

Infection Prevention & Control Service

Guidelines for the Management of Influenza and Influenza-like Illnesses



Updated May 2019

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Executive summary

In 2018, Canterbury Health Laboratories (CHL) trialled a rapid molecular test for Influenza and other respiratory viruses over a 3 months period at Christchurch Campus. Areas where rapid molecular testing were trialled included Emergency Dept, CAA, AMAU, CHOC, BMTU, and NICU.

CHL will continue with the rapid molecular testing in 2019.

The CDHB Respiratory and ILI guidelines 2019 have been updated in relation to rapid laboratory testing:

1. Patients in non-high risk wards/areas and in paediatrics will only be tested for Influenza and RSV using the rapid molecular tests
2. Patients in high-risk areas i.e. BMTU, CHOC and NICU will be tested using the Respiratory PCR panel
3. The respiratory PCR panel will be available to clinicians from other areas on request to assist with clinical diagnosis
4. All patients in healthcare settings presenting with an influenza-like illness (ILI) are to be managed in droplet isolation until results are available
5. All patients in BMTU, CHOC, NICU presenting with influenza-like illness are to be managed in contact and droplet precautions until results are available
6. Patients with confirmed influenza are to continue to be managed in droplet precautions
7. Patients in BMTU, CHOC and NICU are to continue to be managed in contact and droplet isolation for any confirmed infectious respiratory illness
8. Hand hygiene in line with WHO 5 moments of Hand Hygiene and frequent environmental cleaning is recommended
9. Patient education around hand hygiene and cough and sneeze etiquette is recommended

Management Guidelines for Influenza and Influenza-like Illnesses

These guidelines describe the infection prevention and control (IPC) measures, which must be taken to minimise transmission of influenza and other influenza-like illnesses (ILI) within CDHB healthcare facilities.

NB: The IPC measures for the management of influenza differ from other respiratory viruses in some high risk areas and are described in Section 8.3.

1. Purpose

Provide guidance to staff on the precautions and other measures necessary to minimise the risk of transmission of influenza and other ILI.

2. Scope

All staff involved in the care of patients with possible or confirmed influenza or other ILI.

3. Respiratory Hygiene / Cough Etiquette

- Respiratory hygiene must be practised at all times. Educate patients in the importance of respiratory hygiene.
- Cover your mouth and nose with a tissue when coughing or sneezing
- Use in the nearest waste receptacle to dispose of the tissue after use
- Perform hand hygiene

**Staff who have signs and symptoms of respiratory illness must NOT:

- care for patients for 72 hours after onset of symptoms
- should stay off work for at least 24 hours after resolution of fever (without the use of fever-reducing medicine)

4. Definition of Influenza-like Illness

Acute upper respiratory tract infection characterised by abrupt onset with the following: fever, chills, headache, myalgia, malaise, non-productive cough, sore throat and rhinitis (CDC, 2019)

- Children and elderly patients may not present with classical symptoms
- Elderly may only present with cough symptoms and/or confusion without a fever
- Some groups e.g. infants / children may present with a wide variety of clinical syndromes including vomiting and diarrhoea.

5. Laboratory Testing for Influenza-like Illness

All inpatients or those admitted with a diagnosis of suspected influenza should have nasopharyngeal swab for respiratory viruses taken.

A nasopharyngeal swab must be placed into viral transport medium for rapid respiratory viral PCR testing for influenza viruses A and B as well as RSV. Refer to Appendix A (Canterbury Health Laboratories 'Instructions for Respiratory Viral Testing').

A respiratory PCR test panel with up to 18 viruses plus *M. pneumoniae* will be run in addition to the above for patients in BMTU, CHOC and NICU.

** Clinicians may request a respiratory PCR panel for consideration in conjunction with clinical diagnosis.

It is recommended that symptomatic patients are not treated with Tamiflu unless they are a confirmed influenza case or have had direct contact with a confirmed influenza case.

