# UPPER RESPIRATORY TRACT INFECTIONS

## Pharyngitis / Sore Throat / Tonsillitis (CKS Sore throat – acute)

The majority of sore throats are **viral** but there is clinical overlap between viral and streptococcal infections.
**Organisms:**

- **Viral:** Epstein Barr Virus, Enteroviruses, Adenoviruses, Cytomegalovirus.
- **Bacterial:** Group A streptococcus (*Streptococcus pyogenes*) (25-33% of cases), Group C and G streptococcus (role less clear).

Consider **diphtheria** if recent foreign travel e.g. former USSR/ Africa/ Middle East/ South Asia.

**Sore throat due to a viral or bacterial cause is a self-limiting condition which generally resolves within two weeks.** 90% of sore throats resolve within 7 days and antibiotics only shorten the duration of symptoms by 16 hours. Symptoms can be relieved with simple analgesics such as paracetamol and ibuprofen.
**Throat sprays can be considered for symptom management.**

The **FeverPAIN** score predicts the likelihood of Streptococcus as the causative organism.

**Sore throat**

Studies have shown that antibiotic treatment of a simple sore throat is more likely to result in the patient returning for antibiotic treatment in the future.
The FeverPAIN score should be used to direct antimicrobial prescribing.

- **FeverPAIN** is **a five-item score** based on: **F**ever, **P**urulence, **A**ttend rapidly (3 days or less), severely **I**nflamed tonsils and **N**o cough or coryza.
- **A low FeverPAIN score 0-1**: only 13-18% have Streptococcus, close to background carriage. **NO antibiotic** strategy is appropriate with discussion.
- **A FeverPAIN score 2-3**: 34-40% have Streptococcus. **A backup/ delayed antibiotic** is appropriate with discussion.
- **A FeverPAIN score of ≥4**: 62-65% have streptococcus, consider **immediate antibiotic** if symptoms are severe, **or a short, delayed prescribing strategy** may be appropriate (48 hours).

Evidence indicates that penicillin for **10 days** is more effective at **microbiological clearance** than 5-7 days.
**5 days MAY** be enough for symptomatic cure (e.g. >5 years with no significant medical issues).
A 10-day course may increase the chance of microbiological cure and **should** always be prescribed for patients with a positive throat swab for, or suspected, Group A Streptococcus, or multiple comorbidities.

| Antibiotic[1] | Dose | Duration |
|---|---|---|
| **First-line**<br>Phenoxymethylpenicillin | **Child 1–11 months:** 62.5mg four times a day or 125mg twice a day<br>**Child 1-5 yrs:** 125mg four times a day or 250mg twice a day<br>**Child 6-11yrs:** 250mg four times a day or 500mg twice a day<br>**Adult and child ≥12yrs:** 1g twice a day or 500mg four times a day | 5 or 10 days |
| **In penicillin allergy:**<br>Clarithromycin[2] | **Child 1 month to 11 years:**<br>• Under 8 kg: 7.5mg/kg twice a day<br>• 8-11 kg: 62.5mg twice a day<br>• 12-19 kg: 125mg twice a day<br>• 20-29 kg: 187.5mg twice a day<br>• 30-40 kg: 250mg twice a day<br>**Child ≥ 12yrs and adults:** 250-500mg twice a day | 5 days |
| Erythromycin[2]<br>**(In children and pregnant women)** | **Child 1-23 months:** 125mg four times a day or 250mg twice a day<br>**Child 2-7yrs:** 250mg four times a day or 500mg twice a day<br>**Adult and child > 8yrs:** 250-500mg four times a day or 500–1000mg twice a day | 5 days |

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

'How to set up a Delayed Antimicrobial Prescription on SystmOne' demonstration.
APC Sore throat leaflet.

**Scarlet fever** (CKS Scarlet Fever)

- Scarlet fever is a notifiable disease. Suspected and confirmed cases should be notified to UKHSA within 3 days.
- Prompt treatment with appropriate antibiotics significantly reduces complications.
- Observe immunocompromised individuals (diabetes, women in puerperal period, chickenpox) as they are at increased risk of invasive infection.

**Treatment:**
**If the person does not need hospital admission, prescribe appropriate antibiotics promptly, regardless of the severity of illness.**

| Antibiotic[1] | Dose | Duration |
|---|---|---|
| **First-line:**<br>Phenoxymethylpenicillin | **Child 1–11 months:** 62.5mg four times a day or 125mg twice a day<br>**Child 1-5 yrs:** 125mg four times a day or 250mg twice a day<br>**Child 6-11yrs:** 250mg four times a day or 500mg twice a day<br>**Adult and child ≥12yrs:** 1g twice a day or 500mg four times a day | 10 days |
| **In penicillin allergy:**<br>Clarithromycin[2] | **Child 1 month to 11 years:**<br>• Under 8 kg: 7.5mg/kg twice a day<br>• 8-11 kg: 62.5mg twice a day<br>• 12-19 kg: 125mg twice a day<br>• 20-29 kg: 187.5mg twice a day<br>• 30-40 kg: 250mg twice a day<br>**Child ≥ 12yrs and adults:** 250-500mg twice a day | 10 days |
| Azithromycin | **Child 6 months–11 yrs:** 12mg/kg once a day (max 500mg per dose)<br>**Child 12-17 yrs:** 500mg once a day | 5 days |
| Erythromycin[2]<br>*Pregnant or postpartum (within 28 days of childbirth) women* | **Adult:** 250-500mg four times a day or 500–1000mg twice a day | 10 days |

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