Justice Health and
Forensic Mental Health Network

NSW GOVERNMENT

Justice Health NSW Policy

Management of Suspected Cases of Meningococcal Disease

Issue Date: 04 July 2024

Together for
Healthier Tomorrows

Management of Suspected Cases of Meningococcal Disease

Policy Number 1.275

Policy Function Continuum of Care

Issue Date 04 July 2024

Next Review Date 04 July 2027

Risk Rating High

Summary This policy ensures patients who are suspected of having invasive meningococcal disease are managed appropriately and according to best practice and national guidelines.

Responsible Officer General Manager, Population and Preventative Health

Applies to
☐ Administration Centres
☐ Community Sites and programs
☒ Health Centres - Adult Correctional Centres or Police Cells
☒ Health Centres - Youth Justice Centres
☒ Long Bay Hospital
☒ Forensic Hospital

CM Reference POLJH/1275

Change summary
- Minor updates only, including to MoH Fact sheet, resources / document links.
- JH Realignment change to the policy 'responsible officer' position title

Authorised by Chair, Policy Steering Committee

Revision History

#	Issue Date	Number and Name	Change Summary
8	July 2024	1.275 Management of Suspected Cases of Meningococcal Disease	• Minor updates only, including to MoH Fact sheet, resources / document links. • JH Realignment change to the policy 'responsible office' position title
7	November 2020	1.275 Management of Suspected Cases of Meningococcal Disease	• Ministry of Health Meningococcal disease fact sheet, revised August 2020

			• Update position titles • Update clinical information according to NSW Ministry policy directives • Update roles and responsibilities
6	October 2017	1.275 Management of Suspected Cases of Meningococcal Disease	• Introduction of single dose of quadrivalent meningococcal conjugate vaccine against serogroups A, C, W and Y offered to 17 & 18y.o. from May 2017 • JH&FMHN Adult Standing Order Protocols and JH&FMHN Adolescent Standing Order Protocols, revised March 2017 • Meningococcal disease - Response Protocol for NSW Public Health Units, revised July 2012 • NSW Health Meningococcal Disease Fact Sheet, revised January 2017
5	May 2014	1.275 Management of Suspected Cases of Meningococcal Disease	• Adolescent Health & Adult Standing Orders have been revised in 2013 • Revised meningoccal disease control protocol, MoH
4	December 2010	1.275 Management of Suspected Cases of Meningococcal Disease	• Minor updates • National and NSW Health Guidelines updated in October 2007
3	August 2007	1.275 Management of Suspected Cases of Meningococcal Disease	• Minor updates
2	June 2005	1.275 Protocol for the Management of Suspected Cases of Meningococcal Disease	• Minor updates
1	April 2003	1.275 Protocol for the Management of Suspected Cases of Meningococcal Disease	• New policy

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Printed copies of this document, or parts thereof, must not be relied on as a current reference document.

Always refer to the electronic copy for the latest version.

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1. Preface

Meningococcal disease is caused by a bacterial infection and can lead to serious illness. It is uncommon in NSW and historically winter and spring have been the peak seasons for meningococcal, however cases can occur all year round. People with meningococcal disease can become extremely unwell very quickly, therefore early treatment is vital. Up to one in 10 cases die and four in 10 infections result in permanent disabilities despite rapid treatment.

Meningococcal disease is caused by infection with Neisseria meningitidis that usually causes meningitis and/or septicaemia. Invasive meningococcal disease (IMD) is a rare but serious infection that can cause significant illness, disability and death. It most commonly presents as septicaemia and/or meningitis.

The bacteria normally colonise the mucosa of the upper respiratory tract without causing disease. Transmission is primarily by respiratory droplets from the upper respiratory tract. Saliva has been shown to inhibit the grown of meningococci and salivary contact (e.g. by sharing drink bottles) is not considered to be a significant means of transmission.

Transmission from a symptomatic case is uncommon – with most cases being sporadic with transmission assumed to have occurred from prolonged close contact with an asymptomatic carrier in the network of close contacts.

There are 13 known meningococcal serogroups and globally A, B, C, W-135 and Y most commonly causes disease. The meningococcal C vaccine has reduced the number of cases caused by that serogroup; however no single vaccine protects against all serogroups.

Vaccination programs have successfully reduced the incidence of IMD caused by serogroup C. However, IMD caused by serogroup B continues to occur in Australia, and the incidence of IMD caused by serogroups W and Y has increased in recent years. Refer to *Meningococcal disease* | The Australian Immunisation Handbook (health.gov.au).

2. Policy Content

2.1 Implementation – Roles & Responsibilities

2.1.1 Chief Executive

- Must provide managers with the resources to support compliance with this policy and its associated procedures.

