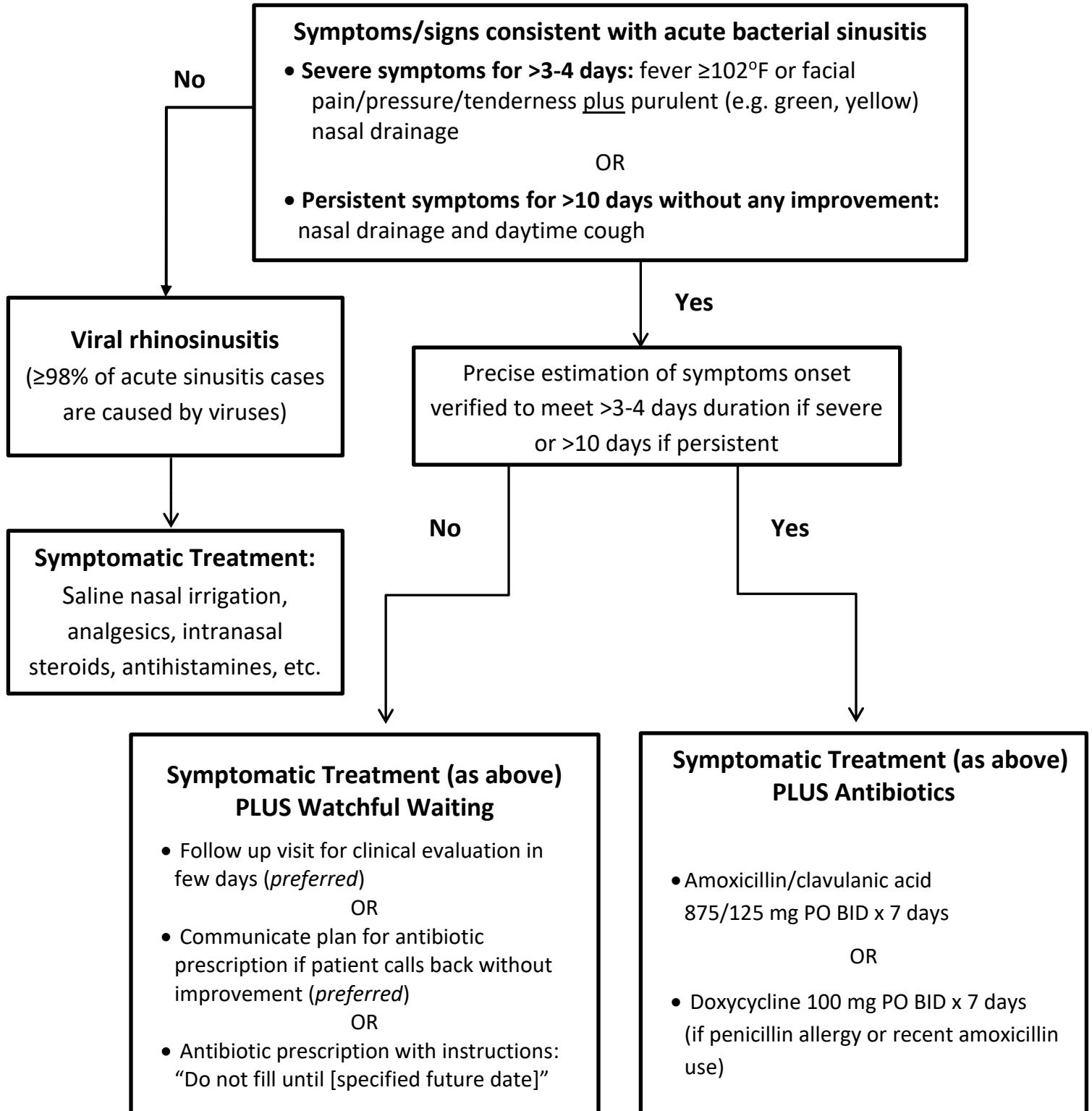




# Guidelines for Management of Acute Sinusitis in Adults



## Diagnosis:

- The majority of patients with minor symptoms (clear nasal drainage, cough, etc.) have self-limiting viral rhinosinusitis.
- The diagnosis of allergic rhinosinusitis should be considered in patients with prolonged minor symptoms and pale nasal mucosa on physical examination, particularly in patients with history of chronic perennial rhinosinusitis or during pollen activity in patients with seasonal allergies.
- Secondary bacterial sinusitis is suggested in patients with double sickening, that is acute worsening of symptoms (fever  $\geq 102^{\circ}\text{F}$  or facial pain/pressure or tenderness in addition to purulent nasal drainage for  $>3\text{-}4$  days) after initial improvement from viral upper respiratory tract infection.
- Physical examination is essential to confirm the diagnosis of acute bacterial sinusitis, rule out more serious infections such as pneumonia or meningitis, and determine the need for imaging in patients with high risk for complications such as intracranial abscesses, sagittal sinus thrombosis, etc.

## Symptomatic Treatment:

- **Nasal saline irrigation** may provide relief with low risk of adverse effects.
- **Analgesics/antipyretics** (e.g. acetaminophen, NSAIDs) may improve symptoms of pain and fever.
- **Intranasal steroids** (e.g. fluticasone) may improve symptoms of facial pain and nasal congestion.
- **Oral antihistamines** (e.g. diphenhydramine, cetirizine) may improve symptoms of excessive secretions and sneezing.
- **Oral decongestants** (e.g. pseudoephedrine) may improve nasal congestion – *should be used for  $<5$  days and in the absence of co-morbidities such as uncontrolled hypertension or anxiety.*
- **Topical decongestants** (e.g. oxymetazoline, tetrahydrozoline) may improve nasal congestion – *use should not exceed 3–5 days to prevent rebound congestion.*

## Antibiotic Comments:

- The risks of antibiotics (*Clostridium difficile* infection, etc.) exceed any potential benefits in patients with likely acute viral sinusitis based on symptoms and signs as above.
- Prescribing antibiotics on the phone without an initial patient encounter and physical examination to confirm the diagnosis and rule out complications as above is highly discouraged.
