Neighborhood Health Plan of Rhode Island

Section: Clinical Practice Guideline	**Subject:** Judicious Use of Antibiotics for Pediatric Upper Respiratory Infections
Effective: October 15, 2001	**Updated:** November 13, 2003, October 13, 2005, October 2007

Illness	Definition	Indications for Antibiotic Treatment	Use of Antibiotic Therapy	Antibiotics, if applicable	Comments
Acute Otitis Media (AOM)	Presence of fluid in the middle ear in association with acute signs or symptoms of local or systemic illness (fever, pain etc)	Recent, usually abrupt onset of signs and symptoms of middle ear inflammation and effusion **AND** presence of middle-ear effusion that is indicated by *<u>any of the following</u>*: bulging of the tympanic membrane, limited or absent motility of the tympanic membrane, otorrhea **AND** Signs or symptoms of middle-ear inflammation as indicated by either: distinct erythema of the tympanic membrane, **AND/OR** distinct otalgia **.**	Age Group: 1. <6 months: abx 2. 6 months to two years: abx if diagnosis certain; antibiotics if diagnosis uncertain and severe illness; 3. > 2 years: abx if diagnosis certain and severe illness <u>Duration of abx use:</u> 10 days for children ≥2 years and 5-7 days for children <2 years	1st Line: High Dose Amoxicillin (80-90 mg/kg /day) If severe illness or additional coverage desired: high dose amoxicillin/clavulanate (Augmentin); (80-90 mg per kg of amoxicillin component per day)	
Acute bacterial sinusitis	prolonged nonspecific upper respiratory signs and symptoms, such as rhinosinusitis and cough without improvement for 10 to 14 days or longer or more severe upper respiratory tract signs and symptoms, such as fever higher than 39.0°C (102.2°F), facial swelling and facial pain.	Diagnosis of acute bacterial sinusitis may be made with symptoms of viral URI (nasal discharge, of daytime cough not improved after 10 days, severe illness with fever, purulent nasal discharge, facial pain) not improving after 10 days or worse after 5-7 days. Diagnosis may include some of or all of the signs or symptoms: Nasal drainage, facial pressure/pain, (especially unilateral and focused in the region of a particular sinus) postnasal discharge, facial, anosmia, fever, cough, maxillary dental pain, ear pressure/fullness. Less frequent signs include hyposmia and fatigue in conjunction with some or all of the above.	Abx are recommended for the management of acute <u>bacterial</u> sinusitis. Usual Antibiotic duration-¨10-14 days	1st line: Amoxicillin (80-90 mg/kg/day)	**When not to treat with an antibiotic:** Nearly all cases of mild acute bacterial sinusitis resolve without antibiotics. Antibiotic use should be reserved for moderate symptoms not improving after 10 days or that are worsening after 5-7 days and severe symptoms.

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Pharyngitis (tonsillitis)	Diagnosis must be made on results of throat culture or antigen-detection ("rapid strep") test with culture backup for negative screen.	Group A streptococcus Signs and symptoms : sore throat, fever, headache, nausea, vomitting, abdominal pain, tonsillopharyngeal erythema, exudates, palateal petechiae, tender enlarged anterior cervical lymph nodes. Treatment reserved for patients with positive rapid antigen detection or throat culture. Initiation of antibiotic treatment pending throat culture results may be appropriate only in particular settings when the likelihood of streptococcal pharyngitis is high (child over 3 with fever, tonsillar exudate and anterior cervical lymphadenopathy in the absence of upper respiratory symptoms) and an effort is made to discontinue treatment upon receipt of a negative culture result.	Usual antibiotic duration: 10 days.	1st Line: ✓ Pencillin V ✓ Benzathine penicillin G Erythomycin is an acceptable alternative for penicillin-allergic patients Amoxicillin is preferred when concurrent otitis media or sinusitis is being treated.	**When not to treat with an antibiotic**: Respiratory viral causes; conjunctivitis, cough, rhinorrhea, and/or diarrhea are uncommon with Group A Strep Most episodes of sore throats, particularly in children under 3 years of age, are caused by viral agents.
Non-specific Cough Illness/Bronchitis	Principally caused by viral pathogens. Airway inflammation and sputum production are non-specific responses and do not imply a bacterial etiology.	Consider antibiotics only for suspected pneumonia, based on fever with focal exam, infiltrate on chest x-ray , tachypnea or toxic appearance. Prolonged cough (>10 -14 days without improvement) may suggest specific illnesses (e.g. sinusitis) that warrant antibiotic treatment.	Treatment reserved for Bordetella pertussis, Chlamydia pneumoniae or Mycoplasma pneumoniae	✓ Macrolides ✓ Tetracyclines for children ≥ 8 years of age.	**When not to treat with an antibiotic:** Cough < 10 -14 days in well-appearing child without physical signs of pneumonia
Non-Specific URI/Common Cold/Viral Rhinosinusitis	This acute illness typically is characterized by rhinorrhea, sore throat, cough and fever.	Antibiotics do not effectively treat URI or prevent subsequent bacterial infections	Not indicated	✓ Not indicated	Mucous may change from yellow to green but this is not an indication of bacterial infection. In uncomplicated colds, cough and nasal discharge may persist for 14 days or more, long after other symptoms have resolved.

Over the Counter And Self Care for Viral Infections	
Stuffy or Runny Nose: • Steam inhalation • Saline nose drops • For red raw nose, dab on petroleum jelly or salve or use tissues with lotion • Decongestants: pseudoephedrine, oxymetazoline,- (for children over 6) • Antihistamines: diphenhydramine, chlorpheniramine, loratadine, clemastine)	**Fever/Aches and Pains:** • Sponge Bath • Cool Compress, Bed Rest • Heating Pad on sore muscles • Analgesics (Acetaminophen, Ibuprofen, Naproxen) **Cough or Sore Throat:** • Drink more fluids • Room humidifier • Gargle (warm salt water) • Expectorant: Guaifenesin • Antitussives: Dextromethorphan

References:

1. CMA Foundation AWARE Project : Pediatric Clinical Practice Guidelines Compendium Summary; www.aafp.org/afp; Volume 74, Number 6; September 15, 2006
2. AMA: American Medical Association 2006/07 Pediatrics : Acute Respiratory Tract Infection Guideline Summary
3. CDC: Centers For Disease Control (http://www.cdc.gov/drugresistance/community/healthcare_provider.htm#2a); Pediatric treatment guidelines for upper respiratory tract infections
4. Pediatrics; Official Journal of the American Academy of Pediatrics, Pediatrics Vol. 101 No. 1 Supplement 1998, pp 181-184; The Common Cold- Principles of Judicious Use of Antimicrobial Agents
5. Pediatrics; Official Journal of the American Academy of Pediatrics, Pediatrics Vol. 101 No. 1 Supplement 1998, pp 178-181; Cough Illness/Bronchitis- Principles of Judicious Use of Antimicrobial Agents
6. Pediatrics; Official Journal of the American Academy of Pediatrics, Pediatrics Vol. 101 No. 1 Supplement 1998, pp 174-177; Acute Sinusitis- Principles of Judicious Use of Antimicrobial Agents