviors than
are day care center policies.

Publication Types:
    Multicenter Study
    Research Support, U.S. Gov't, P.H.S.

PMID: 12695233 [PubMed - indexed for MEDLINE]

225: J Pediatr Hematol Oncol. 2003 Apr;25(4):324-6.

Severe hyperphosphatemia resulting from high-dose liposomal amphotericin in a
child with leukemia.

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Children with acute lymphoblastic leukemia (ALL) are at risk for serious
electrolyte abnormalities. The authors report their experience in managing a
child with ALL who developed severe hyperphosphatemia as a consequence of a large
exogenous load of phosphorus from high-dose liposomal amphotericin B. Health care

providers need to recognize this potentially life-threatening complication of
liposomal amphotericin B, since early detection and intervention can prevent
significant morbidity.

Publication Types:
    Case Reports

PMID: 12679649 [PubMed - indexed for MEDLINE]

226: J Infect Chemother. 2003 Mar;9(1):46-52.

Current status of bacterial resistance in the otolaryngology field: results from
the Second Nationwide Survey in Japan.

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The study reported here was a nationwide assessment of otitis media (466 patients
with acute suppurative otitis media and 476 with chronic suppurative otitis
media), sinusitis (447 with acute sinusitis and 426 with chronic sinusitis),
acute tonsillitis (724 patients), and peritonsillar abscess (141 patients)
performed between November 1998 and March 1999. Eighty university hospitals, 79
affiliated hospitals, and 103 general practitioners participated.
Methicillin-resistant Staphylococcus aureus(MRSA) comprised 15.6% of the 786
isolated strains of S. aureus. MRSA was frequently detected in patients with
suppurative otitis media, but was uncommon in those with acute tonsillitis or
peritonsillar abscess, and it was more common in those who had already been
treated than in those who had not, with a significant difference between the
groups. Vancomycin (VCM) showed the highest antimicrobial activity against MRSA
and no VCM resistance was detected. Penicillin-sensitive Streptococcus
pneumoniae(PSSP), penicillin-intermediate-resistant S. pneumoniae (PISP), and
penicillin-resistant S. pneumoniae (PRSP) accounted for 49.6%, 28.5%, and 21.9%
of the 228 isolated strains of S. pneumoniae, respectively. PISP and PRSP were
frequently detected in children aged 5 years or younger. beta-Lactamase was
produced by 96 of the 100 strains (96%) of Moraxella (Branhamella) catarrhalis.
The 281 strains of Haemophilus influenzae isolated consisted of 199
beta-lactamase-negative, ampicillin-sensitive (BLNASe) strains (70.8%), 65

beta-lactamase-negative ampicillin-resistant (BLNAR) strains (23.1%), and 17
beta-lactamase-producing strains (6.0%). BLNAR strains were frequently detected
in pretreated patients. Of these 281 strains of H. influenzae, 214 had nontypable
capsules. In conclusion, the major bacterial species showed resistance to
beta-lactams, indicating that care should be taken when selecting an appropriate
antimicrobial agent.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 12673407 [PubMed - indexed for MEDLINE]

227: Ann Intern Med. 2003 Apr 1;138(7):525-33.

Comment in:
    Ann Intern Med. 2003 Apr 1;138(7):605-6.

Summary for patients in:
    Ann Intern Med. 2003 Apr 1;138(7):I24.

Changing use of antibiotics in community-based outpatient practice, 1991-1999.

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BACKGROUND: Judicious use of antibiotics can slow the spread of antimicrobial
resistance. However, overall patterns of antibiotic use among ambulatory patients
are not well understood. OBJECTIVE: To study patterns of outpatient antibiotic
use in the United States, focusing on broad-spectrum antibiotics. DESIGN:
Cross-sectional survey in three 2-year periods (1991-1992, 1994-1995, and
1998-1999). SETTING: The National Ambulatory Medical Care Survey, a nationally
representative sample of community-based outpatient visits. PATIENTS: Patients
visiting community-based outpatient clinics. MEASUREMENTS: Rates of overall
antibiotic use and use of broad-spectrum antibiotics (azithromycin and
clarithromycin, quinolones, amoxicillin-clavulanate, and second- and
third-generation cephalosporins). All comparisons were made between the first
study period (1991-1992) and the final study period (1998-1999). RESULTS: Between
1991-1992 and 1998-1999, antibiotics were used less frequently to treat acute
respiratory tract infections, such as the common cold and pharyngitis. However,

use of broad-spectrum agents increased from 24% to 48% of antibiotic prescriptions in adults (P < 0.001) and from 23% to 40% in children (P < 0.001).
Use of broad-spectrum antibiotics increased across many conditions, increasing two- to threefold as a percentage of total antibiotic use for a variety of diagnoses in both adults and children. By 1998-1999, 22% of adult and 14% of pediatric prescriptions for broad-spectrum antibiotics were for the common cold, unspecified upper respiratory tract infections, and acute bronchitis, conditions that are primarily viral. CONCLUSIONS: Antibiotic use in ambulatory patients is decreasing in the United States. However, physicians are increasingly turning to expensive, broad-spectrum agents, even when there is little clinical rationale for their use.

Publication Types:
    Research Support, Non-U.S. Gov't
    Research Support, U.S. Gov't, P.H.S.

PMID: 12667022 [PubMed - indexed for MEDLINE]

228: Chest. 2003 Mar;123(3):757-64.

Comment in:
    Chest. 2003 Nov;124(5):2036-7; author reply 2037-8.

Concomitant chronic sinusitis treatment in children with mild asthma: the effect on bronchial hyperresponsiveness.

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STUDY OBJECTIVE: Previous studies have suggested that aggressive treatment of sinusitis can decrease bronchial hyperresponsiveness (BHR). However, there is still too little evidence to draw this conclusion, and the concept remains controversial. DESIGN: A prospective, open-label study. SETTING: University children's hospital allergy and immunology center and radiologic department.
PATIENTS: Sixty-one children with mild asthma and allergic rhinitis participated in the study. Forty-one of these 61 children had sinusitis, and the remainder had no sinusitis. Ten matched, nonatopic, healthy children were used as a control group. INTERVENTION: Children with chronic sinusitis were placed into two groups.

One group was treated with amoxicillin-clavulanate for 6 weeks and then with nasal saline solution irrigation for 6 weeks. For the other group, the treatment order was reversed. Children without chronic sinusitis received nasal saline solution irrigation for 12 weeks. MEASUREMENTS: Clinical symptoms and signs of sinusitis, FEV(1), and BHR were analyzed in the patients before and after treatment. RESULTS: The clinical symptoms and signs of sinusitis, but not FEV(1), showed a significant improvement after antibiotic treatment. After aggressive treatment for sinusitis, it was found that the provocative concentration of methacholine causing a 20% fall in FEV(1) of children with mild asthma and sinusitis was significantly higher after treatment. CONCLUSION: The results suggest that every asthmatic patient needs to carefully evaluate to determine whether the patient has concomitant sinusitis. Respiratory infections that meet criteria for sinusitis, even if they do not exacerbate asthma, should be treated.
It is suggested that sinusitis should always be kept in mind as a possible inducible factor for BHR, and that aggressive treatment of chronic sinusitis is indicated when dealing with an asthmatic patient who shows an unpredictable response to appropriate treatment. Moreover, the findings of this study provide more evidence for an association between sinusitis and asthma with respect to BHR.

Publication Types:
    Clinical Trial
    Controlled Clinical Trial
    Research Support, Non-U.S. Gov't

PMID: 12628875 [PubMed - indexed for MEDLINE]

229: Clin Infect Dis. 2003 Mar 1;36(5):575-9. Epub 2003 Feb 7.

Comment in:
    Clin Infect Dis. 2004 Apr 15;38(8):1194-5; author reply 1195.

Klebsiella infection in patients with thalassemia.

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Klebsiella infection has previously been reported in a few patients with

transfusion-dependent thalassemia. The incidence and clinical spectrum of this infection in our cohort of patients were reviewed retrospectively. Among 160 patients observed for 12 years, there were 15 episodes of Klebsiella infection that occurred in 12 patients (7.5%), resulting in an incidence of 0.78 infections per 100 patient-years. The clinical spectrum included sinusitis (4 cases), intracranial infection (5 cases), septicemia (4 cases), and abscesses of the liver, lung, kidney, and parotid gland (1 case each). Three patients had recurrent infections involving different sites, 2 (16%) died of fulminant septicemia, and 3 (25%) had significant permanent neurological deficits. The antibiotic susceptibility pattern for the isolates was similar to the pattern for isolates recovered in the community. With regard to predisposing factors, iron overload and liver function derangement were found to be significant on univariate analysis (P=.046 and P=.049, respectively) but insignificant on multivariate analysis. Klebsiella infection was a serious and frequently encountered complication in our patients with transfusion-dependent thalassemia, resulting in high mortality and morbidity rates.

PMID: 12594637 [PubMed - indexed for MEDLINE]

230: Scand J Infect Dis. 2002;34(12):880-6.

Upper respiratory tract infections in general practice: diagnosis, antibiotic prescribing, duration of symptoms and use of diagnostic tests.

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A diagnosis/antibiotic prescribing study was performed in 5 counties in Sweden for 1 week in November 2000. As part of this study, the characteristics and clinical management of patients with upper respiratory tract infections (n = 2899) in primary care were analyzed. Almost half of the patients were aged < 15 y and one-fifth of the patients consulted out of hours. Of all patients seeking primary care for upper respiratory tract infections, 56.0% were prescribed an antibiotic. Almost all patients who were given the diagnoses streptococcal

tonsillitis, acute otitis media or acute sinusitis were prescribed antibiotics,
compared to 10% of patients with common cold or acute pharyngitis. The most
frequently prescribed antibiotic was penicillin V (79.2%) and this was even more
pronounced out of hours, when the diagnoses otitis media and streptococcal
tonsillitis were more frequently used. In patients with common cold and acute
pharyngitis, the percentage who received antibiotics increased with increasing
length of symptoms and increasing CRP levels. In patients with acute pharyngitis
or streptococcal tonsillitis, antibiotics were prescribed less frequently
provided streptococcal tests were performed. The management of patients with
upper respiratory tract infections in general practice seems to be in good
agreement with current Swedish guidelines. However, the study indicates some
areas for improvement. The diagnosis of acute sinusitis seems to have been
overestimated and used only to justify antibiotic treatment.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 12587619 [PubMed - indexed for MEDLINE]

231: Pediatrics. 2003 Feb;111(2):231-6.

Misconceptions about colds and predictors of health service utilization.

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OBJECTIVE: Colds accounted for 1.6 million emergency department (ED) visits and
25 million ambulatory visits by children and adults in 1998. Although most colds
are caused by viruses and do not require medical intervention, many families seek
health care for the treatment of colds. Parental misconceptions about the cause
and appropriate treatment of colds may contribute to unnecessary health service
utilization. The objective of this study was to determine predictors of reported
ED use and ambulatory care use for colds among families with young children.
METHODS: This study was an observational, prospective cohort study to determine
attack rates for respiratory illnesses within families that have at least 1 child

who is 6 months to 5 years of age and enrolled in out-of-home child care.
Families were randomly selected from 5 pediatric practices in Massachusetts and
were considered eligible when the child was enrolled in child care with at least
5 other children for >or=10 hours per week. Enrolled families were asked to
complete a survey that assessed knowledge about colds, antibiotic indications,
and frequency of health service utilization. Predictors of self-reported use of
health care services were assessed in multivariate logistic regression models.
RESULTS: Of the 261 families enrolled in the study, 197 families (75%) returned
completed surveys. Although 93% of parents understood that viruses caused colds,
66% of parents also believed that colds were caused by bacteria. Fifty-three
percent believed that antibiotics were needed to treat colds. Parents reported
that they would visit the ED (23%) or their doctor's office (60%) when their
child had a cold. Predictors of ED use on multivariate analysis included Medicaid
insurance (odds ratio [OR]: 17.6 [2.2-139.3]), history of wheezing (OR: 18.3
[4.4-75.8]), and belief that antibiotics treat colds (OR: 4.2 [1.4-12.9]).
Predictors of ambulatory care use included parent younger than 30 years (OR: 10.0
[1.6-64.3]), history of wheezing (OR: 5.6 [1.1-29.7]), and belief that
antibiotics treat colds (OR: 3.8 [1.7-8.5]). CONCLUSIONS: Misconceptions about
the appropriate treatment of colds are predictive of increased health service
utilization. Targeted educational interventions for families may reduce
inappropriate antibiotic-seeking behavior and unnecessary health service
utilization for colds.