2.1.2 Executive Director Clinical Operations

- Must review all reported incidents of non-compliance with this policy.

2.1.3 Managers

- Must ensure compliance with this policy and its associated procedures.
- Must bring this policy and its associated procedures to the attention of all Network staff.

2.1.4 Clinical Nurse Consultant Infection Prevention & Communicable Diseases

- Must provide active support and expert advice to all Network staff for the implementation of this policy.

2.1.5 Network Staff

- Must comply with this policy and its associated procedures.

2.2 Mandatory Requirements

Justice Health and Forensic Mental Health Network (the Network) requires:

- Any patient who is suspected of having invasive meningococcal disease must receive immediate antibiotic treatment with benzylpenicillin, and then be transferred urgently by ambulance to an Emergency Department.
- All health centres and inpatient units must have a supply of benzylpenicillin 2.4 g (1.2g x 2 or 600mg x 4) for intramuscular (IM) use plus Water for Injection x 10, labelled 'For emergency use for suspected cases of invasive meningococcal disease'.
- All health centres must also stock ceftriaxone 2g (1g x 2) as an alternative to benzylpenicillin (anaphylactic or an immediate hypersensitivity reaction).

3. Definitions

Must

Indicates a mandatory action to be complied with.

Should

Indicates a recommended action to be complied with unless there are sound reasons for taking a different course of action.

4. Procedure

4.1 Management of Suspected Cases of Invasive Meningococcal Disease

4.1.1 Clinical Presentation of Invasive Meningococcal Disease

Invasive meningococcal disease usually presents as meningitis, septicaemia, or as a combination of both. Septicaemia, with or without meningitis can be very severe and has a higher mortality rate than meningococcal meningitis. Diagnosis is based on the patient's history and examination. This is sometimes difficult in the early stages of the disease.

Confirmation of the diagnosis involves testing samples from the patient, including blood, cerebrospinal fluid or skin samples. The time taken to get a test result can vary depending on the tests performed.

Meningococcal disease can sometimes follow on from other respiratory infections.

While vaccination of adolescents and young adults has reduced the number of infections in NSW each year, the vaccines do not protect against all strains of meningococcal bacteria and people of all ages can be infected.

Meningococcal disease can be fatal within hours if left untreated. Early treatment can help prevent death or life-long disability so it is important symptoms are recognised early.

Symptoms of meningococcal disease are non-specific but may include:

- Sudden onset of fever
- Meningeal signs (e.g., headache, neck stiffness, photophobia, tiredness) and altered mental status.
- Muscle aches, joint or severe unexplained limb pain, nausea and vomiting.
- Leg pain, cold extremities, and abnormal skin colour (described as pallor or mottling)

  frequently reported in the first 12 hours of meningococcal disease (median onset 7-12 hours), particularly in children and adolescents.
- Rash, Haemorrhagic (i.e., petechial or purpuric rash) that does not blanch under pressure. In the early stages of illness, a maculopapular rash may blanch under pressure.

Note: The characteristic rash does not always appear or may appear late. Don't wait for a rash. See symptoms? Act fast.

4.1.2 Clinical Management of Suspected

Patients with meningococcal disease need urgent treatment with antibiotics and treatment is usually started before the diagnosis is confirmed by tests. Any clinician (medical or nursing) who suspects meningococcal disease in a patient **must** immediately administer benzylpenicillin according to the Justice Health NSW Standing Orders 6.055 *Adult Standing Orders Protocols* and 6.056 *Adolescent Standing Orders Protocols* AND arrange for the urgent transfer by ambulance to an Emergency Department.

While waiting for transfer, the patient must be isolated in single cell/room accommodation and Droplet Precautions implemented without delay.

Immediate dose of IM benzylpenicillin for suspected meningococcal disease:

Adults 2.4g IM

Children 60mg/kg up to 2.4g IM

For optimal benefit, benzylpenicillin should be given by the intravenous route, however if a medical officer is not present or is unable to establish intravenous access, then registered nurses must administer by the intramuscular route as per the Network Standing Order Protocols 6.055 *Adult Standing Orders Protocols* and 6.056 *Adolescent Standing Orders* Protocols.

OR

*Ceftriaxone 50mg/kg up to 2g IM (all ages)

*Ceftriaxone may be used as an alternative to benzylpenicillin if the patient has history of either an anaphylactic or an immediate hypersensitivity reaction to benzylpenicillin.

4.2 Contraindications to Benzylpenicillin

Benzylpenicillin should be withheld only if an individual has a clear history of either an anaphylactic or an immediate hypersensitivity reaction (such as difficulty in breathing, angioedema, or a generalised urticarial rash) after a previous dose of penicillin.

