PRIMARY CARE MANAGEMENT GUIDELINES
Rhinosinusitis

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Sinusitis[1]: Inflammation of the paranasal sinus cavities. Aetiology - allergic, viral, bacterial, fungal (or in combination). **Acute** - sinusitis lasting 4 weeks or less. **Recurrent** - 4 or more episodes of acute sinusitis per year lasting 10 or more days with the absence of symptoms between episodes. **Subacute** - sinusitis lasting 4-12 weeks with or without treatment. **Chronic** - sinusitis lasting 12 weeks or more with or without treatment.

CLINICAL PROBLEM (Clinical Determinants)	ACTIONS	LOCAL IMPLEMENTATION REQUIREMENTS
ACUTE SINUSITIS[2]		
First attack (acute)	Supportive treatment[3] (5 days) • fluids • analgesia • and / or saline irrigation • steam inhalations • and / or decongestants 70% of acute sinusitis will resolve without antibiotics) (Plain x-rays[4] not indicated)	
First attack and no improvement with supportive treatment[3]	Continue supportive treatment[3] and first-line antibiotic[5] for 10-14 days	
First attack and no improvement with first-line antibiotics[5]	• Pus sample[6] • Second-line treatment[7] for 3 weeks • Decongestants • Second-line antibiotics • Steroids	[Discuss local preference re: nasal swab, etc]
First attack and no improvement with second-line treatment[7]	Consult Specialist	
First attack and complications[8]	Consult Specialist urgently	
RECURRENT SINUSITIS		
Acute attack	Supportive treatment[3] and first-line antibiotic treatment[5] for 3 weeks	
No improvement with supportive treatment[3] and first-line antibiotics[5]	• Pus sample[6] • Change antibiotic to match sensitivity • Oral[9] and topical[10] steroids	
No improvement with second-line treatment[7]	Consult Specialist	Proforma referral
SUBACUTE SINUSITIS		
All patients	• Continue management as per acute sinusitis • Consider alternative diagnoses (allergic rhinitis, foreign body, tumour)	
CHRONIC SINUSITIS[11]		
All patients	Supportive treatment[3] and • First-line antibiotic[5] for 1 month • Five days topical decongestant • 3 months topical steroid[10] • 1 week oral steroid[9]	
No improvement with second-line treatment[7]	• Pus sample[6] • Change antibiotic to match sensitivities	
No improvement with second-line antibiotic	Consult Specialist	Proforma referral

SEE NOTES ON REVERSE >>>

NOTES:

1. Two major symptoms or 1 major & 2 minor symptoms are needed to make diagnosis of sinusitis.
    a. **Major symptoms**: facial pain / pressure / fullness; nasal obstruction / blockage; nasal or postnasal discharge; hyposmia / anosmia; fever (acute sinusitis only)
    b. **Minor symptoms:** headaches; fever; halitosis; fatigue; dental pain; cough; ear pain / pressure / fullness
2. **Differential diagnosis**: Allergic Rhinitis, Atypical Facial Pain, Headaches (Migraine /Tension), Nasal drying, Gastro-oesophageal reflux, Atrophic Rhinitis, TMJ Pain, Dental Pain.
3. **Supportive treatment:** (70% of acute sinusitis will resolve without antibiotics)
    a. Increase fluid intake
    b. Analgesia / Antipyretics: Paracetamol, NSAIDs
    c. Nasal saline irrigation: use 2 ml syringe as dropper - use solution of ¼ teaspoon salt / 1 cup of boiled water (cooled). Administer 2 ml 2-4 hourly or use normal saline nasal spray or drops available from pharmacy
    d. Steam inhalation
    e. Decongestants
4. **Plain films** not indicated - not diagnostic - poor correlation with CT / endoscopic / surgical findings. CT - indicated only for recurrent or chronic sinusitis not responding to maximal therapy.
5. **First-line antibiotics**: Amoxycillin, Cotrimoxazole, Doxycycline.
6. **Obtaining a pus sample**: Patient to blow nose gently to clear anterior nasal mucus. Then block one nostril and blow hard into empty specimen pot. Repeat for the other side. Send sample fresh to lab plus bacterial culture swab from "greenest" part of the sample in transport media.
    – Anterior nasal swab: Only 30-40% correlation with causative organism.
    – Middle meatus swab (endoscopically): 70-80% correlation. Maxillary antrum puncture / washout - gold standard.
7. **Second-line treatment** (best effect if used in combination):
    a. Decongestants: xylometazoline (Otrivine), oxymetazoline (Drixine), pseudoephedrine (to widen ostea and improve drainage). USE FOR 5 DAYS ONLY.
    b. Second-line antibiotics: amoxycillin / clavulanate, roxithromycin, erythromycin, cefaclor
    c. Steroids: topical nasal spray – budesonide, beclomethasone, fluticasone; oral – prednisone.
8. **Complications**: Orbital cellulitis can lead rapidly to blindness - requires urgent referral. Cerebral abscess, meningitis, cavernous sinus thrombosis, septicaemia. Chronic unilateral nasal obstruction / discharge - more sinister - consider tumour / foreign body.
9. **Oral steroid**: Prednisone 20mg daily for 7 days (60+kg adult).
10. **Topical steroid**: 2 puffs in both nostrils twice daily for 7 days then 1 puff twice daily for 1 month then 1 puff at night for 2 months once symptoms controlled.
11. **Chronic:** more than 4 attacks per year or continuing problems for 3 months.

REFERRAL LETTER INFORMATION

- Demographics
- Critical determinants leading to referral
- Antibiotic and nasal spray treatment duration and response
- Relevant medical history

REFERENCES

1. Guideline for the Diagnosis and Management of Acute Bacterial Sinusitis. *Alberta Medical Association.* June 2000.
2. Osguthorpe JD et al. Adult Rhinosinusitis: Diagnosis and Management. *American Family Physician.* 2001 Jan 1;63(1):69-76.
3. Hickner JM et al. Principles of Appropriate Antibiotic Use for Acute Rhinosinusitis in Adults: Background. Clinical Practice Guideline - Part 2. *Annals of Internal Medicine.* 2001 March 20;134(6):498-505.
4. Snow V et al. Principles of Appropriate Antibiotic Use for Acute Sinusitis in Adults. Clinical Practice Guideline - Part 1. *Annals of Internal Medicine.* 2001 March 20;134(6):495-497.
5. Acute Rhinosinusitis in Adults. UMHS Guidelines for Clinical Care. Rhinosinusitis Guideline. December 1999.

ADDITIONAL INFORMATION

The Elective Services Respiratory National Referral Guidelines & Clinical Priority Assessment Criteria and the Rhinosinusitis Primary Care Management Guidelines can be found at: www.electiveservices.govt.nz