SOP Objective
To ensure that Healthcare Workers (HCWs) are aware of the actions and precautions necessary to minimise the risk of outbreaks 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 and volunteer staff.

KEY CHANGES FROM THE PREVIOUS VERSION OF THIS SOP
• Updated wording in Section 1. Responsibilities,
• Updated wording in Section 2. General Information on Measles
• Updated wording in Section 3. Transmission Based precautions for Patients with Measles
• Updated references in Section 4. Evidence Base

Document Control Summary

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<th>Approved by and date</th>
<th>Board Infection Control Committee 23rd May 2016</th>
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<td>Date of Publication</td>
<td>23rd May 2016</td>
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<tr>
<td>Developed by</td>
<td>Infection Control Policy/SOP Sub-Group</td>
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<td>Related Documents</td>
<td>National IPC Manual</td>
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<td>NHSGGC Hand Hygiene Policy</td>
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Implications of Race Equality and other diversity duties for this document
This SOP must be implemented fairly and without prejudice whether on the grounds of race, gender, sexual orientation or religion.

Lead Manager | Board Infection Control Manager
Responsible Director | Board Medical Director
The most up-to-date version of this policy can be viewed at the following website:

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1. Responsibilities

**Healthcare Workers (HCWs) must:**
- Follow this SOP.
- Inform their line manager if this SOP cannot be followed.

**Clinicians must:**
- Notify NHSGGC Public Health Protection Unit (PHPU) if they diagnose a clinical case of Measles.

**Microbiologists must:**
- Laboratory staff must notify NHSGGC PHPU if they make a laboratory diagnosis of Measles.

**Senior Charge Nurses (SCN) / Managers must:**
- Support HCWs and Infection Control Teams (ICTs) in following this SOP.
- Advise HCWs to contact the Occupational Health Service (OHS) as necessary.

**Infection Prevention and Control Teams (IPCTs) must:**
- Keep this SOP up-to-date.
- Provide education opportunities on this SOP.

**OHS must:**
- Advise HCW regarding immune status, possible infection exposure and return to work issues as necessary.

The most up-to-date version of this policy can be viewed at the following website:
2. General information on Measles

<table>
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<tr>
<th>Communicable Disease/Alert Organism</th>
<th>Measles caused by the measles virus – an enveloped virus.</th>
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<tbody>
<tr>
<td>Clinical Condition</td>
<td>A respiratory disease caused by the measles virus. It is an acute disease which causes fever, cough, coryza, conjunctivitis, diarrhoea, erythematous maculopapular rash and spots (Koplik spots) on the buccal mucosa and is highly infectious. The spots usually appear before the rash. Symptoms first appear 10-12 days after exposure to the virus. Usually symptoms start as fever, then runny nose, cough and/or conjunctivitis (pink eye). A rash appears starting from the face and neck, any time between day 3 and day 7 after symptoms start. Within 3 days the rash then spreads downwards and out to the hands and feet. It lasts about 4-7 days. The disease can be more severe in infants and adults than children with as many as 20% having complications, especially in those &lt; 5 and &gt; 20 years of age. Complications include otitis media, viral pneumonia, croup, rarely encephalitis and (later) subacute sclerosing panencephalitis. Secondary bacterial infections, such as pneumonia, can also occur. Infections can be life-threatening in the immunosuppressed. If a clinical case of measles is suspected, clinicians should seek advice from a paediatric/ adult ID physician.</td>
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<tr>
<td>Incubation period</td>
<td>7 – 18 days.</td>
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<tr>
<td>Mode of Spread</td>
<td><strong>Airborne</strong> and <strong>Droplet transmission</strong> – The virus can be inhaled directly into the airways. Droplets are dispersed in the air when the patient coughs, sneezes or talks. Droplets from an infected person may land on the mucous membranes of the eyes, nose or mouth of a susceptible person. <strong>Direct contact</strong> – hands touching a contaminated surface then touching the mucous membranes of the eyes, nose or mouth of a susceptible person. <strong>Indirect contact</strong> – a contaminated object having contact with the mucous membranes. <em>The virus can survive on inanimate surfaces for several hours and can be transmitted via the hands from these</em></td>
</tr>
</tbody>
</table>

The most up-to-date version of this policy can be viewed at the following website: [www.nhsggc.org.uk/your-health/public-health/infection-prevention-and-control/](http://www.nhsggc.org.uk/your-health/public-health/infection-prevention-and-control/)
# Measles Transmission Based Precautions

<table>
<thead>
<tr>
<th><strong>Notifiable disease</strong></th>
<th>Yes. Cases should be notified by medical staff to: PHPU, Consultant in Public Health Medicine (CPHM) via switchboard - Gartnavel Royal Hospital, West House, 1055 Great Western Road, Glasgow, G12 0XH.</th>
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</thead>
<tbody>
<tr>
<td><strong>Period of communicability</strong></td>
<td>Five days before the onset of the rash until 4 days after. Immunocompromised patients may have prolonged excretion of the virus in respiratory secretions and can be infectious for the duration of the illness. Patients with subacute sclerosing panencephalitis (SSPE) are not infectious.</td>
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<tr>
<td><strong>Persons most at risk</strong></td>
<td>Anyone who has not had measles or 2 doses of MMR vaccination, including children less than 12 months old. The risk of complications resulting from measles is high among infants younger than 1 year of age. Therefore consideration should be given to vaccination of infants as young as 6 months if given within 72 hours of exposure. Immunocompromised patients and pregnant woman, exposed to Measles, should also be reviewed to determine level of exposure and immunity. Staff, who have been exposed and are uncertain of their immunity status, should speak to occupational Health and/or their own GP if concerned.</td>
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</table>
3. Transmission Based Precautions for patients with Measles

**Accommodation (Patient Placement)**
Patients must be nursed in a single room, preferably with en suite facilities and negative pressure ventilation until 4 days after the onset of the rash.

