

## Summary: Antibiotic recommendations for upper respiratory tract infections

SORE THROAT	ACUTE OTITIS MEDIA (AOM)	ACUTE BACTERIAL SINUSITIS (ABS)
<p><b>Clinical diagnosis of streptococcal pharyngotonsillitis</b></p> <p><b>Points in favour of empiric antimicrobial treatment:</b></p> <ul style="list-style-type: none"> <li>Acute onset</li> <li>Temperature &gt;38°C</li> <li>Tender anterior cervical nodes</li> <li>Tonsillar erythema/exudates</li> <li>Age 3-15 years</li> <li>Previous rheumatic fever or rheumatic heart disease</li> </ul> <p><b>Points against empiric antimicrobial treatment:</b></p> <ul style="list-style-type: none"> <li>Rhinorrhoea</li> <li>Cough</li> <li>Diarrhoea</li> <li>Conjunctivitis</li> <li>Age &gt;45 years</li> </ul>	<p><b>Clinical diagnosis of AOM</b></p> <ul style="list-style-type: none"> <li>Visualisation of the eardrum is essential for diagnosis</li> <li>Bulging, red or yellow tympanic membrane</li> <li>Ancillary features include: <ul style="list-style-type: none"> <li>Otalgia</li> <li>Temperature &gt;38°C</li> </ul> </li> </ul> <p>(Note: an effusion alone is not an indication for antimicrobials)</p>	<p><b>Clinical diagnosis of ABS</b></p> <p>Consider in adults or children with an upper respiratory tract infection that is NOT improving after 10 days or worsens after 5-7 days and is accompanied by some or all of these symptoms:</p> <ul style="list-style-type: none"> <li>Fever</li> <li>Facial tenderness, particularly unilateral or focused in the region of a sinus group (peri-orbital, maxillary, frontal or ethmoidal)</li> <li>Dental tenderness</li> <li>Nasal discharge, nasal congestion, anosmia (loss of sense of smell), cough, ear fullness and pressure (frontal sinusitis does not occur in toddlers &lt;4 years because of delayed development of the frontal sinuses)</li> </ul>
Treatment of choice	Treatment of choice	Treatment of choice
<p><b>The treatment of choice is penicilli n:</b></p> <p><i>Children:</i></p> <ul style="list-style-type: none"> <li>Penicillin VK 250 mg twice daily for 10 days (≤27 kg) 500 mg twice daily for 10 days (&gt;27 kg)</li> <li>Benzathine penicillin (intramuscular injection)* - 3-5 yrs: 600,000 U - &gt;5 yrs: 1.2 MU</li> </ul> <p><i>Adults and adolescents:</i></p> <ul style="list-style-type: none"> <li>Penicillin VK, 500 mg twice daily for 10 days</li> <li>Benzathine penicillin (intramuscular injection)* 1.2 MU</li> </ul> <p><b>For patients with severe β-lactam allergy:</b></p> <p><i>Children:</i></p> <ul style="list-style-type: none"> <li>Erythromycin estolate, 40 mg/kg twice daily for 10 days</li> <li>Azithromycin, 10-20 mg/kg once daily for three days</li> <li>Clarithromycin, 7.5-15 mg/kg twice daily for five days</li> </ul> <p><i>Adults:</i></p> <ul style="list-style-type: none"> <li>Erythromycin estolate, 500 mg twice daily for 10 days</li> <li>Azithromycin, 500 mg once daily for three days</li> <li>Clarithromycin (modified release), 500 mg once daily for five days</li> <li>Telithromycin, 800 mg once daily for five days</li> </ul>	<p><b>The treatment of choice is oral amoxicillin:</b></p> <p><i>Children:<sup>†</sup></i></p> <ul style="list-style-type: none"> <li>Amoxicillin, 90 mg/kg/day in two or three divided doses</li> </ul> <p><i>Adults:</i></p> <ul style="list-style-type: none"> <li>Amoxicillin, 1,000 mg three times daily for five days</li> </ul> <p><b>For patients with severe β-lactam allergy:</b></p> <p><i>Children:</i></p> <ul style="list-style-type: none"> <li>Erythromycin estolate, 40 mg/kg twice daily for 5-7 days</li> <li>Azithromycin, 10 mg/kg once daily for three