Sinusitis

This care pathway is intended to provide guidance for Penn State Health and affiliated providers for the evaluation and treatment of sinusitis. The guidance provided in this document is driven-by evidence-based standards. This document provides an approach applicable for most patients; however, providers should use clinical judgement and adapt to individual patients and situations.

BACKGROUND

Rhinosinusitis affects an estimated 35 million people per year in the United States and accounts for close to 16 million office visits per year.(A) Acute rhinosinusitis can range from acute viral rhinitis (the common cold) to acute bacterial rhinosinusitis. In order to reduce overuse of antibiotics and unnecessary high-end imaging, accurate diagnosis is important. A defined care pathway to share with primary care practices, skilled nursing facilities and home health care agencies supports appropriate and timely care for the patients.

QUICK REFERENCE

MD NETWORK

1-800-233-4082
Specialty referrals

WHAT WE WANT TO ACHIEVE

The goals for this care pathway for Sinusitis are:

1. Providers determine accurate diagnosis for acute bacterial rhinosinusitis: severe, persistent, worsening.
2. Providers deliver appropriate medical therapy and appropriately prescribe antibiotics.
3. Providers choose effective radiological imaging.
4. Referrals to ENT should be medically necessary based on severity, deterioration and/or recurrence.

OUTCOMES MEASUREMENT

In order to reach our goals for the treatment of Sinusitis, Penn State Health Care Partners will measure appropriate indications for acute rhinosinusitis diagnosis and treatment, including the use of CT scans and antibiotics.

CARE TEAM OPPORTUNITIES

Interdisciplinary care is foundational at Penn State Health. For example, the care managers' role will include coordinating post-acute care and helping to identify and address social influences on health. A Pharmacist can review antibiotic selection in patients with renal dysfunction for prescribing safety, as needed.

RECOMMENDATIONS

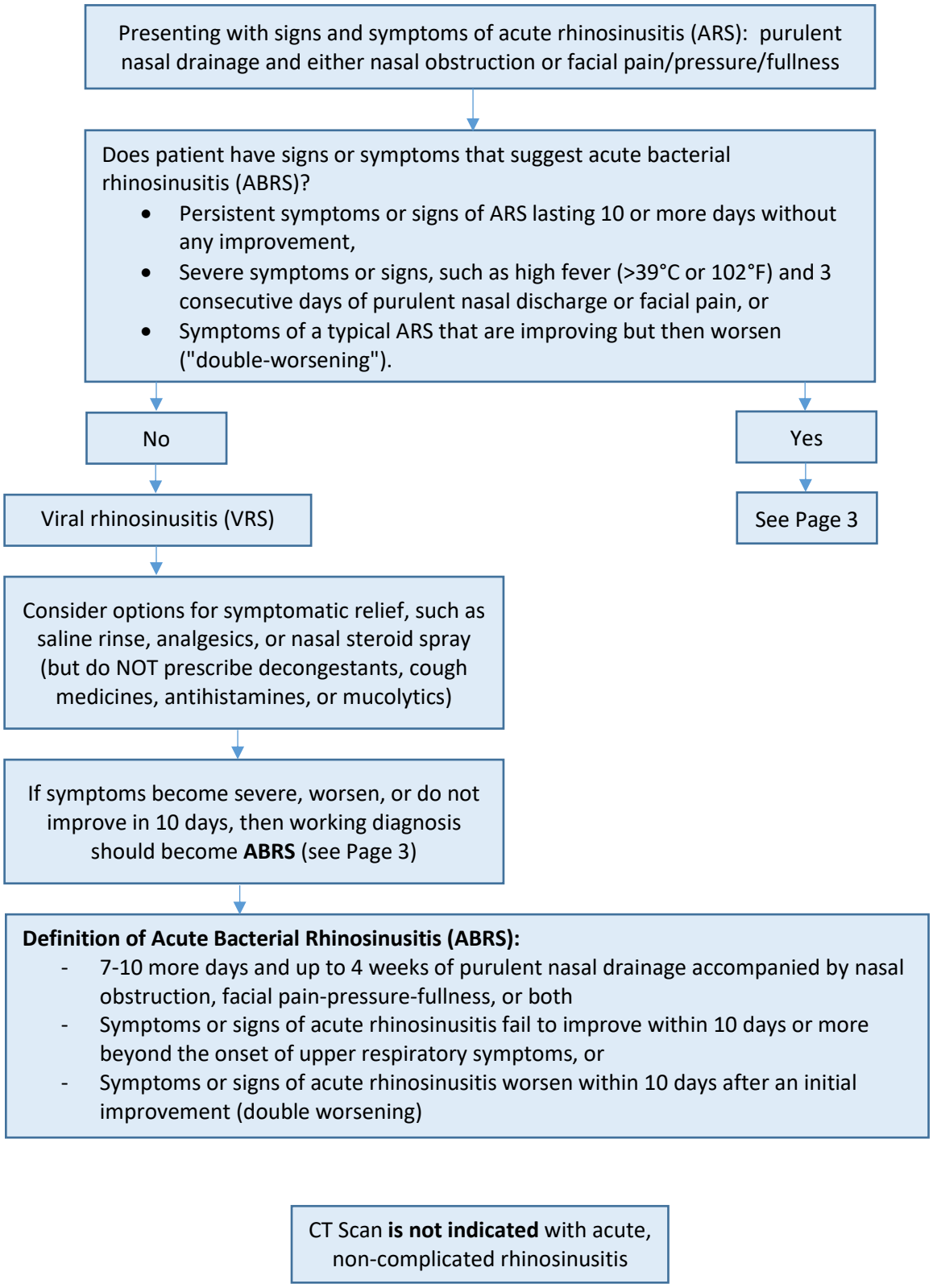
The following recommendations are based on the goals and measures listed above as well as general operational practices.

