Policy Objective

To ensure that Healthcare Workers (HCWs) are aware of the actions and precautions necessary to minimise the risk of cross-infection and the importance of diagnosing patients’ clinical conditions promptly.

This policy applies to all staff employed by NHS Greater Glasgow & Clyde and locum staff on fixed term contracts.

KEY CHANGES FROM THE PREVIOUS VERSION OF THIS POLICY

- Updated reference list

Document Control Summary

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<tr>
<th>Approved by and date</th>
<th>Board Infection Control Committee 28th November 2016</th>
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<tr>
<td>Date of Publication</td>
<td>28th November 2016</td>
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<tr>
<td>Developed by</td>
<td>Infection Prevention and Control Policy Sub-Group</td>
</tr>
<tr>
<td>Related Documents</td>
<td>National IPC Manual</td>
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<td></td>
<td>NHSGGC Hand Hygiene Policy</td>
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<td></td>
<td>NHSGGC SOP Cleaning of Near Patient Equipment</td>
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<td></td>
<td>NHSGGC SOP Twice Daily Clean of Isolation Rooms</td>
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<td>NHSGGC SOP Terminal Clean of Isolation Rooms</td>
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<td></td>
<td>NHSGGC SOP Last Offices</td>
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<tr>
<td>Implications of Race Equality and other diversity duties for this document</td>
<td>This policy must be implemented fairly and without prejudice whether on the grounds of race, gender, disability, sexual orientation or religion.</td>
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<tr>
<td>Lead Manager</td>
<td>Board Infection Control Manager</td>
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<tr>
<td>Responsible Director</td>
<td>Board Medical Director</td>
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The most up-to-date version of this policy can be viewed at the following website: [www.nhsggc.org.uk/your-health/infection-prevention-and-control/](http://www.nhsggc.org.uk/your-health/infection-prevention-and-control/)
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1. Responsibilities

Healthcare Workers (HCWs) must:

- Follow this policy.
- Inform a member of the Infection Prevention and Control Team (IPCT) if this policy cannot be followed.
- Communicate with patients and relatives.
- Notify the Public Health Protection Unit (PHPU) of probable and confirmed cases.

Managers must:

- Support HCWs and Infection Prevention and Control Teams (IPCTs) in following this policy.
- Alert Occupational Health Service (OHS) to any staff exposure.

Infection Prevention and Control Teams (IPCTs) must:

- Keep this policy up-to-date.
- Provide education opportunities on this policy.

Public Health Protection Unit (PHPU) must:

- Identify, risk assess and give advice on treatment of non-staff contacts.
- Provide advice and guidance to OHS, and where necessary, work with OHS to risk assess staff contacts.

Occupational Health Service (OHS):

- Will provide advice to HCWs following possible exposure.
- Where necessary, work with PHPU to support risk assessment and treatment of staff contacts.

The most up-to-date version of this policy can be viewed at the following website:
www.nhsggc.org.uk/your-health/infection-prevention-and-control/
2. General Information on Patients with Meningococcal Disease

**Agent**  
*Neisseria meningitidis* (meningococcus) is a gram-negative diplococcus divided into several serogroups. There are 12 identified capsular groups of which Group B, C, W and Y are historically the most common in the UK.

In the UK since the introduction of the Men C vaccine, the majority of cases are now caused by Group B. Carriage of this bacterium in the human nasopharynx is relatively common.

Serology is determinable in approximately 50-60% of cases. Of these, the vast majority (approximately 90%) are Group B.

**Clinical Condition**  
Meningococcal disease caused by *Neisseria meningitidis* can cause a range of illnesses but most commonly presents as septicaemia, meningitis or both.

**Mode of Spread**  
Person-to-person spread by droplet secretions from the respiratory tract. Transmission from the environment is considered insignificant.

**Incubation Period**  
2-10 days, commonly 3-5 days.

**Notifiable Disease**  
Probable and confirmed cases should be notified by medical staff by telephone to the Public Health Protection Unit (PHPU) 0141 201 4917.