6. General Information about Transmission

ILI may be caused by a number of viruses other than the influenza viruses. The use of hand hygiene and respiratory hygiene / cough etiquette will limit the transmission of ILI:

- Influenza viruses are spread from person to person primarily through large-particle respiratory droplet transmission (e.g., when an infected person coughs or sneezes near a person). This requires close contact between source and recipient persons, as larger droplets generally travel only a short distance (1 metre or less) through the air.
- Contact with respiratory-droplet contaminated surfaces is a possible source of transmission.
- In the healthcare setting, the principal mode of transmission of other respiratory viruses is via the healthcare worker's hands, following contact with the patient and their environment, making good hand hygiene practice a priority as well as daily cleaning of the room or bed space with an emphasis on high-touch points e.g. bedrails, call bell.
- The typical incubation period for influenza is 1–4 days (average: 2 days).
- The highest viral loads are usually shed within the first 72 hours after onset of symptoms in adults, but may continue up until 7 days from onset of symptoms
- In children, the higher viral loads are shed within the first 5 days and may continue up until 10 days after onset of symptoms
- Severely immunocompromised persons can shed virus for weeks or months.
- Patients may be transferred or discharged to other care facilities including long term care with appropriate infection prevention and control measures in place. The CDHB IPC community liaison nurses are available for advice and/or to facilitate discharges to the long term care sector.

6.1. IPC Measures for Vulnerable Patients with suspected ILI

Paediatric patients with viral illnesses other than influenza are to be nursed in a single room with good hand hygiene and use of PPE as required.

If the viral laboratory testing is negative for influenza but positive for another respiratory virus, implement IPC measures as described in this document (under 8.2 and 8.3) for patients in BMTU, CHOC and NICU

6.2. Bed Management awaiting ILI results (Patient Placement)

Patients with influenza-like illness in healthcare settings are to be nursed in **Droplet Precautions** in a single room.

- Where there are no single rooms available, patients may be nursed in a multi-bed room with privacy curtains drawn between bed heads (1 metre) to prevent cross

infection whilst awaiting results provided there is no additional risk to the patient management

- Patient must not receive nebulisers in a multi-bed room
- Patients in **BMTU, CHOC and NICU** (baby may be transferred to an incubator awaiting confirmation of results) are to be nursed in a single room with **Contact and Droplet Precautions**:
- Applicable transmission-based signage must be used and be visible

7. General IPC Measures for Confirmed Influenza

- Hand hygiene is performed as per WHO 5 Moments for Hand Hygiene. Either alcohol-based hand rub or liquid soap and water may be used for hand hygiene.
- A surgical mask should be worn when entering the patient's room/bedspace. Remove the mask when leaving the patient's room/bedspace and dispose of the mask into hazardous waste. Perform hand hygiene.
- Aprons and gloves are worn if required as part of Standard Precautions e.g. risk of direct hand or body exposure to blood or body fluids. If worn, gloves and aprons are changed between each patient.
- Where possible, cohort patients with the same strain of virus.
- In a cohort situation, staff may wear the same mask when caring for more than one patient unless the mask becomes wet, when it must be changed.
- Ensure environmental surfaces are cleaned frequently each shift to reduce contamination.

7.1. Management of Patients with confirmed Influenza

- Provide the patient with a Patient Influenza Information fact sheet (Appendix D)
- Patient to wear surgical mask and perform hand hygiene when leaving room/bed space for duration of transmission-based precautions
- Patient to use a dedicated shower or to shower last prior to cleaning
- Patients to use dedicated toilet facilities where possible
- **Do not use nebulisers in multi-bed rooms.** If required, nebulisers can be used in a single room with the door closed whilst in use. Refer to [Nebuliser Risk Assessment Flowchart](#) 2018
- If patient movement or transport is necessary, have the patient wear a surgical mask if possible (refer to [Inter-Hospital Transport of patients in Isolation](#)).