days</li> <li>Clarithromycin, 7.5-15 mg/kg twice daily for 5-7 days</li> </ul> <p><i>Adults:</i></p> <ul style="list-style-type: none"> <li>Erythromycin estolate, 500 mg qid for 5-7 days</li> <li>Azithromycin, 500 mg once daily for three days</li> <li>Clarithromycin (modified release), 500 mg or 1 g once daily for 5-7 days</li> </ul>	<p><b>The treatment of choice is oral amoxicillin:</b></p> <p><i>Children:</i></p> <ul style="list-style-type: none"> <li>Amoxicillin, 90 mg/kg/day in three divided doses for 10 days</li> </ul> <p><i>Adults:</i></p> <ul style="list-style-type: none"> <li>Amoxicillin, 1 g three times daily for 10 days</li> </ul> <p><b>For patients with severe β-lactam allergy:</b></p> <p><i>Children:</i></p> <ul style="list-style-type: none"> <li>Erythromycin estolate, 40 mg/kg twice daily for 10 days</li> <li>Azithromycin, 10 mg/kg once daily for three days</li> <li>Clarithromycin, 15 mg/kg twice daily for 10 days</li> </ul> <p><i>Adults:</i></p> <ul style="list-style-type: none"> <li>Macrolides: <ul style="list-style-type: none"> <li>Erythromycin, 500 mg four times daily for 10 days</li> <li>Clarithromycin (modified release), 1,000 mg once daily for 10 days</li> <li>Azithromycin, 500 mg once daily for three days</li> </ul> </li> <li>Telithromycin, 800 mg once daily for 5-10 days</li> <li>Fluoroquinolones: <ul style="list-style-type: none"> <li>Gemifloxacin, 320 mg daily for 5-10 days</li> <li>Levofloxacin, 500 mg twice daily or 750 mg once daily for 5-10 days</li> <li>Moxifloxacin, 400 mg once daily for 5-10 days</li> </ul> </li> <li>Clindamycin, 450 mg three times daily for 10 days</li> </ul>
Indications for referral	Indications for referral	Indications for referral
<p><b>Local complications:</b></p> <ul style="list-style-type: none"> <li>Peritonsillar sepsis including quinsy abscess-cellulitis-trismus (asymmetrical peritonsillar swelling)</li> <li>Recurrent infections (four or more episodes/year)</li> <li>Non-response to initial therapy</li> </ul> <p><b>Systemic complications:</b></p> <ul style="list-style-type: none"> <li>Acute rheumatic fever</li> <li>Severe systemic illness</li> </ul>	<ul style="list-style-type: none"> <li>If tympanic membrane is not visualised</li> <li>Non-responsive AOM (no improvement after three days of treatment)</li> <li>Suspected intracranial extension</li> <li>Lower motor neuron VII<sup>th</sup> nerve palsy</li> <li>Suspected mastoiditis</li> </ul>	<ul style="list-style-type: none"> <li>Failure to respond after 72 hours</li> <li>Peri-orbital swelling</li> <li>Evidence of CNS extension (meningism, focal neurological signs, altered level of consciousness)</li> <li>Severe systemic illness</li> <li>Chronic sinusitis – symptomatic &gt;30 days</li> </ul>
Special investigations	Special investigations	Special investigations
<p>Throat swabs should be reserved for patients with recurrent sore throats</p> <p>*Note: To minimise the discomfort of parenteral administration, the medication should be given at room temperature. For patients receiving 1.2 million U, 300,000 U can be given as procaine penicillin.</p>	<p>None recommended</p> <p><sup>†</sup>Duration of therapy: 5-7 days except ≤2 years of age and complicated cases (7-10 days)</p>	<ul style="list-style-type: none"> <li>X-rays are of limited value</li> <li>CT scans should be reserved for cases in which surgery is considered</li> <li>Nasal swabs for microbiological investigation are of no value, and specimens for culture and microscopy should only be collected from sinus puncture</li> </ul>

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