If there is a history of either an anaphylactic or an immediate hypersensitivity reaction, then do not administer penicillin. Ceftriaxone should be given instead as per the Network Standing

Order Protocols Adult Standing Order Protocols and Adolescent Standing Order Protocols whilst awaiting urgent ambulance transfer to an Emergency Department.

Documentation of treatment given must accompany the patient to hospital. When arranging the urgent transfer to a hospital of suspected cases of meningococcal disease, the Emergency Department of the referral hospital must be advised in advance.

Adult Emergency Response Guidelines & *Adolescent Emergency Response Guidelines*.

Refer to Appendix 1 – Management of Suspected Cases of Meningococcal Disease Flow Chart.

5. Notification Requirements

5.1 Reporting

The following must be notified as soon as possible, of any suspected meningococcal disease cases

- On Call Medical Service and After-Hours Nurse manager on [redacted] *and*
- Nurse Manager / Nurse Unit Manager *and*
- Clinical Nurse Consultant - Infection Prevention and Communicable Disease Control via phone or email

Forensic Hospital:

- Patients Registrar, Consultant, or on-call Registrar and
- Nurse Manager / Nurse Unit Manager *and*
- Clinical Nurse Consultant - Infection Prevention and Communicable Disease Control via phone or email

5.2 Protection of Staff and other patients

People who have had only minor exposure to someone with meningococcal disease have a very low risk of developing the disease. Healthcare workers are not at increased risk unless they have been directly exposed to a case's nasopharyngeal secretions. For example, if mouth-to-mouth resuscitation was performed or the case was intubated with staff not wearing an appropriate face mask.

Strict adherence to Standard Precautions plus Additional Precautions i.e., Droplet Precautions (long sleeved impervious gown, surgical mask, gloves) will prevent exposure to the patient's blood, body fluids and respiratory droplets.

Network staff must inform Corrective Services NSW or Youth Justice NSW staff or the private operators' staff about the requirement to adhere to Standard Precautions plus Droplet Precautions, both verbally and on the Health Problem Notification Form/Health Problem Notification and Escort Form.

In providing the information, the patients' particular disease must not be disclosed. Refer to Network Policies

1.231 *Health Problem Notification Form (Adults)* or

1.235 *Health Problem Notification and Escort Form (Adolescents)*

6. Public Health Management of Suspected or Confirmed Case and Contacts

Population Health will coordinate the public health management and follow-up of suspected or confirmed meningococcal cases and close contacts in accordance with NSW Ministry of Health policy directives and national guidelines.

Contacts are given information about meningococcal disease.

A smaller group of close contacts are carefully identified and given clearance antibiotics because they are the people most likely to be carrying the bacteria. These antibiotics eliminate the bacteria from the throat and help prevent it from being transmitted to others.

Clearance antibiotics are different to the antibiotics used to treat the infection and people who receive clearance antibiotics are still at some risk of developing the disease.

All contacts should therefore be aware of the symptoms of meningococcal disease and should urgently seek medical advice if these occur.

7. Related Documents

Legislations	
Justice Health NSW Policies, Guidelines and Procedures	1.231 *Health Problem Notification Form (Adults)* 1.235 *Health Problem Notification and Escort Form (Adolescents)* 6.055 *Adult Standing Orders* 6.056 *Adolescent Standing Orders* *Adult Emergency Response Guidelines* *Adolescent Emergency Response Guidelines*
Justice Health NSW Forms	
NSW Health Policy Directives and Guidelines	NSW Health *Meningococcal disease* Fact Sheet Meningococcal disease control guidelines CDNA for NSW Health
Other documents and resources	*Meningococcal disease* | The Australian Immunisation Handbook

Appendix 1 – Management of Suspected Cases of Meningococcal Disease Flow Chart

If patient presents with any of the following symptoms, suspect meningococcal infection:

- Sudden onset of fever
- Meningococcal signs (e.g., Headache, neck stiffness, photophobia) and altered mental status.
- Muscle aches, joint pain, vomiting.
- Leg pain, cold extremities and abnormal skin colour (pallor or mottling)
- Haemorrhagic (i.e., petechial or purpuric) rash that does not blanch under pressure.

Immediately Administer

benzylpenicillin Adult 2.4g IM as a stat dose

Child 60mg/kg up to 2.4g IM as a stat dose OR

*Ceftriaxone 50mg/kg up to 2g IM (all ages)

(*for patients with a hypersensitive reaction to benzylpenicillin)

Arrange urgent ambulance transport to Emergency Department

IP&C / PPE

As soon as possible isolate and contain suspected patient in single cell/room accommodation implement Droplet Precautions (long sleeve gown, surgical mask, gloves).

NOTIFY

As **soon as possible notify On Call Medical Service and AHHNM** [redacted]

and NM/NUM and Clinical Nurse Consultant

Infection Prevention & Communicable Diseases