SOP Objective

To ensure all relevant clinical staff are aware of the risks associated with Respiratory Tract Infections including H1N1

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

- Add word ‘seasonal’ to title
- Change to wording in all sections
- Removal of Appendix 1
- Addition responsibilities for staff flu vaccination
- Changes made to section 1 Responsibilities: OHS

Document Control Summary

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<tr>
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<td>National Infection prevention and Control Manual</td>
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<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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<tr>
<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>Lead Manager</td>
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<td>Responsible Director</td>
<td>Board Medical Director</td>
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The most up-to-date version of this SOP can be viewed at the following website:
www.nhsggc.org.uk/your-health/infection-prevention-and-control/
CONTENTS

1. Responsibilities .................................................................................................. 3
2. Influenza ............................................................................................................ 4
3. Symptoms of Influenza ....................................................................................... 4
4. Routes of Transmission ...................................................................................... 5
5. Aerosol Generating Procedures (AGPs) .............................................................. 6
6. Testing for Influenza ........................................................................................... 6
7. Limiting the Spread of Influenza ......................................................................... 7
8. Evidence Base .................................................................................................... Error! Bookmark not defined.
1. Responsibilities:

**Healthcare Workers (HCWs) must:**

- Follow this policy.
- Inform a member of the Infection Prevention Control Team (IPCT) if this SOP cannot be followed.
- Must ensure care checklists are implemented and up to date.

**Senior Charge Nurses (SCNs) / Managers must:**

- Support HCWs and IPCTs in following this policy.
- Cascade new policies to clinical staff after approval by the Board Infection Control Committee (BICC).
- Ensure HCW are aware how to use respiratory protection and have access to appropriate PPE including fit testing for FFP3 masks.
- Provide staff the opportunity to receive the staff flu vaccination each year

**IPCTs must:**

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

**OHS**

- Public Health and OHS will plan and promote the uptake of staff seasonal flu vaccination
- OHS will provide opportunity for staff to receive their flu vaccination during working hours
Influenza

Infections with a particular strain of influenza (type A or B) occur every year and are referred to as seasonal influenza. Pandemic influenza occurs when a new influenza sub-type appears that is different to previous sub-types and can:

- infect humans
- spread effectively from human to human
- causes significant clinical illness in a high proportion of those who acquire the virus

Primary strategies for preventing influenza are:

- **VACCINATION** - the most effective way of preventing the spread of influenza
- early detection and treatment
- standard infection control precautions and transmission based precautions followed, to prevent transmission during patient care

2. Symptoms of Influenza

Influenza is a respiratory illness characterised by coryzal symptoms including fever, cough, headache, sore throat and aching muscles and joints. There is a wide spectrum of illness ranging from minor symptoms through to pneumonia and death. The most common complications of influenza are bronchitis and secondary bacterial pneumonia.

The typical incubation period for non-pandemic influenza is one to four days, with an average of two to three days. Adults can be infectious from the day before symptoms begin to approximately five days after illness onset. Children can be infectious for seven or more days, and young children can shed virus for several days before their illness onset. Severely immunocompromised persons can shed virus for weeks or months.

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Routes of Transmission

There are three main routes of transmissions:

i. **Droplet Transmission**

Large droplets (greater than 5 microns in size) may be generated from a person with clinical disease during coughing or sneezing and may land directly on the conjunctiva, or mucous membranes of the nose and mouth of a susceptible person. Large droplets are heavy and do not remain suspended in the air for long periods of time and only travel for up to 1 metre, so close contact is required for transmission.

ii. **Direct / Indirect Contact Transmission**

Direct contact transmission is when the virus is spread person to person either by contact with the infectious person skin or droplet transmission, e.g. symptomatic patient to a HCW, from a sneeze or cough directly onto the nose or mouth.

Indirect contact transmission is the transfer of an infectious agent through a contaminated intermediate object or person, e.g. from a contaminated surface, bed table, to the hands of another person who then transfers the virus to their nose, mouth or eyes. Influenza virus is known to survive well in the environment; up to 24 hours.

iii. **By the Airborne Route during and after Aerosol Generating Procedures (AGPs)**

Transmission may occur at short distances through inhalation of small particle aerosols which are produced during Aerosol Generating Procedures (AGPs). (See section 5 below)

Smaller droplets or aerosol produced during these types of procedures can be inhaled and cause infection. They may also remain in the air for a prolonged period and travel over distances.
3. Aerosol Generating Procedures (AGPs)

Healthcare staff that perform AGPs on patients with confirmed or suspected influenza should don additional protective clothing (see Section 7E Personal Protective Equipment).

