

# ACUTE RESPIRATORY INFECTIONS: TRANSMISSION AND PREVENTION - SCH POLICY®

## DOCUMENT SUMMARY/KEY POINTS

- The aim of this policy is to reduce the risk of nosocomial transmission of agents causing acute respiratory infections (ARI) in children who are inpatients at SCH
- Children with acute respiratory infections (ARIs) should be admitted to ward C3 West (isolation facility) whenever possible.
- Staff caring for patients with acute respiratory infections should adhere to Standard Precautions.
- Staff caring for patients at risk of developing severe lower respiratory tract infections should show evidence of recent pertussis vaccination.
- Patients with ARIs should be nursed in separate areas from children who are at risk of developing severe lower respiratory tract infections.
- Staff with symptoms of an acute respiratory tract infection with a temperature and/or rhinorrhea should not present for work.
- Significant clusters of respiratory tract infection in staff should be notified to the CRMO (after hours) and CNC Infection Prevention and Control Nurse in business hours. If possible the causative agent should be identified
- Children who are immunocompromised and diagnosed with an ARI at admission should have a nasopharyngeal aspirate (NPA) performed for immunofluorescence and viral culture. They may be de-isolated only if they become symptom free and common respiratory pathogens including RSV are not recovered from their NPA

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

<b>Approved by:</b>	SCHN Policy, Procedure and Guideline Committee	
<b>Date Effective:</b>	1 <sup>st</sup> October 2013	<b>Review Period:</b> 1 year
<b>Team Leader:</b>	Department Head	<b>Area/Dept:</b> Infectious Diseases - SCH

## CHANGE SUMMARY

- Due for mandatory review. No change in practice.
- Replaces SCH Infection Control Policy: "Preventing the Spread of Acute Respiratory Infections (ARI) at SCH"

## READ ACKNOWLEDGEMENT

- All staff must read and notify their local manager that they understand the content of the document.
- Local managers will maintain records of read receipts for subsequent compliance and other audits.

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## 1 Purpose and Scope

The aim of this policy is to reduce the risk of nosocomial transmission of agents causing acute respiratory infections (ARI) in children who are inpatients at SCH.

## 2 Responsibilities

- **SCH Operational Managers**
- **Admitting Medical Officers**
- **Clinical Staff, Medical, Nursing, Allied Health**
- **Infection Prevention and Control CNC**

## 3 Standard

1. Children with acute respiratory infections (ARIs) should be admitted to ward C3 West (isolation facility) whenever possible. If clinical considerations do not favour admission to ward C3West, the ward to which the child is to be admitted and the isolation requirements should be discussed with the Admitting Officer (AO) and/or the After Hours Nurse Manager before bed allocation occurs.
2. Staff caring for patients with acute respiratory infections should adhere to Standard Precautions. Droplet Precautions should be additionally observed to protect mucous membranes while performing aerosol generating procedures such as intubation, NPA, suctioning.
3. Staff caring for patients at risk of developing severe lower respiratory tract infections should show evidence of recent pertussis vaccination.
4. Staff caring for patients at risk of developing severe lower respiratory tract infections should show evidence of annual influenza vaccination.
5. Patients with ARIs should be nursed in separate areas from children who are at risk of developing severe lower respiratory tract infections (see point 1 in the section 9 on [Management of High Risk Groups](#)).
6. Staff with symptoms of an acute respiratory tract infection e.g. rhinorrhea, cough +/- temperature should not present for work.
7. Significant clusters of respiratory tract infection in staff should be notified to the CRMO (after hours) and CNC Infection Prevention and Control Nurse in business hours. If possible the causative agent should be identified.
8. Non immunocompromised inpatients diagnosed with an ARI at admission who no longer have respiratory symptoms during their hospitalisation can be de-isolated.
9. Children who are immunocompromised and diagnosed with an ARI at admission should have a nasopharyngeal aspirate (NPA) performed for immunofluorescence and viral culture. They may be de-isolated only if they become symptom free and common respiratory pathogens including RSV are not recovered from their NPA.

## 4 Introduction

- Bronchiolitis is a common disease of the lower respiratory tract resulting from infection and inflammatory obstruction of the small airways. It predominantly occurs in infants in the first year of life, and has a peak incidence at three to six months of age.
- It can occur at any time of year with a seasonal peak occurring in winter/early spring which coincides with the peak incidence of Respiratory Syncytial Virus (RSV) infections.
- All age groups are at risk of infection with this organism. In adults, the illness is often a minor upper respiratory tract infection, but serious disease may occur in infants < 12 weeks of age, immunocompromised individuals, persons with underlying cardio-respiratory disease and the elderly. It is a major aetiological agent of lower respiratory tract infections in infancy (~ 50% of pneumonias and 50 – 90% of bronchiolitis) and may be associated with croup in older children.

