

RESPIRATORY VIRAL INFECTION ISOLATION - CHW POLICY[®]

DOCUMENT SUMMARY/KEY POINTS

- All children with symptoms of respiratory viral infection will be nursed using droplet precautions, in a single room if available
- Children with a diagnosed respiratory viral illness may be cohort managed with other children with the same respiratory viral illness if no single rooms are available, except on Edgar Stephen, Clancy or Camperdown wards, provided that neither child is at risk of severe respiratory virus infection (immunosuppressed patients and those with a chronic respiratory condition)
- Children at risk of severe respiratory virus infection must be nursed in a single room and not cohorted with other children with suspected or confirmed respiratory infections
- A "surge plan" for prioritisation of respiratory virus isolation rooms is provided for use ONLY if sufficient single rooms are not available to follow the above guideline
- Children with symptoms of respiratory viral infection must be given priority for transfer out of Emergency and into another area within the hospital, and droplet precautions must be maintained.
- The principle guiding patient placement is that patients should be nursed in an area most appropriate for their clinical condition, if specialised clinical care is required, then they should be admitted to the ward where that is best provided and droplet isolation instituted.
- A child who develops a respiratory viral illness whilst on Edgar Stephen, Clancy or Camperdown wards must be transferred to a single or cohort room on another ward, as soon as possible.
- Children presenting to the Emergency Department with symptoms of respiratory viral infection should not be admitted to Edgar Stephen, Clancy or Camperdown wards

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.

Approved by:	SCHN Policy, Procedure & Guideline Committee	Original endorsed by CHW SMG May 2006
Date Effective:	1 st October 2013	Review Period: 3 years
Team Leader:	Clinical Nurse Consultant	Area/Dept: Infection Control

CHANGE SUMMARY

- Added a note under the 'surge plan' section identifying whose responsibility it is to activate and de-escalate the surge plan.

READ ACKNOWLEDGEMENT

- All clinical medical and nursing staff should read and sign-off having read this policy.

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Introduction

This document is designed to assist in placing children with respiratory viral illnesses in ward beds, thus potentially improving patient flow and minimising cross infection to children likely to suffer severe effects of transmitted respiratory viral infections. The bacterial respiratory infection pertussis is also considered in this document, as it may present with similar clinical features.

The most relevant respiratory infections in this regard are,

- Pertussis (see <http://intranet.kids/o/documents/policies/policies/2006-8339.pdf>)
- Influenza A (including "Swine Flu" / H1N1)
- Influenza B
- Respiratory Syncytial Virus (RSV) A & B (cohort)
- Adenovirus
- Human metapneumo virus.
- Parainfluenza 1, 2, 3 and 4
- Other viruses which may be detected and can be cohorted together are
 - Bocavirus
 - Rhinovirus
 - Coronavirus
 - OC43
 - NL63
 - 229E

Bacterial respiratory infections often co-exist with viral infections, and certain bacteria do have specific isolation requirements. These are summarised briefly below:

- **Bacterial respiratory infections with no specific isolation requirements:**
 - Haemophilus influenzae non-B, Moraxella catarrhalis, Streptococcus pneumoniae, Staphylococcus aureus (non-MRSA), Pseudomonas aeruginosa (non-CF patients),
- **Bacterial respiratory infections with specific isolation requirements in CF patients only (refer to specific policies):**
 - *Pseudomonas aeruginosa*, [*Burkholderia cepacia complex*](#).
- **Bacterial respiratory infections with specific isolation requirements (all patients):**
 - Haemophilus influenzae type B, [Neisseria meningitidis](#), [Methicillin resistant Staphylococcus aureus \(MRSA\)](#).

Command and Control

Responsibility for implementation of this policy is the direct responsibility of appropriate clinical line managers caring for affected patients.

