SOP 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 SOP 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 SOP

- Updated reference list
- Updated wording in section 3: clinical waste, linen, hand hygiene,
- Removal of procedure restrictions, Risk Assessment, Vaccinations in section 3

Document Control Summary

<table>
<thead>
<tr>
<th>Approved by and date</th>
<th>Board Infection Control Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Publication</td>
<td>28th November 2018</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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<tr>
<td></td>
<td>NHSGGC Hand Hygiene SOP</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 and ward</td>
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<tr>
<td>Lead Manager</td>
<td>Board Infection Control Manager</td>
</tr>
<tr>
<td>Responsible Director</td>
<td>Board Medical Director</td>
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</tbody>
</table>

The most up-to-date version of this SOP can be viewed at the following: www.nhsggc.org.uk/your-health/infection-prevention-and-control/
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1. Responsibilities

**Healthcare Workers (HCWs) must:**

- Follow this SOP.
- Inform a member of the Infection Prevention and Control Team (IPCT) if this SOP cannot be followed.
- 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 SOP.
- Alert Occupational Health Service (OHS) to any staff exposure.

**Infection Prevention and Control Teams (IPCTs) must:**

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

**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) must:**

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

Carriage of this bacterium in the human nasopharynx is relatively common. Vaccination against groups B, C and ACWY is now included in the UK routine vaccination schedule.

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 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*
### Meningococcal 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

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<table>
<thead>
<tr>
<th><strong>Period of Communicability</strong></th>
<th>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.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Persons most At Risk</strong></th>
<th>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.</th>
</tr>
</thead>
</table>

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<thead>
<tr>
<th><strong>In what areas does this SOP apply</strong></th>
<th>All areas.</th>
</tr>
</thead>
</table>
3. Precautions for Patients with suspected and/or confirmed Meningococcal Disease

<table>
<thead>
<tr>
<th>Accommodation (Patient Placement)</th>
<th>Place a patient with suspected Meningococcal Disease into a single room with en suite facilities if available, until a bacterial cause is excluded or following 24-hours of appropriate antibiotic therapy. 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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Waste</td>
<td>All non-sharps waste should be designated as clinical healthcare waste and placed in an orange bag. See NHS GGC Waste Management Policy.</td>
</tr>
<tr>
<td>Contacts</td>
<td>PHPU will advise regarding provision of prophylaxis, vaccination, information and advice to contacts.</td>
</tr>
</tbody>
</table>

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.
**Meningococcal Disease**

The most up-to-date version of this SOP can be viewed at the following website:


to hospital.
### Contacts (cont/…)
- The case should also receive chemoprophylaxis, unless already treated with IV or IM cephalosporin.
- 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.

### Domestic Advice
Domestic staff must follow the NHS GGC SOP for Twice daily Clean of Isolation Rooms while transmission based precautions are required. Cleans should be undertaken at least four hours apart.

### Equipment
Only take into the room that which is necessary. Where practical allocate individual equipment and decontaminate as per NHS GGC Decontamination SOP. Please refer to NHS GGC Decontamination SOP.

### Exposures
Prevent further cases by using Standard Infection Control Precautions (SICPs) and Transmission Based Precautions (TBPs) while the patient remains in isolation.

### Hand Hygiene
Hand hygiene is the single most important measure to prevent cross-infection with Meningococcal. Hands must be decontaminated before and after each direct patient contact, after contact with the environment, after exposure to body fluids and before any aseptic tasks. Patients should be encouraged to carry out thorough hand hygiene.

Please refer to NHSGGC Hand Hygiene SOP

### Last Offices
See National guidance for Last Offices

### Linen
Treat used linen as soiled/ infected, i.e. place in a water soluble bag, then a secondary bag, tied and then into a laundry bag. (Brown polythene bag used in Mental Health areas)
**Meningococcal Disease**

Please refer to National Guidance on the safe management of linen

| 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. |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Notice for Door</td>
<td>Yes, yellow IPC isolation sign</td>
</tr>
<tr>
<td>Patient Clothing</td>
<td><strong>Home Laundering</strong> 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 <a href="#">Washing clothes at Home Leaflet</a> is issued and documented in patient notes.</td>
</tr>
<tr>
<td>Personal Protective Equipment (PPE)</td>
<td>Before 24-hours of appropriate antibiotics have been completed, the highest risk of transmission to HCWs is by exposure to respiratory secretions. A fluid-repellent 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 <a href="#">National SICPs Policy</a>, should be worn for the protection of staff.</td>
</tr>
<tr>
<td>Patient information</td>
<td>Provide information on meningococcal disease to the patient / parent / guardian / next-of-kin as appropriate and document in the notes.</td>
</tr>
<tr>
<td>Precautions Required</td>
<td>Until 24-hours after appropriate antibiotic therapy or meningococcal disease is no longer considered to be a diagnosis. See <a href="#">Accommodation</a>.</td>
</tr>
</tbody>
</table>

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### Meningococcal Disease

The most up-to-date version of this SOP can be viewed at the following website:

<table>
<thead>
<tr>
<th>Specimens</th>
<th>Blood Culture</th>
<th>Culture for Bacteria</th>
<th>Carried out as soon as possible and ideally before antibiotics are given.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CSF</strong></td>
<td>Microscopy</td>
<td>Culture for bacteria</td>
<td>After stabilisation and assessment to rule out raised intracranial pressure.</td>
</tr>
<tr>
<td>if meningitis</td>
<td>culture</td>
<td>Biochemistry</td>
<td>A normal CSF does not exclude the diagnosis of meningitis or encephalitis.</td>
</tr>
<tr>
<td>suspected</td>
<td>PCR</td>
<td></td>
<td>PCR may detect the organism when culture is negative.</td>
</tr>
<tr>
<td><strong>Blood sample</strong></td>
<td>Meningococcal</td>
<td>PCR culture</td>
<td></td>
</tr>
<tr>
<td>(EDTA)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Throat Swab</strong></td>
<td>Meningococcal</td>
<td>PCR culture</td>
<td>Should be taken in all suspected cases</td>
</tr>
</tbody>
</table>

### 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 and Ward](http://www.nhsggc.org.uk/your-health/infection-prevention-and-control/).

### 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

PHE - Guidance for the public health management of meningococcal disease in the UK. (2018)


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www.nhsggc.org.uk/your-health/infection-prevention-and-control/
Appendix 1: Meningococcal Disease Aide Memoire

Consult SOP and isolate in a single room with:
- ensuite / own commode
- door closed
- IPC yellow sign on door
- dedicated equipment
- Care Checklist completed Daily

Patient Assessed Daily

Patient has completed 24 hours of antibiotic therapy

YES
- Stop isolation
- undertake terminal clean of room

NO

SOP - Guidelines for patients in isolation:
- **Hand Hygiene**: Liquid Soap and Water
- **PPE**: Disposable gloves and yellow apron, fluid-repellent surgical mask/face protection should be considered where there is a risk of spray/splash. FFP3 mask for Aerosol Generating Procedures (AGPs)
- **Patient Environment**: Twice daily chlorine clean
- **Patient Equipment**: Twice daily chlorine clean
- **Laundry**: Treat as infected
- **Waste**: Dispose of as Clinical / Healthcare waste

Incubation Period: **2 – 10 days**

Period of Communicability: Long term carriage is possible, not infectious after 24 hours of antibiotic therapy

Notifiable disease: Yes

Transmission route: droplet.