MENINGITIS

Transfer all patients to the hospital as an emergency by telephoning 999.

For suspected meningococcal disease (meningitis with non-blanching rash or meningococcal septicaemia), parenteral antibiotics (intramuscular or intravenous benzylpenicillin) should be given at the earliest opportunity, either in primary or secondary care, but urgent transfer to hospital should not be delayed in order to give the parenteral antibiotics.

It is the statutory duty of the registered medical practitioner (RMP) to report all suspected meningitis or meningococcal septicaemia cases to the UKHSA. The UKHSA will determine the household and kissing contacts of the index case and will advise the RMP to initiate the appropriate prophylaxis or vaccination if necessary.

- The 'Proper Officer' at the local health protection team (HPT) should be contacted via telephone at 03442254524, followed by option 1. This number can also be used out of hours and at weekends.
- The on-call Public Health Doctor out-of-hours (01159675099).

(Guidance on notifiable diseases and notification form).

Clinical features: may include fever, headache, neck stiffness, photophobia, nausea and vomiting, non-blanching rash (petechial or purpuric), and the presence of an altered mental state (there is often a degree of overlap with encephalitis).

Empirical Treatment

Medicine	Dose	Frequency & Duration of Treatment
Empirical treatment for suspected meningococcal disease: Administer a single dose at the earliest opportunity, but do not delay urgent transfer to the hospital.		
Benzylpenicillin IV or IM	Child <1 year: **300mg** Child 1–9 years: **600mg** Child 10+ years: **1.2g** Adult: **1.2g**	Single STAT dose IV or, if a vein cannot be found, give IM
OR Local guidance for **non-severe** penicillin allergy:		
Cefotaxime[1] IV or IM	Child ≤16 years: **50mg/kg** (Max of 2g) Child 16+ years: **2g** Adult: **2g**	Single STAT dose slow IV or, if a vein cannot be found, give IM (IM doses over 1g should be divided between more than one site.)
OR (*only if cefotaxime is not available*) **Ceftriaxone**[1, 2] IV or IM	Child 1 month up to 17 years: **100mg/kg** (max 4g per day) Adult: **2g** (local guidance)	Single STAT slow dose IV or, if a vein cannot be found, give IM
Do not give IV antibiotics if there is a definite history of anaphylaxis to penicillin or cephalosporins; rash is not a contraindication. Transfer to a hospital immediately.		

[1] Avoid if there is a history of immediate hypersensitivity to penicillin and use with caution if there is a non-severe allergy.

[2] Add 1ml lidocaine 1% to each 250mg vial and give by deep IM injection only.

Prophylaxis:

- Is given to household and kissing contacts of the index case. Household and kissing contacts include those who have slept in the same house or dormitory before the onset, boy/girlfriend, childminders, and anybody who has performed mouth-to-mouth resuscitation or intubation of the index case.
- If the disease is due to confirmed serogroup C, and the contact was immunised in infancy or >1year ago, an extra dose of Men C vaccine will be offered.
- If the disease is due to confirmed serogroups A, W or Y, vaccination of close contacts with quadrivalent vaccine may be advised.

Prophylaxis:		
Medicine	**Dose**	**Frequency & Duration of Treatment**
Ciprofloxacin ^ (Recommended for use in all age groups and in pregnancy, unless contraindicated) **OR** **Rifampicin** (Suitable alternative when ciprofloxacin is contraindicated. **NOT** recommended in pregnancy)	Child <5years: **30mg/kg** (Max of 125mg) Child 5 to <12 years: **250mg** Adult & Child ≥12 years: **500mg** Child <12 months: **5mg/kg** Child 1 to <12 years: **10mg/kg** (Max 600mg per dose) Adult & Child ≥12years: **600mg**	Single STAT dose * Ciprofloxacin suspension contains 250mg/5mL TWICE daily (every 12 hours) for TWO days * Rifampicin suspension contains 100mg/5mL
^Note fluoroquinolones can cause long-lasting (up to months or years), disabling, and potentially irreversible side effects, sometimes affecting multiple systems, organ classes, and senses. Please refer here for further information on MHRA alerts.		

Chemoprophylaxis agents:

- Ciprofloxacin (unlicensed) is now recommended by UKHSA for use in all age groups and in pregnancy as a single prophylactic dose.
- Rifampicin causes orange-red stains to tears, soft contact lenses and urine. It may also cause skin rashes and itching. Rifampicin is contraindicated in the presence of jaundice or known hypersensitivity to rifampicin. Interactions with other drugs, such as anticoagulants, phenytoin, and hormonal contraceptives, should be considered. It reduces the effectiveness of most oral contraceptives (and some contraceptive patches), so additional contraceptive precautions should be taken whilst taking rifampicin and for at least 4 weeks after stopping it, the next new packet being started immediately without a break. It is licensed for use in prophylaxis.

Patient information and support:

- Ensure that appropriate hospital follow-up has been arranged. All children should have a review with a paediatrician 4-6 weeks after hospital discharge to assess their recovery.
- Be alert for possible late-onset complications.
- Meningitis NHS A-Z
- The Meningitis Now (Trust) – offers free services, providing emotional, practical, and financial support for people who have been affected by meningitis—free 24-hour UK helpline: 0808 8010388.
- Brain and Spine Foundation – Free telephone number: 0808 808 1000.
- The National Deaf Children's Society (NDCS) – Free telephone number: 0808 800 8880.
- Give advice on driving if appropriate – Assessing fitness to drive: a guide for medical professionals for recommendations on driving restrictions after recovery.