Publication Types:
    Research Support, Non-U.S. Gov't
    Research Support, U.S. Gov't, P.H.S.

PMID: 12563044 [PubMed - indexed for MEDLINE]

232: Indian Pediatr. 2003 Jan;40(1):7-12.

Comment in:
    Indian Pediatr. 2003 Nov;40(11):1111.

Inappropriate antibiotic prescription to children with acute respiratory
infection in Brazil.

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OBJECTIVE: To determine the rate of inappropriate antibiotic prescription and to describe the types of antibiotics prescribed by health workers to children with acute respiratory infection (ARI). DESIGN: Cross-sectional survey conducted in 6 state capitals of Brazil. METHODS: A representative sample of facilities was selected in each state using a cluster sampling method based on the mean number of visits of children less than 5 years of age. In each facility, consultations were observed and children were reassessed following standard guidelines. Health worker s diagnosis and treatment were compared with a gold standard and inappropriate antibiotic prescriptions noted. RESULTS: 1565 children with ARI from 156 health facilities (73% health centers) were included in study. Most children had a common cold (77.5%). Antibiotics were inappropriately prescribed in 9.2% (95% CI: 7.8, 10.7) of ARI cases (range: 2.8% to 25%). Most frequently prescribed antibiotics were those recommended by the ARI Program. Seventy-six percent of health workers explained to guardians how to use antibiotics at home and 3.9% demonstrated the first dose. Antibiotics were available in 84% of health facilities. CONCLUSION: Inappropriate prescription of antibiotics varied geographically in Brazil. More training and supervision is needed to decrease it.

Publication Types:
Multicenter Study
Research Support, Non-U.S. Gov't

PMID: 12554911 [PubMed - indexed for MEDLINE]

233: Paediatr Drugs. 2003;5(2):71-80.

Acute sinusitis in children: current treatment strategies.

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Acute sinusitis is a very common infection in childhood, but its management remains a controversial issue. Antibacterials may be effective in selected children, but direct evidence is limited. One randomized, placebo-controlled

trial has shown that amoxicillin or amoxicillin/clavulanate are better than placebo for children with symptoms of nasal discharge and cough that are persistent (over 10 days) and not improving. However, another placebo-controlled trial of the same agents did not demonstrate any benefit from antibacterials in a patient population selected with a clinical diagnosis of sinusitis of moderate severity, based on a composite clinical symptom score. A systematic assessment of cure rates with various antibacterials shows no consistent differences between classes. Evidence on the use of ancillary measures and nasal corticosteroids is also limited. The only randomized, placebo-controlled trial of antihistamines and decongestants has shown no incremental benefit when given in addition to amoxicillin. Another placebo-controlled randomized trial showed some transient symptomatic improvement with the use of nasal corticosteroids. No randomized trials exist on the use of antral lavage in children with acute sinusitis. The current rates of antimicrobial resistance among commonly implicated pathogens should be considered in therapeutic decisions. However, there is no evidence from well-designed trials on specifically how to manage children at high risk of carrying resistant organisms. The inaccuracy of clinical signs and symptoms in documenting the diagnosis further complicates therapeutic decisions. Nevertheless, radiographic assessment does not meaningfully improve the accuracy of the diagnosis for uncomplicated cases, and it is not cost effective. In the absence of definitive evidence, treatment with amoxicillin 45 mg/kg/day in two divided doses may be used in selected patients with symptoms that are persistent and not improving. High doses (90 mg/kg in two divided doses) may also be considered, and amoxicillin/clavulanate may be a more appropriate choice when there is high risk of resistant pathogens, e.g. in a child attending a childcare center, or recent use of antibacterials. However, a considerable proportion of children, especially those with mild or improving symptoms, may not have to be treated at all.

Publication Types:
    Review

PMID: 12529160 [PubMed - indexed for MEDLINE]

234: Cochrane Database Syst Rev. 2002;(4):CD001094.

Update in:
Cochrane Database Syst Rev. 2007;(3):CD001094. Cochrane Database Syst Rev. 2008;(2):CD001094.

Update of:
Cochrane Database Syst Rev. 2000;(3):CD001094.

Antibiotics for persistent nasal discharge (rhinosinusitis) in children.

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BACKGROUND: Nasal discharge (rhinosinusitis) is extremely common in children. It is the result of inflammation of the mucosa of the upper respiratory tract, and is usually due to either infection or allergy. OBJECTIVES: To determine the effectiveness of antibiotics versus placebo or standard therapy in treating children with persistent nasal discharge (rhinosinusitis) for at least 10 days. SEARCH STRATEGY: The Cochrane Controlled Trials Register, MEDLINE, EMBASE, and the references of relevant articles were searched. Authors and pharmaceutical companies were contacted. Date of most recent searches: February 2002. SELECTION CRITERIA: All randomised controlled trials that compared antibiotics versus placebo or standard therapy. Trials which included the use of other medications were included if all participants were allowed equal access to such medications or if the additional or alternative therapies were regarded as ineffective. Trials that only combined or compared antibiotics with surgery, or sinus puncture and lavage, were not included in the review. DATA COLLECTION AND ANALYSIS: Data were extracted by a single reviewer for the following eight outcomes: overall clinical failure (primary outcome), failure to cure, failure to improve, clinical improvement, time to resolution, complications, side-effects and bacteriologic failure. For the dichotomous outcome variables of each individual study, proportional and absolute risk reductions were calculated using a modified intention-to-treat analysis. The summary weighted risk ratio and 95% confidence interval (fixed effects model) were calculated using the inverse of the variance

of each study result for weighting (Cochrane statistical package, REVMAN version
4.1). MAIN RESULTS: A total of six studies involving 562 children compared
antibiotics with placebo or standard therapy. Only the primary outcome (overall
clinical failure) was reported in all studies. Around 40% of all randomised
children did not have a clinical success documented when reviewed two to six
weeks after randomisation. The control event rate varied from to 22 to 71% (mean
46%). The risk ratio estimated using a fixed effects model was 0.75 (95% CI 0.61
to 0.92). There was no evidence of statistical heterogeneity. Side effects
occurred in 4 of 189 control group children (four studies). More children treated
with antibiotics had side effects (17 of 330), but this difference was not
statistically significant (RR 1.75, 95% CI 0.63 to 4.82). REVIEWER'S CONCLUSIONS:
For children with persistent nasal discharge or older children with
radiographically confirmed sinusitis, the available evidence suggests that
antibiotics given for 10 days will reduce the probability of persistence in the
short to medium-term. The benefits appear to be modest and around eight children
must be treated in order to achieve one additional cure (NNT 8, 95% CI 5 to 29).
No long term benefits have been documented. These conclusions are based on a
small number of small randomised controlled trials and may require revision as
additional data become available.

Publication Types:
    Meta-Analysis
    Review

PMID: 12519551 [PubMed - indexed for MEDLINE]

235: J Allergy Clin Immunol. 2002 Nov;110(5 Suppl):S180-3.

Use of antibiotics to treat asthma exacerbations.

National Asthma Education and Prevention Program.

Publication Types:
    Guideline
    Practice Guideline
    Review

PMID: 12518559 [PubMed - indexed for MEDLINE]

236: Lancet. 2003 Jan 4;361(9351):51-9.

Comment in:

Lancet. 2003 Mar 1;361(9359):782. Lancet. 2003 Mar 1;361(9359):782; author reply 782. Lancet. 2003 Mar 1;361(9359):783.

The common cold.

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Despite great advances in medicine, the common cold continues to be a great burden on society in terms of human suffering and economic losses. Of the several viruses that cause the disease, the role of rhinoviruses is most prominent. About a quarter of all colds are still without proven cause, and the recent discovery of human metapneumovirus suggests that other viruses could remain undiscovered. Research into the inflammatory mechanisms of the common cold has elucidated the complexity of the virus-host relation. Increasing evidence is also available for the central role of viruses in predisposing to complications. New antivirals for the treatment of colds are being developed, but optimum use of these agents would require rapid detection of the specific virus causing the infection. Although vaccines against many respiratory viruses could also become available, the ultimate prevention of the common cold seems to remain a distant aim.

Publication Types:
Research Support, Non-U.S. Gov't
Review

PMID: 12517470 [PubMed - indexed for MEDLINE]

237: Otolaryngol Head Neck Surg. 2002 Dec;127(6 Suppl):S3-9.

Issues in the management of bacterial sinusitis.

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Office visits for acute bacterial rhinosinusitis (ABRS) have increased steadily in the past 2 decades, and ABRS accounted for 0.4% of ambulatory diagnoses in 1995, ranking as the fifth most common diagnosis for which an antibiotic is prescribed. ABRS typically begins as a viral respiratory tract infection, but

bacterial growth is demonstrated in 60% of adults with upper respiratory tract infection symptoms of at least 10 days duration. Important factors to consider when selecting an antibiotic regimen for ABRS include: severity of disease, rate of disease progression, earlier antibiotic treatment, regional resistance rates, and, in children, an age <5 years and attendance in day care centers. The most prevalent causative pathogens of sinusitis are Streptococcus pneumoniae, Haemophilus influenzae, and Moraxella catarrhalis. Antimicrobial agent use is under significant scrutiny in this era of emerging bacterial resistance, and antibiotic treatment for sinusitis should include consideration of drug pharmacodynamics. Several agents, once considered first-line therapies, can no longer be considered dependable in this role. Rather, newer antibiotics may be called on to provide efficacy and forestall additional antimicrobial resistance among respiratory tract pathogens.

Publication Types:
    Research Support, Non-U.S. Gov't
    Research Support, U.S. Gov't, P.H.S.
    Review

PMID: 12511854 [PubMed - indexed for MEDLINE]

238: Int J Antimicrob Agents. 2003 Jan;21(1):58-62.

Severe nosocomial infections with imipenem-resistant Acinetobacter baumannii treated with ampicillin/sulbactam.

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Forty consecutive patients with nosomial infections caused by multidrug-resistant Acinetobacter baumannii were treated with intravenous ampicillin/sulbactam. The infections were primary bloodstream (32.5%), pneumonia (30%), urinary tract (15%), peritonitis (7.5%), surgical site (7.5%), meningitis (5%) and sinusitis (2.5%). Most were severe infections with underlying conditions (median APACHE II score: 14.5) and 72.5% occurred in the ICU. Twenty-seven (67.5%) were improved/cured, seven (17.5%) were failures and six (15%) were considered to have an indeterminate outcome because patients died within the first 48 h of

treatment. Two cases of meningitis were treated and did not respond. The median
daily dose of ampicillin/sulbactam was 6 g/3 g and six patients received 12 g/6
g. No adverse effects were observed. This study indicates that ampicillin/sulbactam may be a good and safe therapeutic option to treat severe
nosocomial infections caused by multi-drug resistant A. baumannii.

PMID: 12507838 [PubMed - indexed for MEDLINE]

239: Aten Primaria. 2002 Nov 15;30(8):490-5.

