RESPIRATORY SYNCYTIAL VIRUS (RSV)

SOP Objective

To provide Healthcare Workers (HCWs) with details of the precautions necessary to minimise the risk of RSV cross-infection.

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

- Section on ‘Making Notes’ removed
- Wording to sections on PPE, Precautions Required Until, Screening and Specimens have been updated.
- Wording to Precautions required until and accommodation (patient placement) updated Nov 2017
- Update to Appendix 1

Document Control Summary

<table>
<thead>
<tr>
<th>Approved by and date</th>
<th>Board Infection Control Committee 23rd May 2018</th>
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<tbody>
<tr>
<td>Date of Publication</td>
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<tr>
<td>Developed by</td>
<td>Infection Prevention and Control Policy Sub-Group 0141 201 0326</td>
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</table>
| Related Documents    | National IPC Manual  
                        | NHSGGC Hand Hygiene SOP  
                        | NHSGGC SOP Cleaning of Near Patient Healthcare Equipment |
| Lead Manager         | Board Infection Control Manager                 |
| Responsible Director | Board Medical Director                           |

The most up-to-date version of this SOP 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 policy cannot be followed.

**Managers must:**

- Support HCWs and Infection Prevention and Control Teams (IPCTs) in following this SOP.

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

- Keep this SOP up-to-date.
- Provide education opportunities on this SOP.
- Liaise with laboratory staff when appropriate.

**Laboratory Staff must:**

- Provide diagnostic service appropriate with prevailing epidemic conditions.
- Monitor quality of point of care testing on a daily basis (local policy / procedure may apply) and alert staff in the Short Stay Unit of false positive or negative results.

The most up-to-date version of this SOP can be viewed at the following website: [www.nhsggc.org.uk/your-health/public-health/infection-prevention-and-contol](http://www.nhsggc.org.uk/your-health/public-health/infection-prevention-and-contol)
2. General Information on RSV

| **Communicable Disease / Alert Organism** | Respiratory syncytial virus (RSV). |
| **Clinical Condition** | Infections of the upper and lower respiratory tract (Bronchiolitis/pneumonia) in infants and young children. RSV may also cause upper respiratory tract infections and/or pneumonia in immunocompromised adults. RSV is a common cause of viral pneumonia in the elderly, particularly in nursing home outbreaks. RSV is also a major cause of asthmatic exacerbations and acute respiratory infections in the immunocompromised. |
| **Mode of Spread** | **Respiratory route:** Large particle aerosols (respiratory secretions) shed from the infected person and enter the host via mucous membranes of the eyes, mouth and nose. **Contact route:** Contaminated hands may also transmit the virus from patient-to-patient or equipment to patient. (RSV can survive for up to 30 minutes on hands, two hours on clothing and several hours on inanimate surfaces). |
| **Incubation period** | 2-8 days, but usually 4-6 days. This may be shorter in immunocompromised patients. |
| **Notifiable disease** | No. |
| **Period of communicability** | One or two days before, and for the duration of symptoms, this is usually 7-10 days after the onset of illness. Some older patients may have mild symptoms but continue to pose a risk to more vulnerable patients. |
| **Persons most at risk** | • Children under 2 years.  
• Children who are immunocompromised or who have underlying cardio-respiratory disease, e.g. patients with leukaemia, congenital heart disease and those who were born prematurely.  
• Adults who are immunocompromised.  
• Elderly patients. |
| **In what areas does this policy apply** | All acute paediatric wards and areas caring for high-risk patients (see above).  
Adult wards with severely immunocompromised patients and areas caring for high-risk patients. |
3. Transmission Based Precautions for RSV in High-Risk Areas

<table>
<thead>
<tr>
<th>Category</th>
<th>Action Description</th>
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<tbody>
<tr>
<td>Accommodation (Patient Placement)</td>
<td>Single room with ensuite is preferred but cohort areas can be used when the patients RSV status is known. If a single room is not available, an IPCT risk assessment is completed daily. Stop isolation when patient is 48hrs asymptomatic of respiratory symptoms. (Re-isolation: if patient is ventilated or part of an ongoing incident, seek advice from a consultant microbiologist).</td>
</tr>
<tr>
<td>Clinical Waste</td>
<td>Waste should be designated as clinical / healthcare waste and placed in an orange bag. Please refer to the NHSGGC Waste Management Policy.</td>
</tr>
<tr>
<td>Domestic Advice</td>
<td>Domestic staff must follow the NHSGGC SOP for Twice Daily Clean of Isolation Rooms. Cleans should be undertaken at least four hours apart. Cleaning of the room should also be undertaken following each aerosol generating procedure.</td>
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<tr>
<td>Equipment</td>
<td>Where practicable, the patient must be designated their own equipment. See NHSGGC Decontamination Policy. (Decontamination SOP)</td>
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<tr>
<td>Hand Hygiene</td>
<td>Hands must be decontaminated before and after each direct patient contact, before and after aseptic tasks, after exposure to blood or body fluids and after contact with the environment regardless of whether personal protective equipment (PPE) is worn. Alcohol hand gel is effective if hands are visibly clean. See NHSGGC Hand Hygiene Policy</td>
</tr>
<tr>
<td>Linen</td>
<td>The risk from used linen is minimal however to prevent contamination of the environment and to comply with isolation procedures all used linen should be placed into a water soluble alginate bag then into a clear bag and then into a laundry bag. Bed linen and patient clothing should be changed daily. Please refer to National Guidance on the safe management of linen</td>
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</table>
**Respiratory Syncytial Virus (RSV)**

