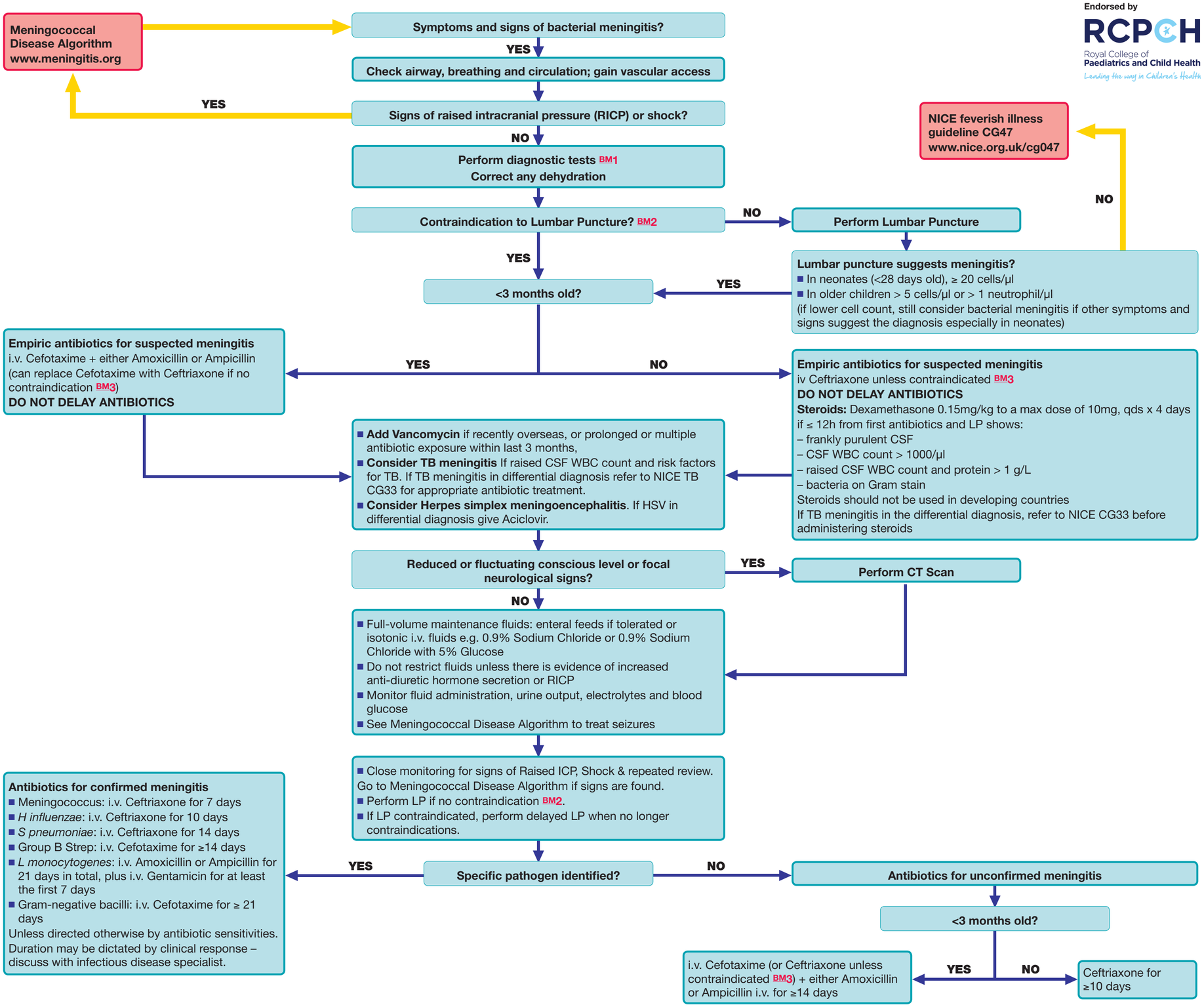
Management of Bacterial Meningitis in Children and Young People

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

Meningitis Research Foundation

Endorsed by RCPCH Royal College of Paediatrics and Child Health — Leading the way in Children's Health



Notify public health, prophylaxis see MD11 on Meningococcal disease algorithm ; Long-term management BM7

BM1 Diagnostic and other laboratory tests:

- full blood count
- CRP
- coagulation screen
- blood culture
- whole-blood (EDTA specimen) for PCR
- blood glucose
- blood gas
- LP if no contraindication

BM2 Contraindications to Lumbar Puncture

Clinical or radiological signs of raised intracranial pressure

- Shock
- After convulsions until stabilised
- Coagulation abnormalities
  - Clotting study results (if obtained) outside the normal range
  - Platelet count below 100 x 10^9/L
  - on Anticoagulant therapy
- Local superficial infection at LP site
- Respiratory insufficiency.

Perform delayed LP in children with suspected bacterial meningitis when contraindications no longer present

BM3 Contraindications to Ceftriaxone

All ages:

- Simultaneous administration of calcium-containing infusions but can be given sequentially as long as infusion line flushed between infusions or a different infusion line is used.

Children younger than 3 months:

- Prematurity
- Jaundice
- Acidosis

BM4 Indications 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 GCS ≤8 or focal neurological signs in the absence of an explanation for the clinical features.

Do not delay treatment to undertake a CT scan.
Clinically stabilise the child before CT scanning.
Consult an anaesthetist, paediatrician or intensivist.

BM5 Indications for tracheal intubation and mechanical ventilation

Threatened or actual loss of airway patency (e.g. GCS < 8, response to pain only.).

- Need for any form of assisted ventilation e.g. bag–mask ventilation.
- Clinical observation of increased work of breathing
- Hypoventilation or Apnoea
- Features of respiratory failure, including
  - Irregular respiration (e.g. Cheyne–Stokes breathing)
  - Hypoxia (PaO_2 < 13 kPa or 97.5mmHg), hypercapnoea ($PaCO_2$ > 6 kPa or 45 mmHg)
- Continuing shock following 40ml/kg of resuscitation fluid
- Signs of raised intracranial pressure
- Impaired mental status
  - GCS drop of ≥ 3, or score < 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 MD4)

BM6 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

BM7 Long-term management: Before discharge consider need for after care, discuss potential long-term effects with parents, arrange hearing test. Refer children with severe or profound deafness for cochlear implant assessment ASAP. Offer further care on discharge as needed. Provide info on support organisations. Paediatrician to review child with results of their hearing test 4-6 weeks after discharge from hospital considering all potential morbidities and offer referral. Inform GP, health visitor or school nurse about illness.

Based on NICE CG102 http://guidance.nice.org.uk/CG102/Guidance
http://guidance.nice.org.uk/CG102/QuickRefGuide/pdf/English

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Further copies from www.meningitis.org or 01454 281811.