[Antibiotics prescription in ambulatory patient]

[Article in Spanish]

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OBJECTIVE: To find what antibiotics are prescibed for common infections in adult
and paediatric primary care patients. DESIGN: Drug utilization (DU) study:
cross-sectional and observational design. SETTING: Primary care centres and
hospital casualty departments in Bages and Berguedà counties (total population:
198 129 inhabitants). PARTICIPANTS: Adults and children with acute respiratory
infection, acute otitis media, acute pharyngitis, acute tonsillitis, or acute
bronchitis and flu syndrome; adults only with acute sinusitis, attacks of chronic
obstructive pulmonary disease (COPD) or urinary infections. MAIN MEASUREMENTS AND
RESULTS: 1596 episodes from November 1999 to February 2000 were collected. 975
(61%) of these were in adults, and 621 (3996) in children. Of the infections of
mainly viral aetilogy, those most commonly treated with antibiotics were acute
Bronchitis, in both adults (76.096 [95% CI, 67.6%-84.2%]) and children (60296
[95% CI, 50.0%-70.5%]). The most common antibiotics were: amoxycillin/clavulanic
acid for otitis (34%), sinusitis (37%) and tonsillitis (44%) in adults macrolides
in attacks of COPD (4096) and tonsillitis (33%) in children; quinolones for
urinary infections (56%), and cefalor for otitis in children (2096). CONCLUSIONS:
Local policy measures need to be taken to improve use of antibiotics for primary

care patients. DU studies are extremely useful, as their description of the
pattern of prescription enables concrete problems to be detected.

Publication Types:
    English Abstract

PMID: 12506924 [PubMed - indexed for MEDLINE]

240: MMW Fortschr Med. 2002 Oct 31;144(44):31-5.

[Rhinosinusitis. Current diagnostic and therapeutic aspects]

[Article in German]

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Over the past years, the incidence of acute and chronic forms of rhinosinusitis
has been increasing, and between 10 and 15% of the population of Central Europe
are affected annually. Accordingly, the economic significance of rhinosinusitis
is considerable. This makes the need for appropriate diagnostic and therapeutic
strategies all the more urgent. In addition to case history and a physical
examination, a helpful diagnostic strategy also includes rhinoendoscopy and--in
particular in preparation for surgery--a CT scan. A plain radiograph does not
suffice to confirm chronic sinusitis. The major therapeutic pillar in the
treatment of acute rhinosinusitis is medication in conformity with accepted
guidelines (proof of efficacy!). In the majority of cases chronic courses can be
managed by minimally invasive surgery.

Publication Types:
    Comparative Study
    English Abstract
    Review

PMID: 12494595 [PubMed - indexed for MEDLINE]

241: Pediatr Infect Dis J. 2002 Dec;21(12):1157-8.

Periorbital versus orbital cellulitis.

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Publication Types:
    Comparative Study
    Review

PMID: 12488668 [PubMed - indexed for MEDLINE]

242: Ann Allergy Asthma Immunol. 2002 Dec;89(6):553-60.

Viral respiratory infections in association with asthma and sinusitis: a review.

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OBJECTIVE: Viral respiratory infections (VRIs) commonly precede asthma exacerbations in both children and adults. Likewise, VRIs may affect the paranasal sinuses, predisposing infected individuals to the development of subsequent acute bacterial sinusitis. This article discusses the role that viruses play in both the development of asthma and in acute asthma exacerbations. Mechanisms by which viral infections provoke asthma exacerbations are reviewed, and treatment of such episodes is discussed. The pathogenesis of sinusitis and association with VRIs is reviewed along with treatment recommendations. DATA SOURCES: Relevant articles in the medical literature were reviewed with sources including randomized, controlled clinical trials, review articles, epidemiologic studies, and standard textbooks in allergy and immunology. CONCLUSIONS: This review highlights the prominent role that viral pathogens (especially rhinovirus) play in exacerbation of asthma and in the development of sinus disease. The specific mechanisms whereby viral infection leads to an acute asthma exacerbation or to subsequent bacterial sinusitis are described. Treatment options are outlined including the potential future application of antiviral compounds.

Publication Types:
Research Support, Non-U.S. Gov't
Review

PMID: 12487219 [PubMed - indexed for MEDLINE]

243: Chest. 2002 Dec;122(6):2042-9.

Immunostimulation with OM-85 in children with recurrent infections of the upper respiratory tract: a double-blind, placebo-controlled multicenter study.

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OBJECTIVE: Recurrent upper respiratory tract infections (URTIs) are common
illnesses in young children. As the immunoactive bacterial extract OM-85 has been
shown to prevent these infections in both adults and children, the aim of the
present trial was to investigate further its efficacy and safety in
infection-prone children. METHODS: This is a randomized, double-blind,
placebo-controlled, multicenter study with OM-85 in 232 patients aged 36 to 96
months with recurrent URTIs. Treatment was one capsule daily during month 1 and
during 10 days in months 3 to 5. URTI was defined by the presence of at least two
of the following: rhinitis, pharyngitis, cough, hoarseness, temperature > or =
38.5 degrees C, or URTI-related prescription of an antibiotic.
RESULTS:
OM-85-treated patients had a lower rate of URTIs ($p < 0.05$). The cumulated
difference in URTIs between the two groups reached - 0.40 URTIs per patient in 6
months, corresponding to a 16% reduction in the active-treatment group with
respect to placebo. The largest difference was observed in the patients having
had three or more URTIs during the study period; odds ratios for three or more
URTIs were 0.51 (95% confidence interval, 0.29 to 0.91) and 0.65 (95% confidence
interval, 0.37 to 1.11) after 5 months and 6 months, respectively. The difference
between OM-85 and placebo was independent of age but was more important in
patients reporting a larger number of URTIs in the previous year. Patients'
global assessment showed improvement in comparison to the previous season in the
majority of the cases (OM-85, 78.4% of cases; placebo, 75.5%); however, there
were more cases reporting worsening with placebo (6.4% vs 0.9%; $p = 0.05$).
CONCLUSIONS: OM-85 treatment significantly reduced the rate of URTIs,
particularly in children with a history of frequent URTIs. Safety and tolerance
of test medication were good, comparable to placebo.

Publication Types:
    Clinical Trial
    Multicenter Study
    Randomized Controlled Trial
    Research Support, Non-U.S. Gov't

PMID: 12475845 [PubMed - indexed for MEDLINE]

244: BMJ. 2002 Dec 7;325(7376):1311-2.

Comment in:
    BMJ. 2003 Mar 1;326(7387):502.

Comment on:

Br Med J. 1977 Aug 27;2(6086):552-4.

Antibiotics for acute purulent rhinitis.

Arroll B, Kenealy T.

Publication Types:
Comment
Editorial

PMID: 12468457 [PubMed - indexed for MEDLINE]

245: J Allergy Clin Immunol. 2002 Dec;110(6):862-6.

Comment in:
J Allergy Clin Immunol. 2003 May;111(5):1137-8; author reply 1138-40.

Intranasal antifungal treatment in 51 patients with chronic rhinosinusitis.

Ponikau JU, Sherris DA, Kita H, Kern EB.

Department of Otorhinolaryngology-Head and Neck Surgery, Mayo Clinic Rochester,
Rochester, MN 55905, USA.

BACKGROUND: Chronic rhinosinusitis (CRS) is the most common chronic disease that
is frequently refractory to treatment. OBJECTIVE: We sought to establish the
safety and demonstrate the clinical efficacy of intranasal antifungal drug
therapy in patients with CRS in a pilot trial. METHODS: A prospective open-label
trial used amphotericin B as a medical treatment in 51 randomly selected patients
with CRS. The antifungal agent was applied intranasally as 20 mL of a 100
microg/mL solution twice daily. The outcome was measured by using their symptoms
and by using an endoscopic scoring system in all patients. In addition,
pretreatment and posttreatment coronal computed tomographic scans of the nose and
sinuses were available for evaluation in 13 patients. RESULTS: By using
amphotericin B, improvement of sinusitis symptoms was observed in 38 (75%) of 51
patients. Endoscopically, 18 (35%) of 51 patients became disease free, and an
additional 20 (39%) of 51 had improvement of at least one stage (P <.001). No
effect was seen in 13 (25%) of 51 patients. The available computed tomographic
scans before and after treatment demonstrated a significant reduction in the
inflammatory mucosa thickening that had occluded the paranasal sinuses (P <.0001
in maxillary sinus). CONCLUSION: This open-label pilot trial demonstrates that

direct mucoadministration of an antifungal drug appears to be both safe and effective in the treatment of patients with CRS. Therefore controlled and blinded trials are indicated to clarify the novel role of intranasal antifungal drugs in the treatment of CRS.

Publication Types:
    Clinical Trial
    Randomized Controlled Trial
    Research Support, Non-U.S. Gov't
    Research Support, U.S. Gov't, P.H.S.

PMID: 12464951 [PubMed - indexed for MEDLINE]

246: Acta Paediatr. 2002;91(11):1251-6.

Epidemiology of invasive Streptococcus pneumoniae infections in children in an area of Barcelona, Spain.

Pineda V, Fontanals D, Larramona H, Domingo M, Anton J, Segura F.

Department of Pediatrics, Hospital de Sabadell, Sabadell, Spain. vpineda@cspt.es

AIM: Streptococcus pneumoniae is the most common cause of bacteraemia, pneumonia, sinusitis and acute otitis media. With the advent of conjugate vaccines, there is now the possibility of preventing disease caused by this organism. However, little is known about the epidemiology of invasive pneumococcal disease in children in Spain. The aim of this study was to determine the incidence and the clinical and microbiologic characteristics of invasive pneumococcal disease in Sabadell, an industrial area in the province of Barcelona, Spain. METHODS: From January 1990 to December 2000, the case records of children with pneumococcal invasive disease at Sabadell Hospital were retrospectively (1990-1996) reviewed and prospectively (1997-2000) collected. The hospital serves a population of 61,143 children under 15 y of age, 18,073 children under 4 y of age and 7300 children under 2 y of age. RESULTS: A total of 112 children (54% under 24 mo of age and 93% under 6 y of age) with invasive pneumococcal disease were diagnosed during a period of 11 y. The incidence of invasive pneumococcal disease was 76 per 100,000 for children aged 0 to 24 mo, 45 for children aged 0-48 mo and 16.6 for children aged 0-14 y. Occult bacteraemia was the most common manifestation of invasive pneumococcal disease (66 cases), pneumonia was the second form (34

cases) and meningitis (10 cases) and arthritis (2 cases) were the other clinical manifestations. Of the 105 strains tested, 8.6% were highly penicillin resistant, 37.1% were intermediately penicillin resistant. 16.2% were intermediately cefotaxime resistant and 32.4% were erythromycin resistant. Pneumococci of serogroups 6, 14, 18, 19, 1, 5, 4, 9, 23 and 33 were the most frequently isolated groups (92%) but only 6, 9, 14, 19 and 23 were resistant to penicillin, cefotaxime, or erythromycin. CONCLUSIONS: In this study the incidence of invasive pneumococcal disease was found to be greater than that reported elsewhere in Spain and Europe. Penicillin resistance levels are high but the trend towards increasing penicillin resistance may have ended over the past few years. The currently licensed seven-valent (7-V) pneumococcal conjugate vaccine would cover 78% of cases of invasive pneumococcal in children aged 0-14 y, 80% in children aged 0-24 mo and 100% of cases of penicillin- or cefotaxime-resistant invasive pneumococcal disease.

PMID: 12463327 [PubMed - indexed for MEDLINE]

247: An Otorrinolaringol Ibero Am. 2002;29(4):393-402.

[Orbital cellulitis: review and presentation of 20 cases]

[Article in French, Spanish]

Ibarrondo Pastrana J, Lorente Guerrero J, Serra Carreras J, García López M, Quesada Martínez JL, Quesada Marín P, Perelló Scherdel E.

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The orbital cellulitis is an infection of the soft tissues located behind of the orbital setum. It is presented as a complication of an acute sinusitis although it can appear as consequence of other infectious processes. We present a series of 20 cases diagnosed and treated in our center of orbital cellulitis. We expose the diagnostic criteria that we have followed, as well as the complementary tests used and the different treatments both medical and surgical.

Publication Types:
English Abstract
Review

PMID: 12462932 [PubMed - indexed for MEDLINE]

248: Med Microbiol Immunol. 2002 Dec;191(3-4):165-8. Epub 2002 Sep 12.

Early therapy with the neuraminidase inhibitor oseltamivir maximizes its efficacy in influenza treatment.

Gillissen A, Höffken G.