Only staff who have previously had measles or who have demonstrated immunity should care for patients with measles. Staff, who have been exposed and are unsure of their immunity status, should contact Occupational Health and/or their own GP.

**Clinical / Healthcare Waste**
All non-sharps waste from patients with Measles should be designated as clinical healthcare waste and placed in an orange bag. See NHS GGC Waste Management Policy.

**Contacts**
There is no specific treatment for measles. Human immunoglobulin can be used to prevent or reduce the severity of measles and is most effective if given within 72 hours.

**Crockery / Cutlery**
No special precautions.

**Domestic Services / Facilities**
Only staff who have had measles or who have demonstrated immunity to measles should enter the room to provide domestic services. Staff, who have been exposed and are unsure of their own immunity status, should contact Occupational Health and/or their own GP.

Please refer to NHSGGC SOP Twice Daily Clean of Isolation Rooms:

**Equipment**
Take only into the room that which is necessary. Where possible, patient equipment should be allocated to the patient for as long as they remain infectious. Dedicated equipment must be kept clean using a chlorine based detergent and then dried thoroughly. Please refer to NHSGGC Decontamination SOP.

**Exposure (staff)**
Prevent exposure by allowing only HCWs who are immune to measles to care for patients during the infectious period using Standard Precautions and Transmission Based Precautions. Refer to NHSGGC Occupational Related Illnesses SOP.

Pregnant staff or staff who have been exposed and are unsure of their immunity status should contact Occupational Health and/or their own GP for advice as soon as possible.
Exposure (patients) | Seek advice from an Infection Specialist. Contact Gartnavel General Hospital or the on-call consultant in paediatric infectious diseases at Yorkhill Hospital via switchboard. Children less than 12 months old, immunocompromised patients and pregnant contacts should be assessed for administration of post exposure prophylaxis (PEP) with human normal immunoglobulin (HNIG) [http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1238565307587](http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1238565307587)

Hand Hygiene | Measles can be transmitted by contact touching. Hands must be decontaminated before and after each direct patient contact, after contact with the environment, after exposure to body fluids, e.g. respiratory droplets, and before any aseptic tasks. Patients should be encouraged to carry out thorough hand hygiene. Please refer to [NHSGGC Hand Hygiene Policy](http://www.nhsggc.org.uk)

Last Offices | See [Standard Operating Procedure for Last Offices](http://www.nhsggc.org.uk).

Linen | Discard linen as fouled/ infected, i.e. in an alginate bag then a clear bag tied and then into a laundry bag. Please refer to [NHSGGC Laundry Policy](http://www.nhsggc.org.uk).

Marking Notes | Not required.

Moving between wards, hospitals and departments (including theatres) | Patient movement should be kept to a minimum. Prior to transfer HCWs from the ward where the patient is located must inform the receiving ward, theatre or department of the patient’s infectious condition. When patients need to attend other departments the receiving area should put in place arrangements to minimise contact with other patients and arrange for additional domestic cleaning if required.

Notice for Door | Yes.

Outbreak | Outbreaks in hospitals are not likely due to herd immunity. Community outbreaks are sporadic. In the rare event that an outbreak is suspected, contact a member of the IPCT/on-call
**Personal Protective Equipment (PPE)**

To prevent spread of this virus through direct contact PPE (disposable gloves and aprons) must be worn for all direct contact with the patient or the patient’s environment/equipment during the infectious period.

If there is a risk of splashing/spraying blood or body fluid wear surgical face mask. If staff undertake and Aerosol Generating Procedure a fit tested FFP3 mask is recommended

**Precautions required until**

Transmission Based Precautions are required until 4 days after the onset of the rash.

**Screening on Admission**

All patients should be assessed for infectious diseases on admission. If a patient presents with an unexplained rash, TBP should be implemented until infection is ruled out.

**Screening staff**

Because of the 7-18 day incubation period, there is no reason for immediate absence from work.

Pregnant staff or staff who have been exposed and are unsure about their immune status should contact OHS or their GP for advice as soon as possible

**Specimens required**

Throat swab in viral medium

**Specimens – Mark as “Danger of Infection”**

Not required.

**Terminal Cleaning of Room**

See SOP Terminal Cleaning of Isolation Rooms.

**Visitors**

Clinical staff should explain the risk of Measles exposure to visitors.

A history of measles or 2 doses of MMR immunisation is considered evidence of immunity. Close contacts of the patient who are not immune could potentially be incubating the infection and should be advised against visiting. Contact the IPCT for advice.
4. Evidence Base

Health Protection Agency (2014) Guidelines on Measles

Health Protection Network: Guideline for the Control of Measles Incidents and Outbreaks in Scotland (2014)