- The clinical line Managers will consult with the infection control team regarding appropriate patient placement and infection control procedures.
- Decisions related to isolation and infection precautions for emerging infections are difficult when there is a lack of clinical evidence. Decision making is often pragmatic and may lead to dispute between clinical line Managers and Infection Control / Microbiology
- If there is no policy on a particular issue or the policy needs updating then there needs to be further discussion between clinical line Managers, Infection Control, Microbiology and the Director of Clinical Operations to develop a consensus agreement based on best evidence. If a dispute arises about policy it is to be referred to the Chief Executive (CE) for resolution.
- Respiratory virus infections are not mandated as a reportable infection to Public Health Units, except during pandemics. In this case the infection control team will liaise with the Public health Unit.
- A Reportable Incident Brief (RIB) will be sent to NSW Department of Health on any potential media interests or problems. This is currently the responsibility of the Executive Assistant to the CE.
- Microbiologist or Infection Control Practitioner will notify the Director of Clinical Operations of identification of any known clusters. The Director of Clinical Operations will in turn notify the Chief Executive.

Other

Any ongoing outbreak of infections not responding to appropriate infection control measures will be discussed with members of the clinical executive in collaboration with the appropriate clinical teams to discuss what further actions

Nasopharyngeal Aspirate (NPA)

If clinically indicated, a nasopharyngeal aspirate (NPA) should be performed as per CHW [Nasopharyngeal Aspirate Procedure](#).

Children at risk of severe respiratory viral illness

The following patients must be nursed in a single room and not cohorted with other children with a *suspected* or *confirmed* respiratory viral infection:

- Children with significant cardiac disease,
- Children who have had solid organ e.g. kidney or liver transplantation and are currently immunosuppressed,
- Any oncology patient with immunosuppression,
- Any other child with significant immunosuppression,
- A child with chronic respiratory illness e.g. chronic lung disease or prematurity, cystic fibrosis, tracheostomy, etc.

The above conditions have been associated with an increase in the risk of severe or fatal respiratory virus infections³.

Management

The principle guiding patient placement is that patients should be nursed in an area most appropriate for their clinical condition, if specialised clinical care is required, then they should be admitted to the ward where that is best provided and droplet isolation instituted.

Also refer to the [Bed Allocation Algorithm](#).

Droplet Precautions

- Hand hygiene before and after patient contact.
- Personal Protective Equipment (PPE) as appropriate for healthcare worker protection,
- Gloves when touching or handling blood or body fluids (hands must be washed after removal of gloves)
- Gown and Face Mask if there is a likelihood of body fluid splashes or sprays
- Single room if possible, otherwise cohorting of patients with the same illness
- Infection control can advise on cohorting if unsure
- Use a surgical mask if within 1 metre of the patient.
- Surgical mask must be worn during procedures
- The room door must remain closed

Children with symptoms of respiratory infection, whose NPA status is unknown

- [Droplet Precautions](#) apply to all children with symptoms of respiratory viral or pertussis infection.
- Nurse in a single room.
- Where this is not feasible the child may be admitted to the same room as another child with unknown NPA status provided they are not a child at risk of severe respiratory viral illness (as defined [above](#)) or a child with other infections or multiple resistant organisms which require isolation. These children must be nursed in a single room.
- In cohort rooms the children must remain in their bed spaces and beds must be separated by at least 1 metre (≥ 3 feet)^{1,2}, and curtains must be drawn for any aerosol-generating procedures.

Children whose NPA is positive for respiratory viruses

- [Droplet Precautions](#) apply.
- Nurse in a single room or cohort with children with the same respiratory virus on a ward other than Edgar Stephen, Clancy or Camperdown wards.
- In cohort rooms, the children must remain in their bed spaces and beds must be separated by at least 1 metre (≥ 3 feet)^{1,2}, and curtains must be drawn for any aerosol-generating procedures.
- Immunosuppressed Children at risk of severe respiratory viral illness require the use of a single room.
- Children with different respiratory viruses ideally should not be cohorted together.
- A child with other infections or multi-resistant organisms (MRO) risk should be isolated as per the [CHW MRO: Prevention, Minimisation, Management and Surveillance policy](#).

Children with symptoms of respiratory infection whose NPA is negative for respiratory viruses

- [Droplet Precautions](#) apply.
- A child who is NPA negative can be cohorted for with other children who have symptoms of respiratory viral infection who are NPA negative on a ward other than Edgar Stephen, Clancy or Camperdown wards.
- Children at risk of severe respiratory viral illness require the use of a single room.
- A child with other infections or multi-resistant organisms (MRO) risk should be isolated as per the [CHW MRO: Prevention, Minimisation, Management and Surveillance policy](#).
- In cohort rooms, the children must remain in their bed spaces and beds must be separated by at least 1 metre (≥ 3 feet)^{1,2}, and curtains must be drawn for any aerosol-generating procedures.