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Influenza illness is an important cause of severe morbidity and mortality in the population. Oseltamivir, the first oral neuraminidase inhibitor, has proven efficacy. In children of 1 year and older (weight-dependent dosing: 30 mg, 45 mg, 60 mg or 75 mg BID for 5 days) and adults (75 mg BID for 5 days), oseltamivir reduces the duration and severity of acute influenza. Furthermore, it decreases the incidence of secondary complications such as otitis media, bronchitis, pneumonia and sinusitis. Oseltamivir has been shown to prevent influenza when given for long-term prophylaxis or for post-exposure prophylaxis. Because oseltamivir blocks the neuraminidase, an enzyme crucial to influenza virion liberation from the host cell, it is only effective during the replication phase. Clinical benefits are only seen, when oseltamivir is applied within 48 h after onset of symptoms, and clinical efficacy in acute influenza is highly dependent on the beginning of treatment. Treatment within 12 h after onset of symptoms reduces the duration of illness by an additional 74.6 h, and treatment within 24 hours an additional 53.9 h compared to the benefit seen with an intervention at 48 h. In conclusion, clinical efficacy of oseltamivir can be maximized by early start of treatment. Resistance of influenza virus against oseltamivir has rarely been observed and seems to be of no clinical relevance due to reduced transmissibility and pathogenicity of mutants. Oseltamivir is generally well tolerated. About 10% of the patients complain of transient upper gastrointestinal events, which resolved within 1-2 days, and which could be reduced when the medication was taken with a light snack.

Publication Types:
Review

PMID: 12458353 [PubMed - indexed for MEDLINE]

249: South Med J. 2002 Oct;95(10):1163-7.

Are pediatricians adhering to principles of judicious antibiotic use for upper
respiratory tract infections?

Nambiar S, Schwartz RH, Sheridan MJ.

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for Research and Education, Falls Church, VA, USA.

BACKGROUND: In 1997, the Centers for Disease Control and Prevention (CDC), in
collaboration with other professional organizations, released principles for
judicious use of antibiotics in pediatric upper respiratory illnesses (URI). This
study compared use of antibiotics for URI in children before (1995) and after
(1998) publication of the principles and compared survey responses with practice
habits. METHODS: A questionnaire was mailed to a sample of pediatricians in
northern Virginia. Office records of a randomly selected subset of pediatricians
were reviewed. RESULTS: Seventy-five percent of pediatricians completed the
questionnaire; 51/149 (34%) chose to prescribe antibiotics for purulent
rhinorrhea of less than 10 days' duration. This was significantly lower than that
reported in the 1995 survey. However, review of office records of a random sample
of these pediatricians revealed no significant difference in antibiotic use in
children with uncomplicated URI in the 2 years studied. CONCLUSIONS: Injudicious
antibiotic use for URI is prevalent among pediatricians in northern Virginia.
Actual practice habits are at variance with response to case vignettes.

Publication Types:
    Clinical Trial
    Randomized Controlled Trial

PMID: 12425502 [PubMed - indexed for MEDLINE]

250: Am J Ther. 2002 Nov-Dec;9(6):472-5.

Comment in:
    Am J Ther. 2003 May-Jun;10(3):233; author reply 233-4.

Effectiveness of zinc gluconate glycine lozenges (Cold-Eeze) against the common
cold in school-aged subjects: a retrospective chart review.

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Of the 62 million common colds requiring medical attention in the United States each year, more than 80% affect school-aged children. Controlled clinical trials have demonstrated the effectiveness of zinc gluconate glycine lozenges (Cold-Eeze) in reducing cold duration. The objective of this study was to determine the effectiveness of zinc gluconate glycine lozenges in reducing the duration and severity of colds in school-aged subjects and to identify the benefits of prophylactic administration of zinc gluconate glycine lozenges in reducing the occurrence of colds. The medical charts of subjects enrolled at Utah's Heritage Center before and after the introduction of zinc gluconate glycine lozenges (between January 1998 and August 2001) were reviewed to identify those who experienced cold signs or symptoms. Two or more prespecified signs or symptoms on the same day identified a cold and, along with patient or medical staff reports and use of cold medications, were used to determine cold start and resolution dates. Results from subjects who did or did not take study treatment were compared statistically to determine the prophylactic effects of lozenge use. Effects of zinc gluconate glycine lozenges on the need for antibiotic therapy were also analyzed. The review encompassed 496 records. Treatment with zinc gluconate glycine lozenges significantly decreased cold duration (7.5 versus 9.0 days for nonuse; $P < 0.0001$). Prophylaxis also significantly reduced the median number of colds per year (0.0 versus 1.3; $P < 0.001$) and concomitant antibiotic use to manage colds (4.1% versus 36.2%; $P < 0.0001$). Therapy with zinc gluconate glycine lozenges significantly reduced cold duration and antibiotic use in school-aged subjects. Prophylactic administration also significantly decreased cold frequency.

PMID: 12424502 [PubMed - indexed for MEDLINE]

251: Arch Pediatr Adolesc Med. 2002 Nov;156(11):1114-9.

Antibiotic prescribing by primary care physicians for children with upper respiratory tract infections.

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OBJECTIVES: To determine if the rate of appropriate antibiotic use in the
treatment of children with bronchitis, viral upper respiratory tract infections,
sinusitis, otitis media, and pharyngitis has changed in recent years and to
identify factors that are associated with the use of inappropriate antibiotic
therapy. DESIGN: The National Ambulatory Medical Care Survey was used to examine
the antimicrobial prescribing habits of physicians who provide primary care for
children. Data were analyzed from 1995-1998. SETTING: Office-based physician
practices. PARTICIPANTS: Pediatricians, family physicians, and generalists
completing survey forms for patients younger than 18 years. MAIN OUTCOME MEASURE:
The appropriate use of antibiotics for upper respiratory tract infections.
RESULTS: Multivariate analyses were used to examine factors associated with the
use of inappropriate antibiotics to treat either upper respiratory tract
infections or bronchitis. Patients seen in 1998 and diagnosed as having upper
respiratory tract infections were 0.69 (95% confidence interval, 0.59-0.81) times
less likely to be treated with antibiotics compared with patients seen in 1995.
Multivariate analyses were also used to assess factors associated with the use of
antibiotics with a suboptimal therapeutic profile for the treatment of either
sinusitis or otitis media. Children diagnosed as having either sinusitis or
otitis media were 0.3 (95% confidence interval [CI], 0.16-0.48) times less likely
to receive antibiotics with a suboptimal therapeutic effect in 1998 compared with
1995. CONCLUSIONS: Physicians are slowly improving their antibiotic prescribing
patterns but the use of inappropriate antibiotics is still common. Almost half of
patients with upper respiratory tract infections receive antibiotics.

PMID: 12413339 [PubMed - indexed for MEDLINE]

252: J Fam Health Care. 2002;12(2):39-41.

Childhood coughs and colds.

Jones M.

Royal College of Nursing, London.

Causes, incidence and management of coughs and colds in children are discussed.
In most cases consultation with a doctor and antibiotic therapy are unnecessary
but health visitors and nurses have an important role in reassuring parents and
advising them on management and relief of symptoms. When symptoms are frequent
and persistent, the possibility of an underlying cause such as asthma should be
considered. Parents should be advised to consult their doctor if a young baby
with a cough or cold seems ill and is reluctant to feed, even if the baby does
not have a raised temperature.

Publication Types:
    Review

PMID: 12415752 [PubMed - indexed for MEDLINE]

253: Nippon Jibiinkoka Gakkai Kaiho. 2002 Sep;105(9):925-30.

[Bacterial examination of sinusitis using antral puncture and irrigation]

[Article in Japanese]

Adachi M, Furuta S, Suzuki S, Maeda T.

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Medicine, Mie.

Aerobic bacterial examination for sinusitis was conducted using specimens from
maxillary sinuses collected by antral puncture in 540 patients--284 men and 256
women aged 6-89 years--between May 1999 and April 2000. We obtained 528 strains
of bacteria. Our results were as follows: 1. We obtained 303 pathogens from 540
patients. In acute sinusitis, the most frequently found was Streptococcus
pneumoniae (30.4%), followed by Hemophilus influenzae (27.7%). In chronic cases,
the most frequently found was Streptococcus pneumoniae (16.0%), followed by
Hemophilus influenzae (15.1%) and Staphylococcus epidermidis (12.6%). 2. We found
an increase in bacteria resistant to multiple drugs, with 11.1% of the
Staphylococcus aureus isolates methicillin-resistant in acute sinusitis and 40%
methicillin-resistant in chronic sinusitis, and that 30.6% of Streptococcus
pneumoniae isolates were penicillin-resistant. 3. Ciclacillin was effective
against 64.7% of all pathogens isolated in this study, cefpodoxime proxetil
effective against 6.5%, and cefixime effective against 2.4%. 4. In considering

pathogens, we therefore choose antibiotics and make a maxillary aspiration
puncture.

Publication Types:
    English Abstract

PMID: 12400169 [PubMed - indexed for MEDLINE]

254: Clin Lab Haematol. 2002 Oct;24(5):317-9.

Cost-effective use of liposomal amphotericin B.

O'Connell B, Craig JI, Marcus RE, Ludlam H.

Publication Types:
    Letter

PMID: 12358895 [PubMed - indexed for MEDLINE]

255: Ann Allergy Asthma Immunol. 2002 Sep;89(3):271-8.

Effective dose range of mometasone furoate nasal spray in the treatment of acute
rhinosinusitis.

Nayak AS, Settipane GA, Pedinoff A, Charous BL, Meltzer EO, Busse WW, Zinreich
SJ, Lorber RR, Rikken G, Danzig MR; Nasonex Sinusitis Group.

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BACKGROUND: Mometasone furoate nasal spray (MFNS) 400 microg, twice daily, as
adjunctive treatment with oral antibiotic significantly improved symptoms of
recurrent rhinosinusitis. OBJECTIVE: To evaluate the effectiveness and safety of
MFNS 200 microg, twice daily, and 400 microg, twice daily, compared with placebo
as adjunctive treatment with oral antibiotic for acute rhinosinusitis. METHODS:
In this multicenter, double-blind, placebo-controlled study, 967 outpatients with
computed tomographic scan-confirmed moderate to severe rhinosinusitis received
amoxicillin/clavulanate potassium (Augmentin, GlaxoSmithKline, Research Triangle
Park, NC) 875 mg, twice daily, for 21 days with adjunctive twice daily MFNS 200
microg, MFNS 400 microg, or placebo nasal spray. Patients recorded scores of six
rhinosinusitis symptoms and any adverse events twice daily. Pre- and
postcosyntropin-stimulation plasma cortisol levels were measured in a subset of
patients at selected study sites. RESULTS: Treatment with MFNS 200 microg or 400
microg, twice daily, produced significantly greater improvements in total

symptoms score (primary efficacy variable) day 1 to day 15 average (50% and 51%, respectively) than placebo (44%, P < or = 0.017). Both doses of MFNS produced significant total symptoms score improvement over placebo by day 4, and maintained efficacy over the entire 21-day study. Relief of individual symptoms showed a similar pattern. Both doses of MFNS were well tolerated, and adverse events were similar to that of placebo. Cosyntropin stimulation showed no evidence of hypothalamic-pituitary-adrenal axis suppression. CONCLUSIONS: As adjunctive therapy to oral antibiotic treatment, MFNS at doses of 200 microg or 400 microg, twice daily, was well tolerated and significantly more effective in reducing the symptoms of rhinosinusitis than antibiotic therapy alone.

Publication Types:
    Clinical Trial
    Comparative Study
    Multicenter Study
    Randomized Controlled Trial
    Research Support, Non-U.S. Gov't

PMID: 12269647 [PubMed - indexed for MEDLINE]

256: Scand J Infect Dis. 2002;34(8):602-9.

Differences in antibiotic prescribing patterns between general practitioners in Scandinavia: a questionnaire study.

