



A summary of prescribing recommendations from NICE guidance

Sinusitis (acute): antimicrobial prescribing

NICE NG79: 2017

This guideline sets out an antimicrobial prescribing strategy for acute sinusitis. It aims to limit antibiotic use and reduce antimicrobial resistance.

See also [NICE visual summary](#)

Introduction

- ◆ Acute sinusitis, also known as rhinosinusitis, is self-limiting and usually triggered by a viral infection of the upper respiratory tract e.g. a common cold.
- ◆ Only about 2% of cases are complicated by bacterial infection, but it is very difficult to distinguish these.
- ◆ Symptoms can last for 2 to 3 weeks – most people will get better within this time without treatment, regardless of cause (bacteria or virus).
- ◆ Antibiotics are not needed for most people.
- ◆ The number of people improving with antibiotics is similar to the number getting adverse effects, such as diarrhoea.
- ◆ Complications of acute sinusitis are rare. Withholding antibiotics is unlikely to lead to complications.
- ◆ Previous antibiotic use may lead to resistant organisms if the same antibiotic is used again.

Signs and symptoms

- ◆ Adults with acute sinusitis usually present with:
 - > nasal blockage or congestion,
 - > nasal discharge,
 - > dental or facial pain or pressure,
 - > reduction or loss of the sense of smell.
- ◆ Children, particularly young children, often present with non-specific symptoms in the upper respiratory tract including:
 - > nasal blockage or congestion,
 - > discoloured nasal discharge,
 - > cough during the day or at night.
- ◆ A bacterial cause may be more likely if several of the following are present:
 - > symptoms for >10 days,
 - > discoloured or purulent nasal discharge,
 - > severe localised unilateral pain, particularly pain over teeth and jaw,
 - > fever,
 - > marked deterioration after an initial milder phase.

Treatment and management

People presenting with symptoms for around ≤10 days

- ◆ **Do NOT** offer an antibiotic prescription.
- ◆ Give advice about:
 - > the usual course of acute sinusitis lasting 2 to 3 weeks,
 - > an antibiotic not being needed,
 - > self-care (**Box 1**) for managing symptoms including fever,
 - > seeking medical help if symptoms worsen rapidly or significantly, do not improve after 3 weeks, or they become systemically very unwell.
- ◆ Reassess if symptoms worsen rapidly or significantly^β.

^β Take account of alternative diagnoses such as a dental infection and any symptoms or signs suggesting a more serious illness or condition.

Box 1

Self-care

- ◆ Consider paracetamol or ibuprofen for pain or fever (assess and manage children aged <5 years who present with fever as outlined in [NICE guideline: Fever in under 5s](#)).
- ◆ Explain that some people may wish to try nasal saline or nasal decongestants, although there is not enough evidence to show that they help to relieve nasal congestion.
- ◆ Explain that no evidence was found for using oral decongestants, antihistamines, mucolytics, steam inhalation, or warm face packs.

People presenting with symptoms for around ≥10 days with no improvement

- ◆ Consider prescribing a high-dose nasal corticosteroid^U for 14 days for adults and children ≥12 years, 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,
 - > may be difficult for people to use correctly.
- ◆ Consider no antibiotic prescription or a back-up antibiotic prescription** taking account of:
 - > evidence that antibiotics make little difference to symptom duration, or proportion of people with improved symptoms,
 - > withholding antibiotics is unlikely to lead to complications,
 - > possible adverse effects, particularly diarrhoea and nausea,
 - > factors that might make a bacterial cause more likely.
- ◆ When a back-up antibiotic prescription** is given, give verbal and written advice about:
 - > self-care (**Box 1**) and an antibiotic not being needed immediately,
 - > using the back-up prescription if symptoms do not improve within 7 days or worsen rapidly or significantly at any time,
 - > seeking medical help if symptoms worsen rapidly or significantly despite taking the antibiotic, or the antibiotic has been stopped because it was not tolerated.
- ◆ Reassess if symptoms worsen rapidly or significantly despite taking treatment^β, also taking account of previous antibiotic use, which may lead to resistant organisms.

