Otitis Media

Definitions

Myringitis

- Red (inflammed) eardrum
- Positive predictive value (PPV) for AOM is as low as 7%

Acute otitis media (AOM)

- Middle ear infection
  - Inflammation – acute pain, fever, myringitis
  - Purulent effusion ± discharge (with perforation the pain↓↓)
  - Bulging drum with loss of mobility (85-99% PPV)

Otitis media with effusion (OME)

- AKA serous otitis media
- Fluid (non-purulent) behind drum, no inflammation
- May last 6-16 wks → glue ear

Chronic supporative otitis media

- Persistent inflammation >6wks
- Perforated eardrum
- Draining exudate

Management

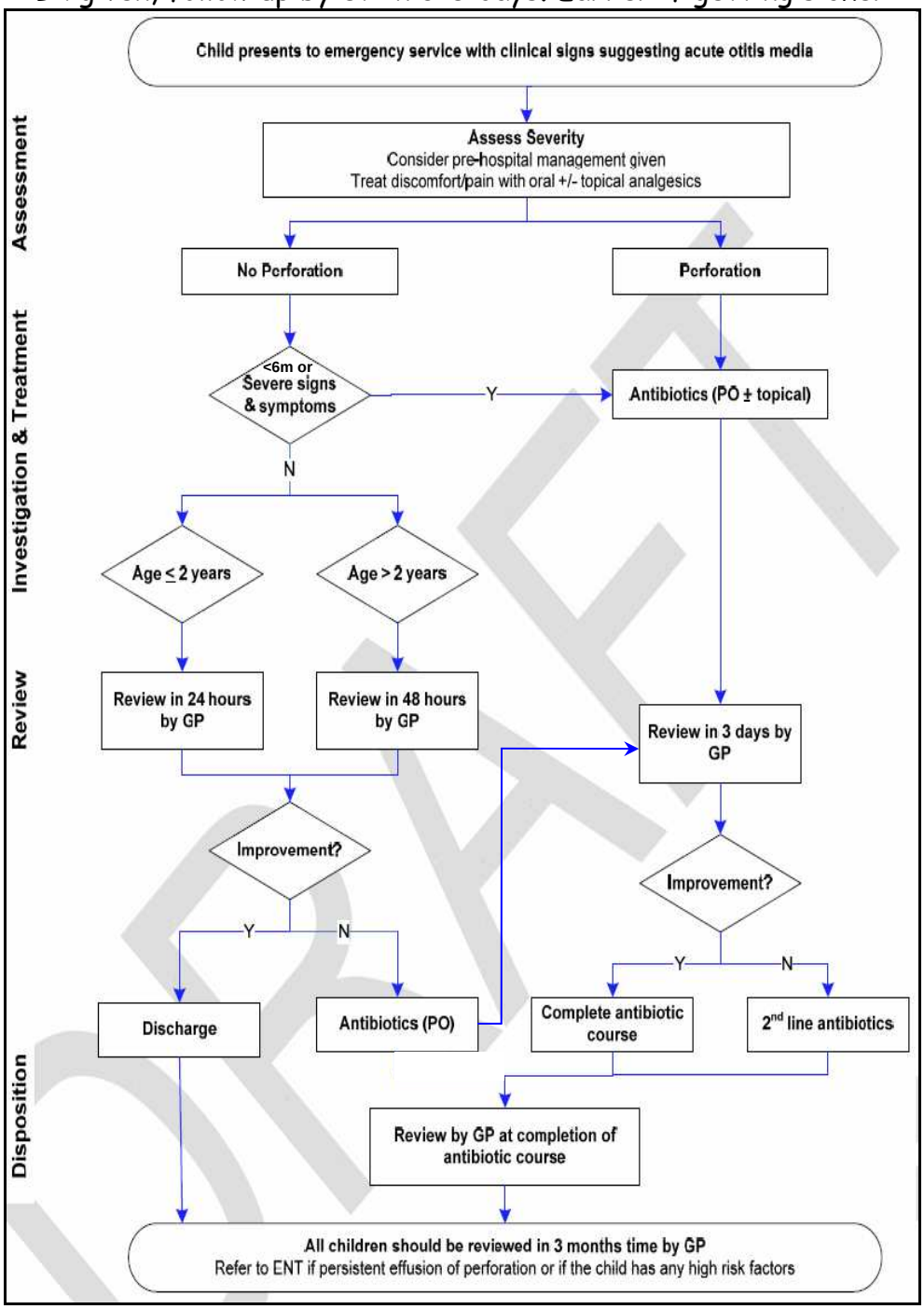
- Poorer outcome factors: young age, child care, dummy use, family history, formula feeding, prev episodes, ?parental smoking
- Analgesia
  - Ibuprofen or paracetamol
  - Topical LA (**Auralgin**) or natropathic ear drops may be beneficial at 30mins
- Decongestants & antihistamines not helpful in AOM
- Oral Antibiotics
  - 66% resolve within 24hrs whether given ABx or not.
  - 80% resolve without ABx in 2-7 days.
  - If treated with ABx only 7% children have no pain after 48hrs.
  - No benefit over placebo in hearing changes or recurrence rate
  - No conclusive proof of decrease in mastoiditis with ABx
  - Greatest benefit from ABx if age<2 or high fever & vomiting
  - Side effects from ABx in 1:6 children treated (e.g. nausea, diarrhoea, rash)
  - First line: **amoxicillin** 15mg/kg tds PO x 5d
    if penicillin allergic: a macrolide e.g. **azithromycin** 10mg/kg od PO x 3d
    2nd line: **Augmentin** 22.5mg/kg bd PO if no improvement after 3d
  - 5 days is normally as effective as 10 days.
  - No evidence that higher doses more effective
  - Prophylactic ABx halve yearly recurrence rate if high risk
- Topical ABx (**ciprofloxacin**) if perforation

