

SHC ABX Guidelines: Acute Rhinosinusitis in Adults

Considerations:

- Most (90-98%) cases of acute rhinosinusitis are due to a viral infection that will self-resolve.
- In most cases, symptoms improve within two weeks, regardless of whether they receive an antibiotic or not.¹
- Patients that are significantly Immunocompromised, or have chronic or recurrent (4 or more episodes per year) sinusitis may have additional or alternative considerations and are not addressed in this document.

Table 1. Conditions other than Acute Bacterial Rhinosinusitis

Category	Diagnosis	Management
COMPLICATED INFECTIONS	Rhinosinusitis with concern for complication (ie. meningitis, abscess, orbital cellulitis)	Urgent evaluation
ACUTE UPPER RESPIRATORY SYMPTOMS	Does not meet criteria for acute bacterial rhinosinusitis below	No antibiotics indicated. Symptomatic management
ACUTE VIRAL RHINOSINUSITIS	Typical sinusitis symptoms, not meeting duration criteria below for bacterial infection	No antibiotics indicated Symptomatic management

Table 2: Diagnosis and Management of Acute Bacterial Rhinosinusitis

Antibiotics are only indicated in the following presentations		
Diagnosis	Criteria	Management
ACUTE BACTERIAL RHINOSINUSITIS	Must meet one of the following set of criteria: 1. <ul style="list-style-type: none"> • Purulent nasal discharge AND • Facial pain/pressure OR nasal obstruction AND • Symptoms without improvement for >10 days 2. <ul style="list-style-type: none"> • New or worsening sinusitis signs or symptoms as above AFTER <ul style="list-style-type: none"> ○ initial improvement OR ○ following a URI of > 7 days duration 	<7 days from diagnosis (<17 days of symptoms): If reliable follow-up: <ul style="list-style-type: none"> • Watchful waiting • Re-evaluate in 7 days, • Antibiotics indicated if worsening at any time OR not improving at 7 days If unclear follow-up <ul style="list-style-type: none"> • Delayed prescription to be filled if worsening at any time OR in 7 days if not improving
		≥7 days from diagnosis (≥17 days of symptoms): <ul style="list-style-type: none"> • Antibiotics indicated

Table 3. Options when antibiotics are indicated

Preferred Regimen	Preferred for Penicillin allergy	Alternative for Beta Lactam Intolerance	Duration
Amoxicillin/Clavulanate 875/125 mg PO BID	Cefpodoxime 200 mg PO BID Cefuroxime 500 mg PO BID	Levofloxacin 750 mg PO daily	5 days*

AVOID:

- Doxycycline or Azithromycin – high rates of *S. pneumoniae* resistance at SHC
- Fluoroquinolones in absence of allergy or contraindication to preferred regimens

*In 12 RCT's of duration for acute bacterial rhinosinusitis, 8 studies compared 5 days of therapy to longer courses and showed no difference in outcome. Only one study compared 7 days to 10 days, again with no difference in outcome. See reference 2 for additional details

Table 4. Antimicrobial Drug Dosing in Renal Impairment

Route	Antimicrobial Drug	Dosage Regimen in Renal Impairment (Creatinine Clearance*)			
		>50 ml/min	30-50 ml/min	10-29 ml/min	<10 ml/min**
	Amoxicillin/ Clavulanate	875/125 mg PO BID		500/125 mg PO BID	500/125 mg PO daily
	Cefpodoxime	200 mg PO BID		200 mg PO daily	
	Cefuroxime	500 mg PO BID		500 mg PO daily	
	Levofloxacin	750 mg PO daily		20-49 ml/min: 750 mg PO q48H	
				<20 ml/min: 750 mg PO x 1 then 500 mg PO q48H	

*Creatinine clearance (CrCl) is calculated via the Cockcroft-Gault method

**For drug dosing in hemodialysis, please refer to the [SHC Antimicrobial Dosing Reference Guide](#)

Recommendations adapted from:

¹Lemiengre et al. Antibiotics for acute rhinosinusitis in adults. *Cochrane Database Syst Rev.* 2018 Sep 10;9(9):CD006089.

²Falagas ME, et al. . Effectiveness and safety of short vs. long duration of antibiotic therapy for acute bacterial sinusitis: a meta-analysis of randomized trials. *Br J Clin Pharmacol.* 2009 Feb;67(2):161-71.

Rosenfeld et al. Clinical practice guideline (update): adult sinusitis. *Otolaryngol Head Neck Surg.* 2015 Apr;152(2 Suppl):S1-S39.

CDC. Adult Treatment Recommendations: Acute rhinosinusitis. <https://www.cdc.gov/antibiotic-use/community/for-hcp/outpatient-hcp/adult-treatment-rec.html>. October 3, 2017.

Falagas et al. Comparison of antibiotics with placebo for treatment of acute sinusitis: a meta-analysis of randomised controlled trials. *Lancet Infect Dis.* 2008 Sep;8(9):543-52. doi: 10.1016/S1473-3099(08)70202-0. PMID: 18718440

Choosing Wisely. *An initiative of the ABIM Foundation.* <https://www.choosingwisely.org/wp-content/uploads/2015/01/Choosing-Wisely-Recommendations.pdf>

Stuart et al. Delayed antibiotic prescribing for respiratory tract infections: individual patient data meta-analysis. *BMJ.* 2021 Apr 28;373:n808.

Document Information:

1. Original Author/Date: Sharon Onguti, MD 8/26/2021
 - a. Revision Author/Date: Marten Hawkins, MD 12/18/2023
2. Gatekeeper: Antimicrobial Stewardship Program
3. Review and Renewal Requirement
 - a. This document will be reviewed every three years and as required by change of law or practice
4. Revision/Review History:
 - a. SASS team: 8/2021, 9/2023, 12/2023
5. Approvals:
 - a. Antimicrobial Subcommittee: 8/26/2021, 1/18/2024