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There has been a dramatic increase in the prevalence of antibiotic-resistant bacteria worldwide. In the Scandinavian countries at least 90% of total antibiotic use relates to outpatients and therefore it has become increasingly important to know the antibiotic prescription pattern of general practitioners (GPs) in order to implement and monitor changes in antibiotic prescribing. The aim of the present study was to evaluate the prescription patterns of GPs in Denmark, Norway and Sweden. In order to achieve a reasonable comparison, a questionnaire consisting of 7 case reports concerning upper and lower respiratory tract infections, urinary tract infections and skin and soft tissue infections was sent to 1,000 GPs in the 3 countries. In general, the guidelines for the

treatment of bacterial infections in the individual countries were followed by
the responders. In all 3 countries, penicillin V was still the drug most
frequently used in upper and lower respiratory tract infections. The greatest
difference in prescribing patterns among the countries was seen in the treatment
of urinary tract infections, recurrent pharyngeal tonsillitis, acute otitis media
and acute exacerbation of chronic bronchitis. There were also differences in the
dosing regimens, length of treatment and use of diagnostic techniques.

Publication Types:
    Multicenter Study
    Research Support, Non-U.S. Gov't

PMID: 12238578 [PubMed - indexed for MEDLINE]

257: Pediatr Infect Dis J. 2002 Jul;21(7):707-9.

Chromobacterium violaceum infection in children: a case of fatal septicemia with
nasopharyngeal abscess and literature review.

Shao PL, Hsueh PR, Chang YC, Lu CY, Lee PY, Lee CY, Huang LM.

Department of Pediatrics, Taipei Hospital, Taiwan.

This previously healthy 5-year-old boy initially presented with fever and
purulent conjunctivitis. The course evolved rapidly into preseptal and facial
cellulitis, nasopharyngeal abscess and sepsis. Chromobacterium violaceum was
isolated from conjunctival exudate and blood cultures. He received intravenous
cefazolin therapy for 2 days, followed by penicillin, oxacillin and netilmicin.
However, no improvement was noted, and he died on the fifth days of illness.

Publication Types:
    Case Reports
    Review

PMID: 12237610 [PubMed - indexed for MEDLINE]

258: Am J Respir Crit Care Med. 2002 Sep 15;166(6):827-32.

Comment in:
    Am J Respir Crit Care Med. 2003 Jun 1;167(11):1578; author reply 1578-9.

The importance of prenatal exposures on the development of allergic disease: a
birth cohort study using the West Midlands General Practice Database.

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The etiology of allergic disease is not understood, but a decreased exposure to
infection may play an important role. There are few published data on the impact
of change in microbial exposure during pregnancy on the child's risk of
developing allergic disease. Using a birth cohort of 24,690 children, derived
from the West Midlands General Practice Research Database, we investigated a
number of perinatal exposures on the incidence of asthma, eczema, and hay fever.
Our findings suggest that exposure to antibiotics in utero is associated with an
increased risk of asthma in a dose-related manner (more than two courses of
antibiotics compared with none adjusted hazard ratio [HR] 1.68; 95% confidence
interval [CI], 1.51-1.87), and similar associations are present for eczema
(adjusted HR 1.17; 95% CI, 1.06-1.29) and hay fever (adjusted HR 1.56; 95% CI,
1.22-2.01). Exposure to a range of infections in utero was also associated with a
small increased risk of developing allergic disease. Strong protective effects of
older siblings on the incidence of allergy are present within this cohort, but
previous pregnancies that did not result in a live birth were not protective. Our
findings suggest that exposure to antibiotics and to infections in utero is a
potentially important risk factor in the development of allergic disease.

Publication Types:
    Comparative Study
    Research Support, Non-U.S. Gov't

PMID: 12231492 [PubMed - indexed for MEDLINE]

259: Semin Pediatr Infect Dis. 2002 Jul;13(3):174-81.

Influenza vaccines in children.

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Division of Allergy and Infectious Diseases, University of Washington School of
Medicine, Seattle, USA.

Influenza is a common disease of childhood. Young children and children with
high-risk medical conditions are at increased risk of being hospitalized when
infected with influenza virus. Children of all ages have excess physician visits

and receive excess antibiotic prescriptions during influenza season. The safety, immunogenicity, and efficacy of influenza vaccines in children are described in this review. Clinical trials and postlicensure experience have demonstrated that trivalent inactivated influenza vaccine is well-tolerated in children. Efficacy of the inactivated vaccine also has been demonstrated in numerous clinical trials. In comparison to trivalent inactivated influenza vaccine, investigational cold-adapted, live-attenuated influenza vaccine (LAIV) has the advantage of an intranasal route of administration. A large clinical trial demonstrated the tolerability and efficacy of the trivalent live, attenuated product in children 15 to 71 months of age. Pending information on safety and coadministration of this vaccine with other childhood vaccines will determine if it is licensed and recommended for use in children, including possible expanded indications for routine yearly administration to young children.

Publication Types:
    Research Support, U.S. Gov't, P.H.S.
    Review

PMID: 12199613 [PubMed - indexed for MEDLINE]

260: Semin Pediatr Infect Dis. 2002 Jul;13(3):147, 232-4.

An eighteenth-century disease in the year 2001.

Healy CM, Kaplan SL.

Department of Pediatrics, Baylor College of Medicine and Texas Children's Hospital, Houston 77030, USA. chealy@bcm.tmc.edu

Publication Types:
    Case Reports

PMID: 12199609 [PubMed - indexed for MEDLINE]

261: J Otolaryngol. 2002 Jun;31(3):165-9.

Cavernous sinus thrombosis secondary to sinusitis.

Amran M, Sidek DS, Hamzah M, Abdullah JM, Halim AS, Johari MR, Hitam WH, Ariff AR.

Department of Otolaryngology-Head and Neck, Hospital University Sains Malaysia, Kelantan.

Publication Types:
    Case Reports

PMID: 12121021 [PubMed - indexed for MEDLINE]

262: Pediatrics. 2002 Jul;110(1 Pt 1):e2.

Efficacy and safety of pimecrolimus cream in the long-term management of atopic
dermatitis in children.

Wahn U, Bos JD, Goodfield M, Caputo R, Papp K, Manjra A, Dobozy A, Paul C, Molloy
S, Hultsch T, Graeber M, Cherill R, de Prost Y; Flare Reduction in Eczema with
Elidel (Children) Multicenter Investigator Study Group.

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OBJECTIVE: Pimecrolimus cream (SDZ ASM 981), a nonsteroid inhibitor of
inflammatory cytokines, is effective in atopic dermatitis (AD). We assessed
whether early treatment of AD signs/symptoms with pimecrolimus could influence
long-term outcome by preventing disease flares. METHODS: Early intervention with
pimecrolimus was compared with a conventional AD treatment strategy (ie,
emollients and topical corticosteroids). In this 1-year, controlled, double-blind
study, 713 AD patients (2-17 years) were randomized 2:1 to a pimecrolimus-based
or conventional regimen. Both groups used emollients for dry skin. Early AD
signs/symptoms were treated with pimecrolimus cream or, in the conventional
treatment group, vehicle to prevent progression to flares. If flares occurred,
moderately potent topical corticosteroids were mandated. The primary efficacy
endpoint was ranked flares at 6 months. Safety was monitored clinically, and a
skin recall-antigen test was performed at study completion. RESULTS: BASELINE
CHARACTERISTICS OF THE PATIENTS: The mean age for both groups was approximately 8
years, and the majority of patients had moderate disease at baseline. PATIENT
FOLLOW-UP AND EXPOSURE TO STUDY MEDICATION: The mean duration of follow-up
(+/-standard error) was 303.7 (+/-5.30) days in the pimecrolimus group and 235.2
(+/-9.40) days in the control group. The discontinuation rate was significantly
higher in the control group than in the pimecrolimus group (51.5% vs 31.6% at 12
months), and proportionately more patients with severe or very severe disease
discontinued in the control group. The main reason for the higher discontinuation

rate in the control group was unsatisfactory therapeutic effect (30.4% vs 12.4%).
This resulted in a substantially higher mean number of study medication treatment
days in the pimecrolimus group compared with the control group: 211.9 (69.8% of
study days) versus 156.0 (66.3% of study days). Of those patients who completed
12 months on study, 14.2% and 7.0% of patients in the pimecrolimus and vehicle
groups, respectively, used study medication continuously. EFFICACY: Patients in
the pimecrolimus group experienced significantly fewer AD flares than those in
the control group, according to the primary efficacy analysis on ranked flares of
AD (Van Elteren test). The proportion of patients who completed 6 or 12 months
with no flares was approximately twice as high in the pimecrolimus group compared
with control (61.0% vs 34.2% at 6 months; 50.8% vs 28.3% at 12 months). Fewer
flares were observed in the pimecrolimus group regardless of baseline disease
severity, so even severe patients derived benefit from the treatment. The
analysis of time to first flare showed that treatment with pimecrolimus was
associated with a significantly longer flare-free period (log- rank test).
Covariate analysis indicated a statistically significant effect on time to first
flare of baseline Eczema Area and Severity Index score, and whether patients had
"severe" or "very severe" disease at baseline according to the Investigators'
Global Assessment, although patients in all baseline disease severity subgroups
benefited from treatment. Age had no significant effect. Fewer patients in the
pimecrolimus group required topical corticosteroid therapy compared with control
(35.0% vs 62.9% at 6 months; 42.6% vs 68.4% at 12 months), and patients in the
pimecrolimus group spent fewer days on topical corticosteroid therapy (57.4% vs
31.6% [pimecrolimus vs control, respectively] spent 0 days on topical
corticosteroid therapy, 17.1% vs 27.5% 1-14 days, and 25.5% vs 41.0% >14 days
over the 12 months of the study). This steroid-sparing effect of pimecrolimus was
evident despite pimecrolimus-treated patients being on study longer than patients
in the control group. The average proportion of study days spent on second-line
corticosteroids was 4.08% in the pimecrolimus group and 9.10% in the control
group. Analysis of Eczema Area and Severity Index over time showed significantly
lower median scores, thus indicating better disease control in the pimecrolimus

group compared with the control group. Similar results were obtained from analysis of the Investigators' Global Assessment (not shown). The treatment groups were well balanced with respect to the number of patients using antihistamines during the study (57.2% vs 62.9%, pimecrolimus vs control, respectively). SAFETY: There were no appreciable differences between treatment groups in the overall incidence of adverse events. The most frequent adverse events were common childhood infections and ailments, including nasopharyngitis, headache, and cough. The incidence of suspected drug-related adverse events was not significantly different in the pimecrolimus group (24.7% vs 18.7%--pimecrolimus vs control), and the incidence of serious adverse events was low (8.3% vs 5.2%--pimecrolimus vs control). Life-table analysis of incidence of adverse events revealed no significant differences between the treatment groups, except for cough. Local tolerability was good in both treatment groups. The most common application site reaction reported was sensation of burning (10.5% vs 9.3%--pimecrolimus vs control). There were no major differences between treatment groups in the duration or severity of application site reactions, most of which were mild-to-moderate and transient, occurring within the first week of treatment. Skin infections were reported in both groups. There were no between-group differences in the life-table analysis of time to first occurrence of bacterial skin infections nor in the adjusted incidence of bacterial skin infections. Although there were no significant differences between treatment groups in the incidence of individual viral skin infections, the incidence of grouped viral skin infections (12.4% vs 6.3%--pimecrolimus vs control) showed a slightly higher incidence in the pimecrolimus group. Laboratory values and vital signs showed no significant between-group differences. There were no significant differences between treatment groups in response to recall antigens in those patients who remained on study for 12 months. CONCLUSIONS: Treatment of early AD signs/symptoms with pimecrolimus was effective in preventing progression to flares in more than half the patients, reducing or eliminating the need for topical corticosteroids. The benefits were consistently seen at 6 months across important disease severity subgroups and with respect to the various predefined efficacy endpoints. Furthermore, these benefits were sustained for 12 months,

providing evidence that long-term treatment with pimecrolimus leads to better
control of AD. Treatment with pimecrolimus was well tolerated and was not
associated with clinically relevant adverse events compared with the conventional
treatment group. The results reported here offer the prospect of effective
long-term management of AD with reduced need for topical corticosteroids.

