**Otitis Media**

### Definition of otitis media
- Otitis media is a very common middle ear infection seen in kids; the vast majority will have at least one episode. It is rare in over-5s.
- The majority can be managed on an outpatient basis with/without oral antibiotics.

### Causes of otitis media
- Young age (smaller, less tortuous Eustachian tube with more patency)
- Children with older siblings or who have repeated respiratory infections are at more risk
- Parental smoking increases risk

### Clinical features of otitis media
- Earache in older patients; tugging/pulling at ear in children
- Non-specific symptoms
  - Poor feeding, irritability, cough, rhinorrhea
- Often co-incident with LRTI
- High fever (may give febrile convulsions)

### Examination in otitis media
- Severe bulging eardrum or new onset ear discharge (purulent and not due to otitis externa) often associated with relief of symptoms (acute otitis media – AOM)
- Mild bulging TM/very red TM requires correlation with symptoms from history
- Hearing loss (but not usually detected in a young, crying child)
- Examination can be tricky in very young children under 6 months

### Hospital admission with otitis media
- Admission required
  - Under 3 months and fever >38
  - Complicated AOM e.g. mastoiditis, facial palsy
- Consider admission
  - Under 3 months
  - 3-6 months and fever >39
  - Systemically very unwell
Treatment of otitis media as an outpatient

- Pain relief
  - Ibuprofen or paracetamol – alternate between the two if distress not helped by single agent.

- Antibiotics
  - The evidence for this is mainly from studies in high-income countries. (Venekamp 2014)
  - 82% of children settle without antibiotics.
  - For every 20 children treated with antibiotics, one will experience reduction in pain between days 2-7.
  - For every 33 children treated, 1 tympanic membrane perforation will be prevented.
  - For every 11 children treated, 1 episode of contralateral AOM will be prevented.
  - However, for every 14 children treated, 1 child will experience adverse effects of vomiting, diarrhoea or rash.

- A safe strategy would be to give immediate antibiotics to the following:
  - 4 days or more of symptoms
  - Systemically unwell
  - Significant comorbidities

- Consider immediate antibiotics in:
  - Children under 2 with bilateral OM
  - Patients with perforation or discharge

- Otherwise consider delayed prescription after 3-4 days or if symptoms worsen:
  - The first line is amoxicillin (5 days) or erythromycin/clarithromycin if penicillin allergic.
  - In ruptured eardrum, see at 3 weeks, again at six weeks if no resolution, and refer on if still unresolved

- Also refer those with more than 4 episodes in six months