UPPER RESPIRATORY TRACT INFECTIONS

Otitis Media

(CKS Otitis Media – acute)

Acute otitis media (AOM) is defined as the presence of inflammation in the middle ear, associated with an effusion, and accompanied by the rapid onset of symptoms and signs of an ear infection.
It is a common condition that can be caused by both viruses and bacteria. – Respiratory viruses cause 50% of cases, Streptococcus pneumoniae, Haemophilus influenzae, Streptococcus pyogenes (group A strep), Moraxella catarrhalis and Staphylococcus aureus.
AOM occurs frequently in children but is less common in adults.

Consider admission to hospital for immediate specialist assessment if:

- Severe systemic infection.
- Suspected complications, such as meningitis, mastoiditis, intracranial abscess, sinus thrombosis, or facial nerve paralysis.
- Children younger than 3 months of age with a temperature of 38°C or more.

Patient information and self-care:

- Advise symptoms usually last about 3 days but can be up to a week.
- Advise regular doses of paracetamol or ibuprofen for pain.
- Advise there is no evidence to support the use of decongestants or antihistamines.

Patient Information Leaflet Here

Treatment:
Many people **will not** need antibiotic treatment as symptoms usually resolve spontaneously within a few days.
Antibiotics do not reduce pain in first 24 hours, subsequent attacks, or deafness.
60% of cases resolve in 24 hours without antibiotics.

However, antibiotics are necessary in some situations, including:

- People who are systemically very unwell.
- People who have symptoms and signs of a more serious illness or condition.
- People who have a high risk of complications.

For patients who do not require hospital admission but are systemically very unwell, have symptoms of a more serious illness or condition, or have a high risk of complications:

- Offer an immediate antibiotic prescription.
- Antibiotics should be used in an acutely ill child – fever, vomiting, pain for >48 hours and a discharging ear.
- Advise to seek medical advice if symptoms worsen significantly or they become systemically very unwell.

For patients with otorrhoea, or aged <2 years with bilateral infection, consider the evidence that acute complications are rare with or without antibiotics, and possible adverse effects of taking antibiotics. Options are:

- *No antibiotic prescription* — provide advice about an antibiotic not being needed; seek medical help if symptoms worsen significantly, do not improve after 3 days, or they become systemically very unwell. **OR**
- *A back-up antibiotic prescription* — provide advice that an antibiotic is not needed immediately; use the back-up prescription if no improvement in 3 days or symptoms worsen. Seek medical help if symptoms worsen rapidly or significantly, or the person becomes systemically very unwell, **OR**
- *An immediate antibiotic prescription* — provide advice to seek medical help if symptoms worsen rapidly or significantly or the person becomes systemically very unwell.

In patients who are not acutely unwell, consider no prescription or a delayed prescription with a delay of 2-3 days.

Antibiotic[1]	Dosage	Duration
First line choice		
Amoxicillin	**Neonate 7 to 28 days:** 30mg/kg three times a day **Child 1 to 11 mths:** 125mg three times a day **Child 1 to 4 yrs:** 250mg three times a day **Child 5 to 17 yrs:** 500mg three times a day **Adult:** 500mg three times a day	5 to 7 days
In penicillin allergy:		
Clarithromycin[3] **OR** Erythromycin[2,3] (Preferred in pregnancy)	**1 month to 11 years:** Under 8kg: 7.5mg/kg twice a day 8 to 11kg: 62.5mg twice a day 12 to 19kg: 125mg twice a day 20 to 29kg 187.5mg twice a day 30 to 40kg: 250mg twice a day **Child 12-17 yrs:** 250mg twice a day (500mg twice a day in severe cases) **Adult**: 250mg to 500mg twice a day **1 mth to 1 yr:** 125mg four times a day **or** 250mg twice a day **Child 2 to 7 yrs**: 250mg four times a day **or** 500mg twice a day **Child 8 to 17 yrs**: 250mg-500mg four times a day **or** 500mg-1000mg twice a day **Adult:** 250mg-500mg four times a day	5 to 7 days 5 to 7 days
Second choice (worsening symptoms on first choice taken for at least 2 to 3 days)		
Co-amoxiclav (Send samples for culture if purulent discharge)	**1 to 11 mths:** 0.25ml/kg of 125/31 suspension three times a day **Child 1 to 5 yrs:** 5ml of 125/31 suspension three times a day **or** 0.25ml/kg of 125/31 suspension three times a day **Child 6 to 11 yrs:** 5ml of 250/62 suspension three times a day **or** 0.15ml/kg of 250/62 suspension three times a day **Child 12 to 17 years:** 250/125mg **or** 500/125mg three times a day **Adult:** 375mg three times a day (625mg three times a day in severe cases)	5 to 7 days
Alternative second choice for penicillin allergy or intolerance		
Consult local microbiologist		

[1]See BNF and BNFC for appropriate use and dosing in specific populations, e.g., hepatic, or renal impairment, pregnancy, and breastfeeding.
[2]Erythromycin is preferred in women who are pregnant.
[3]Withhold statins whilst on clarithromycin/erythromycin course

Version Control – **Otitis Media**			
Version	Author(s)	Date	Changes
2.1	Shary Walker – Interface and Formulary Pharmacist	22/04/2021	Updated doses and age bracket as per NICE guidelines and BNFc
3.1	N Butcher MO and interface pharmacist	18/05/2023	Added definition, referral information and self-care advice. Further information added on when to prescribe antibiotics. Doses from 1 month to adult checked with BNF and CKS.