Publication Types:
    Clinical Trial
    Comparative Study
    Multicenter Study
    Randomized Controlled Trial
    Research Support, Non-U.S. Gov't

PMID: 12093983 [PubMed - indexed for MEDLINE]

263: Pediatrics. 2002 Jul;110(1 Pt 1):195; author reply 195.

Comment on:
    Pediatrics. 2001 Sep;108(3):798-808.

Amoxicillin dosage.

Longo G, Barbi E.

Publication Types:
    Comment
    Letter

PMID: 12093975 [PubMed - indexed for MEDLINE]

264: Pediatrics. 2002 Jul;110(1 Pt 1):192-3; author reply 192-3.

Comment on:
    Pediatrics. 2001 Apr;107(4):619-25.   Pediatrics. 2001 Sep;108(3):798-808.

'Sinusitis'?

Kahn J, Frohna JG.

Publication Types:
    Comment
    Letter

PMID: 12093971 [PubMed - indexed for MEDLINE]

265: Therapie. 2002 Jan-Feb;57(1):82-5.

[Oral antibiotic therapy in current practice: acute sinusitis in children]

[Article in French]

Agence Française de Sécurité des Produits de Santé.

Publication Types:

Guideline

PMID: 12090153 [PubMed - indexed for MEDLINE]

266: J Antimicrob Chemother. 2002 Jul;50 Suppl:23-7.

Clinical efficacy of cefpodoxime in respiratory tract infection.

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Acute otitis media (AOM), sinusitis and tonsillopharyngitis are respiratory tract infections frequently encountered by primary-care physicians. Increasing bacterial resistance, particularly in Streptococcus pneumoniae, which is one of the most important respiratory tract bacteria implicated in community-acquired respiratory tract infections, has led to concern about the current options for empirical antibiotic treatment and has prompted a search for effective alternative treatments. Data from in vitro studies show that cefpodoxime has good activity against the main respiratory tract pathogens, S. pneumoniae, Haemophilus influenzae, Moraxella catarrhalis and Streptococcus pyogenes. Clinical studies confirm the efficacy of cefpodoxime in AOM, sinusitis and tonsillopharyngitis. As with all broad-spectrum antibiotics, there is the risk of promotion of bacterial resistance associated with overuse. However, if used with care, cefpodoxime can be considered as an alternative for empirical treatment of bacterial respiratory tract infections encountered in general practice, particularly where penicillins and macrolides have reduced efficacy against the main bacterial pathogens.

Publication Types:
Review

PMID: 12077157 [PubMed - indexed for MEDLINE]

267: Orv Hetil. 2002 May 26;143(21):1207-10.

[Orbital phlegmone caused by acute exacerbation of chronic fungal pansinusitis in a child]

[Article in Hungarian]

Fücsek M, Kovács M, Jobbágyi P.

Gyermek Fül-orr-gége Részleg, Petz Aladár Megyei Oktató Kórház, Győr.

INTRODUCTION: Invasive fungal rhinosinusitis is an aggressive, destructive process most commonly affecting immunocompromised hosts with mortality rate of approximately 60-80%. AIM OF STUDY: The authors present a child's recovery of orbital phlegmone due to acute exacerbation of chronic fungal pansinusitis. They call the attention to the possibility of ever more frequent fungal sinusitis in our country. METHODS: Retrospective case report of an 8 years old boy presented with photos. RESULTS: The recovery was promoted by supposing the chance of fungal origin in time. No orbital abscess was found by surgery despite of typical clinical appearance and MRI results. After beginning of antibacterial treatment and functional endoscopic sinus surgery (FESS) the even worsening clinical status of orbital phlegmone raised the possibility of fungal origin, which was verified by mycological examination. The antimycotic treatment, which had been started in time was followed by complete recovery. Due to scarring in the medial rectus muscle, diplopia was the only complication which needs further ophthalmological controls. CONCLUSIONS: Supposition and verification of chance of fungal origin is essential in cases of chronic inflammation of paranasal sinus and/or their complications for complex recovery.

Publication Types:
    Case Reports
    English Abstract

PMID: 12073542 [PubMed - indexed for MEDLINE]

268: JAMA. 2002 Jun 19;287(23):3096-102.

Comment in:
    JAMA. 2002 Jun 19;287(23):3133-5.

Trends in antimicrobial prescribing rates for children and adolescents.

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CONTEXT: Annual rates of antimicrobial prescribing for children by office-based physicians increased from 1980 through 1992. The development of antimicrobial

resistance, which increased for many organisms during the 1990s, is associated
with antimicrobial use. To combat development of antimicrobial resistance,
professional and public health organizations undertook efforts to promote
appropriate antimicrobial prescribing. OBJECTIVE: To assess changes in
antimicrobial prescribing rates overall and for respiratory tract infections for
children and adolescents younger than 15 years. DESIGN, SETTING, AND
PARTICIPANTS: National Ambulatory Medical Care Survey data provided by 2500 to
3500 office-based physicians for 6500 to 13 600 pediatric visits during 2-year
periods from 1989-1990 through 1999-2000. MAIN OUTCOME MEASURES: Population- and
visit-based antimicrobial prescribing rates overall and for respiratory tract
infections (otitis media, pharyngitis, bronchitis, sinusitis, and upper
respiratory tract infection) among children and adolescents younger than 15
years. RESULTS: The average population-based annual rate of overall antimicrobial
prescriptions per 1000 children and adolescents younger than 15 years decreased
from 838 (95% confidence interval [CI], 711-966) in 1989-1990 to 503 (95% CI,
419-588) in 1999-2000 (P for slope <.001). The visit-based rate decreased from
330 antimicrobial prescriptions per 1000 office visits (95% CI, 305-355) to 234
(95% CI, 210-257; P for slope <.001). For the 5 respiratory tract infections, the
population-based prescribing rate decreased from 674 (95% CI, 568-781) to 379
(95% CI, 311-447; P for slope <.001) and the visit-based prescribing rate
decreased from 715 (95% CI, 682-748) to 613 (95% CI, 570-657; P for slope <.001).
Both population- and visit-based prescribing rates decreased for pharyngitis and
upper respiratory tract infection; however, for otitis media and bronchitis,
declines were only observed in the population-based rate. Prescribing rates for
sinusitis remained stable. CONCLUSION: The rate of antimicrobial prescribing
overall and for respiratory tract infections by office-based physicians for
children and adolescents younger than 15 years decreased significantly between
1989-1990 and 1999-2000.

PMID: 12069672 [PubMed - indexed for MEDLINE]

269: Br J Gen Pract. 2002 May;52(478):401-9.

Comment in:
    Evid Based Nurs. 2003 Jan;6(1):26.

The natural history of acute cough in children aged 0 to 4 years in primary care: a systematic review.

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Professional and parental uncertainty regarding the natural history of cough and respiratory tract infection (R77) in pre-school children may in part be responsible for the high consultation, reconsultation, and antibiotic prescribing rates in this age group. The aim of the study was to review the evidence about the natural history of acute cough in children aged between 0 and 4 years presenting to primary care in terms of illness duration and complications. The study was a systematic review, with qualitative and quantitative data synthesis, of control and placebo arms of systematic reviews, randomised controlled trials (RCTs), and cohort studies set in primary care. Searches were done of MEDLINE (between 1966 and June 1998), EMBASE (between 1988 and September 1998), and the Cochrane Library databases, using the MeSH terms 'respiratory tract infection, 'cough, and 'bronchitis, and the textwords 'cough' 'bronchitis, and 'chest infection, limited to children aged between 0 and 4years, and English language articles. Eight RCTs and two cohort studies met the review criteria. At one week, 75% of children may have improved but 50% may be still coughing and/or have a nasal discharge. At two weeks up to 24% of children may be no better. Within two weeks of presentation, 12% of children may experience one or more complication, such as rash, painful ears, diarrhoea, vomiting, or progression to bronchitis/pneumonia. This review offers parents and clinicians more prognostic information about acute cough in pre-school children. Illness duration may be longer and complications higher than many parents and clinicians expect. This may help to set more realistic expectations of the illness and help parents to decide when and if to reconsult. This information may be useful to those designing patient information and self-help resources.

Publication Types:
    Meta-Analysis
    Review

PMID: 12014540 [PubMed - indexed for MEDLINE]

270: Eur J Pediatr. 2002 Apr;161(4):188-95.

Pneumococcal disease in western Europe: burden of disease, antibiotic resistance and management.

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Streptococcus pneumoniae- the pneumococcus- affects children and adults worldwide. Invasive pneumococcal disease, including pneumonia, meningitis and bacteraemia, has been linked annually to the deaths of millions of children. The pneumococcus is also a significant contributor to mucosal infections such as acute otitis media and sinusitis. Though pneumococcal infections can occur at any age, persons at greatest risk include children younger than 2 years of age and adults aged 65 years or more. Rates of pneumococcal disease and the prevalence of pneumococcal serotypes vary by geographic location and patient age. Accurate ascertainment and sound epidemiological data are essential for the rational development of effective programmes for prevention and treatment. Pneumococcal resistance to penicillin and other antibiotics has emerged rapidly in recent years, highlighting the importance of vaccine development. Newer pneumococcal vaccines, such as those conjugated to protein carriers, can now overcome the limitations of older polysaccharide vaccines. Such conjugated vaccines induce excellent immune responses even in infants and young children and they may also reduce asymptomatic nasopharyngeal carriage of pneumococci. Pneumococcal 7-valent conjugated vaccine PNCRM7 contains common prevalent serotypes coupled to a nontoxic diphtheria variant (CRM197). This vaccine has demonstrated high efficacy against invasive pneumococcal disease in clinical trials in infants and young children and is currently licensed for use in the United States and selected countries in Europe and Latin America. CONCLUSION: across Europe, pneumococcal infection is responsible for considerable morbidity and mortality, particularly in the very young and the elderly, groups whose members respond poorly to

non-conjugated vaccines. The advent of new conjugated pneumococcal vaccines now offers an exciting opportunity in developed countries to reduce both the current burden of disease and the threat of rising antibiotic resistance. Rolling out the use of such vaccines across Europe must be accompanied by detailed ongoing surveillance in order to detect any changes that might occur in the pattern of pneumococcal serotypes.

Publication Types:
    Review

PMID: 12014384 [PubMed - indexed for MEDLINE]

271: Br Med Bull. 2002;61:215-30.

Acute upper airway infections.

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Upper respiratory tract infections are common and important. Although rarely fatal, they are a source of significant morbidity and carry a considerable economic burden. Numerous therapies for the common cold have no effect on symptoms or outcome. Complications such as cough are not improved by over-the-counter preparations, while labelling cough alone as a symptom of asthma may result in unnecessary use of inhaled steroid treatment. Clinical presentation of sore throat does not accurately predict whether the infection is viral or bacterial, while throat culture and rapid antigen tests do not significantly change prescribing practice. Antibiotics have only a limited place in the management of recurrent sore throat due to group A beta-haemolytic streptococcal infection. Routine use of antibiotics in upper respiratory infection enhances parent belief in their effectiveness and increases the likelihood of future consultation in primary care for minor self-limiting illness. Respiratory viruses play a major role in the aetiology of acute otitis media (AOM); prevention includes the use of influenza or RSV vaccination, in addition to reducing other risk factors such as early exposure to respiratory viruses in day-care settings and to environmental tobacco smoke. The use of ventilation tubes (grommets) in secretory otitis media (SOM) remains controversial with conflicting data on

developmental outcome and quality of life in young children. New conjugate
pneumococcal vaccines appear safe in young children and prevent 6-7% of
clinically diagnosed AOM.

Publication Types:
    Review

PMID: 11997308 [PubMed - indexed for MEDLINE]

272: Paediatr Drugs. 2002;4(5):323-33.

Formulations of antibiotics for children in primary care: effects on compliance
and efficacy.

