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This compendium was designed to summarize appropriate antibiotic treatment of common pediatric outpatient infections. It is based on guidelines and recommendations from leading medical experts and professional organizations in the US.

There are times when patients pressure their healthcare providers for antibiotics simply for peace of mind, and not because the medicine is medically indicated. Here are some ways to communicate a sense of security to patients without contributing to Antibiotic Resistance:

- **Have a Contingency Plan.** Tell the patient that for this illness, an antibiotic isn't going to help. But assure them that if symptoms do not subside in 2 or 3 days, a prescription might be needed and arranged for at that point.
- **Speak directly with patients when you are sensing pressure to prescribe an antibiotic.** For example, you might say, "Were you thinking that an antibiotic might help you (or your child) get better faster?" If they answer yes, you can explain why antibiotics probably wouldn't work.
- **Discuss with patients things they can do to treat their symptoms before offering a prescription.** Many parents are merely seeking advice on how to make their child feel better and are not necessarily looking for an antibiotic.
- **Consider getting a supply of Prescription Pads** that do not suggest antibiotic use but leave the patient with a plan of action to treat symptoms and reassurance from a good healthcare provider.

Acute Pharyngitis:

1. Schwartz, B., Marcy, S.M., Phillips, W.R., et al., "Pharyngitis – Principles of Judicious Use of Antimicrobial Agents." PEDIATRICS, 1998; 101:171-174.

Acute Sinusitis:

1. O'Brien, K et al., "Acute Sinusitis – Principles of Judicious Use of Antimicrobial Agents." PEDIATRICS, 1998; 101: 174-177.

Acute Uncomplicated Bronchitis:

1. O'Brien, K., "Cough Illness/Bronchitis Principles of Judicious Use of Antimicrobial Agents." PEDIATRICS, January 1998; Vol. 101 No.1 Supplement, pp 178-181.

Nonspecific Upper Respiratory Infections:

1. Colgan, R., "Appropriate Antimicrobial Prescribing: Approaches that Limit Antibiotic Resistance." AMERICAN FAMILY PHYSICIAN, September 2001; Vol. 64: No. 6.

2. Dowell, S., et. al., "Appropriate Use of Antibiotics for URIs in Children: Part II. Cough, Pharyngitis and the Common Cold." AMERICAN FAMILY PHYSICIAN, October 1998.

3. Dowell, S.F., Marcy, S.M., Phillips, W.R., Gerber, M.A., Schwartz, B., "Principles of Judicious Use of Antimicrobial Agents for Pediatric Upper Respiratory Tract Infections." PEDIATRICS, 1998; 101: 163-5.

Acute Otitis Media:

1. "Acute Otitis Media – Management and Surveillance in an Era of Pneumococcal Resistance: A Report from the Drug-Resistant Streptococcus Pneumoniae Therapeutic Working Group." PEDIATR INFECT DIS J., January 1999; Vol. 18 (1): 1 – 9.

2. Colgan, R., "Appropriate Antimicrobial Prescribing: Approaches that Limit Antibiotic Resistance." AMERICAN FAMILY PHYSICIAN, September 2001; Vol. 64: No. 6.

3. Dowell, S et. al., "Otitis Media: Principles of Judicious Use of Antimicrobial Agents." PEDIATRICS, January, 1998; Vol. 101, No. 1: Supplement pp.165-171.

For more information visit our website at:

www.aware.md



AWARE is a project of the California Medical Association Foundation, in collaboration with a number of clinical, public health and consumer organizations designed to increase appropriate antibiotic prescribing and lower antibiotic resistance in California.

Acute Respiratory Tract Infection Guideline Summary

Developed as part of the Alliance Working for Antibiotic Resistance Education (AWARE) Project.



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CMA Foundation AWARE Project Pediatric Clinical Practice Guidelines Compendium Summary

