Louth: Antimicrobial Guidelines - Louth Hospitals: Antimicrobial Guidelines: Paediatrics - Central Nervous System Infections

Infection

Paediatrics - Acute Bacterial Meningitis: Child < 8 weeks

Excludes neutropenic sepsis

Likely Organisms

Child < 8 weeks (chronological age)

Group B Streptococcus, E. coli, Listeria monocytogenes, N. meningitidis, S. pneumoniae

Empiric Antimicrobial Treatment

For pre-term infants or previous NICU admission, refer patient to Neonatology / Microbiology.

Child < 8 weeks (chronological age)

Cef-O-taxime IV

Plus

Amoxicillin IV

Plus consider (see comments below):

+/- Gentamicin IV

+/- Vancomycin IV

+/- Aciclovir IV

Plus contact Microbiology if recent foreign travel for mother or baby in case of potential for colonisation with resistant organism.

Plus

If > 6 weeks old, add dexamethasone 0.15 mg/kg (max 10 mg) 6 hourly IV for **4** days if H. influenzae / S. pneumoniae meningitis is suspected or confirmed as it may reduce long-term complications. In this case, ideally it should be given just before or within 1 hour of the first dose of antibiotics . Consult Microbiology.

Add Gentamicin if :

• Severe sepsis/ haemodynamically unstable

• Requiring inotropes/critical care

• Likely resistant organisms e.g., frequent or prolonged hospitalisation; >48 hours following admission; recent foreign travel for mother or baby.

Add Vancomycin if:

• MRSA positive

• Recent travel outside of Ireland for mother or baby

• Prolonged antibiotics in past 3 months

• Concern about infected prosthetic material e.g. PICC line in-situ.

Add Aciclovir if clinical features of HSV.

Add Clindamycin if suspected staphylococcal/streptococcal toxic shock.

If suspected abdominal source, please see monograph for Paediatric Intra-Abdominal Infections .

Duration of Treatment

For uncomplicated meningitis where causative organism known:

- N. meninigitidis: 7 days
- H. influenzae: 10 days
- S. pneumoniae: 14 days
- Group B Streptococcus: 14 - 21 days
- E. coli & Gram-negative bacilli: 21 days
- L. monocytogenes: 21 days

For culture and PCR negative suspected bacterial meningitis:

- Child <3 months old: 14 days
- Child >3 months old: 10 days

Longer durations may be required if persistent fever or other complications.

IV to Oral Switch

Continue IV therapy for entire duration of treatment.

Comments

- Ensure the correct dose and frequency of antimicrobials is prescribed: see CHI 'Clinibee' Antimicrobial Guidelines app or LH Quick Reference dosing cards.
- Obtain cultures **before** antibiotics are administered wherever possible: e.g. urine, blood culture, LP.
- Antibiotics should be administered within 1 hour if presenting as a red flag for septic shock and 3 hours if presenting as an amber flag for suspected sepsis.
- Check previous microbiology results to determine if recent antibiotic-resistant organisms have been identified and contact Microbiology for advice.
- The selection of appropriate antibiotic therapy is complex - this guideline is not intended to cover all possible scenarios.

Public Health notification required for meningitis caused by N. meningitidis, H. influenzae, S. pneumoniae, Listeria spp. and viral meningitis.

N.B. See chemoprophylaxis for meningococcal contacts.