7.2. Bed Management for Confirmed Influenza (Patient Placement)

- Maintain **Droplet Precautions** for patient with confirmed influenza in healthcare settings
- Patient to be nursed in a single room
- Where there are no single rooms available, influenza patients in general areas can be cohorted in a multi-bed room with privacy curtains drawn between bed heads (1 metre) provided there is no additional risk to the patient management

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- Maintain **Contact & Droplet Precautions** for patients confirmed with Influenza in **BMTU, CHOC, and NICU**.
 - Applicable transmission based signage must be used and be visible
 - Patients presenting within 72 hours of onset of symptoms may benefit from anti-viral therapy with Oseltamivir (Tamiflu) and shall remain in Droplet Precautions for 72 hours from commencement of treatment.
 - **For those not given anti-viral treatment, maintain Droplet Precautions for a minimum of seven days from onset of illness.**
 - Maintain Droplet Precautions for 5 days after commencing treatment for children aged 5 years and under and other patient groups who may have a low immune response e.g. critical care patients.
 - Precautions should be continued longer than the recommended times while the patient remains symptomatic.

7.3. Management of Contacts with Influenza Exposure

- A 'Contact' is any patient who is exposed to a confirmed influenza case prior to the use of Droplet Precautions. This is typically other patients who have been sharing the same multi-bed room with a confirmed influenza patient.
- Contacts **DO NOT** require Droplet Precautions or isolation unless they subsequently develop signs and symptoms of influenza.
- If the index case is confirmed positive, contacts should be assessed by their clinical team and prescribed prophylactic Oseltamivir (Tamiflu) if clinically indicated.
- The multi-bed room shall remain open to further admissions. However the confirmed patient should be transferred to a single room or cohorted where possible
- Avoid admitting patients from the following vulnerable groups into contact/cohort rooms
 - those with chronic respiratory conditions
 - pregnant women
 - the morbidly obese
 - those with immunosuppressive conditions e.g. cancer, transplant, immunosuppressive medication or HIV
 - those with other chronic illnesses such as cardiac disease, diabetes mellitus, chronic metabolic diseases, renal failure, chronic liver disease, chronic neurological disease
- Refer to 'Management of healthcare workers' (section 7.5) for non-immunised staff contacts

7.4. Antiviral chemotherapy

Antiviral drugs are only available for influenza viruses. Oseltamivir (Tamiflu) is prescribed via the hospital pharmacy

- Oseltamivir:
 - is an important line of defence in the prevention of seasonal influenza.

-
- can be used either to treat influenza or prevent influenza (prophylaxis).
 - as a prophylaxis should be considered for exposed patient contacts of confirmed influenza cases.
 - should not be considered a substitute for influenza vaccination.
 - Patients presenting within 72 hours of onset of symptoms and confirmed to have influenza, may benefit from anti-viral therapy with Oseltamivir (Tamiflu)
 - Oseltamivir is prescribed as follows:
 - 75mgs BD for 5 days for treatment of influenza cases
 - 75mgs daily for 10 days for prophylaxis
 - Refer to the Pink Book for other dosage requirements e.g. renal impairment

7.5. Management of staff exposure

Seasonal influenza vaccination for healthcare workers is the internationally recognised best practice for protection of patients and staff against influenza. These are offered free of charge each year throughout the CDHB during the annual staff vaccination campaign.

- Staff are advised NOT to self-diagnose by sending a viral swab to the laboratory.
- Unvaccinated staff members who are exposed to influenza should contact their GP for further advice.

7.6. Cleaning

- Ensure environmental surfaces in the single room or bed space are cleaned frequently each shift with a detergent wipe
- Full terminal cleaning is not required following discharge of a suspected or confirmed influenza patient in general wards and departments but staff undertaking a routine discharge clean should ensure the following environmental surfaces and touch points are focussed on:
 - Bed mattress, frame and rails
 - All horizontal surfaces including locker and bed table
 - Frequently touched fixtures e.g. handles, call bells, knobs and rails
- Bed space curtains/screens do not require changing unless visibly soiled
- A terminal clean is required in high risk areas where Contact and Droplet Precautions have been implemented

7.7. Visitor restrictions and information

- It is recommended the following people do not visit:
 - Infants (under 1 year).
 - Visitors with Influenza-like symptoms.
 - Pregnant women
 - Others susceptible to infection

-
- Visitors are required to wash their hands or use alcohol-based hand rub prior to leaving the room at the end of the visit. Visitors are not required to wear surgical masks however social distancing should be advised (1-2 metre separation).