Illness	Indications for Antibiotic Treatment	Pathogen	Treatment	Antibiotic	Organizational Guidelines Reviewed
Otitis Media	<p>When to Treat with an Antibiotic Acute otitis media presents with ear pain, fever, bulging yellow or red tympanic membrane. Pneumatic otoscopy or tympanometry required to confirm middle ear effusion.</p> <p>When Not to Treat with an Antibiotic Otitis media with effusion occurs in patients without symptoms or signs of acute otitis media.</p>	Principle pathogens: Streptococcus pneumoniae, nontypeable Haemophilus influenzae, Moraxella catarrhalis.		<p>1st Line: • High Dose Amoxicillin (80-90 mg/kg/d for most patients)</p> <p>Alternatives: • Amoxicillin-clavulanate • Cefuroxime • Cefpodoxime • Cefprozil • Cefdinir • Clindamycin</p>	<p>American Academy of Pediatrics (AAP)</p> <p>Centers for Disease Control and Prevention (CDC)</p> <p>American Academy of Family Physicians (AAFP)</p>
Acute Bacterial Sinusitis (ABS)	<p>When to Treat with an Antibiotic Persistent symptoms (10-30 days) of nasal/postnasal discharge, daytime cough, without improvement. Severe sinusitis may present with 3-4 days of fever $\geq 39^{\circ}\text{C}$, purulent nasal discharge, facial pain/tenderness, periorbital swelling, in an ill-appearing child. Imaging reserved for patients with recurrent sinusitis, for whom surgery is considered, or unclear cases.</p> <p>When Not to Treat with an Antibiotic Allergic rhinitis presents with sneezing, conjunctivitis.</p>	Principle pathogens: Streptococcus pneumoniae, nontypeable Haemophilus influenzae, Moraxella catarrhalis.		<p>1st Line: • Amoxicillin</p> <p>Alternatives: • Amoxicillin-clavulanate • Cefuroxime • Cefpodoxime • Cefdinir • Clindamycin • Macrolides</p>	<p>AAP</p> <p>AAFP</p> <p>CDC</p> <p>Sinus and Allergy Health Partnership (SAHP)</p>
Pharyngitis	<p>When to Treat with an Antibiotic Streptococcus pyogenes (Group A Strep): Symptoms of sore throat, fever, headache, nausea, vomiting, abdominal pain. Physical findings include tonsillopharyngeal erythema, exudates, palatal petechiae, tender and enlarged anterior cervical lymph nodes. Confirm diagnosis with throat culture or rapid antigen detection; negative rapid antigen detection tests should be confirmed with a throat culture.</p> <p>When Not to Treat with an Antibiotic Respiratory viral causes: Conjunctivitis, cough, coryza, diarrhea uncommon with Group A Strep.</p>	<p>Streptococcus pyogenes</p> <p>Routine respiratory viruses</p>	Group A Strep: Treatment reserved for patients with positive rapid antigen detection or throat culture.	<p>1st Line: • Penicillin V • Benzathine penicillin G</p> <p>Alternatives: • Amoxicillin • 1st or 2nd generation Cephalosporins • Clindamycin • Macrolides</p>	<p>AAP</p> <p>AAFP</p> <p>CDC</p> <p>Infectious Disease Society of America (IDSA)</p> <p>Institute for Clinical Systems Improvement (ICSI)</p>
Acute Bronchitis	<p>When to Treat with an Antibiotic Presents with prolonged cough (>10 days). Clinically differentiate from pneumonia. Pertussis should be reported to public health authorities. Chlamydia pneumoniae and Mycoplasma pneumoniae may occur in older children (unusual ≤ 5 years of age).</p> <p>When Not to Treat with an Antibiotic Nonspecific cough illness.</p>	>90% of cases caused by routine respiratory viruses. <10% of cases caused by Bordetella pertussis, Chlamydia pneumoniae, Mycoplasma pneumoniae.	Treatment reserved for Bordetella pertussis, Chlamydia pneumoniae, Mycoplasma pneumoniae.	Macrolides • (Tetracyclines for children ≥ 8 years of age)	<p>AAP</p> <p>AAFP</p> <p>CDC</p>
NonSpecific URI	When Not to Treat with an Antibiotic Sore throat, sneezing, mild cough, fever (generally < 102 F, < 3 days), rhinorrhea, nasal congestion, self-limited (typically 5-14 days).	>200 viruses, including rhinoviruses, coronaviruses, adenoviruses, respiratory syncytical virus, enteroviruses (including coxsackieviruses and echoviruses), influenzaviruses, parainfluenzaviruses.	Assure adequate fluid intake. Rest, OTC medications may provide symptomatic relief, (including nasal decongestant, humidifier, cough suppressant, expectorant).	None	<p>AAP</p> <p>AAFP</p> <p>CDC</p> <p>ICSI</p>

This guideline summary is intended for physicians and healthcare professionals to consider in managing the care of their patients for acute respiratory tract infections. While the summary describes recommended courses of intervention, it is not intended as a substitute for the advice of a physician or other knowledgeable healthcare professional. These guidelines represent best clinical practice at the time of publication, but practice standards may change as more knowledge is gained.