Management of Bacterial Meningitis in Children and Young People

Incorporates NICE Bacterial Meningitis and Meningococcal Septicaemia Guideline CG102. Distributed in partnership with NICE

**Empiric antibiotics for suspected meningitis**
- IV Ceftriaxone for Meningococcus
- IV Cefotaxime or Amoxicillin or Ampicillin (can replace Cefotaxime with Ceftriaxone if no contraindication)

**DO NOT DELAY ANTIBIOTICS**

**Antibiotics for confirmed meningitis**
- DO NOT DELAY ANTIBIOTICS
- IV Ceftriaxone unless contraindicated

**Duration may be dictated by clinical response**
- Antibiotics for confirmed meningitis

**DO NOT DELAY ANTIBIOTICS**
- (can replace Cefotaxime with Ceftriaxone if no contraindication)

**IV Cefotaxime or Ceftriaxone unless contraindicated**
- either Amoxicillin or Ampicillin for IV for 14 days.

**Lumbar puncture suggests meningitis?**
- In neonates (<28 days old), > 20 cells/µl
- In older children > 5 cells/µl or > 1 neutrophil/µl (if lower cell count, still consider bacterial meningitis if other symptoms and signs suggest the diagnosis especially in neonates).

**Revised illness guideline CG100**
- www.meningitis.org

**Criteria for CT scan in children with suspected bacterial meningitis**
- CT scan cannot reliably detect raised intracranial pressure. This should be assessed clinically.
- Perform a CT scan to detect other intracranial pathologies if QCS ± or focal neurological signs in the absence of an explanation for the clinical features.
- Do not delay treatment to undertake a CT scan.
- Consult a paediatric intensivist, anaesthetist, or intensivist.

**Indications for tracheal intubation and mechanical ventilation**
- Threatened or actual loss of airway patency (e.g. QCS ±, response to pain only).
- Need for any form of assisted ventilation e.g. bag-mask ventilation.
- Clinical observation of increasing respiratory distress
- Hypoventilation or Apnoea
- Features of respiratory failure, including (e.g. Cheyne-Stokes breathing)
- Hypoxia (saturation <94% in air, PaO₂ < 13 kPa or 97.5mmHg), Hypopnoea (PaCO₂ > 13 kPa or 45mmHg)
- Continuing shock following 40ml/kg of resuscitation fluid
- Signs of raised intracranial pressure
- Impaired mental state (GCS < 8, or fluctuation in conscious level)
- Moribund state
- Control of intractable seizures
- Need for Stabilisation for brain imaging or for transfer to PICU
- Should be undertaken by a health professional with expertise in paediatric airway management, Consult PICU. (See BD1)

**Repeat LP in neonates after starting treatment if:**
- Persistent or re-emergent fever, new clinical findings (especially neurological findings), deteriorating clinical condition, or persistently abnormal inflammatory markers

**Long-term management:** Before discharge consider need for aftercare, discuss potential long-term effects with parents, arrange further review. Perform further review with parents when child has recovered and is discharged back to normal activities.
- IV Ceftriaxone for 14 days.
- Oral co-amoxiclav for 2 weeks.
- Aciclovir for at least 10 days if herpes simplex meningoencephalitis is suspected.
- Hearing assessment ASAP. Use MRF discharge checklist
- www.meningitis.org/assets/2/56050

**Notify public health, prophylaxis see 2011 on Meningococcal disease algorithm; Long-term management**

**Based on NICE CG102 www.nice.org.uk/guidance/CG102**

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