8. Management of Influenza-like Illnesses

8.1. General Information

- In the healthcare setting, the principal mode of transmission of respiratory viruses is via the healthcare worker's hands, following contact with the patient and their environment
- The use of hand hygiene and respiratory hygiene / cough etiquette will limit the transmission of ILI in healthcare settings
- Ensure environmental surfaces are cleaned frequently each shift to reduce contamination

8.2. IPC Measures for ILI in Healthcare settings

- Standard Precautions are used for ILI in healthcare settings with the exception of Influenza
- As with all respiratory illnesses, education for the patient about respiratory etiquette and hand hygiene is important to limit the spread of the virus in the environment
- Wear a surgical mask when in close contact with a patient coughing or sneezing as part of Standard Precautions, to prevent contact with respiratory droplets on the face.
- If the patient is being nursed in a multi-bed room and has significant respiratory symptoms, such as coughing and sneezing, protect other patients in adjacent beds by drawing the privacy curtains half way between bed heads (1 metre).

8.3. IPC Measures for ILI in BMTU, CHOC and NICU

Other respiratory viruses e.g. RSV, adenovirus and parainfluenza may cause severe morbidity or mortality in high-risk patients, therefore, this requires a different approach than with the general population:

- Use **Contact and Droplet Precautions** for patients in high-risk areas
- Prolonged shedding with respiratory viruses can occur in immunocompromised individuals. Therefore, it is **not** recommended that re-testing of patients is used as an indicator to remove the patient from isolation.
- Contact and Droplet precautions should remain in place in these areas until the patient is asymptomatic
- A terminal clean is required in high risk areas where Contact and Droplet precautions have been implemented

9. Outbreaks

If influenza or an ILI outbreak is suspected, the following measures should be taken to manage the outbreak and limit transmission:

-
- Contact the CDHB Infection Prevention & Control Service
 - Restrict staff movement from areas of the facility affected by the outbreaks
 - Refer to [Outbreak and Incident Management](#)

References

1. New Zealand Ministry of Health [Internet]. Wellington: Influenza; [updated 15 April 2019; cited 2019 May 15]. Available from: <https://www.health.govt.nz/our-work/preventative-health-wellness/immunisation/influenza>
2. National Influenza Strategy Group (NISG) [Internet]. Auckland: Influenza information for health professionals [update not stated; cited 2019 May 15]. Available from: <https://www.influenza.org.nz/>
3. Centers for Disease Prevention and Control. [Internet]. Druid Hills, Georgia: Influenza (Flu); [updated 9 May 2019; cited 2019 May 15]. Available from: <https://www.cdc.gov/flu/>