Summary of AOM Mx

If realistically likely bacterial AOM:

- Red, bulging drum, purulent effusion/discharge, treat by age:
  - <=6mo: Analgesia + Antibiotics
  - >6mo – 2 yrs: Analgesia + Delay ABx 24hrs unless severe
  - >2ys: Analgesia + Delay ABx 48hrs unless severe

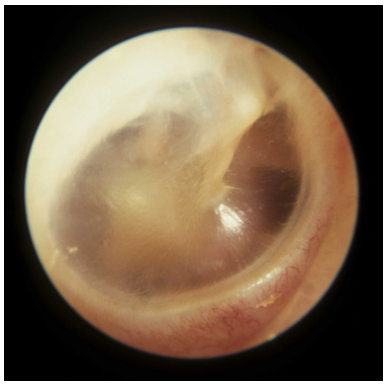
- Have lower threshold for ABx in Indigenous children
- If ABx given, follow up by GP in 3-5 days. Earlier if getting sicker

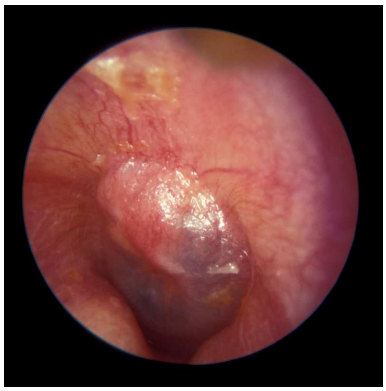


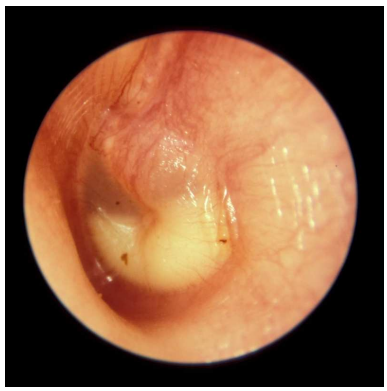
- Notes: Severe Sign/Symptoms = Vomiting + High Fever.
  Only add topical ABx if perforation or in situ grommet.

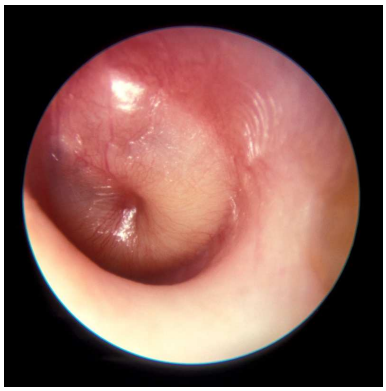
Complications

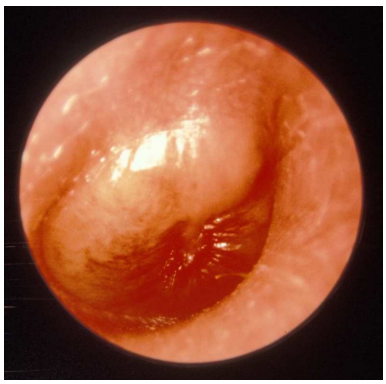
- Effusion post-AOM:
  - 50% at 1 month
  - 10% at 3 months
  - If hearing loss → ENT specialist
- Mastoiditis- Rare <1:2000
- Meningitis
- Facial paralysis
- Intracranial abscess
- Lateral sinus thrombosis
- Recurrence: if >3 episodes in 6mo or 4 in 1 yr → ENT specialist
- Chronic supporatve OM or retracted tympanic membrane: → ENT specialist

