



## A summary of prescribing recommendations from NICE guidance

## Sore throat (acute): antimicrobial prescribing

NICE NG84: 2018

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

**Assessment**

- ◆ Be aware that:
  - acute sore throat (including pharyngitis and tonsillitis) is self-limiting and often triggered by a viral infection of the upper respiratory tract,
  - symptoms can last for around 1 week, but most people will get better within this time without antibiotics, regardless of cause (bacteria or virus).
- ◆ Assess and manage children under 5 who present with fever as outlined in [NICE Pathway: Fever in under 5's](#).

**All people with acute sore throat**

- ◆ Use **FeverPAIN criteria** or **Centor** criteria (see **Box 1**) to identify people who are more likely to benefit from an antibiotic.
- ◆ Give general advice and self-care advice (see **Box 2**).
- ◆ Reassess at any time if symptoms worsen rapidly or significantly, taking account of:
  - alternative diagnoses such as scarlet fever or glandular fever,
  - any symptoms or signs suggesting a more serious illness or condition,
  - previous antibiotic use, which may lead to resistant organisms.

**Box 1****FeverPAIN criteria**

- ❖ Fever (during previous 24 hours)
- ❖ Purulence (pus on tonsils)
- ❖ Attend rapidly (within 3 days after symptom onset)
- ❖ Severely Inflamed tonsils
- ❖ No cough or coryza (inflammation of mucus membranes in the nose)
- ◆ Each of the FeverPAIN criteria score 1 point (maximum score of 5). Higher scores suggest more severe symptoms and likely bacterial (streptococcal) cause.
- ◆ A score of 0 or 1 is thought to be associated with a 13 to 18% likelihood of isolating streptococcus.
- ◆ A score of 2 or 3 is thought to be associated with a 34 to 40% likelihood of isolating streptococcus.
- ◆ A score of 4 or 5 is thought to be associated with a 62 to 65% likelihood of isolating streptococcus

**Centor criteria**

- ❖ Tonsillar exudate
- ❖ Tender anterior cervical lymphadenopathy or lymphadenitis
- ❖ History of fever (over 38°C)
- ❖ Absence of cough
- ◆ Each of the Centor criteria score 1 point (maximum score of 4).
- ◆ A score of 0, 1 or 2 is thought to be associated with a 3 to 17% likelihood of isolating streptococcus.
- ◆ A score of 3 or 4 is thought to be associated with a 32 to 56% likelihood of isolating streptococcus.

**Box 2****Sore throat (acute) - General advice**

- ◆ Give advice about:
  - usual course of acute sore throat (can last around 1 week),
  - managing symptoms, including pain, fever and dehydration, with self-care.

**Self-care advice**

- ◆ Consider paracetamol for pain or fever, or if preferred and suitable, ibuprofen.
- ◆ Advise about adequate intake of fluids.
- ◆ Explain that some adults may wish to try medicated lozenges containing either a local anaesthetic, a NSAID (non-steroidal anti-inflammatory) or an antiseptic. However, they may only help to reduce pain by a small amount.
- ◆ Be aware that no evidence was found on non-medicated lozenges, mouthwashes, or local anaesthetic mouth spray used on its own.

**'No prescription' advice**

- ◆ An antibiotic is not needed.
- ◆ Seek medical help if symptoms worsen rapidly or significantly, do not start to improve after 1 week, or the person becomes systemically very unwell.

**'Back-up prescription' advice**

- ◆ An antibiotic is not needed immediately,
- ◆ Use back-up prescription if symptoms do not start to improve within 3 to 5 days or if they worsen rapidly or significantly at any time,
- ◆ Seek medical help if symptoms worsen rapidly or significantly or the person becomes systemically very unwell.

**Treatment and management****Person unlikely to benefit from an antibiotic:****FeverPAIN score of 0 or 1, OR Centor score of 0, 1 or 2**

- ◆ **Do NOT** offer an antibiotic prescription.
- ◆ Give general advice, self-care and 'no prescription' advice (see **Box 2**).