“Surge Plan” to be used when the above isolation rules are not possible due to insufficient single rooms

Note: Activation of the Surge Plan and de-escalation is the responsibility of Patient Flow

1) Pertussis (suspected or proven)

- Children with suspected or proven pertussis may not be cohorted with other children with suspected or proven viral respiratory infection.
- Children with proven pertussis may be cohorted with other children with proven pertussis on a ward other than Edgar Stephen, Clancy or Camperdown wards.
- In cohort rooms, the children must remain in their bed spaces and beds must be separated by at least 1 metre (≥ 3 feet)^{1, 2}, and curtains must be drawn for any aerosol-generating procedures.

2) Influenza A (including H1N1 09 “swine” influenza)

- [Droplet Precautions](#) apply.
- Nurse in a single room, or cohort with children with Influenza A on a ward other than Edgar Stephen, Clancy or Camperdown wards.
- Children at risk of severe respiratory viral illness should not be cohorted, and require a single room.
- In cohort rooms, the children must remain in their bed spaces and beds must be separated by at least 1 metre (≥ 3 feet)^{1, 2}, and curtains must be drawn for any aerosol-generating procedures.
- A child with other infections or multi-resistant organisms (MRO) risk should be isolated as per the [CHW MRO: Prevention, Minimisation, Management and Surveillance policy](#).

3) Influenza B

- [Droplet Precautions](#) apply.
- Nurse in a single room, or cohort with children with Influenza B on a ward other than Edgar Stephen, Clancy or Camperdown wards
- Children at risk of severe respiratory viral illness should not be cohorted, and require a single room
- In cohort rooms, the children must remain in their bed spaces and beds must be separated by at least 1 metre (≥ 3 feet)^{1, 2}, and curtains must be drawn for any aerosol-generating procedures
- A child with other infections or multi-resistant organisms (MRO) risk should be isolated as per the [CHW MRO: Prevention, Minimisation, Management and Surveillance policy](#).

4) Children positive for other respiratory viruses, children with unknown NPA status, and children whose NPA is negative for respiratory viruses

- [Droplet Precautions](#) apply.
- These children may be cohorted with other children in this category on a ward other than Edgar Stephen, Clancy or Camperdown wards.
- Children at risk of severe respiratory viral illness should not be cohorted, and require a single room.

NOTE: This cohorting of patients with different respiratory viral pathogens represents a departure from best Infection Control Practice and should ONLY occur as a last resort when insufficient single rooms are available for “Best Practice” Management.

- In cohort rooms, the children must remain in their bed spaces and beds must be separated by at least 1 metre (≥ 3 feet)^{1, 2}, and curtains must be drawn for any aerosol-generating procedures.
- Children at risk of severe respiratory viral illness require the use of a single room.
- A child with other infections or multi-resistant organisms (MRO) risk should be isolated as per the [CHW MRO: Prevention, Minimisation, Management and Surveillance policy](#).

Clearance

In general, “clearance” NPA testing is rarely required. However if an immunosuppressed child remains an inpatient for seven days after a positive NPA, their respiratory symptoms have resolved, and “de-isolation” is considered, the NPA should be repeated.

If the NPA result is negative and the child does not have respiratory symptoms, they no longer require [Droplet Precautions](#) and isolation.

If the NPA remains positive or respiratory symptoms continue, the child must remain in isolation and Droplet Precautions observed. If a further 7 days after a positive repeat NPA the child remains free of respiratory symptoms and de-isolation is still considered, the NPA may be repeated again.

