

Bacterial meningitis and meningococcal septicaemia overview

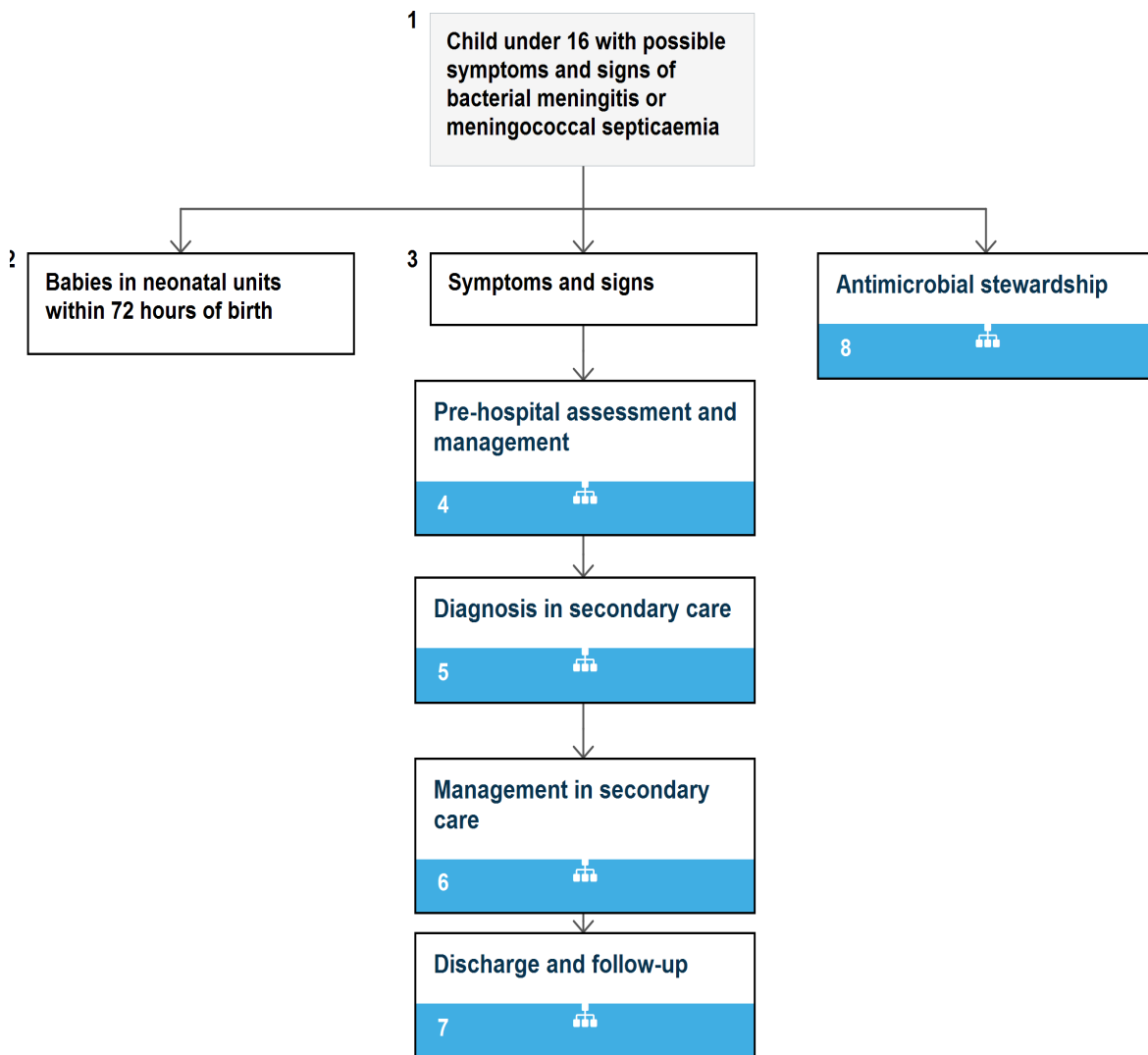
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<http://pathways.nice.org.uk/pathways/bacterial-meningitis-and-meningococcal-septicaemia>

Pathway last updated: 20 January 2017

This document contains a single pathway diagram and uses numbering to link the boxes to the associated recommendations.



1 Child under 16 with possible symptoms and signs of bacterial meningitis or meningococcal septicaemia

No additional information

2 Babies in neonatal units within 72 hours of birth

For recommendations on antibiotics for preventing and treating bacterial infection in newborn babies within 72 hours of birth in a neonatal unit see [antibiotic treatment and monitoring for suspected meningitis in newborn babies in a neonatal unit](#) in the NICE interactive flowchart on antibiotics for early-onset neonatal infection.

3 Symptoms and signs

Consider bacterial meningitis and meningococcal septicaemia in children and young people who present with the symptoms and signs (see Table 1 Symptoms and signs of bacterial meningitis and meningococcal septicaemia below).