**Person more likely to benefit from an antibiotic:****FeverPAIN score of 2 or 3**

- ◆ Consider **NO** antibiotic prescription with general advice, self-care and 'no prescription' advice (see **Box 2**), **OR** a back-up antibiotic prescription\* (see [Table 1: Choice of antibiotic for sore throat in adults, children and young people](#)),
- ◆ Take account of:
  - evidence that antibiotics make little difference to how long symptoms last (on average, they shorten symptoms by about 16 hours),
  - evidence that most people feel better after 1 week, with or without antibiotics,
  - the unlikely event of complications if antibiotics are withheld,
  - possible adverse effects, particularly diarrhoea and nausea.

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♦ When a back-up antibiotic prescription\* is given, as well as general advice give 'back-up' prescription advice (**Box 2**).

**Person most likely to benefit from an antibiotic: FeverPAIN score of 4 or 5, or Centor score of 3 or 4**

- ♦ Consider an immediate antibiotic prescription (see **Table 1: Choice of antibiotic for sore throat in adults, children and young people**), or a back-up antibiotic prescription\* with general advice and 'back-up' prescription advice (see **Box 2**), taking account of:
  - the unlikely event of complications if antibiotics are withheld,
  - possible adverse effects, particularly diarrhoea and nausea.
- ♦ When an immediate antibiotic prescription is given, as well as general advice (see **Box 2**) give advice about seeking medical help if symptoms worsen rapidly or significantly or the person becomes systemically very unwell.

\* Prescription given in a way to delay the use of an antibiotic, and with advice to only use it if symptoms worsen or don't improve within a specified time; the prescription may be given during the consultation (which may be a post-dated prescription) or left at an agreed location for collection at a later date with advice.

**Person who is systemically very unwell, has symptoms and signs of a more serious illness or condition, or is at high-risk of complications**

- ♦ Offer an immediate antibiotic prescription (see **Table 1: Choice of antibiotic for sore throat in adults, children and young people**) with advice on further appropriate investigation and management.
- ♦ Refer people to hospital if they have acute sore throat associated with any of the following:
  - a severe systemic infection (see [NICE Pathway: Sepsis](#))
  - severe suppurative complications (such as quinsy [peritonsillar abscess] or cellulitis, parapharyngeal abscess or retropharyngeal abscess or Lemierre syndrome).

**Resources**

[NICE 2-page visual summary](#) on sore throat (acute): antimicrobial prescribing

**Clinical Knowledge Summary; Sore throat – acute**

Accessible at <https://cks.nice.org.uk/sore-throat-acute#!topicsummary>

**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.

Please go to [www.nice.org.uk](http://www.nice.org.uk) to check for any recent updates to this guideline.

**Table 1: Choice of antibiotic for sore throat in adults, children and young people**

\*\*To be used alongside recommendations for assessment, treatment and management\*\*

Antibiotic <sup>a</sup>	Dosage: adults aged ≥18 years	Dosage: children and young people <18 years <sup>b</sup>
<b>First choice</b>		
Phenoxymethylpenicillin	500mg four times a day or 1000mg twice a day for <b>5 to 10 days</b>	<b>1 to 11 months:</b> 62.5 mg four times a day <b>OR</b> 125mg twice a day for <b>5 to 10 days</b> <b>1 to 5 years:</b> 125 mg four times a day <b>OR</b> 250mg twice a day for <b>5 to 10 days</b> <b>6 to 11 years:</b> 250 mg four times a day <b>OR</b> 500mg twice a day for <b>5 to 10 days</b> <b>12 to 17 years:</b> 500 mg four times a day <b>OR</b> 1000mg twice a day for <b>5 to 10 days</b>
<b>Alternative first choices for penicillin allergy or intolerance<sup>c</sup></b>		
Clarithromycin	250mg to 500 mg twice a day for 5 days	<b>Under 8 kg:</b> 7.5 mg/kg twice a day for <b>5 days</b> <b>8 to 11 kg:</b> 62.5 mg twice a day for <b>5 days</b> <b>12 to 19 kg:</b> 125 mg twice a day for <b>5 days</b> <b>20 to 29 kg:</b> 187.5 mg twice a day for <b>5 days</b> <b>30 to 40 kg:</b> 250 mg twice a day for <b>5 days</b> <b>12 to 17 years:</b> 250 mg twice a day <b>OR</b> 500 mg twice a day for <b>5 days</b>
Erythromycin	250 mg to 500 mg four times a day <b>OR</b> 500 mg to 1000 mg twice a day for 5 days	<b>1 month to 1 year:</b> 125mg four times a day <b>OR</b> 250mg twice a day for <b>5 days</b> <b>2 to 7 years:</b> 250mg four times a day or 500mg twice a day for <b>5 days</b> <b>8 to 17 years:</b> 250mg to 500mg four times a day <b>OR</b> 500mg to 1000mg twice a day for <b>5 days</b>

<sup>a</sup> see [BNF/ BNF for children](#) for appropriate use and dosing in specific populations (e.g. hepatic impairment and renal impairment).