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This review article is designed for pediatricians as well as primary care
physicians in the outpatient setting as a clinical guide to antibiotic selection.
It emphasizes variables related to compliance as well as efficacy. The aim is to
give recommendations as to the choice of antibiotics, depending on factors such
as taste, cost, efficacy, and compliance. Common bacterial pathogens causing
infections in children are reviewed, along with their susceptibility patterns to
antimicrobial agents. Emerging mechanisms of resistance, particularly the
increasing resistance of pneumococci to beta-lactam antibiotics, are discussed
because of their importance to antibiotic selection. Previously published studies
that have examined the treatment of common outpatient infections in children,
such as otitis media, streptococcal tonsillopharyngitis, and sinusitis, are
summarized. Adverse reactions associated with antibiotics, second in importance
only to efficacy, are reviewed. Finally, compliance issues, which include
palatability, cost, duration of therapy, and administration frequency, are
analyzed using recently published information related to each of these issues.
The efficacy of the commonly used antibiotics for urinary tract infections,
pneumonia, and streptococcal pharyngitis does not vary significantly; however,
for otitis media and sinusitis, some studies have shown that treatment efficacy
with the antibiotic does not vary significantly from that with placebo. Likewise,

adverse reactions rarely provide a basis for antibiotic selection, since
virtually all antibiotics are generally well tolerated. The final factor,
compliance, is a major issue in determining both first- and second-line therapy
of common outpatient infections in children. Although cost is not a factor in
compliance in countries such as the UK where no copayment is required for
pediatric drugs, it is of major importance in the US. This is followed by
palatability, administration duration and finally administration frequency. As a
group, cephalosporins are generally the best tasting but are relatively more
expensive than macrolides. Antibiotics that can be given for 5 days, and just
once or twice daily, are preferred by most parents and physicians. Since final
assessment of antibiotic choice is likely to vary considerably among healthcare
personnel, decisions must be made on an individual basis.

Publication Types:
    Review

PMID: 11994037 [PubMed - indexed for MEDLINE]

273: J Fam Pract. 2002 Apr;51(4):317-23.

Comment in:
    J Fam Pract. 2002 Apr;51(4):337-8.   J Fam Pract. 2002 Aug;51(8):719; author reply 719.

Does amoxicillin improve outcomes in patients with purulent rhinorrhea? A
pragmatic randomized double-blind controlled trial in family practice.

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OBJECTIVE: To compare the efficacy of amoxicillin vs placebo in patients with an
acute upper respiratory tract infection and purulent rhinorrhea. STUDY DESIGN:
Double-blind randomized placebo-controlled trial. POPULATION: The 416 patients
included from 69 family practices were 12 years or older, presenting with acute
upper respiratory complaints, and having a history of purulent rhinorrhea and no
signs of complications of sinusitis. OUTCOMES MEASURED: Therapy success
(disappearance of symptoms that most greatly affected the patient's health) at

day 10 and duration of general illness, pain, and purulent rhinorrhea.
RESULTS:
Therapy was successful in 35% of patients with amoxicillin and in 29% of patients
with placebo (relative risk [RR] 1.14, 95% confidence interval [CI], 0.92-1.42).
There was no effect on duration of general illness or pain. Duration of purulent
rhinorrhea was shortened by amoxicillin (9 days vs 14 for clearing of purulent
rhinorrhea in 75% of patients; P =.007). Diarrhea was more frequent with
amoxicillin (29% vs 19%, RR 1.28, 95% CI, 1.05-1.57). No complications were
reported. One patient (0.5%) receiving amoxicillin and 7 (3.4%) receiving placebo
discontinued trial therapy because of exacerbation of symptoms (RR 0.25, 95% CI
0.04-1.56, P =.07). All 8 patients recovered with antibiotic therapy.
CONCLUSIONS: Amoxicillin has a beneficial effect on purulent rhinorrhea caused by
an acute infection of the nose or sinuses but not on general recovery. The
practical implication is that all such patients, whatever the suspected
diagnosis, can be safely treated with symptomatic therapy and instructed to
return if symptoms worsen.

Publication Types:
    Clinical Trial
    Comparative Study
    Multicenter Study
    Randomized Controlled Trial
    Research Support, Non-U.S. Gov't

PMID: 11978253 [PubMed - indexed for MEDLINE]

274: Am J Med. 2002 Apr 22;112 Suppl 6A:19S-27S.

Rhinovirus respiratory infections and asthma.

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Viral infections, particularly respiratory illnesses caused by rhinovirus, are
the most common cause of asthma exacerbations in children and contribute in large
part to asthma morbidity in adults. Epidemiologic studies and increasingly
sophisticated viral detection methodologies have helped to define the role of
rhinovirus as a potential causative agent in asthma exacerbations.
Rhinovirus-induced lung disease is multifaceted and can be characterized in terms
of a variety of physiologic, immunologic, and viral processes. The precise direct

and indirect mechanisms of viral contribution to exacerbations must still be
elucidated. Understanding them will have an impact on the design of future
treatment modalities.

Publication Types:
    Review

PMID: 11955456 [PubMed - indexed for MEDLINE]

275: Allergy. 2002 Feb;57(2):150-4.

Rhinitis: do diagnostic criteria affect the prevalence and treatment?

Wang DY, Niti M, Smith JD, Yeoh KH, Ng TP.

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BACKGROUND: Rhinitis is one of the world's most common health problems.
Diagnostic criteria used in community surveys may affect reported prevalence and
treatment. METHODS: A proportionately stratified random sample study was
performed to investigate the prevalence, comorbidities and management of
community-based patients with rhinitis in the tropical urban city of Singapore.
RESULTS: The prevalence of at least one, two, three, or four nasal symptoms on
most days during the past year in our study population was 25.5%, 13.1%, 6.5%,
and 3.0%, respectively. Based on the definition of 'rhinitis' by the
International Consensus Report (ICR), the prevalence was 13.1% in Singapore.
There was significantly higher prevalence of self-reported allergy, asthma, and
common cold/influenza-like illness among the rhinitis group. In the 53% of
rhinitis subjects seeking for medical help, 71% visited a primary care physician
and 20% an otolaryngologist. Treatments as reported by patients were
decongestants (topical or oral) 27%, antibiotics 12%, antihistamines 6%, nasal
steroids 3%, surgery 2%, traditional methods 28%, and 22% did not know what
medication they had. Subjects considered the effectiveness of treatment
unsatisfactory because the majority of them had only partial or no relief with
any treatment. CONCLUSIONS: The standardization of the definition of rhinitis in
epidemiological studies is of crucial importance, especially when comparing the
prevalence between studies. Appropriate patient education by physicians with a
good understanding of the nature of rhinitis and the available treatment options

(e.g. evidenced-based efficacy, safety, and a good cost-benefit ratio) will
maximize patient compliance and treatment outcomes.

Publication Types:
    Clinical Trial
    Comparative Study
    Randomized Controlled Trial
    Research Support, Non-U.S. Gov't

PMID: 11929419 [PubMed - indexed for MEDLINE]

276: Am Fam Physician. 2002 Mar 15;65(6):1216, 1219-20.

AAP issues recommendations for the management of sinusitis in children. American
Academy of Pediatrics.

Gangel EK; American Academy of Pediatrics.

PMID: 11925096 [PubMed - indexed for MEDLINE]

277: Pediatr Pulmonol. 2002 Apr;33(4):244-8.

Effects of socioeconomic status on presentation with acute lower respiratory
tract disease in children in Salvador, Northeast Brazil.

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Two different socioeconomic groups of children with pneumonia were studied, and
their clinical and demographic aspects were evaluated. The diagnosis of pneumonia
was based on findings of cough and tachypnea, or on crackles on auscultation or
on radiologically confirmed infiltrate. This was a prospective cross-sectional
study conducted at the Professor Hosannah de Oliveira Pediatric Center, which
cares for children of lower socioeconomic status (PHOPC), and at one private
hospital which cares for children from middle to high socioeconomic status
(Aliança Hospital, AH). Demographics and clinical differences were assessed by
the Pearson chi-square test or Fisher's exact test as appropriate; means of
continuous variables were compared by Mann-Whitney U-test. In a 26-month period,
3,431 cases were recruited. The 2,476 cases identified at the PHOPC were younger
than the 955 identified at AH (2.2 +/- 2.3 vs. 4.5 +/- 3.1 years, P < 0.0001) and

had higher scores for severity (3.5 +/- 1.5 vs. 2.7 +/- 1.7, P < 0.0001),
duration of hospitalization (days) (10.9 +/- 12.1 vs. 6.2 +/- 7, P < 0.0001),
frequency of tobacco smoker in the household (48% vs. 31%, P < 0.0001),
cardiopathy (15.3% vs. 5.9%, P = 0.003), fever (44.4% vs. 36.3%, P = 0.0001),
tachypnea (67.6% vs. 32.3%, P < 0.0001), crackles (69.5% vs. 64.9%, P = 0.02),
somnolence (19.9% vs. 10.4%, P < 0.0001), malnutrition (13.7% vs. 5%, P <
0.0001), hospitalization rate (27.4% vs. 22.5%, P = 0.003), and death (0.9% vs.
0.1%, P = 0.009). However, other features were more frequent among AH cases:
parent's university level of education (38.2% vs. 1.0%, P < 0.0001), underlying
chronic illness (40.6% vs. 28.5%, P < 0.0001), asthma (62.7% vs. 50.8%, P =
0.01), rhinitis (9.2% vs. 0.4%, P < 0.0001), previous use of antibiotics (34.3%
vs. 27.1%, P = 0.001), and wheezing (53.1% vs. 42.2%, P < 0.0001). Children of
lower socioeconomic status have more serious lower respiratory tract disease,
whereas children with pneumonia of middle to high socioeconomic status have more
allergic diseases (rhinitis, asthma) and wheezing.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 11921452 [PubMed - indexed for MEDLINE]

278: Pediatr Neurol. 2002 Feb;26(2):99-105.

Meningitis and shunt infection caused by anaerobic bacteria in children.

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This review describes the microbiology and management of meningitis and shunt
infections caused by anaerobic bacteria in children. The predominant anaerobes
recovered in meningitis are Bacteriodes spp., Bacteriodes fragilis, Fusobacterium
spp., and Clostridium spp. Peptostreptococcus, Veillonella, Actinomyces,
Propionibacterium acnes, and Eubacterium are less commonly isolated. The
predisposing conditions for meningitis are acute or chronic middle-ear infection,

sinusitis, pharyngitis, and pulmonary infections. In newborn and preterm infants
the predisposing conditions are rupture of membranes, amnionitis, fetal distress,
necrotizing enterocolitis, gastric perforation and subsequent ileus followed by
bacteremia, aspiration pneumonitis and septicemia, infected ventriculoperitoneal
or ventriculoatrial shunt, and complicating dermal sinus tract infections. Shunt
infection with Propionibacterium spp. has been reported in children, especially
in association with ventriculoauricular and ventriculoperitoneal shunts.
Clostridium perfringens has been recovered from infants with a
ventriculoperitoneal shunt. Multiple-organism meningitis was reported as a
complication of ventriculoperitoneal and lumboperitoneal shunts that perforated
the gastrointestinal tract. Early recognition and effective therapy are essential
to recovery. Management of meningitis includes the use of antimicrobials
effective against anaerobes that penetrate the blood-brain barrier. These include
metronidazole, chloramphenicol, the combination of a penicillin and a
beta-lactamase inhibitor, and carbapenems. The treatment of shunt infection
includes antimicrobial therapy and removal of the shunt.

PMID: 11897473 [PubMed - indexed for MEDLINE]

279: Semin Respir Infect. 2002 Mar;17(1):3-9.

Update on pneumococcal infections of the respiratory tract.

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Respiratory illnesses are the leading reason for seeking medical care here in the
United States. Streptococcus pneumoniae is the most common bacterial pathogen
causing acute otitis media (AOM), sinusitis, and community-acquired pneumonia in
both the pediatric and adult populations. The continued development of antibiotic
resistance to an increasing number of different antibiotic classes by this
organism has made the treatment of some of these infections more difficult.
Recently, a heptavalent pneumococcal conjugate vaccine was approved for infants
and toddlers, beginning at 2 months of age. Widespread implementation of this
vaccine in the childhood population may have a significant impact on the amount
of systemic disease seen with this organism.