**Confirmed case:**  
Clinical diagnosis of meningitis, septicaemia or other invasive disease (e.g. orbital cellulitis, septic arthritis)*AND at least 1 of:

- *Neisseria meningitidis* cultured from normally sterile site
- Gram negative diplococci seen in normally sterile site
- Meningococcal PCR seen in normally sterile site
- Meningococcal antigen

* Although not meeting the definition of a confirmed case, meningococcal infection of the conjunctiva is considered an indication for public health action because of the high immediate risk of invasive disease.
### Notifiable Disease (cont/…)

**Probable case:** Clinical diagnosis of meningitis or septicaemia or other invasive disease where the CPHM, in consultation with the physician and microbiologist, considers that meningococcal infection is the most likely diagnosis. Some microbiological tests (e.g. rising antibody levels) that are not considered sufficient to confirm the diagnosis of meningococcal disease may change the case category from ‘possible’ to ‘probable’.

**Out-of-hours:** Notify the on-call PHPU specialist via the hospital switchboard 0141 211 3600.

### Period of Communicability

Long term carriage and infectivity is possible if not treated. Persons with Meningococcal Disease are not infectious after they have received 24-hours of effective antibiotic therapy which also eradicates nasopharyngeal carriage.

### Persons most At Risk

Age-specific attack rates are highest in infants, teenagers and young adults. The highest incidence occurs in winter months.

Risk factors include smoking, passive smoking, preceding influenza A infection, upper respiratory infections and overcrowding.

### In what areas does this policy apply

All areas.
3. Precautions for Patients with suspected and/or confirmed Meningococcal Disease

**Accommodation (Patient Placement)**

Place a patient with suspected Meningococcal Disease into a single room with en suite facilities if available, until a bacterial cause is excluded or 24-hours of antibiotic therapy which also eradicates nasopharyngeal carriage is completed. If the patient is clinically unsuitable for isolation, a risk assessment must be undertaken, by the clinical team in conjunction with a member of the IPCT, and documented in the patient’s notes and IPCT Failure to isolate documentation. If a single room is not available, contact the bed manager in the first instance and if necessary, consult a member of the IPCT.

**Clinical Waste**

Discard all waste (other than sharps and glass) in orange clinical healthcare waste bags kept within the room. Foot operated bins should be used.

**Contacts**

PHPU will advise regarding provision of prophylaxis, vaccination, information and advice to contacts.

*For PROBABLE and CONFIRMED Meningococcal Disease only:*

Most people who develop Meningococcal Disease will have acquired the organism from an asymptomatic individual sometime during the week before they become ill. The aim of public health intervention is to prevent further linked cases, by eradicating the organism from these carriers, and the case, before it causes more illness in susceptible people, and also to prevent follow-on infection to others. Antibiotic prophylaxis is recommended for those who have had close prolonged contact with the case in the *7 days prior to symptoms* developing, irrespective of vaccination status including:

(a) Those who have had *prolonged close contact* with the case in a *household-type setting* during the seven days before onset of illness. Examples of such contacts would be those living and / or sleeping in the same household (including extended household), pupils in the same dormitory, boy / girlfriends, or university students sharing a kitchen in a hall of residence.

(b) Those who have had *transient close contact* with a case *only* if they have been directly exposed to large particle droplets / secretions from the respiratory tract of a case around the time of admission to hospital.

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**Contacts (cont/...)**

- The case should also receive chemoprophylaxis, unless already treated with ceftriaxone.
- In an outbreak or cluster, chemoprophylaxis for persons other than in the high-risk groups may be recommended by the CPHM.

Those with prolonged contact in childcare, nursery or school for several hours a day may be considered contacts and a risk assessment will be carried out by PHPU. The parents will be provided with a letter from NHSGGC informing them of the risk and the symptoms to look out for. Paediatric Hospitals / Units contacts of the case are risk assessed by PHPU, and resident parents / carers should be prescribed chemoprophylaxis by the patient’s clinician or via the GP. All contacts who receive chemoprophylaxis and their GPs are sent information by letter from PHPU. Schools, nurseries, colleges and universities receive information by letter as required.

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<tr>
<th>Crockery / Cutlery</th>
<th>No special precautions.</th>
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**Domestic Advice**