- Counseling Points:
  - Amoxicillin/clavulanic acid is better tolerated when taken with food.
  - Advise patients to drink enough fluids when taking doxycycline and avoid taking the evening dose within 2 hours of going to bed to reduce the risk of pill-induced esophagitis.
- Macrolides (e.g. azithromycin): Use discouraged due to increasing antimicrobial resistance rates among *Streptococcus pneumoniae*, the most common bacterial etiology of acute sinusitis. Macrolide therapy should be limited to patients with no prior macrolide use within the past 3 months and allergy/intolerance or prior use of both amoxicillin and doxycycline.
- Fluoroquinolones (e.g. levofloxacin, moxifloxacin): According to recent FDA warning, fluoroquinolones should not be used in patients with upper respiratory tract infections, including acute bacterial sinusitis, due to high risk of adverse events. Their use should be reserved for severely immune compromised patients (neutropenia, etc.) or those who have failed first-line therapy.
- Second- & Third-Generation Cephalosporins (e.g. cefuroxime, cefdinir): Similarly, cephalosporin use is not recommended due to high risk of adverse events and induction of antimicrobial resistance. Their use should be limited to patients who have failed first-line options.

## References:

1. Chow AW, et al. IDSA clinical practice guideline for acute bacterial rhinosinusitis in children and adults. *Clin Infect Dis* 2012; 54: e72-e112.
2. Rosenfeld RM, et al. Clinical practice guideline (update): adult sinusitis. *Otolaryngol Head Neck Surg* 2015; 152: S1-S39.
3. Lemiengre MB, et al. Antibiotics for clinically diagnosed acute rhinosinusitis in adults. *Cochrane Database Syst Rev* 2012; 10:CD006089.
4. Young J, et al. Antibiotics for adults with clinically diagnosed acute rhinosinusitis: a meta-analysis of individual patient data. *Lancet* 2008; 371: 908-914.
5. Falagas ME, et al. Comparison of antibiotics with placebo for treatment of acute sinusitis: a meta-analysis of randomised controlled trials. *Lancet* 2008; 8: 543-552.
6. FDA updates warnings for fluoroquinolone antibiotics. U.S. Food and Drug Administration. Released 26 July 2016. Available at: <http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm513183.htm>.

Endorsed by the Midlands Ambulatory Antimicrobial Initiative on December 5, 2017.