UPPER RESPIRATORY TRACT INFECTIONS
Acute sinusitis

Acute sinusitis is **self-limiting and usually triggered by a viral infection** of the upper respiratory tract (e.g., a common cold. Only about 0.5-2% of cases are complicated by bacterial infection and of this small number, most patients (65-80%) improve without antibiotic therapy. Symptoms can last for 2 to 3 weeks, and most people recover within this time without treatment, regardless of cause, so **antibiotics are not needed for most people**.
The overuse of antibiotics is a well-known issue, leading to adverse effects and antimicrobial resistance.
The decision to hold off treatment can be difficult for GPs when faced with a patient suffering from acute sinusitis. Therefore, it is important to set realistic expectations, provide clear, evidence-based guidance to shape patient understanding and adopt appropriate management of acute sinusitis.
Sinusitis (for 12 years old and older) is one of the 7 conditions that can be managed in Community Pharmacy through Pharmacy First.

If a person presents at any time and is systemically very unwell, has symptoms and signs of a more serious illness or condition, or is at high risk of complications:

- Refer to hospital if they have symptoms/signs of acute sinusitis associated with any of the following:
  - Severe systemic infection (see NICE guideline on sepsis).
  - Intraorbital or periorbital complications, including periorbital oedema or cellulitis, a displaced eyeball, double vision, ophthalmoplegia, or newly reduced visual acuity.
  - Intracranial complications, including swelling over the frontal bone, symptoms or signs of meningitis, severe frontal headache, or focal neurological signs.
- If a hospital admission is not required, offer an immediate antibiotic or further investigation.

If a person has had symptoms for ≤ 10 days:

- **Do not offer an antibiotic prescription** and advise:
  - Acute sinusitis is usually viral, lasts for 2–3 weeks, and most people recover without antibiotics.
  - Symptoms, including fever, can be managed with self-care measures:
    - Paracetamol or ibuprofen for pain or fever.
    - A trial of nasal saline or nasal decongestants (although evidence is lacking). See NHS guidance on sinusitis for self-care and using salt water (NHS Sinusitis patient information)
  - No evidence for oral decongestants, antihistamines, mucolytics, steam inhalation, or face packs use.
- To seek medical advice if symptoms worsen rapidly or significantly, do not improve after 3 weeks, or they become systemically very unwell.

Reserve antibiotics (consider delayed if non-severe) for severe symptoms or symptoms >10 days. Complications of acute sinusitis are rare, withholding antibiotics is unlikely to lead to complications.

If a person has had symptoms for ≥ 10 days with no improvement:

- Consider prescribing a high-dose nasal corticosteroid for 14 days for adults and children aged ≥ 12 years (e.g., mometasone 200 micrograms twice a day [off-label use]), being aware that nasal corticosteroids:
  - May improve symptoms but are not likely to affect how long they last.
  - Could cause systemic effects, particularly in people already taking another corticosteroid.
- Consider no antibiotic prescription or a back-up antibiotic prescription, taking account of:
  - Evidence that antibiotics make little difference to how long symptoms last.
  - Withholding antibiotics is unlikely to lead to complications.
  - Possible adverse effects, particularly diarrhoea and nausea.
  - Factors that might make a bacterial cause more likely e.g. biphasic pattern of illness (initial improvement in symptoms followed by worsening 5-6 days later) Individual symptoms such as purulent nasal discharge or facial pain cannot be used to accurately distinguish between bacterial vs viral.

- If a back-up antibiotic prescription is given, advise patient to:
  - Manage symptoms with self-care measures.
  - Use back-up prescription if symptoms worsen rapidly or significantly, or do not improve in 7 days.
- Advise to seek medical advice if complications develop, symptoms rapidly deteriorate, no improvement within 3–5 days of initial treatment, or antibiotic treatment stopped as not tolerated.

When reassessing, take account of:

- Alternative diagnoses e.g., dental infection, signs or symptoms suggesting a more serious condition.
- Previous antibiotic use - using same antibiotic again may lead to resistant organisms.

Consider referral for people with acute sinusitis to an appropriate specialist, for example, an ear, nose, and throat specialist or immunologist (with urgency depending on clinical judgement) if:

- The patient is immunocompromised
- There is a suspected allergic or immunological cause.
- There is an anatomic defect causing obstruction.
- There is a comorbidity complicating management, such as nasal polyps or asthma.
- Sinusitis is associated with an unusual or resistant bacteria.
- There is no improvement after 10 days of antibiotic treatment.
- Symptoms are recurrent or significantly affect quality of life.
- There is doubt about the diagnosis.

Persistent unilateral symptoms, such as nasal obstruction, nasal discharge or nosebleeds, crusting, or facial swelling may suggest neoplasm.

Antibiotics for adults over 18 years if indicated (see above):

Antibiotic[1]	Dosage	Duration
First Choice		
Phenoxymethylpenicillin	• 500mg QDS	5 days
Alternative first choices (if penicillin allergy or intolerance)		
Doxycycline[2]	• 200mg first day then 100mg OD	5 days
Clarithromycin[4]	• 500mg BD	5 days
Erythromycin[3,4]	• 250mg to 500mg QDS or 500mg to 1000mg BD	5 days
If systemically very unwell, symptoms/signs of a more serious illness or condition are present, high risk of complications or symptoms worsening if first choice antibiotic has been taken for at least 2-3 days.		
Co-amoxiclav	• 500/125mg TDS	5 days

[1] See BNF for appropriate use and dosing in specific populations, for example, hepatic impairment or renal impairment, and in pregnancy and breastfeeding.
[2] Doxycycline is not suitable for pregnant women
[3] Erythromycin is preferred in women who are pregnant.
[4] Withhold statins whilst on clarithromycin/erythromycin course.

Antibiotics for children and young adults under 18 years if indicated (see above):

Antibiotic[1]	Dosage[2]	Duration
First Choice		
Phenoxymethylpenicillin	• 1 to 11 months: 62.5mg QDS • 1 to 5 years: 125mg QDS • 6 to 11 years: 250mg QDS • 12 to 17 years: 500mg QDS	5 days
Alternative first choices (if penicillin allergy or intolerance)		
Clarithromycin	• 1 month to 11 years: o Under 8kg: 7.5mg/kg BD o 8 to 11kg: 62.5mg BD o 12 to 19kg: 125mg BD o 20 to 29kg 187.5mg BD o 30 to 40kg: 250mg BD • 12 to 17 years: 250mg to 500mg BD	5 days
Doxycycline	• 12 to 17 years: 200mg first day then 100mg OD	5 days
If systemically very unwell, symptoms/signs of a more serious illness or condition are present, or high risk of complications		
Co-amoxiclav	• 1 to 11 months: 0.25mL/kg of 125/31 suspension TDS • 1 to 5 years: 0.25mL/kg or 5mL of 125/31 suspension TDS • 6 to 11 years: 0.15 mL/kg or 5mL of 250/62 suspension TDS • 12 to 17 years: 250/125 mg or 500/125 mg TDS	5 days

[1]See BNF for children for appropriate use and dosing in specific populations, for example, hepatic impairment and renal impairment.
[2] The age bands apply to children of average size and, in practice, the prescriber will use age bands in conjunction with other factors such as the severity of the condition and the child's size in relation to the average size of children of the same age. Doses given are by mouth using immediate-release medicines, unless otherwise stated.

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