



An De Sutter, MD, PhD
An.DeSutter@UGent.be

62 – Management by GPs of Rhinosinusitis

An De Sutter, MD, PhD
Vakgroep Huisartsgeneeskunde
en Eerstelijnsgezondheidszorg
Campus UZ 6K3, De Pintelaan
185, 9000 Gent, België
Carl Steylaerts, MD
GP, Belgium
Hon Treasurer WONCA Europe

Introduction

Rhinosinusitis is a gift of nature that we owe to the fact that we walk upright. The outlet of our maxillary sinuses is simply in the wrong place – on top. The next mutation of mankind into the next creature that will dwell on Earth will hopefully have a revision of the architecture of the sinuses – among other well designed corrections.

Rhinosinusitis has an incidence in adults of: for 2-3 viral upper respiratory tract infections (URTIs) per year, 90% of these colds are accompanied by viral rhinosinusitis. In 0.5 to 2% of episodes of viral rhinosinusitis a bacterial superinfection occurs. Acute bacterial rhinosinusitis affect 16% of the US adult population annually in general practice

The nose is also the seat of many bacteria, not in the least *S. aureus*. *Streptococcus pneumoniae*, *Haemophilus influenzae*, *Moraxella catarrhalis* are the “Hells Angels” of the sinuses.

Nose, throat, ear and sinus are in the forefront when it comes to attacks from viruses and bacteria. Even with an effective Ring of Waldeyer some environmental features make a defeat occasionally come true. Pollen, dust, soot, smoke ... a handshake, subsequent digito-oral manipulation, lots of factors contribute to infections getting us ill.

Rhinosinusitis in General Practice

Not every person that gets an infection goes to the doctor. And only a fraction of that population needs a specialist, even less need hospitalisation. Concurrent multi-morbidity or frailty can of course change the odds.

People with a beginning rhinosinusitis go most of the time in the first place to ... the pharmacist. That's the professional with the lowest threshold. He advises first line medication – pills, syrups, sprays – to everyone's taste and beliefs: homoeopathy, evidence based, cheap, expensive, you name it.

So, most of the time, the GP is second in position to be consulted in Primary Care. And we know it.

Reason for Encounter

A seasoned GP knows the reason for encounter in about 30 seconds after (s)he has welcomed the patient in his/her consultation room. He knows all the symptoms and signs by heart – dripping nose (with or without “colour”), headache, sore throat (occasionally), painful sinuses, ill feeling, an occasional fever.

A good clinical exam invests in looking for an obstruction of the nose, pain when toggling the maxillary sinuses, purulent secretions of the tonsils, post-nasal drip, swelling of submandibular glands.

A thorough anamnesis (e.g. how long is it going on, what did you try?) is a cardinal point in the consultation, as every GP knows.

What Do We Do?

In our Western world, we prescribe too many antibiotics, and we know it. According to the figures mentioned, it is only necessary in 2% of all cases.

In some parts of Europe and the world, people can get antibiotics without a prescription, adding insult to injury.

“Treating a rhinosinusitis with antibiotics heals it in a week, without in 8 days”, goes the saying. Research underpins that saying. Local antibiotics can help most of the time, as crutches and plaster help a man with a broken leg: they don't heal, but aid the healing.

What Should We Do?

Watchful waiting is key in handling this problem. At least 10 days are needed before any action is to be considered. Most cases of acute rhinosinusitis resolve without treatment.

Treatment of pain is important.

For relief of nasal symptoms consider decongestants or intranasal corticosteroids, although clinical trial evidence is limited.

Antibiotics can be considered for people with mild to moderate symptoms/signs of possible bacterial rhinosinusitis which last for 10 days or longer or worsen after initial improvement.

Antibiotics should be prescribed immediately in people with severe symptoms, symptoms that deteriorate significantly or in people with impaired immune competence

Patients with suspicion of developing a complication should be referred immediately for diagnostic investigation and IV treatment.

The treatment of choice depends on the place you live in. Environmental features (multi-resistance to antibiotics or not) are cardinal in choosing the drug of choice. Narrow spectrum antibiotics are our first line choice – if possible.

Effectiveness of zinc, echinacea, steam inhalation and saline spray or irrigation is unknown.

Vitamin C is probably not effective.