- Be aware that:
 - some children and young people will present with mostly non-specific symptoms or signs, and the conditions may be difficult to distinguish from other less important (viral) infections presenting in this way
 - children and young people with the more specific symptoms and signs are more likely to have bacterial meningitis or meningococcal septicaemia, and the symptoms and signs may become more severe and more specific over time.
- Recognise shock and manage urgently in secondary care (see Table 2 Signs of shock below).

Table 1 Symptoms and signs of bacterial meningitis and meningococcal septicaemia

Common non-specific symptoms / signs (not always present, especially in neonates)

Symptom / sign	Bacterial meningitis (meningococcal meningitis and meningitis caused by other bacteria)	Meningococcal disease (meningococcal meningitis and/or meningococcal septicaemia)	Meningococcal septicaemia
Fever	Y	Y	Y
Vomiting / nausea	Y	Y	Y
Lethargy	Y	Y	Y
Irritable / unsettled	Y	Y	Y
Ill appearance	Y	Y	Y
Refusing food / drink	Y	Y	Y
Headache	Y	Y	Y
Muscle ache / joint pain	Y	Y	Y
Respiratory symptoms / signs or breathing difficulty	Y	Y	Y
Less common non-specific symptoms / signs			

Symptom / sign	Bacterial meningitis (meningococcal meningitis and meningitis caused by other bacteria)	Meningococcal disease (meningococcal meningitis and/or meningococcal septicaemia)	Meningococcal septicaemia
Chills / shivering	Y	Y	Y
Diarrhoea, abdominal pain / distension	Y	Y	Not known
Sore throat / coryza or other ear, nose and throat symptoms / signs	Y	Y	Not known
More specific symptoms / signs			
Symptom / sign	Bacterial meningitis (meningococcal meningitis and meningitis caused by other bacteria)	Meningococcal disease (meningococcal meningitis and/or meningococcal septicaemia)	Meningococcal septicaemia
Non-blanching rash ^a	Y	Y	Y
Stiff neck	Y	Y	Not known
Altered mental state ^b	Y	Y	Y

Capillary refill time more than 2 seconds	Not known	Y	Y
Unusual skin colour	Not known	Y	Y
Shock	Y	Y	Y
Hypotension	Not known	Y	Y
Leg pain	Not known	Y	Y
Cold hands / feet	Not known	Y	Y
Back rigidity	Y	Y	Not known
Bulging fontanelle ^c	Y	Y	Not known
Photophobia	Y	Y	N
Kernig's sign	Y	Y	N
Brudzinski's sign	Y	Y	N
Unconsciousness	Y	Y	Y
Toxic / moribund state	Y	Y	Y
Paresis	Y	Y	N

Focal neurological deficit including cranial nerve involvement and abnormal pupils	Y	Y	N
Seizures	Y	Y	N
<p>Y: symptom or sign present;</p> <p>N: symptom or sign not present;</p> <p>Not known: not reported in the evidence.</p>			
<p>^a Be aware that a rash may be less visible in darker skin tones – check soles of feet, palms or hands and conjunctivae;</p> <p>^b Includes confusion, delirium and drowsiness, and impaired consciousness;</p> <p>^c Only relevant in children under 2 years.</p>			

Table 2 Signs of shock

Signs of shock include:

- capillary refill time more than 2 seconds
- unusual skin colour
- tachycardia and/or hypotension
- respiratory symptoms or breathing difficulty
- leg pain
- cold hands/feet
- toxic/moribund state
- altered mental state/decreased conscious level
- poor urine output

4 Pre-hospital assessment and management

[See Bacterial meningitis and meningococcal septicaemia / Pre-hospital assessment and management of bacterial meningitis and meningococcal septicaemia](#)

5 Diagnosis in secondary care

[See Bacterial meningitis and meningococcal septicaemia / Diagnosis of bacterial meningitis and meningococcal septicaemia in secondary care](#)

6 Management in secondary care

[See Bacterial meningitis and meningococcal septicaemia / Management of bacterial meningitis and meningococcal septicaemia in secondary care](#)

7 Discharge and follow-up

[See Bacterial meningitis and meningococcal septicaemia / Discharge and follow-up for bacterial meningitis or meningococcal septicaemia](#)

8 Antimicrobial stewardship

[See Antimicrobial stewardship](#)

APVU

Alert, voice, pain, unresponsive.

CRP

C-reactive protein

CSF

Cerebrospinal fluid

CT

Computed tomography

EDTA

ethylenediaminetetraacetic acid

H influenzae

Haemophilus influenzae

L monocytogenes

Listeria monocytogenes

N. meningitidis

Neisseria meningitidis

PCR

polymerase chain reaction

SPC

summary of product characteristics

_S pneumoniae

Streptococcus pneumoniae

WBC

white blood cell

Sources

[Meningitis \(bacterial\) and meningococcal septicaemia in under 16s: recognition, diagnosis and management](#) (2010 updated 2015) NICE guideline CG102

Your responsibility

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