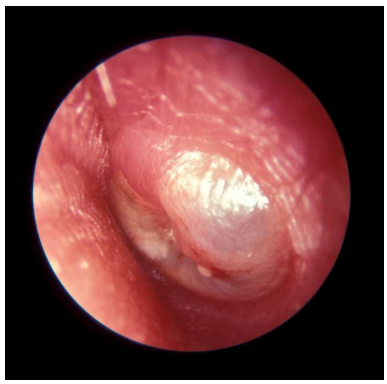

Normal Eardrum (Right)

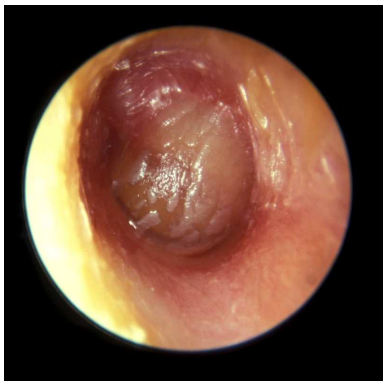

Early Otitis Media

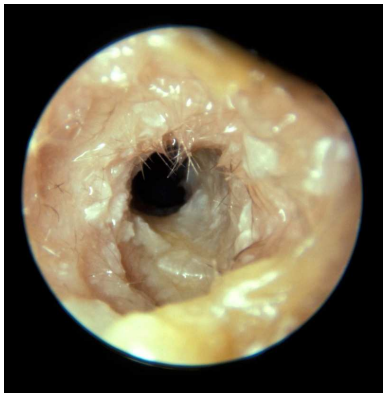

Early Purulent Effusion

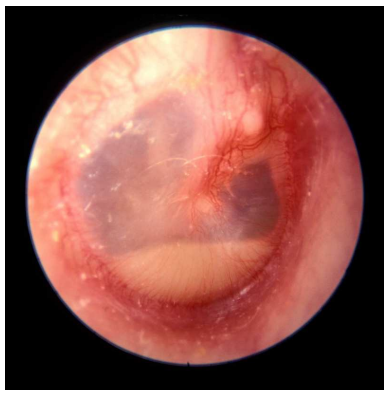

Bulging, full effusion

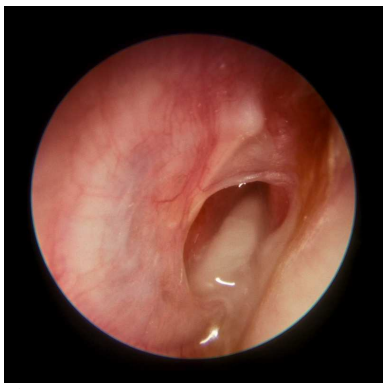

Advanced supporation + haemorrhage

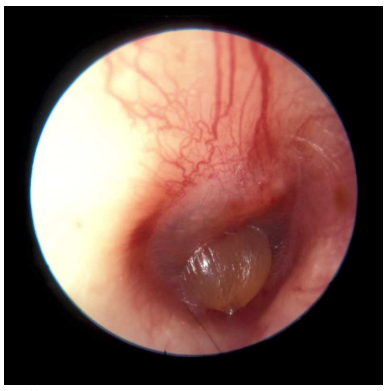

Pre-perforation

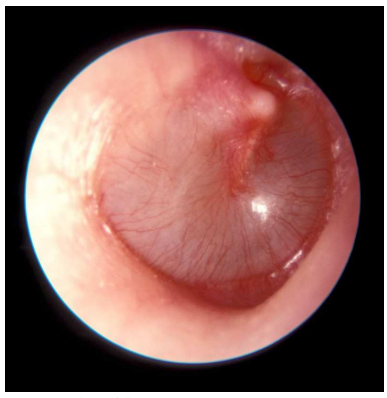

Bulging + early perforation

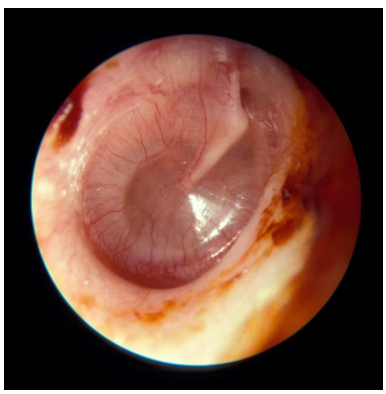

Frank Perforation + Discharge


Residual Effusion post-AOM


Chronic Supporative


Bullous Myringitis


OM with effusion


Glue Ear – drum retraction, opaque fluid