Where possible, AGPs should be avoided or alternative methods considered. Only essential staff should be present.

**Aerosol Generating Procedures (AGPs) are defined as:**

- Intubation, extubation and related procedures, for example manual ventilation and open suctioning
- Cardiopulmonary resuscitation.
- Bronchoscopy.
- Surgery and post mortem procedures in which high-speed devices are used.
- Some Dental procedures (e.g. drilling)
- Non Invasive Ventilation (NIV) e.g. Bilevel Positive Airway Pressure Ventilation (BiPAP) and Continuous Positive Airway Pressure Ventilation (CPAP).
- High Frequency Oscillatory Ventilation (HFOV).
- Induction of sputum (not including chest physiotherapy)

4. Testing for Influenza

- Patients who present to hospital with flu-like illness should be tested if clinically relevant.
- Repeat testing to confirm clearance of influenza is not required.

**Anti-viral Prescribing for patients with flu-like illness**

_Treatment and prophylaxis_

Please contact microbiologist, infectious disease consultant or virologist to obtain advice regarding treatment of suspected or known cases of influenza and / or prophylaxis of specific vulnerable groups. The most up-to-date information on treatment issued by the Scottish Government Health Directorates (SGHD) can be viewed at [http://www.hps.scot.nhs.uk/resp/guidelinedetail.aspx?id=53562](http://www.hps.scot.nhs.uk/resp/guidelinedetail.aspx?id=53562).
5. Limiting the Spread of Influenza

A. Patient Placement

- All patients with confirmed or suspected influenza should be nursed in a single room with en suite facilities. If a single room is not available staff must contact a member of the local IPCT for further advice.
- A yellow IPC isolation sign should be clearly visible on the door.
- Patients should be considered infectious until 48 hours after coryzal symptoms have resolved.
- Patients who are diagnosed as having influenza but are asymptomatic are unlikely to spread the virus and can be regarded as non-infectious.
- PCR tests can remain positive for considerable periods and should not be used to determine infectivity.
- Patients with underlying medical conditions or patients who have gone on to develop a secondary complication as a result of infection should be considered infectious until they return to their previous health state.
- Patients with prolonged illness or complications should be assessed by clinical staff and the IPCT, and isolation precautions discontinued if deemed appropriate. Patients who fall into this category must be assessed individually.

B. Patient Movement / Inter-Hospital Transfers

Influenza patients who are still infectious must not leave the area unless there is an urgent clinical need. If patient has to leave the single room while symptomatic, they should wear a surgical mask if possible to minimise the dispersal of respiratory secretions and prevent environmental contamination. The surgical mask should be worn until the patient is returned to the single room / cohort area. On removal of the mask, the patient should be offered the opportunity to undertake hand hygiene.

If a patient requires transfer to another department the following procedures must be followed:

- The department must be informed in advance.
- HCWs transporting the patient do not need to wear a mask.
- The patient must be taken straight to and returned from the department and must not wait in a communal area.
- If possible patients should be placed at the end of a list, to allow appropriate decontamination after any procedure.
• If the patient requires oxygen via a mask, then the patient need not wear the surgical mask however, if nasal prongs are used to deliver oxygen then the patient should also wear a surgical mask over the prongs.

Hospital Transfers

Patients must not be transferred from one hospital to another for routine care however some patients may require specialist care, e.g. renal dialysis. If a patient has to be transferred this MUST be discussed with the local IPCT who will alert the IPCT at the receiving hospital. It will be the responsibility of the clinical area that the patient is being discharged from to alert the Scottish Ambulance Service.