## 5 Period of Infectivity

The period of infectivity for RSV remains unclear. Excretion of RSV occurs a few days prior to the onset of symptoms and generally continues for about a week. Shedding is detected for more than 2 weeks in approximately 10% of patients. The incubation period is 2 to 8 days, with an average of about 5 days.

## 6 Transmission

RSV and Influenza is spread via direct or indirect contact with large respiratory droplets (either aerosolised or on contaminated surfaces) containing viable virus particles. RSV (and other respiratory viruses) may survive on environmental surfaces for several hours. Both good hand hygiene and cohorting of patients have been shown to be effective in preventing the nosocomial transmission of RSV, Influenza and other respiratory viruses.

## 7 Investigations

Routine nasopharyngeal aspirates (NPA) in otherwise healthy patients with an uncomplicated acute respiratory illness are not indicated. However there is a role for NPAs to be performed in children with significant co-morbidity (see point 9.1, in the “high risk patient groups”) who have respiratory symptoms as this will influence management and placement of these patients.

## 8 Admission Procedures

1. Children with suspected or proven RSV infection or another acute respiratory illness should **NOT** be admitted to the cardiac/renal ward (ward C2S) or the Haematology/Oncology ward (ward C2W) unless effective isolation of these patients is possible in these wards. At present, the Isolation/General Medicine ward (ward C3W) has the most suitable patient mix for isolating children with acute viral respiratory infections, including bronchiolitis.
2. Children admitted electively but who have bronchiolitis or another respiratory tract infection thought to be due to RSV should be placed in a ward with due regard to the susceptibility of other patients (see [point 1 Section 9](#)). Their admission ideally should be postponed whilst they have a respiratory tract infection.
3. Bronchiolitis may be caused by agents other than RSV. In view of this, “[high risk children](#)” (point 1 Section 9) admitted with bronchiolitis (where no aetiological agent is found) or another ARI will need to be nursed separately from other children with RSV.
4. During the RSV season, most patients with clinical bronchiolitis should be cohorted regardless of their RSV status other than as indicated in point 3 (above).
5. Isolation and/or the cohorting of children with suspected or proven RSV infection outside C3 West is only carried out under the direction of the Admitting Officer (AO) or the After Hours Nurse Manager (see point 1 Section 9, [Management of High Risk Groups](#)).

## 9 Management of High Risk Groups

1. Patients with bronchiolitis should be nursed in separate areas from children who are at risk of developing severe lower respiratory tract infections. These “high risk groups” include:
  - Children with cardiac disease.
  - Children who are immunosuppressed
  - Children with neuro-muscular disease
  - Children with other significant respiratory disease, e.g. Cystic Fibrosis, bronchopulmonary dysplasia, cleft palate, tonsillectomy, severe asthma
  - Young infants, particularly less than 12 weeks of age
2. Children between 3 to 12 months of age who do not have other risk factors are not considered to be at particularly high risk of developing severe respiratory tract infections but should be nursed separately where possible from patients known to have RSV infection.

## 10 Prevention of Transmission

- Staff with symptoms of upper respiratory tract infections, temperature and or rhinorrhea should not attend work, (particularly those occurring during the winter months) they should liaise with their Unit Manager/After Hours Nurse Manager regarding patient allocation for the care of patients deemed to be in the “high risk groups”.
- Standard Precautions must be employed and Droplet Precautions should also be adopted if exposure of the mucous membranes is likely. Personal Protective Equipment (PPE) must be applied for all aerosol generating procedures. **CAREFUL HAND HYGIENE PRACTICES** are essential.
- Infectious cleaning of the area (except curtains) is appropriate<sup>1</sup>.

## 11 De-Isolation of Patients

- Excretion of RSV and Influenza may be prolonged and can persist after resolution of symptoms. However, infectivity would be anticipated to be minimal if the reasons for droplets being generated and spread, i.e. runny nose or significant cough are absent.
- Non immunocompromised in-patients diagnosed with an ARI at admission who no longer have respiratory symptoms during their hospitalisation can therefore be de-isolated.
- Children who are immunocompromised and diagnosed with an ARI at admission should have a nasopharyngeal aspirate (NPA) performed for immunofluorescence and viral culture. They may be de-isolated only if they become symptom free and common respiratory pathogens including RSV, Influenza are not recovered from their NPA.
- Any proposed departure from these guidelines is to be discussed with the AO or After Hours Nurse Manager.

## 12 Reference

1. NHMRC, Australian Guidelines for the Prevention and Control of Infection in Healthcare. 2010, Commonwealth of Australia. <http://www.nhmrc.gov.au/node/30290>

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