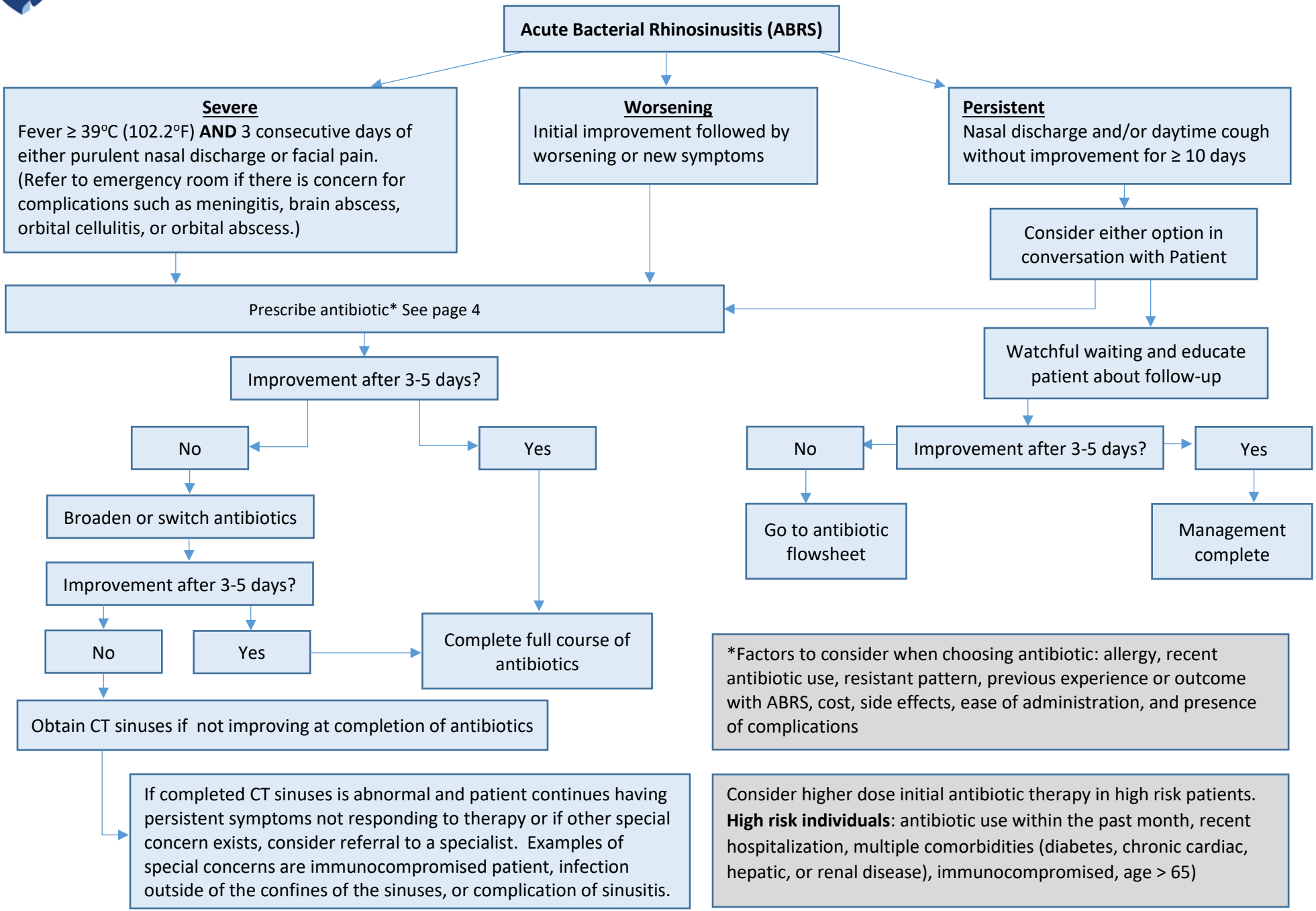
1. Referrals to ENT should include complete information about symptoms, duration and treatment.
2. Practices to adopt standard patient education handouts regarding the different types of sinusitis and appropriate treatment methods.

