

## Meningitis: An Introduction (updated June 2017)

### 1. Types of Meningitis

- 1.1 Meningitis can be caused by viruses or bacteria.
- 1.2 Viral meningitis is usually mild, occurring mainly in children. It is a rare complication of common infections including common childhood infections such as measles, mumps and rubella. As a result viral meningitis is not a separate infectious disease. Prevention of spread of the causal viruses is by good hygiene and MMR vaccine.
- 1.3 Bacterial meningitis is caused by several bacteria including meningococci and pneumococci. Meningitis can also be caused by streptococcal bacteria. There are several different types of meningococcal bacteria, called groups A, B, C, W, X, Y and Z. The most common type of bacteria in the United Kingdom is meningococcus group B. There are tests for serotypes and serosubtypes, which provide detailed information on the bacteria in each case and can help determine any links between particular cases.

### 2. Vaccination

- 2.1 There are [effective vaccines against the B and A, C, W, Y strains](#). These are routinely provided as part of the NHS childhood vaccination programme at the ages of 8 weeks (Men B), 16 weeks (Men B), 12 months (MenC), and a teenage booster at 14 years (MenACWY). A [student catch up programme](#) is in place where students under the age of 25 will be offered a vaccine before (or when) they start university. This student catch-up programme will continue for several years until all university entrants have received a MenACWY teenage booster.
- 2.2 In September 2015 the MenB vaccine was added to the childhood vaccination programme. The [Joint Committee on Vaccination and Immunisation \(JCVI\)](#) has not recommended that it be included in a catch up programme or targeted at adolescents, citing a lack of evidence about its effectiveness for that age group.

### 3. Managing cases and key terminology

- 3.1 The bacteria can cause septicaemia, which carries a high fatality rate. Fortunately, bacterial meningitis is a rare disease because most people are naturally immune. However, because it tends to affect young adults as well as babies, especially when they congregate in large groups, and because it often has a rapid onset with serious consequences, extreme vigilance is necessary to detect early symptoms.
- 3.2 When infection does arise, the local Public Health England (PHE) Consultant in Communicable Disease Control (CCDC) is responsible for monitoring cases and deciding on the level of response. The following terms are used to describe the situation and to determine that response. Diagnosis is based on clinical findings initially, as it takes some while to obtain microbiological confirmation of infection.
- 3.3 **A possible case** is a clinical diagnosis of meningococcal meningitis or septicaemia without microbiological confirmation where the clinician and CCDC consider that diagnoses other than meningococcal disease are at least as likely.
- 3.4 **A probable case** is a clinical diagnosis without microbiological confirmation where the clinician and CCDC judge that meningococcal disease is the most likely diagnosis. The Students' Health Service or Public Health England will notify the University when a possible case has become probable.
- 3.5 **A confirmed case** is a clinical diagnosis of meningococcal meningitis or septicaemia, which has been confirmed microbiologically by culture or non-culture methods.
- 3.6 Cases of meningococcal disease will normally be deemed related and an **outbreak** declared if two confirmed or probable cases of meningococcal disease occur within the University within a four-week period in the same term which are, or could be, caused by the same serogroup, serotype and serosubtype and for which a common link (e.g. same social group, same Hall of Residence) can be determined.

3.7 Cases of meningococcal disease will normally be deemed unrelated if any of the following circumstances apply:

- Two **confirmed** or **probable** cases occur in different academic terms;
- Two **confirmed** cases due to different strains, whatever the interval between;
- Two **confirmed** or **probable** cases with no evidence of any common links in spite of intensive enquiry (e.g., no social contact, different Halls of Residence, different courses), whatever the interval between;
- Two **possible** cases (or one **possible** and one **confirmed/probable** case), whatever the interval or link between them.

Originally written by the Infectious Diseases Control Committee, date unknown.

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