Information for health professionals
Date issued: 14 December 2016

**Key messages**

- Since 2014, there has been an increase in the number of notifications of invasive meningococcal disease (IMD) due to *Neisseria meningitidis* serogroup W (also known as serogroup W135) in Australia.

- Most age groups have been affected, and sepsis is a common presentation. However cases have presented with less typical presentations, for example septic arthritis or epiglottitis.

- Be alert for presentations that could be due to meningococcal disease. Consider testing for invasive meningococcal disease in older patients who may have atypical presentations (septic arthritis, epiglottitis).

- Quadrivalent meningococcal vaccines (4vMenCV and 4vMenPV) provide protection against meningococcal serogroup W and are available on private script. These are recommended for those at occupational risk (some laboratory personnel), certain overseas travel and certain medical conditions, and can be offered to those who wish to protect themselves or their family from the disease.

- The Commonwealth Department of Health, in collaboration with the states and territories, is closely monitoring the incidence of IMD due to serogroup W (MenW) in Australia in accordance with the Emergency Response Plan for Communicable Disease Incidents of National Significance (CDPlan).

- The Chief Medical Officer of Australia has established a group with a focus on examining the current epidemiology and co-ordinating responses to MenW at the national level. A further assessment of the current situation will be undertaken by that group in early 2017.

**What is the issue?**

Invasive meningococcal disease (IMD) is caused by the bacterium *Neisseria meningitidis*. Approximately 10 per cent of the population are asymptomatic carriers of meningococcal bacteria in the upper respiratory tract, however IMD only occurs in a small number of people.
Six serogroups of meningococcal bacteria (A, B, C, W, X and Y) account for most cases of IMD. Serogroup C cases have declined significantly since 2003 when the meningococcal C vaccine was added to the National Immunisation Program. Until recently, serogroup B was the most common cause of IMD in Australia, with meningococcal serogroups A, W and Y less common in Australia, despite being more common overseas.

Since January 2014, there has been an increase in notifications of IMD due to serogroup W in Australia. As at 7 December 2016, there have been 100 cases notified to the National Notifiable Diseases Surveillance System, compared with 34 cases in 2015, 17 cases in 2014 and 11 cases in 2013. Rates of disease have increased in all age groups, except in children aged 10 to 14 years. The identified strain is similar to those that have been circulating in the United Kingdom and South America since 2009.

**Who is at risk?**

Anyone is potentially susceptible to strains of meningococcal infection against which they have not been vaccinated.

People with certain pre-existing medical conditions, occupational exposures (some laboratory personnel) or overseas travel to endemic or high-risk areas (Hajj and African meningitis belt) are at higher risk of IMD.

Medical conditions associated with an increased risk of IMD in children and adults\(^1\) include:

- functional or anatomical asplenia
- HIV infection, regardless of stage of disease or CD4+ count
- haematopoietic stem cell transplant
- defects in or deficiency of complement components, including factor H, factor D or properdin deficiency
- current or future treatment with eculizumab (a monoclonal antibody directed against complement component C5

**Symptoms**

A common presentation of meningococcal serogroup W disease in Australia has been severe sepsis. Classical meningitis symptoms have been less common. Less typical presentations have included septic arthritis, pneumonia and epiglottitis in older age groups.

\(^1\) Australian Immunisation Handbook
**Diagnosis**

**Consider testing for IMD** - Meningococcal serogroup W disease should be considered as a differential diagnosis of atypical infections in older patients. Testing should ideally occur prior to administration of antibiotics where possible but should not delay administration of antibiotics. Empirical antibiotic options for different clinical presentations are described in the [Therapeutic Guidelines](#).

When considering testing options, discussion with local infectious diseases or microbiology experts may be helpful. A blood (for serum) or CSF sample for PCR or culture is usually sufficient.

**Reporting**

Notify all suspected and confirmed cases of IMD to the state or territory health authority in your jurisdiction; do not wait for laboratory confirmation before notifying (see contact details at end of this document).

**Prevention**

**Vaccines**


- Meningococcal serogroup W - quadrivalent meningococcal vaccines (4vMenCV and 4vMenPV). Available on private script. Recommended for those at risk of occupational exposure (some laboratory personnel), certain overseas travel (Hajj and African meningitis belt mainly to cover serogroup A), and certain medical conditions (e.g. asplenia). Vaccination can be also offered to those who wish to protect themselves or their family from the disease.

- Vaccines for other meningococcal serotypes include:
  - Meningococcal C conjugate vaccine (MenCCV) - Recommended for all children at 12 months of age and available through the National Immunisation Program (as a combined vaccine Menitorix).
  - Meningococcal B vaccine (MenBV) - Available on private script. Recommended for infants and young children, adolescents, young
adults living in close quarters, some laboratory personnel and individuals with certain medical conditions.

- Following notification of suspected cases, the state or territory health department will identify who should receive vaccine as part of contact management.

**Antibiotics**

Clearance antibiotics

Following notification of suspected cases, the state or territory health department will identify who should receive clearance antibiotics (generally close household and/or intimate contacts). Staff providing care do not require clearance antibiotics unless exposed to the case’s nasopharyngeal secretions without personal protective equipment (e.g. involved in intubation without wearing masks).

Clearance antibiotics for the general population are not necessary

Testing for meningococcal carriage in asymptomatic individuals and treatment with clearance antibiotics is not required for the general population, and can be harmful by removing protective strains of bacteria and leading to antibiotic resistance.

**Further information**

[Invasive Meningococcal Disease CDNA National Guidelines for Public Health Units](#) – technical resource for public health practitioners

[Australian Immunisation Handbook](#) - technical information for vaccine providers and clinicians

[Immunise Australia](#) – consumer resource on the Immunise Australia program

[Therapeutic Guidelines](#) - to guide antibiotic therapy
### Contact details to notify suspected and confirmed IMD in Australia

<table>
<thead>
<tr>
<th>State/territory</th>
<th>Public health unit contact details</th>
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<tbody>
<tr>
<td>ACT</td>
<td>02 6205 2155</td>
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<tr>
<td>NSW</td>
<td>1300 066 055 Contact details for the public health offices in NSW Local Health Districts (<a href="http://www.health.nsw.gov.au/Infectious/Pages/phus.aspx">http://www.health.nsw.gov.au/Infectious/Pages/phus.aspx</a>)</td>
</tr>
<tr>
<td>NT</td>
<td>08 8922 8044 Monday-to Friday daytime and 08 8922 8888 ask for CDC doctor on call</td>
</tr>
<tr>
<td>QLD</td>
<td>13 432 584 Contact details for the public health offices in QLD Area (<a href="http://www.health.qld.gov.au/cdcg/contacts.asp">www.health.qld.gov.au/cdcg/contacts.asp</a>)</td>
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<tr>
<td>SA</td>
<td>1300 232 272</td>
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<tr>
<td>TAS</td>
<td>1800 671 738 (from within Tasmania), 03 6166 0712 (from mainland states) After hours, follow the prompt “to report an infectious disease”</td>
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<tr>
<td>VIC</td>
<td>1300 651 160</td>
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<tr>
<td>WA</td>
<td>08 9388 4801 After hours 08 9328 0553 Contact details for the public health offices in WA (<a href="http://www.public.health.wa.gov.au/3/280/2/contact_details_for_regional_population___public_he.pm">www.public.health.wa.gov.au/3/280/2/contact_details_for_regional_population___public_he.pm</a>)</td>
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