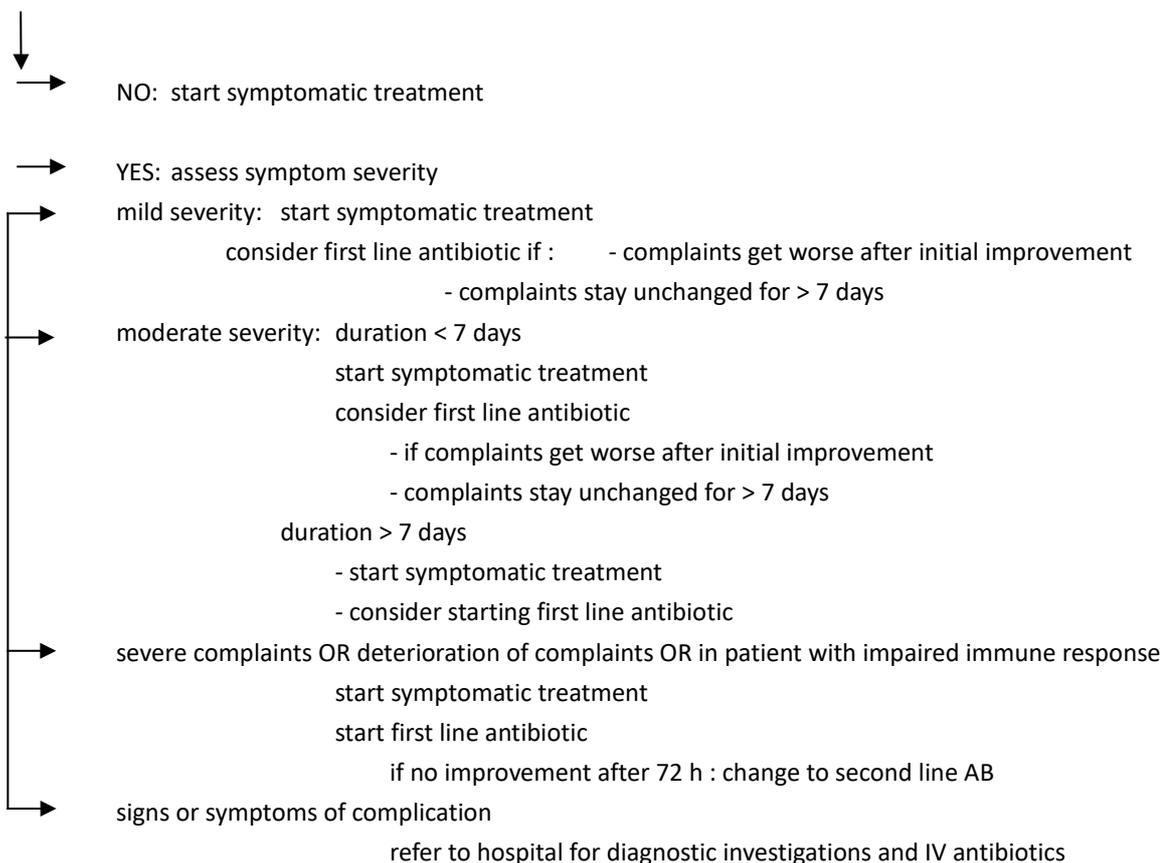


Flow Chart

Acute rhinosinusitis: upper respiratory tract infection with complaints of nasal blockage, congestion or stuffiness, nasal discharge or post nasal drip, facial pain or pressure, headache or acute reduction/loss of smell

Suspicion of acute bacterial rhinosinusitis?

(purulent nasal discharge, maxillary tooth ache, facial pain (especially unilateral), unilateral maxillary sinus tenderness)



symptomatic treatment:

nasal symptoms: nasal decongestant (e.g. xylometazoline 1% 4x/d during max 7 day OR fluticasone 50µg 1 dd 2 puffs in each nostril)

pain symptoms: acetaminophen 4X 500 à 1000 mg /d or ibuprofen (3 x 400 mg)

first line antibiotic:

amoxicilline 3 x 1 gr / d (documented non-type 1 allergy: cefuroxime axetil 3 x 500 mg /d; documented type-1 allergy: moxifloxacin 400 mg/d)

second line antibiotic:

amoxicillineclavulanate 3 x 875 mg / d (allergy: moxifloxacin)

Take Home Message

- In patients with clinical findings of acute sinusitis - purulent nasal discharge, maxillary tooth ache, facial pain (especially unilateral) or unilateral sinus tenderness, assess the duration and severity of complaints.
- Routine imaging is not recommended though a clinical diagnosis is always uncertain
- For patients with mild to moderate symptoms of less than 10 days duration, provide symptomatic relief and reassurance
- For patients with mild to moderate symptoms of more than 10 days duration, and those getting worse after initial improvement, treatment with antibiotics can be considered but evidence of effectiveness is inconsistent
- For patients with severe symptoms or impaired immune competence, prescribe an antibiotic

Original Abstract

<http://www.woncaeurope.org/content/abstract-no-332-free-standing-paper-management-flemish-gps-rhinosinusitis>

References

1. Ahovuo-Saloranta A, Rautakorpi UM, Borisenko OV, Liira H, Williams JW, Jr., Makela M. Antibiotics for acute maxillary sinusitis in adults. The Cochrane database of systematic reviews. 2014(2):CD000243.
2. Cronin MJ, Khan S, Saeed S. The role of antibiotics in the treatment of acute rhinosinusitis in children: a systematic review. Arch Dis Child. 2013;98(4):299-303.
3. De Sutter AI, van Driel ML, Kumar AA, Lesslar O, Skrt A. Oral antihistamine-decongestant-analgesic combinations for the common cold. The Cochrane database of systematic reviews. 2012;2:CD004976.
4. Hauer AJ, Luiten EL, van Erp NF, Blase PE, Aarts MC, Kaper NM, et al. No evidence for distinguishing bacterial from viral acute rhinosinusitis using fever and facial/dental pain: a systematic review of the evidence base. Otolaryngol Head Neck Surg. 2014;150(1):28-33.
5. Lemiengre MB, van Driel ML, Merenstein D, Young J, De Sutter AI. Antibiotics for clinically diagnosed acute rhinosinusitis in adults. The Cochrane database of systematic reviews. 2012;10:CD006089.
6. Lindbaek M, Hjortdahl P. The clinical diagnosis of acute purulent sinusitis in general practice--a review. Br J Gen Pract. 2002;52(479):491-5.
7. van den Broek MF, Gudden C, Kluijfhout WP, Stam-Slob MC, Aarts MC, Kaper NM, et al. No evidence for distinguishing bacterial from viral acute rhinosinusitis using symptom duration and purulent rhinorrhea: a systematic review of the evidence base. Otolaryngol Head Neck Surg. 2014;150(4):533-7.
8. Venekamp RP, Thompson MJ, Hayward G, Heneghan CJ, Del Mar CB, Perera R, et al. Systemic corticosteroids for acute sinusitis. The Cochrane database of systematic reviews. 2011(12):CD008115.