Advise Domestic Assistants / General Service Assistants to clean isolation room following the SOP Twice Daily Clean of Isolation Rooms.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Only take into the room that which is necessary. Prior to removal from the room decontaminate any re-usable equipment with chlorine based detergent and disposable cloth, twice daily.</th>
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<tr>
<th>Exposures</th>
<th>Prevent further cases by using Standard Infection Control Precautions (SICPs) and Transmission Based Precautions (TBPs) while the patient remains in isolation.</th>
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<tr>
<th>Hand Hygiene</th>
<th>Hand hygiene is the single most important means of preventing cross-infection. Hands must be decontaminated before and after each direct patient contact, and after contact with the environment regardless of whether PPE is worn. Alcohol hand rub / gel is acceptable if hands are visibly clean however if hands are soiled, soap and water must be used.</th>
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<tr>
<th>Last Offices</th>
<th>See SOP Last Offices.</th>
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<tr>
<th>Linen</th>
<th>Discard laundry as fouled / infected, i.e. in a water soluble bag then clear bag then into a laundry bag.</th>
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</table>
### Moving between wards, hospitals and departments (including theatres)
- Prior to transfer, inform any receiving ward that the patient has suspected meningococcal disease and if appropriate specimens have been taken.
- Prior to transfer, ensure the ward receiving the patient has suitable accommodation.

### Notice for Door
Yes while isolated.

### Outbreak
Cross-infection in hospitals is not likely when SICPs and TBPs are used, Community outbreaks are sporadic.

### Patient Clothing
**Home Laundering** If relatives or carers wish to take personal clothing home, staff must place soiled clothing into a domestic water soluble bag and staff must ensure that a [Home Laundry Information Leaflet](#) is issued and documented in patient notes.

### Personal Protective Equipment (PPE)
To prevent exposure, PPE (disposable gloves and yellow disposable aprons) must be worn for all direct contact with the patient until at least 24-hours after commencement of appropriate IV antibiotic therapy.

Appropriate PPE, as per [National SICPs Policy](#), should be worn for the protection of staff.

Before 24-hours of appropriate antibiotics have been completed, the highest risk of transmission to HCWs is by exposure to respiratory secretions.. A surgical mask/visor is recommended if a risk of spray of blood or body fluid is anticipated. For AGPs a well fitting FFP3 should be worn.

Appropriate PPE, as per [National SICPs Policy](#), should be worn for the protection of staff.

### Patient information
Provide information on meningococcal disease to the patient / parent / guardian / next-of-kin as appropriate and document in the notes.

### Precautions Required
Until 24-hours after appropriate antibiotic therapy or meningococcal disease is no longer considered to be a diagnosis. See [Accommodation](#).

### Procedure Restrictions
None. See [Moving Patients Between Wards and Hospitals](#).
**Risk assessment required**
When a suspected meningococcal case has been notified to the IPCT, if required, a visit to the area will be arranged to assess the risks to staff, patients and visitors.

**Specimens**

<table>
<thead>
<tr>
<th>Specimen</th>
<th>Test</th>
<th>Details</th>
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<tbody>
<tr>
<td>Blood Culture</td>
<td>Culture for Bacteria</td>
<td>Carried out as soon as possible and ideally before antibiotics are given.</td>
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<tr>
<td>CSF if meningitis suspected</td>
<td>Microscopy culture for bacteria</td>
<td>After stabilisation and assessment to rule out raised intracranial pressure.</td>
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<tr>
<td></td>
<td>Biochemistry</td>
<td>A normal CSF does not exclude the diagnosis of meningitis or encephalitis.</td>
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<tr>
<td></td>
<td>PCR</td>
<td>PCR may detect the organism when culture is negative.</td>
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<tr>
<td>Blood sample (EDTA)</td>
<td>Meningococcal PCR culture</td>
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<tr>
<td>Throat Swab</td>
<td>Meningococcal PCR culture</td>
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**Terminal Cleaning of Room**
Clean all surfaces and underneath surfaces with chlorine based detergent and a disposable cloth. See SOP Terminal Clean of Isolation Rooms.

**Vaccination**
PHPU will advise on the management of close contacts of cases due to vaccine preventable strains of *Neisseria meningitidis* who received chemoprophylaxis. They should be offered an appropriate vaccine once diagnosis has been confirmed and up to 4 weeks after illness onset. For further information see Guidance for the public health management of meningococcal disease in the UK (2012).

**Visitors Paediatric Hospitals / Units**
Only parents / designated guardians may visit whilst in isolation.

**Visitors Adult Hospital**
Close family members/ household contacts only when patient is in isolation.
4. Evidence Base

HPA - Guidance for the public health management of meningococcal disease in the UK. (2012)


Siegel JD, Rhinehart E, Jackson M, Chiarello L. Guidelines for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings 2007. Atlanta, GA: Centers for Disease Control and Prevention: 2007, Available at:

http://www.cdc.gov/vaccines/pubs/pinkbook/mening.html


http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5945a2.htm?s_cid=mm5945a2_w Accessed September 2, 2011.