

- ▶ Consider adding fusidic acid or rifampicin for initial 2 weeks.
- ▶ *Suggested duration of treatment* 6 weeks for acute infection

Septic arthritis

Seek specialist advice if prostheses present.

- Flucloxacillin
- ▶ *Suggested duration of treatment* 4–6 weeks (longer if infection complicated).
- *If penicillin-allergic*, clindamycin
- ▶ *Suggested duration of treatment* 4–6 weeks (longer if infection complicated).
- *If methicillin-resistant Staphylococcus aureus suspected*, vancomycin (or teicoplanin)
- ▶ *Suggested duration of treatment* 4–6 weeks (longer if infection complicated).
- *If gonococcal arthritis or Gram-negative infection suspected*, cefotaxime p. 330 (or ceftriaxone p. 332)
- ▶ *Suggested duration of treatment* 4–6 weeks (longer if infection complicated; treat gonococcal infection for 2 weeks).

Nose infections, antibacterial therapy

31-Oct-2017

Sinusitis (acute)

Acute sinusitis is generally triggered by a viral infection, although occasionally it may become complicated by a bacterial infection caused by *Streptococcus pneumoniae*, *Haemophilus influenzae*, *Moraxella catharrhalis*, or *Staphylococcus aureus*. For further information see Sinusitis (acute) p. 721.

Treatment

[EvGr] Antibacterial therapy should *only* be offered to children with acute sinusitis who are systemically very unwell, have signs and symptoms of a more serious illness, those who are at high-risk of complications due to pre-existing comorbidities, or whenever bacterial sinusitis is suspected.

▲ For further information see Sinusitis (acute) p. 721.

Choice of antibacterial therapy

No penicillin allergy

- *First line*:
 - ▶ **[EvGr]** Non-life threatening symptoms: phenoxymethylpenicillin p. 350.
 - ▶ Systemically very unwell, signs and symptoms of a more serious illness, or at high-risk of complications: co-amoxiclav p. 354. ▲
- *Second line* (worsening symptoms despite 2 or 3 days of antibiotic treatment):
 - ▶ **[EvGr]** Non-life threatening symptoms: co-amoxiclav.
 - ▶ Systemically very unwell, signs and symptoms of a more serious illness or at high-risk of complications: consult local microbiologist. ▲

Penicillin allergy or intolerance

- *First line*: **[EvGr]** clarithromycin p. 340, or doxycycline p. 364 (for children above 12 years old). ▲
- *Second line* (worsening symptoms despite 2 or 3 days of antibiotic treatment): **[EvGr]** Consult local microbiologist. ▲

Useful Resources

Sinusitis (acute): antimicrobial prescribing. National Institute for Health and Care Excellence. NICE guideline 79. October 2017.

www.nice.org.uk/guidance/ng79

Oral bacterial infections

Antibacterial drugs

Antibacterial drugs should only be prescribed for the *treatment* of oral infections on the basis of defined need. They may be used in conjunction with (but not as an alternative to) other appropriate measures, such as providing drainage or extracting a tooth.

The 'blind' prescribing of an antibacterial for unexplained pyrexia, cervical lymphadenopathy, or facial swelling can lead to difficulty in establishing the diagnosis. In severe oral infections, a sample should always be taken for bacteriology.

Oral infections which may require antibacterial treatment include acute periapical or periodontal abscess, cellulitis, acutely created oral-antral communication (and acute sinusitis), severe pericoronitis, localised osteitis, acute necrotising ulcerative gingivitis, and destructive forms of chronic periodontal disease. Most of these infections are readily resolved by the early establishment of drainage and removal of the cause (typically an infected necrotic pulp). Antibacterials may be required if treatment has to be delayed, in immunocompromised patients, or in those with conditions such as diabetes. Certain rarer infections including bacterial sialadenitis, osteomyelitis, actinomycosis, and infections involving fascial spaces such as Ludwig's angina, require antibiotics and specialist hospital care.

Antibacterial drugs may also be useful after dental surgery in some cases of spreading infection. Infection may spread to involve local lymph nodes, to fascial spaces (where it can cause airway obstruction), or into the bloodstream (where it can lead to cavernous sinus thrombosis and other serious complications). Extension of an infection can also lead to maxillary sinusitis; osteomyelitis is a complication, which usually arises when host resistance is reduced.

If the oral infection fails to respond to antibacterial treatment within 48 hours the antibacterial should be changed, preferably on the basis of bacteriological investigation. Failure to respond may also suggest an incorrect diagnosis, lack of essential additional measures (such as drainage), poor host resistance, or poor patient compliance.

Combination of a penicillin (or a macrolide) with metronidazole p. 344 may sometimes be helpful for the treatment of severe oral infections or oral infections.

Penicillins

Phenoxymethylpenicillin p. 350 is effective for dentoalveolar abscess.

Broad-spectrum penicillins

Amoxicillin p. 351 is as effective as phenoxymethylpenicillin but is better absorbed; however, it may encourage emergence of resistant organisms.

Like phenoxymethylpenicillin, amoxicillin is ineffective against bacteria that produce beta-lactamases.

Co-amoxiclav p. 354 is active against beta-lactamase-producing bacteria that are resistant to amoxicillin. Co-amoxiclav may be used for severe dental infection with spreading cellulitis or dental infection not responding to first-line antibacterial treatment.

Cephalosporins

The cephalosporins offer little advantage over the penicillins in dental infections, often being less active against anaerobes. Infections due to oral streptococci (often termed viridans streptococci) which become resistant to penicillin are usually also resistant to cephalosporins. This is of importance in the case of patients who have had rheumatic fever and are on long-term penicillin therapy. Cefalexin p. 327 and cefradine p. 328 have been used in the treatment of oral infections.