<sup>b</sup> 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. Doses given are by mouth using immediate-release medicines unless otherwise stated.

<sup>c</sup> erythromycin is preferred in women who are pregnant

# Otitis media (acute): antimicrobial prescribing

NICE NG91, 2018

This guideline sets out an antimicrobial prescribing strategy for **otitis media** (ear infection). It aims to limit antibiotic use and reduce antimicrobial resistance.

## Assessment

### All children and young people with acute otitis media

- ◆ Be aware that:
  - acute otitis media is a self-limiting infection that mainly affects children,
  - acute otitis media can be caused by viruses and bacteria, and it is difficult to distinguish between these (both are often present at the same time),
  - symptoms last for about 3 days, but can last for up to 1 week,
  - most children and young people get better within 3 days without antibiotics,
  - complications such as mastoiditis are rare.
- ◆ Assess and manage children under 5 who present with fever as outlined in [NICE Pathway: Fever in under 5's](#).
- ◆ Give general advice and advice on self-care (see **Box 3**)
- ◆ Reassess at any time if symptoms worsen rapidly or significantly, taking account of:
  - alternative diagnoses, such as otitis media with effusion (glue ear). See [NICE Pathway: Surgical management of otitis media with effusion in children](#),
  - any symptoms or signs suggesting a more serious illness or condition,
  - previous antibiotic use, which may lead to resistant organisms.

### Box 3

#### Otitis media (acute) - General advice

- ◆ Give advice about:
  - usual course of acute otitis media - about 3 days, can be up to 1 week,
  - managing symptoms, including pain, with self-care.

#### Self-care

- ◆ Offer regular doses of paracetamol or ibuprofen for pain, using the right dose for the age or weight of the child at the right time, and maximum doses for severe pain.
- ◆ Explain that evidence suggests decongestants or antihistamines do not help symptoms.
- ◆ An antibiotic is not needed.
- ◆ Seek medical help if symptoms worsen rapidly or significantly, do not start to improve after 3 days, or the child/young person becomes systemically very unwell.

#### 'No prescription' advice

- ◆ An antibiotic is not needed immediately.
- ◆ Use back-up prescription if symptoms do not start to improve within 3 days or if they worsen rapidly or significantly at any time.
- ◆ Seek medical help if symptoms worsen rapidly or significantly or the person becomes systemically very unwell.

#### 'Back-up prescription' advice

- ◆ An antibiotic is not needed immediately.
- ◆ Use back-up prescription if symptoms do not start to improve within 3 days or if they worsen rapidly or significantly at any time.
- ◆ Seek medical help if symptoms worsen rapidly or significantly or the person becomes systemically very unwell.

## Treatment and management

### Children and young people less likely to benefit from antibiotics

- ◆ Consider no antibiotic prescription or a back-up antibiotic prescription\* (see [Table 2: Choice of antibiotic for otitis media in children and young people](#)), taking account of:
  - evidence that antibiotics make little difference to symptoms (no improvement in pain at 24 hours, and after that the number of children improving is similar to the number with adverse effects),
  - evidence that antibiotics make little difference to the development of common complications (such as short-term hearing loss [measured by tympanometry], perforated eardrum or recurrent infection),
  - evidence that acute complications such as mastoiditis are rare with or without antibiotics,
  - possible adverse effects of antibiotics, particularly diarrhoea and nausea.
- ◆ When no antibiotic prescription is given, as well as general advice and advice on self-care give 'no prescription' advice (see **Box 3**).
- ◆ When a back-up antibiotic prescription\* is given, as well as general advice give 'back-up prescription' advice (see **Box 3**).

