Meningococcal disease: **Information for General Practitioners and Emergency Departments**

There has been a significant increase in *Neisseria meningitidis* serogroup W (MenW) in New Zealand since mid-2017. Between 1 January 2017 and 31 December 2017, there were 12 cases of MenW reported, including three deaths. This number has doubled to date for 2018, with 24 cases reported so far (as of 5 November), including six deaths. Prior to 2017, zero to six MenW cases were reported each year. The Northland region has been the most affected in 2018, with seven of the 24 cases reported in this region, including four cases in September and October.

This particular strain of MenW (sequence type ST11) affects all age groups and is associated with a high case-fatality rate. MenW can present with the classical signs of meningococcal disease but also atypically with gastro-intestinal symptoms, as well as pneumonia, septic arthritis, endocarditis or epi/supraglottitis. MenW was previously referred to as W135. Similar increases in MenW have been seen in other countries, including the UK and Australia.

Overall the annual number of meningococcal disease cases due to all serogroups has been increasing steadily since 2014, when there were 45 cases, to 112 cases in 2017. There has been 96 cases to date this year (as of 5 November). Group B remains the most prevalent serogroup, though this year the number of group B infections is lower (43 cases) than in 2017 (60 cases) at the same time of the year.

Key messages:

- GPs and EDs should be aware of that there has been an increase in meningococcal disease, caused by serogroup W in New Zealand over the past two years. They should be aware that this strain presents atypically and keep a high level of suspicion for the disease.
- Because of the fulminant nature of meningococcal sepsis, antibiotics should be administered on suspicion of diagnosis before transferring the patient to hospital.
- GPs do not need to be concerned that administering antibiotics will obscure the diagnosis for hospital clinicians. Over-treatment is acceptable in this case, as failure to treat may be fatal.
- The antibiotics recommended prior to transfer to hospital are:

	Benzyl penicillin	**Amoxycillin**
Adults	1.2 g (2 megaunits) IV (or IM)	1–2 g IV (or IM)
Children	25–50 mg/kg IV (or IM)	50–100 mg/kg IV (or IM)

- Antibiotics given prior to transfer should be clearly noted on the clinical information that accompanies the patient to hospital.
- Patients with a documented history of anaphylaxis to penicillin and who are suspected of suffering from meningococcal disease should be sent immediately to hospital without pre-admission antibiotics.
- A blood sample should be taken as soon as possible for laboratory testing, but should not delay patient treatment or transfer.
- If you are not sure if it is meningococcal disease:
    - advise parents/caregivers to check the sick person frequently (eg, every hour). The sick person should not remain on their own
    - make sure the case seeks immediate medical attention if they deteriorate
    - reassess the case within 6 hours.
- The quadrivalent MCV4-D vaccine (Menactra) protects against MenW and is available in NZ. It is recommended for high risk groups and funded for some of them - please refer to the meningococcal disease chapter in the Immunisation Handbook. Please make sure that high risk patients for whom the vaccine is funded are protected.