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

www.nhsggc.org.uk/your-health/public-health/infection-prevention-and-control

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<th><strong>Moving between wards, hospitals and departments (including theatres)</strong></th>
<th>Patients can be transferred between units and departments. Inform the receiving ward before transfer, of the need for transmission based precautions. Staff transferring the patients do not need to wear protective clothing during the transfer but should decontaminate their hands by washing with liquid soap and water or with use of alcohol hand gel once transfer is complete.</th>
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| **Notice for Door** | Yes. Yellow IPC isolation sign. |
| **Patient Clothing** | No special precautions are required unless clothing is soiled. Staff must place soiled clothing into a water soluble bag and staff must ensure that a [Home Laundry Information Leaflet](#) is issued. |
| **Patient Information** | Inform the patient / parent / guardian / next-of-kin (as appropriate) of the patient’s condition and the necessary precautions. Answer any questions and concerns they may have. Provide [RSV information](#) which is available on the IPC website. |
| **Personal Protective Equipment (PPE)** | Aprons should be worn for direct contact with the patient and their immediate surroundings. Gloves should be worn to prevent direct contact with respiratory secretions. Perform hand hygiene before donning and after removing PPE. |

Where there is a risk of splashing of blood and or body fluids, including respiratory secretions, onto the face of the healthcare worker, a fluid repellent surgical mask and eye protection should be considered.

During aerosol generating procedures, appropriate facial protection should be considered, including FFP3 respirator. (See Appendix 1 Risk assessment for routine use of masks as PPE in paediatric patients)

| **Precautions required** | Stop isolation when patient is 48hrs asymptomatic of respiratory |
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<td>until symptoms. (If patient is ventilated or part of an ongoing incident, seek advice from a consultant microbiologist).</td>
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#### Specimens Required

The following specimens can be sent:
- Gargles, throat swabs, NPA and NPS.
- Sputum, endotracheal secretions, BAL good for LRT infection. (BALs, sputums and any mucoid samples will require additional processing by the laboratory prior to testing, with a result available within 24 - 48 hours)
- If a sample is to be processed urgently please contact the West of Scotland Specialist Virology Centre (WoSSVC) on 0141 201 8722/8721 to discuss turn-around-times and delivery of sample.
- Once diagnosed RSV positive DO NOT sent repeat samples for testing, a patient can shed the virus for prolonged periods, as detected by PCR.
- If a patient shows sudden deterioration or no improvement, retesting may be considered. Please contact the WoSSVC to discuss before sending a repeat sample.
- For areas with POCT please follow the SOP on appropriate sample types.

#### Terminal Cleaning of Room

Clean all surfaces and underneath surfaces with chlorine based detergent, warm water and disposable cloth.

See [SOPs Terminal Clean of Isolation Rooms and Twice Daily Clean of Isolation Rooms](#).

#### Visitors

**Paediatrics:** Only parents (or two designated guardians) will be allowed to visit the patient in isolation. Discourage visitors who have colds or other infectious respiratory conditions to visit wards with immunocompromised patients. Children less than two-years old should not be brought to visit a patient with RSV.

**All wards:** Visitors should be discouraged from visiting if they have symptoms of respiratory tract infection.
4. Evidence Base

Madge P., Paton JY., McColl JH & Mackie PL. Prospective controlled study of four infection-control procedures to prevent nosocomial infection with respiratory syncytial virus. Lancet 1992;31 340:1079-83


Goldmann DA. Epidemiology and prevention of pediatric viral respiratory infections in health-care institutions. 2001;7:2  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2631706/
Appendix A. Risk assessment for use of masks as PPE when caring for paediatric patients

The National Infection Prevention and Control Manual Appendix 11, Aide Memoire for respiratory protective equipment (RPE) recommends fluid repellent surgical masks for routine care while there is a risk of droplet spread to mucous membranes of the face. The NIPCM also states that staff must consider an FFP3 respirator based on clinical risk assessment e.g. the task being undertaken, the infectious state of the patient, the presenting symptoms, risk of acquisition and the availability of treatment. If worn, FFP3 respirators should not be removed until 2 hours following an aerosol generating procedure.

RSV HAI is monitored year on year and prevalence of HAI continues to be below 1% in the paediatric hospital setting (Graph 1). Using RSV as an exemplar it is clear that current practice over the last 2 years minimises cross infection with this common respiratory virus without extensive use of masks. Given the concerns expressed by clinical staff about the negative impact on paediatric care of routine wearing of masks we would recommend a continuation of current practice in paediatrics.
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(Graph 1)