People presenting at any time who are systemically very unwell, have symptoms and signs of a more serious illness or condition, or are at high risk of complications:

- ◆ Offer an immediate antibiotic prescription or further appropriate investigation and management in line with [NICE pathway: Respiratory tract infections \(self-limiting\):prescribing antibiotics](#).
- ^U unlicensed. Obtain and document informed consent.
- * high-dose nasal corticosteroids used in studies were mometasone 200micrograms twice daily and fluticasone 110micrograms twice daily.
- **a back-up prescription is given to delay the use of an antibiotic. Give advice to only use it if symptoms worsen or don't improve within a specified time; the prescription may be given during the consultation or collected at a later date.

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- ◆ Refer people to hospital if they have symptoms and signs of acute sinusitis associated with any of the following:
 - severe systemic infection, see [NICE pathway: 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.

Choice of antibiotic

- ◆ Follow the recommendations in **Table 1**, as appropriate, when prescribing antibiotics for acute sinusitis.

Recommendations – wording used such as ‘offer’ and ‘consider’ denote the [strength of the recommendation](#).

Drug recommendations – the guideline assumes that prescribers will use a drug’s [Summary of Product Characteristics \(SPC\)](#) to inform treatment decisions.

Table 1. Antibiotic recommendations for acute sinusitis.

Antibiotic ^a	Dosage: adults aged ≥18 years	Dosage: children and young people <18 years ^b
First choice		
Phenoxyethylpenicillin	500mg four times a day for 5 days	1 to 11 months: 62.5 mg four times a day for 5 days 1 to 5 years: 125 mg four times a day for 5 days 6 to 11 years: 250 mg four times a day for 5 days 12 to 17 years: 500 mg four times a day for 5 days
First choice if systemically very unwell, symptoms and signs of a more serious illness or condition, or at high risk of complications.		
Co-amoxiclav	500/125mg three times a day for 5 days	1 to 11 months: 0.25 ml/kg of 125/31 suspension three times a day for 5 days 1 to 5 years: 5 ml of 125/31 suspension, OR 0.25 ml/kg of 125/31 suspension three times a day for 5 days 6 to 11 years: 5 ml of 250/62 suspension, OR 0.15 ml/kg of 250/62 suspension three times a day for 5 days 12 to 17 years: 250/125 mg, OR 500/125 mg three times a day for 5 days
Alternative first choices for penicillin allergy or intolerance		
Doxycycline ^c	200mg on first day, then 100mg once a day for 4 days (5-day course in total)	12 to 17 years, 200 mg on first day, then 100 mg once a day for 4 days (5-day course in total)
Clarithromycin	500 mg twice a day for 5 days	Under 8 kg, 7.5 mg/kg twice a day for 5 days 8 to 11 kg, 62.5 mg twice a day for 5 days 12 to 19 kg, 125 mg twice a day for 5 days 20 to 29 kg, 187.5 mg twice a day for 5 days 30 to 40 kg, 250 mg twice a day for 5 days 12 to 17 years, 250 mg twice a day or 500 mg twice a day for 5 days
Erythromycin (in pregnancy)	250 mg to 500 mg four times a day OR 500 mg to 1000 mg twice a day for 5 days	N/A
Second choice (worsening symptoms on first choice taken for at least 2 to 3 days)		
Co-amoxiclav ^d	500/125 mg three times a day for 5 days	1 to 11 months, 0.25 ml/kg of 125/31 suspension three times a day for 5 days 1 to 5 years, 5 ml of 125/31 suspension, OR 0.25 ml/kg of 125/31 suspension three times a day for 5 days 6 to 11 years, 5 ml of 250/62 suspension, OR 0.15 ml/kg of 250/62 suspension three times a day for 5 days 12 to 17 years, 250/125 mg, OR 500/125 mg three times a day for 5 days
Alternative second choice for penicillin allergy/intolerance, or worsening symptoms on second choice taken for at least 2 to 3 days		
Consult local microbiologist		
^a see BNF/ BNF for children for appropriate use and dosing in specific populations (e.g. hepatic impairment and renal impairment). ^b the age bands apply to children of average size. In practice, the prescriber will use age bands in conjunction with other factors such as the severity of the condition being treated and the child’s size in relation to the average size of children of the same age. ^c doxycycline is contraindicated in children <12 years. ^d if co-amoxiclav is used as first choice, consult local microbiologist for advice on second choice.		