Paediatric Empirical Treatment of Infection Guidelines

NHS Tayside

STOP AND THINK BEFORE YOU GIVE ANTIBIOTIC THERAPY. ALWAYS DOCUMENT INDICATION IN MEDICAL NOTES.
REVIEW ANTIBIOTIC THERAPY DAILY – can you: STOP? SWITCH? SIMPLIFY? or STATE DURATION?

Before Starting Therapy consider the following -

- Viral Infections should not be treated with antibiotics
- Samples should be taken for culture sensitivity testing wherever possible.
- The dose of an antibacterial varies according to age, weight, hepatic/renal function and severity of infection. See BNF for Children for guidance.
- Route of administration depends on severity of infection.
- Duration of therapy depends on nature of infection and response to treatment. Courses should not be unduly prolonged.
- Consider whether monitoring of drug levels is required e.g. gentamicin

ANTIBIOTIC DOSING IN PAEDIATRICS

- For guidance on drug dosage please refer to current **BNF for Children.**
- Please contact your ward Clinical Pharmacist for further advice
- Click here for **Gentamicin** Protocol
- Click here for **Vancomycin** Protocol

Please note there is separate guidance for the management of infection in the immunocompromised, neonates and children with cystic fibrosis available on the Children's Hospital pages of staffnet

CNS

MENINGITIS <3 months Cefotaxime + Amoxicillin
> 3 months **1st dose** Cefotaxime followed 6 hours later with once daily Ceftriaxone.
(Cefotaxime given for first dose due to bolus administration. Ceftriaxone preferred where age allows after this due to once daily administration)
+/- Dexamethasone IV starting before or with first dose of antibiotic (max 4 days duration of dex)
- *meningococci* (7 days)
- *pneumococci* (14 days)
- *Haemophilus influenzae* (10 days)
Chloramphenicol if penicillin allergic (plasma concentrations MUST be measured)

H.Simplex ENCEPHALITIS Aciclovir IV SEEK MICRO ADVICE IN ALL PATIENTS

EYE:

ORBITAL CELLULITIS Flucloxacillin IV + Ceftriaxone IV +/- Metronidazole
Step down to oral co-amoxiclav
SEEK MICRO ADVICE FOR DURATION

ENT:

TONSILLITIS Penicillin V (5 days)
Clarithromycin if penicillin allergic (5 days)

EPIGLOTTITIS Ceftriaxone IV
Chloramphenicol if penicillin allergic (plasma concentrations MUST be measured)

ACUTE OTITIS MEDIA Amoxicillin (5 days)
Clarithromycin if penicillin allergic (5 days)

MASTOIDITIS / SINUSITIS/ LYMPHADENITIS Penicillin V. If penicillin allergic Clarithromycin

LUNG:

COMMUNITY ACQUIRED PNEUMONIA
Non Severe Amoxicillin PO (5 days) Clarithromycin if penicillin allergic.
(<1year use Co-amoxiclav PO)
Severe Co-amoxiclav IV then PO (7 days total)
Add Clarithromycin if features of atypical pneumonia or pertussis

HOSPITAL-ACQUIRED PNEUMONIA/ POST OP/ASPIRATION Co-amoxiclav IV/PO (7 days). Seek Micro advice for further guidance around culture sensitivities

HEART:

ENDOCARDITIS **MUST SEEK MICRO ADVICE IN ALL PATIENTS**
- Flucloxacillin IV + Gentamicin IV (4-6 weeks)
- If symptoms less severe Benzylpenicillin IV + Gentamicin IV (at least 4 weeks)

GI:

GASTROENTERITIS Supportive measures only. Treat only after discussion with consultant or microbiology

PERITONITIS (PERFORATION OF VISCUS) Amoxicillin IV + Metronidazole IV + Gentamicin IV
Step down to Co-amoxiclav PO. If penicillin allergic seek micro advice.

C. DIFFICILE INFECTION **1st line** Vancomycin PO (IV injection can be given orally) (10 days) **2nd line** Seek specialist advice. Fidaxomicin or vancomycin PO +IV Metronidazole may be considered. NB Fidaxomicin tablets are licensed for children weighing at least 12.5kg. For children weighing less than 12.5kg consider oral vancomycin PLUS IV metronidazole if fidaxomicin granules are unavailable or seek specialist advice.

GU:

LOWER UTI Trimethoprim PO or Nitrofurantoin PO (3 days if >3 months of age) < 3months IV Amoxicillin + Gentamicin IV . *NB: nitrofurantoin liquid **very high cost** item*

UPPER UTI **1st line** Amoxicillin IV + Gentamicin IV or **2nd** line Co-amoxiclav IV only
Step down to Co-amoxiclav PO (Total 7-10 days IV/PO)

BONE/ SKIN:

CELLULITIS/IMPETIGO Flucloxacillin IV/PO (5 days)
(Flucloxacillin provides cover *S.aureus*, group A & other *beta-haemolytic streptococci*)
Clarithromycin IV/PO if penicillin allergic
If severe infection Clindamycin IV

ANIMAL/HUMAN BITES Co-amoxiclav IV/PO
Clarithromycin + Metronidazole if penicillin allergic

SEPTIC ARTHRITIS/ **Seek Micro advice before treatment**
Flucloxacillin IV then PO (4-6 weeks)

BURNS Flucloxacillin IV/PO (7-10 days)
If *Pseudomonas* cover required, then seek specialist advice

OSTEOMYELITIS Clindamycin if penicillin allergic
(<5 years and not immunised against HiB add Ceftriaxone IV.)

PRIMARY H.SIMPLEX/ GINGIVOSTOMATITIS Aciclovir IV if unwell enough to warrant hospital admission.

UNKNOWN SOURCE:

PYREXIA OF UNKNOWN ORIGIN **If no focus as listed above** Amoxicillin IV + Metronidazole IV + Gentamicin IV.
If possible meningococcal septicaemia treat as per meningitis above
Seek advice for oral step down.

SUSPECTED LINE INFECTION Vancomycin IV. Add Gentamicin IV if Gram-negative sepsis suspected.

ANTIMICROBIAL MANAGEMENT GROUP
Approved: Nov 2020 Review: Mar 2025
Format adapted from St Mary's NHS Trust

ADVICE: Microbiology: bleep 4039 **Antibiotic Pharmacist: Tay.antibioticpharm@nhs.scot bleep 4732**
Clinical Pharmacist: bleep 4024