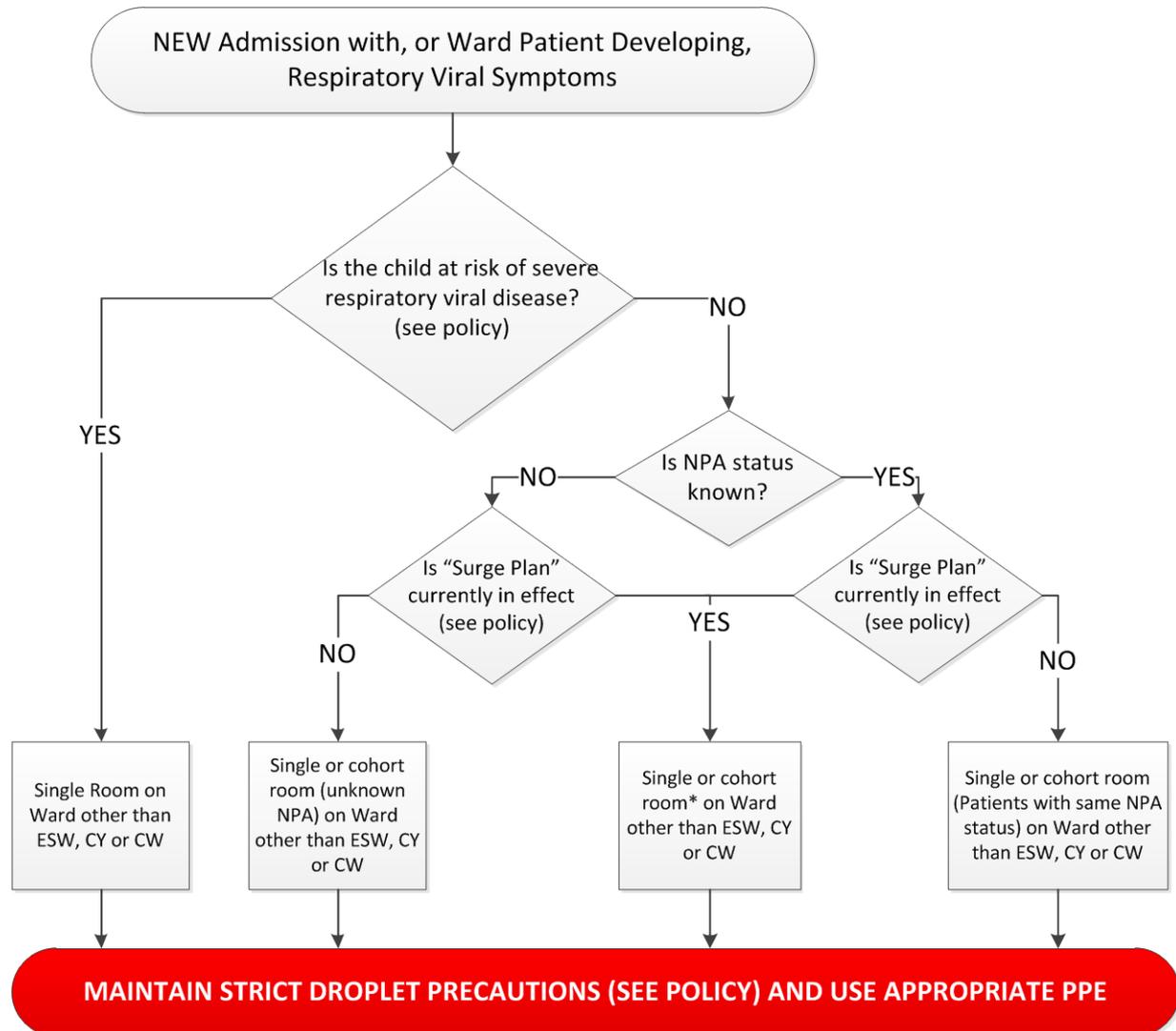
The reason is that viral shedding is usually three to eight days, but may last longer, especially in young infants or immunocompromised children, in whom shedding may last for as long as three to four weeks⁴.

Factsheet for Parents

Fact Sheet Respiratory Virus Infections:

- http://chw.schn.health.nsw.gov.au/ou/infection_control/resources/factsheets/parents/respiratory_infections.pdf

Algorithm: Bed Allocation



* Suitable cohorts include: 1) proven pertussis; 2) proven Influenza A; 3) Proven Influenza B; 4) Patients with other respiratory viruses, negative NPA, or unknown NPA status

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