Publication Types:
    Review

PMID: 11891513 [PubMed - indexed for MEDLINE]

280: Curr Opin Pediatr. 2002 Feb;14(1):86-90.

Management of acute bacterial rhinosinusitis.

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Acute bacterial rhinosinusitis is an infection of the nasal epithelium and
paranasal sinus mucosa, usually caused in children by Streptococcus pneumoniae,
Haemophilus influenzae, Moraxella catarrhalis, and, less frequently, group A
Streptococcus species. The clinical diagnosis is based on daytime cough that may
be worse at night or purulent rhinorrhea, or both, lasting at least 10 days,
often worsening after a period of initial improvement after initial symptoms of
the common cold, and often associated with facial or dental pain, facial
fullness, or swelling, headache, and fever. Sinusitis is diagnosed clinically;
radiographic evaluation is not indicated for diagnosis. When the disease persists
despite treatment, or is complicated by potential intracranial or orbital
extension, CT is the preferred imaging modality. Initial therapy should be
amoxicillin in a high dosage (80-90 mg/kg/day). Treatment is generally for 10 to
14 days and for at least 7 days beyond the time of substantial improvement in
symptoms. Complications of acute bacterial rhinosinusitis in children are rare.

Publication Types:
    Review

PMID: 11880740 [PubMed - indexed for MEDLINE]

281: Int J Pediatr Otorhinolaryngol. 2002 Mar 15;63(1):1-13.

Antimicrobial guidelines for the treatment of acute bacterial rhinosinusitis in
immunocompetent children.

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Acute rhinosinusitis represents a condition for which educational efforts could
help minimize the inappropriate use of antibiotics, particularly for children.
The majority of acute rhinosinusitis cases are of viral etiology and thus, are
self limiting. Although bacterial infection complicates a small number of cases,
the lack of accessibility to the sinus, the limitations of diagnostic modalities
and the lack of specificity among signs and symptoms often make it difficult to
determine when bacterial infection occurs. Furthermore, antimicrobial resistance
among the pathogens that frequently cause bacterial infection complicates the
election of empiric therapy. The Sinus and Allergy Health Partnership recently
developed and published antimicrobial guidelines to provide practitioners in the
US with recommendations for the diagnosis and treatment of acute bacterial
rhinosinusitis. The purpose of this paper is to review the rationale behind the
development of these guidelines and how they apply to the management of acute
bacterial rhinosinusitis in children.

Publication Types:
    Review

PMID: 11879923 [PubMed - indexed for MEDLINE]

282: MMW Fortschr Med. 2002 Jan 17;144(1-2):46-9.

[Suggestions for the common cold season. Managing cough, rhinitis and earaches]

[Article in German]

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PMID: 11847883 [PubMed - indexed for MEDLINE]

283: Br J Dermatol. 2002 Jan;146(1):101-6.

The prevalence and descriptive epidemiology of atopic dermatitis in Singapore
school children.

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BACKGROUND: Atopic dermatitis is a common disease that appears to be increasing
in frequency during recent decades. Most of the studies are based on the Western
population, and there are few data in the Asian population.
OBJECTIVES: To
determine the prevalence and descriptive epidemiology of atopic dermatitis among
school children in the general community in Singapore. METHODS: This is a
questionnaire study of 12 323 students done over a 1-year period, comprising 7
year olds (4605), 12 year olds (3940) and 16 year olds (3778) from 19 primary and
17 secondary schools randomly selected in Singapore. All children had a complete
cutaneous examination. The diagnosis of atopic dermatitis was based on the U.K.
Working Party diagnostic criteria. The questionnaire was translated into Chinese
and both the English and Chinese versions were issued simultaneously to the
students. RESULTS: The 1-year period prevalence of atopic dermatitis was 20.8%.
Atopic dermatitis was present in 22.7% of 7 year olds, 17.9% of 12 year olds and
21.5% of 16 year olds. The overall sex ratio was equal. There were slightly more
boys with atopic dermatitis among the younger children (6 and 12 year olds, 1.18
: 1 and 1.19 : 1, respectively) but more girls were affected (1.57 : 1) among the
16 year olds. Atopic dermatitis was more common among the Chinese (21.6%) and
Malays (19.8%) compared with the Indians (16%) and other races (14%). The onset
of the disease occurred before the age of 10 years in 49.5% of the 16 year olds.
"Pure" atopic dermatitis without concomitant respiratory allergies was noted in
788 respondents (30.7%); 1775 (69.3%) suffered from a "mixed" type, with 34.3%
having allergic rhinitis, 9.5% having asthma and 25.5% having both asthma and
allergic rhinitis. More boys had atopic dermatitis and concomitant respiratory
allergies whereas more girls were affected with "pure" atopic dermatitis alone
(1.4 : 1). At least one first-degree family member with atopy was noted in 1435
children (56%): atopic dermatitis (70%), asthma (62%) and allergic rhinitis
(68%). Among siblings with one parent with atopic dermatitis, 37% had either a
father or a mother with atopic dermatitis. Common aggravating factors reported
included exercise, heat and sweating, grass intolerance, thick clothing and

stress. Pityriasis alba was noted in 25% of the study population, keratosis
pilaris in 13% and ichthyosis vulgaris in 8%. Most respondents had mild to
moderate atopic dermatitis that could be controlled with a fairly simple regimen
of moisturizers, topical steroids, antihistamines and antibiotics.
CONCLUSIONS:
The high prevalence of atopic dermatitis in Singapore is similar to that observed
in developed countries, suggesting that environmental factors may be important in
determining the expression of the disease.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 11841373 [PubMed - indexed for MEDLINE]

284: Emerg Med Clin North Am. 2002 Feb;20(1):69-91.

Appropriate use of antibiotics for common infections in an era of increasing
resistance.

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In many respects, antibiotics have changed medicine forever. Countless lives have
been enhanced and saved with antibiotic use. Unfortunately, the medical community
has opened Pandora's box through the casual distribution of outpatient
antibiotics. Society will indeed suffer, as well as the medical profession, if
antibiotics are not used judiciously. To date, the rate of penicillin resistance
has steadily risen in North America and in many other areas of the world. Much of
the increase in resistance has been caused by the distribution of antibiotics for
viral infections (e.g., bronchitis, colds, or purulent nasal discharge) as well
as nonstreptococcal throat infections. Parental pressure for physicians to
prescribe antibiotics also has contributed to the rise in antibiotic resistance.
The authors have discussed many common pediatric ED infections and have
illustrated the key points for making the diagnosis of each. In addition, the
authors also recommend the appropriate choice of antibiotics for each disease
process, with an emphasis on narrow-spectrum, first-line antimicrobials.
Physicians, as the "holders of the prescription pad," should be aware of the

problems with increasing bacterial resistance especially ED practitioners who work on the front line. In addition, families and patients should be educated about the harm of inappropriate antibiotic use. The AAP publishes pamphlets for parents that discuss these issues. It is believed, as was seen in Finland and Japan, that judicious use of antibiotics leads to a decrease in resistant bacteria and prolong antibiotic usefulness. This is an issue of great importance to the long-term health of patients. What Benjamin Rush stated in 1789 is true today: "Do not condemn, or oppose, unnecessarily, the simple, prescriptions of your patients. Yield to them in matters of little consequence but maintain an inflexible authority over matters that are essential to life."

Publication Types:
Review

PMID: 11826638 [PubMed - indexed for MEDLINE]

285: Chest. 2002 Jan;121(1):40-7.

Nasal polyps in cystic fibrosis: clinical endoscopic study with nasal lavage fluid analysis.

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STUDY OBJECTIVES: Nasal polyps frequently appear in patients with cystic fibrosis (CF). The aims of this study were to focus on what problems (symptoms, endoscopic findings, and laboratory correlates) nasal polyps cause the CF patient, and how these correlate to the total health situation of this patient group. PATIENTS AND STUDY DESIGN: The clinical histories, endoscopic investigations of the nasal cavity, and analyses of nasal lavage fluid of 44 patients with CF complicated with nasal polyposis have been compared with those of 67 CF control subjects. The patients were examined at annual control examinations (with pulmonary tests, working capacity, liver tests, and bacterial and blood tests) from 1995 to 1996 at Stockholm Cystic Fibrosis Center, Huddinge University Hospital. All patients were > 2 years of age. The endoscopic findings were related to the actual pulmonary function, inflammatory blood parameters, colonizing pathogens,

antibodies (Staphylococcus aureus and Pseudomonas aeruginosa), and genotype.
RESULTS: The patients with nasal polyps differed with respect to chronic colonization of P aeruginosa in sputum samples and had a higher occurrence of serum antibodies against the same species. The two groups did not differ in pulmonary functions, inflammatory parameters, or genotype. The polyps found were mainly small (within the meatus media) and gave no significant increase in ongoing clinical symptoms such as rhinorrhea, nasal obstruction, or hyposmia. Neither was any significantly marked finding concerning the nose (mucosal swellings, secretion, etc.) made in the polyp patients. The patients with CF scored slightly lower in a smell identification test in comparison with the healthy control group. The nasal lavage fluid was analyzed (in 93 of the 111 patients) for the occurrence of P aeruginosa (by polymerase-chain reaction [PCR]), interleukin [IL]-5, IL-8, and lysozyme. The lysozyme and IL-8 content was equal in the two CF groups but increased in comparison with the healthy control group. P aeruginosa was not detected with PCR in any nasal lavage fluid. No measurable levels of IL-5 in the nasal lavage were found. CONCLUSIONS: There was a higher frequency of chronic colonization of P aeruginosa in the lower respiratory tract in patients with nasal polyps. Otherwise, nonsevere nasal polyposis was not an indicator of lower respiratory tract morbidity in CF patients.

Publication Types:
    Research Support, Non-U.S. Gov't

PMID: 11796430 [PubMed - indexed for MEDLINE]

286: Pediatrics. 2002 Jan;109(1):166-7.

The sinusitis debate.

Harris SJ, Wald ER, Senior BA, Shores C, Garbutt JM, Littenberg B, Gellman E.

Publication Types:
    Clinical Trial
    Letter
    Randomized Controlled Trial

PMID: 11773564 [PubMed - indexed for MEDLINE]

287: Auris Nasus Larynx. 2002 Jan;29(1):59-63.

Contemporary trends in microbiology and antibiotic resistance in otolaryngology.

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OBJECTIVE: to determine current microbiologic yields and characterize antibiotic resistance patterns for organisms cultured from head and neck infections.
METHODS: results of out-patient cultures submitted from an academic otolaryngology practice over the period 1994-1998 were reviewed. A database was constructed, and culture results were analyzed for sites of infection, organism recovery rate, infecting microbiological agent, antibiotic resistance patterns, and 5-year trends. chi(2) analysis was used to determine associations between site of infection, infecting agent and antibiotic resistance over the years of the study. RESULTS: a total of 986 aerobic cultures were reviewed. The most common sites cultured were the nose/paranasal sinuses (469), throat (377), and ear (23). In 465 (47.2%) cultures, normal flora or no growth occurred. Of the throat culture subset, 69.7% were negative, whereas 69.1% of sinonasal cultures recovered organisms. Gram positive cocci were the most commonly recovered organism type (30.9%), followed by Gram negative rods (GNR, 17.2%). These rates remained relatively constant over the years of the study. GNR were found in 39.1 and 25.2% of ear and sinus cultures, respectively. Antibiotic sensitivities were conducted on 257 specimens (49.3% of positive cultures). The average number of antibiotic resistances per bacteria remained stable at approximately 1.59 over the years (P=0.086, analysis of variance (ANOVA)). Antibiotic resistance rates increased for clindamycin, cefazolin, and erythromycin over the years of the study (P<0.05, chi(2)). Ciprofloxacin, gentamicin and trimethoprim-sulfamethoxazole resistance rates did not increase over the years of the study. Vancomycin resistance did not occur. CONCLUSIONS: as a significant proportion of head and neck cultures will be negative, their utility should be re-examined. GNR infections are more common in the head and neck than earlier thought. There is a trend towards increasing antibiotic resistance in head and neck infections, urging careful and appropriate use of antibiotics.

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