### Children and young people more likely to benefit from antibiotics (under 18s with otorrhoea or under 2s with infection in both ears)

- ◆ Consider no antibiotic prescription with advice, a back-up antibiotic prescription\* with advice, or an immediate antibiotic prescription (see [Table 2: Choice of antibiotic for otitis media in children and young people](#)), taking account of:
  - evidence that acute complications such as mastoiditis are rare with or without antibiotics,
  - possible adverse effects of antibiotics, particularly diarrhoea and nausea.
- ◆ When an immediate antibiotic prescription is given, as well as general advice (see **Box 3**), give advice about seeking medical help if symptoms worsen rapidly or significantly, or the child or young person becomes systemically very unwell.

### Children and young people 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 (see [Table 2: Choice of antibiotic for otitis media in children and young people](#)) with advice or further appropriate investigation and management.
- ◆ Refer children and young people to hospital if they have acute otitis media associated with:
  - a severe systemic infection (see [NICE Pathway: Sepsis](#)),
  - acute complications, including mastoiditis, meningitis (see [NICE Pathway: Bacterial meningitis and meningococcal septicaemia](#)), intracranial abscess, sinus thrombosis or facial nerve paralysis.

## Resources

[NICE 2-page visual summary](#) on otitis media (acute): antimicrobial prescribing.

\* Prescription given in a way to delay the use of an antibiotic, and with advice to only use it if symptoms worsen or don't improve within a specified time; the prescription may be given during the consultation (which may be a post-dated prescription) or left at an agreed location for collection at a later date with advice.

**Otitis media (acute): antimicrobial prescribing.....continued**  
[NICE NG91; 2018](#)

**Table 2: Choice of antibiotic for otitis media in children and young people**

\*\*To be used alongside recommendations for assessment, treatment and management\*\*

Antibiotic <sup>a</sup>	Dosage: children and young people <18 years <sup>b</sup>
Amoxicillin	<b>1 to 11 months:</b> 125 mg three times a day for <b>5 to 7 days</b> <b>1 to 4 years:</b> 250 mg three times a day for <b>5 to 7 days</b> <b>5 to 17 years:</b> 500 mg three times a day for <b>5 to 7 days</b>
<b>Alternative first choices for penicillin allergy or intolerance<sup>c</sup></b>	
Clarithromycin	<b>Under 8 kg:</b> 7.5 mg/kg twice a day for <b>5 to 7 days</b> <b>8 to 11 kg:</b> 62.5 mg twice a day for <b>5 to 7 days</b> <b>12 to 19 kg:</b> 125 mg twice a day for <b>5 to 7 days</b> <b>20 to 29 kg:</b> 187.5 mg twice a day for <b>5 to 7 days</b> <b>30 to 40 kg:</b> 250 mg twice a day for <b>5 to 7 days</b> <b>OR</b> <b>12 to 17 years:</b> 250 mg <b>OR</b> 500 mg twice a day for <b>5 to 7 days</b>
Erythromycin	<b>1 month to 1 year:</b> 125mg four times a day <b>OR</b> 250mg twice a day for <b>5 to 7 days</b> <b>2 to 7 years:</b> 250mg four times a day <b>OR</b> 500mg twice a day for <b>5 to 7 days</b> <b>8 to 17 years:</b> 250mg to 500mg four times a day <b>OR</b> 500mg to 1000mg twice a day for <b>5 to 7 days</b>
<b>Second choice (worsening symptoms on first choice taken for at least 2 to 3 days)</b>	
Co-amoxiclav	<b>1 to 11 months:</b> 0.25ml/kg of 125/31 suspension three times a day for <b>5 to 7 days</b> <b>1 to 5 years:</b> 5 ml of 125/31 suspension, <b>OR</b> 0.25 ml/kg of 125/31 suspension three times a day for <b>5 to 7 days</b> <b>6 to 11 years:</b> 5 ml of 250/62 suspension three times a day, <b>OR</b> 0.15 ml/kg of 250/62 suspension three times a day for <b>5 to 7 days</b> <b>12 to 17 years:</b> 250/125 mg, <b>OR</b> 500/125 mg three times a day for <b>5 to 7 days</b>
<b>Alternative second choice for penicillin allergy or intolerance</b>	
<b>Consult local microbiologist</b>	
<sup>a</sup> see <a href="#">BNF for children</a> for appropriate use and dosing in specific populations (e.g. hepatic impairment and renal impairment). <sup>b</sup> 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. Doses given are by mouth using immediate-release medicines unless otherwise stated. <sup>c</sup> erythromycin jh is preferred in women who are pregnant	

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