C. Visitor Restrictions

• Visiting in hospital should be restricted to 1-2 visitors only in order to reduce the risk of influenza transmission to visitors. Only close relations or a partner should be allowed to visit.
• All visitors must be free of flu-like symptoms, however in exceptional circumstances, e.g. when a patient is critically ill, then advice should be sought from the IPCT and a risk assessment will be undertaken.
• Visitors must speak to a member of staff and be instructed on hand hygiene practice and the wearing of protective clothing as appropriate prior to visiting the patient, such as a surgical mask, apron and gloves.
• Visitors to patients ventilated with NIV or HFOV may be exposed to potentially infectious aerosols. The number of such visitors should be limited to two unless there are exceptional circumstances. Visitors should be made aware of the risks and be offered PPE as recommended for staff.

D. Hand Hygiene

Hand hygiene remains the single most important measure to take against the spread of influenza. Effective hand hygiene with plain liquid soap and running water or alcohol based hand rub on visibly clean hands is effective.

E. Personal Protective Equipment (PPE)

PPE is worn to protect staff from body fluids to reduce the risk of transmission of influenza between patients and staff and from one patient to another. The level of PPE used will vary based on the procedures being carried out and not all items of PPE will always be required. Appropriate PPE for care of patients who are suspected or confirmed to have influenza is summarised in Table 2.
**Table 2**

<table>
<thead>
<tr>
<th>PPE</th>
<th>Close patient contact (&lt; 1 metre)</th>
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<tr>
<td>Eye Protection</td>
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**MASKS**

Surgical masks should be worn by HCWs for contact with patients suspected or known to have influenza. The mask provides a physical barrier which becomes ineffective once wet. As masks themselves may become a reservoir for the virus great care should be taken during their removal and disposal.

**When to remove the mask**

If visiting a number of patients within a clinic or A&E department, it is acceptable to wear the same mask and change it at the end of the session, and if it gets wet. Great care must be taken not to contaminate the hands during this time by touching the mask. HCW/Visitors must removal all PPE before leaving a patient care area (single room/ cohort area), surgical masks or FFP3 respirators should be removed last. **Hand hygiene must be performed after removal of all PPE.**

**When to wear an FFP3 Mask**

FFP3 masks should be worn only by those staff carrying out AGPs. To be effective, individual users must be trained to fit the mask properly to their face.

**F. Decontamination of Patient Equipment**

Where practicable, the patient should be designated their own equipment. See **SOP Cleaning of Near Patient Equipment**

**G. Decontamination of the Environment**

Domestic staff must follow the SOP for Twice Daily Clean of Isolation Rooms. Cleans should be undertaken at least four hours apart. **NHSGGC Twice Daily Clean of Isolation Rooms SOP**

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All frequently touched surfaces should be decontaminated after any AGP using chlorine based detergent. Limit the amount of equipment in the room as far as possible.

H. Clinical/ Healthcare Waste
Waste should be designated as clinical / healthcare waste and placed in an orange bag. Please refer to the NHSGCC Waste Management Policy.

I. Laundry
Discard linen as fouled/ infected, i.e. in a alginate bag then a clear bag tied and then into a laundry bag.
Please refer to National guidance of the safe management of linen

Sending Laundry Home
If relatives or carers wish to take patients clothing home, staff must place clothing into a domestic alginate bag and staff must ensure that a Home Laundry Information Leaflet is issued.

NB Nursing staff in the ward should record in the nursing notes that both the advice and information leaflet has been issued.

J. Respiratory Hygiene / Cough Etiquette (Catch it, Bin it, Kill it)
Patients, staff and visitors should be encouraged to minimise potential influenza transmission by:

- Covering the nose and mouth with disposable single-use tissues when sneezing, coughing, wiping and blowing noses.
- Disposing of used tissues in nearest clinical/ healthcare waste bin, washing hands after coughing, and sneezing using tissues.
- Avoid touching eyes, mouth and nose.

Some patients may need assistance with containment of respiratory secretions, e.g. older people and children. Those who are immobile may need a personal waste bag readily at hand for immediate disposal of tissues. They should also have a supply of hand wipes and tissues.

K. Staff influenza vaccine
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<tr>
<th>NHS GREATER GLASGOW &amp; CLYDE</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTROL OF INFECTION COMMITTEE POLICY</td>
<td>11 of 11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STANDARD OPERATING PROCEDURE (SOP)</th>
<th>Page</th>
</tr>
</thead>
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</tbody>
</table>

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Evidence Base

Health Protection Scotland. General information and infection control precautions to minimise the transmission of Respiratory Tract Infection Infections (RTIs) in the healthcare setting. (2010)

