

Family Practice Small Group Activity

Curriculum for Antimicrobial Stewardship

Objectives:

At the completion of this small group activity, the learner should be able to:

1. Determine the appropriate clinical setting to order a rapid streptococcal test for pharyngitis
2. Discuss the rationale for use of antibiotics for group A streptococcal (GAS) pharyngitis
3. Define the clinical criteria for which antibiotic treatment of acute sinusitis is appropriate
4. Discuss the rational use of antibiotics for bacterial sinusitis
5. Discuss communication techniques that can be used to increase patient satisfaction

Case Scenario #1: You are in the Family Medicine outpatient clinic seeing Mr. Green, a 21-year-old college student. He complains of sore throat and fever to 101.5°F over the past 2 days. He denies cough. On physical examination, he has an erythematous oropharynx with bilateral tonsillar exudates, but no cervical lymphadenopathy. What is the most appropriate next step in his management?

Case Scenario #2: You are in the Family Medicine outpatient clinic seeing Thomas, a 3-year-old boy. His mother states that he has had fevers up to 102°F and that he has been complaining that “it hurts to swallow” over the past day. Upon further questioning, she also notes that he has had a runny nose, cough and several loose stools. His physical exam is significant only for bilateral conjunctivitis and erythematous pharynx without exudates. His mother is concerned about strep throat since two other children in his daycare have had strep throat in the past month. What is the most likely etiology of this patient’s illness? How would you explain the next steps in this patient’s management to his mother?

Case Scenario #3: You are in the Family Medicine outpatient clinic seeing Michelle, an 11-year-old girl, who complains of fever, runny nose and cough over the past 3 days. Her mother is concerned because her nasal drainage has changed from white to yellowish-green. Physical exam reveals a temperature of 100.9°F, erythematous and enlarged nasal turbinates, mildly erythematous and enlarged tonsils and a clear lung exam. What clinical syndrome does this child have? What is the most likely etiology? What treatment would you prescribe? What if she came back to see you in one week and her symptoms were unimproved?

Case Scenario #4: You are in the Family Medicine outpatient clinic seeing Ms. Blue, a 32-year-old female with a history of allergic rhinitis, morbid obesity and hypertension. She complains of low-grade fevers, runny nose, postnasal drainage, frontal headache, and cough. Physical examination is significant for a temperature of 99.5°F, tenderness over her right maxillary sinus, erythema and swelling of bilateral nasal turbinates. The patient asks if you think she needs antibiotics. What additional information would you like to know about this patient? How would it change your management? In patients treated with antibiotics, when should alternative management strategies be considered?

Case Scenario #5: You are in the Family Medicine outpatient clinic seeing Ms. Brown, a 57-year-old female with a history of hypertension and stage III chronic kidney disease. She complains of headache, facial pain, postnasal drip and cough over the past 3 days. Physical examination is remarkable for tenderness over her maxillary and frontal sinuses bilaterally as well as erythema and swelling of her bilateral nasal turbinates. The remainder of the physical exam is benign. You determine that Ms. Brown has acute sinusitis, but you suspect a viral etiology. Ms. Brown tells you that antibiotics are the only thing that will clear her sinus infection. What do you say to Ms. Brown? What are some communication techniques you could use to increase patient satisfaction? What are barriers to using those techniques in your day-to-day practice? How would you manage those barriers?

Resources:

- Bisno AL, Gerber MA, Gwaltney JM, Kaplan EL, Schwartz RH. Practice Guidelines for the Diagnosis and Management of Group A Streptococcal Pharyngitis. Published in: *Clinical Infectious Diseases* 2002; 35 (2): 113-125. Also available at www.idsociety.org
- Snow V, Mottur-Pilson C, Hickner JM. Principles of Appropriate Antibiotic Use for Acute Sinusitis in Adults. *Annals of Internal Medicine* 2001; 134 (6): 495-497.
- Hickner JM, Bartlett JG, Besser RE, Gonzales R, Hoffman JR, Sande MA. Principles of Appropriate Antibiotic Use for Acute Rhinosinusitis in Adults: Background. *Annals of Internal Medicine* 2001;134 (6):498-505.
- Dowell SF, Marcy SM, Phillips WR, Gerber MA, Schwartz, B. Principles of Judicious Use of Antimicrobial Agents for Pediatric Upper Respiratory Tract Infections. *Pediatrics* 1998;101:163-165.
- O'Brien KL, Dowell SF, Schwartz B, Marcy SM, Phillips WR, Gerber, MA. Acute Sinusitis--Principles of Judicious Use of Antimicrobial Agents. *Pediatrics* 1998;101:174-177.
- Schwartz B, Marcy SM, Phillips WR, Gerber MA, Dowell SF. Pharyngitis--Principles of Judicious Use of Antimicrobial Agents. *Pediatrics* 1998;101:171-174.
- <http://www.cdc.gov/getsmart/campaign-materials/brochures.html>
- Chow AW, Benninger MS, Brook I, et al. IDSA Clinical Practice Guideline for Acute Bacterial Rhinosinusitis in Children and Adults. *Clin Infect Dis*. 2012 Apr;54(8):e72-e112. Epub 2012 Mar 20.