Infection Management Guideline: Empirical Antibiotic Therapy in Children

This policy is intended to guide medical staff in GGC hospitals on the choice of appropriate treatment of infections in children. Please consult local unit guidance for patients in Schiehallion ward and the neonatal unit.

The initial treatment may need to be modified according to clinical response and results of microbiology and other investigations. The appropriate specimens for microbiology should be taken whenever possible before administering antibiotics, however this will depend upon the severity of the illness and the nature of the specimen. In patients who are stable and not septic, and in whom infection is only one of a number of possibilities, consideration should be given to deferring antibiotics until the results of cultures are known, as long as there is no change in the clinical condition in the interim.

The need for antibiotics and their route of administration should be reviewed daily. A definite decision regarding treatment should be taken at 2 and 5 days. When clinically reasonable, consider changing from IV to oral therapy.

Doses of antibiotics are recommended in the BNF for Children.

CNS infection

- **Bacterial meningitis**
  - Always refer to senior staff
  - Under 6 weeks
    - IV Cefotaxime + IV Aminoglycoside
    - IV Piperacillin/Tazobactam + Gentamicin
  - Over 6 weeks
    - IV Cefotaxime
    - IV Piperacillin/Tazobactam + Gentamicin
  - IV Amoxicillin if meningitis is not severe

- **Immunocompromised patient**
  - See also Schiehallion

- **Septicaemia of unknown origin**
  - Early onset +2 days of age
    - IV Benzylpenicillin + Gentamicin
  - Late onset +72 hours of age
    - IV Cefotaxime + Amoxicillin + Gentamicin
  - BNHI haematology/oncology patient discuss with microbiology or ID

- **Lower respiratory tract**
  - Early onset +2 days of age
    - IV Benzylpenicillin + Gentamicin
  -Late onset +72 hours of age
    - IV Cefotaxime + Amoxicillin + Gentamicin
  - 1 month and above – Community acquired
  - Amoxicillin or Ceftriaxone

- **Upper respiratory tract**
  - Non severe community acquired pneumonia (CAP)
    - Under 5 years
      - Pneumococcal pneumonia
      - Oral Amoxicillin
      - Duration 5-10 days
    - IV amoxicillin may be used if true penicillin allergy
      - IV Azithromycin
      - Duration 5 days
  - Viral pneumonia
    - Amoxicillin
    - Duration 5 days

- **Gastrointestinal**
  - **Gastroenteritis**
    - No antibiotic usually required
  - **Diarrhoea**
    - Antibiotic may be used if severe
      - IV or oral Ciprofloxacin
      - Duration 3 days

- **Urinary tract**
  - **Urinary tract UTI/Urinary tract infection**
    - Non severe community acquired pneumonia (CAP)
      - Under 5 years
        - Pneumococcal pneumonia
        - Oral Amoxicillin
        - Duration 5-10 days
      - IV amoxicillin may be used if true penicillin allergy
        - IV Azithromycin
        - Duration 5 days
  - **Vesical media**
    - Children with acute otitis media should not be routinely prescribed antibiotic
      -Consult ID or microbiology for advice
      -Duration: on advice from ID or microbiology

- **Bone / Joint infection**
  - **Septic arthritis/osteomyelitis**
    - Gentamicin
    - Duration 5-10 days
    - IV Flucloxacillin
      - Switching to oral co-amoxiclav
    - IV Clindamycin
      - Switching to oral co-amoxiclav

FURTHER ADVICE

Can be obtained from a Consultant Microbiologist, a Consultant in Paediatric ID or the Paediatric Antimicrobial Pharmacist. Infection Control advice may be given by a Consultant Microbiologist or Infection Control Nurses.


**NB. Caution in renal/liver impairment. For dose adjustments see BNF for Children or contact Pharmacy for advice.**