

# Highlights of the American Academy of Otolaryngology Adult Sinusitis Guidelines

June 8, 2016 by Graham Ingalsbe, MD

*The ACEP Clinical Policies Committee regularly reviews guidelines published by other organizations and professional societies. Periodically, new guidelines are identified on topics with particular relevance to the clinical practice of emergency medicine. This article highlights recommendations published by the American Academy of Otolaryngology-Head and Neck Surgery in 2015 for **diagnosis and treatment of sinusitis in adults**.<sup>1</sup>*

Sinusitis is a huge burden on the health care system. Twelve percent of U.S. adults are **diagnosed with sinusitis** every year.<sup>2</sup> Sinusitis accounts for more primary ambulatory care visits associated with an antibiotic prescription than any other diagnosis and is estimated to cost the health care system **more than \$3 billion** every year.<sup>3</sup> Emergency providers are often faced with requests for imaging and treatment for sinusitis, and the twin pressures of wanting the most efficient remedy and patient experience with various treatments may make these encounters difficult for both patients and providers.

Recently, the American Academy of Otolaryngology-Head and Neck Surgery updated their recommendations to help guide physicians and patients on the diagnosis and management of adults presenting with sinusitis.

The guideline was developed through a literature review to include data published since the last version of the guideline in 2007. In all, five guidelines, 42 systematic reviews, and 70 randomized controlled trials were included for consideration. A working group developed a draft, which was open for public comment and multidisciplinary peer review, and a final version was published in April 2015.

In all, 12 statements comprise the guideline with varying levels of evidence supporting each as a strong recommendation, a recommendation, or an option to providers:

- For **strong recommendations**, benefits clearly exceed harms, and evidence is at a Grade A or B level.
- For **recommendations**, benefits exceed harm, and the quality of evidence isn't as high (Grade B or C).
- For **Options**, either the quality of evidence is suspect (Grade D) or well-done studies (Grade A or B) show little advantage of one approach to another.

The guideline is quite comprehensive, but the following statements are particularly pertinent to EM practice:

## **Statement 1A: Differential Diagnosis of Acute Rhinosinusitis**

“Clinicians should distinguish presumed acute bacterial rhinosinusitis (ABRS) from acute rhinosinusitis (ARS) caused by viral upper respiratory infections and noninfectious conditions. A clinician should diagnose ABRS when (a) symptoms or signs of ARS (i.e. purulent nasal drainage accompanied by nasal obstruction, facial pain-pressure-fullness, or both) *persist without evidence of improvement for at least 10 days* beyond the onset of upper respiratory symptoms, or (b) symptoms or signs of ARS worsen within 10 days after an initial improvement (double worsening).” (*Strong recommendation*)

This is one of only two strong recommendations within the guideline, and it is a change from the prior version’s diagnostic criteria of persistence of signs and symptoms for more than 10 days to emphasize *failure to improve* to reduce unnecessary tests or treatments for presumed viral infections.

ACEP has made similar statements in their 2014 *Choosing Wisely* recommendation on avoiding antibiotics in the ED for uncomplicated sinusitis: “Most patients with acute sinusitis do not require antibiotic treatment, because approximately 98 percent of acute sinusitis cases are caused by a viral infection and resolve in 10-14 days without treatment.”<sup>4</sup>

## **Statement 1B: Radiographic Imaging and Acute Rhinosinusitis**

“Clinicians should not obtain radiographic imaging for patients who meet diagnostic criteria for ARS, unless a complication or alternative diagnosis is suspected.” (*Recommendation*)

This statement is graded as a recommendation *against* imaging for uncomplicated sinusitis, whether presumed bacterial or viral. Complications that clinicians should be mindful of include orbital, intracranial, or soft tissue involvement. Some alternative diagnoses to consider include malignancy or any noninfectious etiology of facial pain. If imaging is pursued, computed tomography and magnetic resonance imaging are the recommended modalities.

## **Statements 2 and 3: Symptomatic Relief of Viral Rhinosinusitis (VRS) and**

### **Symptomatic Relief of Acute Bacterial Rhinosinusitis (ABRS):**

“Clinicians may recommend analgesics, topical intranasal steroids, and/or nasal saline irrigation for symptomatic relief of VRS/ABRS.” (*Option*)

While listed only as an option for providers, this recommendation highlights that there are numerous supportive therapies available for symptomatic relief of uncomplicated sinusitis. Several reviews suggest there is minor improvement with nasal saline and topical intranasal

steroids. Data are lacking for the use of oral decongestants, antihistamines, and analgesics, and their use may be left to patient and provider preference.

#### **Statement 4: Initial Management of Acute Bacterial Rhinosinusitis (ABRS):**

“Clinicians should either offer watchful waiting (without antibiotics) or prescribe initial antibiotic therapy for adults with uncomplicated ABRS. Watchful waiting should be offered only when there is assurance of follow-up, such that antibiotic therapy is started if the patient’s condition fails to improve by 7 days after ABRS diagnosis or if it worsens at any time.”  
*(Recommendation)*

This statement was based on pooled data showing very minimal improvement in cure rates at seven to 15 days when comparing antibiotic therapy (91 percent) to placebo (86 percent). Offering watchful waiting as a management strategy was previously graded as an option, but in light of recently included data published since the prior guideline, this statement was upgraded to a recommendation, predicated on reliable follow-up or strict return.

#### **Statement 5: Choice of Antibiotic for Acute Bacterial Rhinosinusitis (ABRS):**

“If a decision is made to treat ABRS with an antibiotic agent, the clinician should prescribe amoxicillin with or without clavulanate as first-line therapy for 5 to 10 days for most adults.”  
*(Recommendation)*

Should the decision be made to treat for bacterial sinusitis, this statement helps the clinician choose an appropriate antibiotic regimen. Patients at risk for antibiotic resistance, with moderate to severe infection, or with medical co-morbidities and extremes of age may prompt the clinician to opt for amoxicillin alone or in combination with clavulanate. For penicillin-allergic patients, doxycycline or a respiratory fluoroquinolone (levofloxacin or moxifloxacin) is recommended.

This systematic review encompasses most aspects of the diagnosis, workup, and treatment of both acute and chronic sinusitis. While some recommendations are specific to primary care settings, many are pertinent to the practice of EM. Used in practice, they may aid in shared decision-making for sinusitis management, and they have the potential to guide providers toward more judicious use of antibiotics and alleviate unnecessary costs and potential harms in overtreatment.

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#### **References**

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Topics: **ACEP, American College of Emergency Physicians, Clinical, Guideline, Head & Neck, Otolaryngology, Recommendation, Rhinosinusitis, Sinusitis**