NHS
Vale of York
Clinical Commissioning Group

NHS
York and Scarborough Teaching Hospitals
NHS Foundation Trust

# Ear Infection Pathway

## Suspected otitis media

- Ear pain
- Ear discharge
- Reduced hearing
- Preceding URTI
- Red bulging ear drum

## Suspected otitis externa

- Tender ear canal
- Canal swelling
- Debris in canal
- Can be difficult to visualise ear drum

## Risk factors for severe disease

- <3m
- 3-6m + T ≥ 39°C
- Cochlear implant
- Craniofacial syndrome, e.g. Down syndrome, cleft palate
- Immunodeficiency

**Do the symptoms and/or signs suggest an immediately life threatening (high risk) illness?**

YES

NO

### Suspected mastoiditis?

Redness, swelling and/or tenderness behind ear

### Suspected intracranial spread?

- Drowsiness
- Irritability
- Severe headache
- Persistent vomiting
- Retro-orbital pain
- Abnormal neurology

| | Green – Low Risk | Amber – Intermediate Risk | Red – High Risk |
|---|---|---|---|
| Activity | • Responds normally to social cues<br>• Content/smiles<br>• Stays awake/awakens quickly<br>• Strong normal cry | • Altered response to social cues<br>• No smile<br>• Reduced activity | • Not responding normally or no response to social cues<br>• Unable to rouse or if roused does not stay awake<br>• Weak, high pitched or continuous cry<br>• Appears ill |
| Skin | • Normal skin colour<br>• CRT <2 secs<br>• Normal skin turgor<br>• Warm extremities<br>• Normal eyes | • Normal skin colour<br>• Pallor reported by parent/carer<br>• Cool peripheries | • Pale, mottled, ashen<br>• Cold extremities<br>• CRT >3 secs |
| Respiratory | • No respiratory distress | • Tachypnoea<br>• Moderate recessions<br>• May have nasal flaring<br>• $O_2$ Sats: 92-94% | • Significant respiratory distress<br>• Grunting<br>• Apnoeas<br>• Severe recessions<br>• Nasal flaring<br>• All ages: >60bpm<br>• $O_2$ Sats: ≤ 92% |
| Circulation | • Tolerating 75% of fluid<br>• Occasional cough induced vomiting<br>• Moist mucous membranes | • 50-75% fluid intake over 3-4 feeds<br>• Cough induced vomiting<br>• Reduced urine output | • 50% or less fluid intake over 2-3 feeds<br>• Cough induced vomiting frequently<br>• Significantly reduced urine output |
| | | • Parental anxiety | |

### Bacterial infection?

- Less likely
- Otorrhoea
- <2y
- More likely

### Discuss with paediatrician oncall;

- Systemically unwell
- Suspected complications

### RED ACTION

- Refer immediately to emergency care or paediatric unit – consider 999
- Commence stabilisation treatment
- Consider high flow oxygen

Do not offer an antibiotic

- Back-up antibiotic
- Use if not improved in 3d or worsens

- Immediate antibiotics
- Give 5-7d course

- Provide information
- Seek advice if not improved within 3d or worsens

| Drug | Age/weight | Dose | |
|---|---|---|---|
| Amoxicillin | 1-11m | 125 mg TDS | |
| | 1-4y | 250 mg TDS | |
| | 5-17y | 500 mg TDS | |
| **Alternative first choice for penicillin allergy** | | | |
| Clarithromycin | 1m-11y | <8kg: 7.5mg/kg BD<br>8-11kg: 62.5 mg BD<br>12-19kg: 125 mg BD | 20-29kg: 187.5mg BD<br>30-40kg: 250mg BD |
| | 12-17y | 250mg - 500mg BD | |
| **Second Line Options (worsening symptoms on first line taken for 2-3d)** | | | |
| Co-amoxiclav | | | |

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