(A) Lucas JW, Schiller JS, Benson V. Summary health statistics for U.S. adults: National Health Interview Survey, 2001. Vital Health Stat 10. 2004 Jan. 1-134. [Medline].

CLINICAL PATHWAY

The clinical pathway provided on the following pages was developed by Penn State Health Care Partners Clinical Pharmacist.





If completed CT sinuses is abnormal and patient continues having persistent symptoms not responding to therapy or if other special concern exists, consider referral to a specialist. Examples of special concerns are immunocompromised patient, infection outside of the confines of the sinuses, or complication of sinusitis.

*Factors to consider when choosing antibiotic: allergy, recent antibiotic use, resistant pattern, previous experience or outcome with ABRS, cost, side effects, ease of administration, and presence of complications

Consider higher dose initial antibiotic therapy in high risk patients. **High risk individuals**: antibiotic use within the past month, recent hospitalization, multiple comorbidities (diabetes, chronic cardiac, hepatic, or renal disease), immunocompromised, age > 65)

ANTIBIOTIC OPTIONS FOR ADULTS

	Antibiotic Options		Duration
Initial empirical therapy (First line therapy)	Amoxicillin/clavulanate 500 mg/125 mg PO TID or Amoxicillin/clavulanate 875 mg/125 mg PO BID Amoxicillin/clavulanate 500 mg/125 mg PO BID Amoxicillin/clavulanate 500 mg/125 mg PO daily	CrCl>30 CrCl 10-30 CrCl < 10	7 Days
Initial empirical therapy (High Risk Patients) *see high risk above	Amoxicillin/clavulanate ER 2000 mg/125 mg BID Amoxicillin/clavulanate ER 2000 mg/125 mg BID Amoxicillin/clavulanate 500 mg/125 mg PO daily	CrCl>30 CrCl 10-30 CrCl < 10	10 Days
Beta-lactam allergy (Type I or IgE mediated – e.g. anaphylaxis, urticaria, bronchospasm, angioedema)	Doxycycline 100 mg BID – OR – 200 mg PO daily (8 and older) Moxifloxacin 400 mg daily ** Levofloxacin 500 mg daily ** Levofloxacin 500 mg on day 1, followed by 250 mg daily** Levofloxacin 500 mg on day 1, followed by 250 mg q48 hours**	 CrCl ≥ 50 CrCl 20-49 CrCL <20	7 Days 10 Days 5-7 Days
Non-IgE Beta-lactam allergy or intolerance	Clindamycin 300 mg TID PLUS cefpodoxime 200 mg BID Clindamycin 300 mg TID PLUS cefpodoxime 200 mg daily Clindamycin 300 mg TID Cefpodoxime 200 mg BID (if not high risk) Cefpodoxime 200 mg daily	CrCL>60 CrCl 20-59 CrCL <20 CrCL>30 CrCl<30	7 Days
Failed initial therapy	Amoxicillin/clavulanate **ER** 2000 mg/125 mg BID Amoxicillin/clavulanate 500 mg/125 mg PO BID Amoxicillin/clavulanate 500 mg/125 mg PO daily Clindamycin 300 mg TID PLUS cefpodoxime 200 mg BID Clindamycin 300 mg TID PLUS cefpodoxime 200 mg daily Clindamycin 300 mg TID	CrCL>30 CrCL 10-30 CrCL < 10 CrCL>60 CrCl 20-59 CrCL <20	10 Days 7 Days

ANTIBIOTIC REFERENCES

1. Backman S, et.al. Diagnosis and management of sinusitis, acute – adult. Intermountain Healthcare. December 2014. https://intermountainhealthcare.org/ext/Dcmnt%3Fncid%3D522983040%20
2. Chow AW. IDSA clinical practice guideline for acute bacterial rhinosinusitis in children and adults. *Clin Infect Dis* 2012;54(8): e72-e112
3. Lexi-Comp. 2021
4. Micromedex.2021
5. Rosenfeld RM, et.al. Clinical practice guideline (update): adult sinusitis. *Otolaryngol Head Neck Surg* 2015;152(2 Suppl): S1-S39
6. American Family Physician (https://www.aafp.org/afp/2017/0615/p757a.html)