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Messaging for Healthcare Professionals on Meningococcal Disease

There has been a significant increase in *Neisseria meningitidis* serogroup W (MenW) in New Zealand since mid-2017.

The Ministry of Health is requesting that healthcare professionals remain alert to the symptoms of meningococcal disease as early intervention is essential to minimise the harmful effects of this disease.

Meningococcal disease can affect anyone at any time but is most prevalent in New Zealand during winter and spring.

Neisseria meningitidis serogroup B (MenB) is the most prevalent strain in New Zealand but the Ministry is concerned about the increasing prevalence of MenW sequence type ST11 (previously referred to as W135).

This particular strain of MenW 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.

Because of the fulminant nature of meningococcal sepsis, antibiotics should be administered on suspicion of diagnosis. This includes treating the patient before transferring to hospital.

There is no need for concern that administering antibiotics will obscure the diagnosis for hospital clinicians. Over-treatment is acceptable in this case, as failure to treat may be fatal.

Early treatment of meningococcal infection is recommended, especially when there will be a delay for the patient to reach the Emergency Department.

Ceftriaxone is the preferred first-line treatment for all individuals.

If ceftriaxone is not available, benzyl-penicillin can be used. If benzyl-penicillin is used, it is important to note that the treatment dose is higher than previously recommended.

The antibiotics recommended prior to transfer to hospital are:

		Children	**Adults**
First choice	Ceftriaxone	100mg/kg IV (or IM) up to 2g	2g IV (or IM)
Second choice	Benzyl-penicillin	50mg/kg IV (or IM) up to 2g	2.4g IV (or IM)

Patients allergic to penicillin who do **not** have a documented history of anaphylaxis to penicillin can be given ceftriaxone.

IV administration is preferred to IM (where available and not leading to delays).

Antibiotics given prior to transfer should be clearly noted on the clinical information that accompanies the patient to hospital.

There is no routine community treatment recommendation for patients with a documented history of anaphylaxis to penicillin. These patients must be transferred immediately by ambulance to the closest hospital. This hospital should be made aware of the patient transfer. If you are in a remote location or at a significant distance from secondary care, or if there is any delay, you should seek urgent advice from an Infectious Disease Physician regarding treatment options prior to transfer to hospital.

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.

Please note that the Meningococcal B strain is still the most prevalent strain. Men B vaccine (BEXSERO) is available to respond to organisation outbreaks, but is not currently funded. Further details are available in the Communicable Disease Control Manual, at the subheading 'If case is group B.'

Information on public health management of *Neisseria meningitidis* invasive disease can be found in the Communicable Diseases Control Manual.

Updated information on meningococcal disease surveillance is available on the ESR webpage.

The quadrivalent MCV4-D vaccine (Menactra) protects against MenW (as well as MenA, MenC and MenY) 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.

Nga mihi

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