Appendix A. Laboratory Instructions for Respiratory Viral Testing

Instructions for Respiratory Viral Testing

SEROLOGY / VIROLOGY SERVICE, CDHB 2013

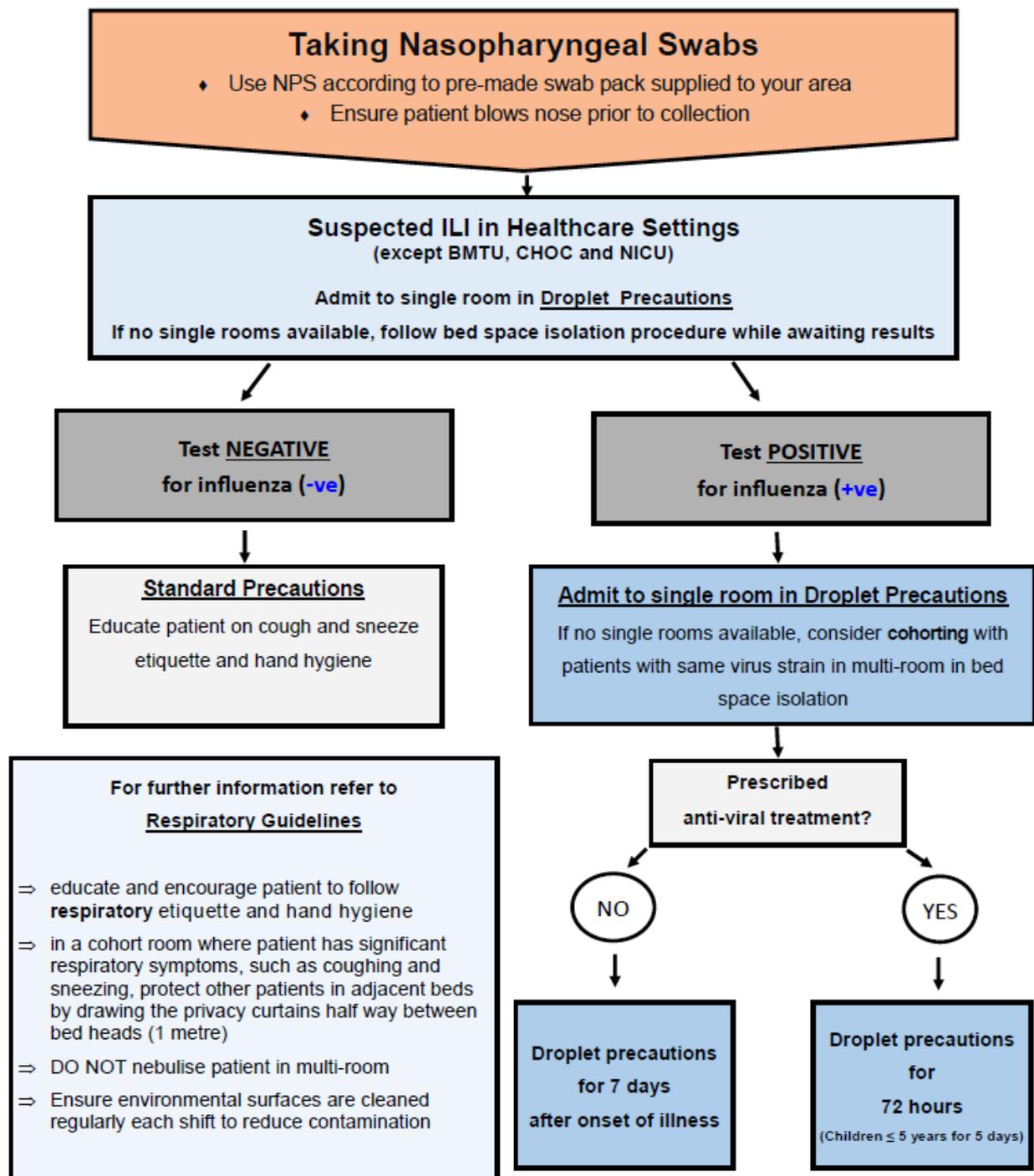
| Viral Transport Medium (VTM) and Viral Swabs: | Nasopharyngeal Swab Method | |
|---|--|---|
| <p>Christchurch Hospital: Available via HOSPITAL AIDS on AMAU ext 89243. These will be sent by Lamson tube on request.</p> <p>All other Hospitals: Contact LABORATORY CUSTOMER SERVICE ext 80484. ASHBURTON HOSPITAL ext 28825</p> <p>VTM can be stored at room temperature.</p> | <ul style="list-style-type: none"> - Wear appropriate PPE. Then using a synthetic fibre tipped NP swab: (Adult: orange top swab / Paediatric: white top swab) <p style="text-align: center;"><u>Nasopharyngeal swab in Viral Transport Media</u></p>  <ul style="list-style-type: none"> - Insert swab into one nostril - Press swab tip on the mucosal surface of the mid-inferior portion of the inferior turbinate (see sketch), and rotate the swab tip several times across the mucosal surface to collect cellular material. - Place swab into VIRUS TRANSPORT MEDIUM.  <ul style="list-style-type: none"> - Label with patient name, date of birth, and date of collection. - Forward specimen and request form to virology for testing. |  |

Please Note: All samples / pathology request forms should be clearly labelled for “Respiratory Viral Testing”

Authorised by: The Serology/Virology Service, Canterbury Health Laboratories
Issue Date: April 2013

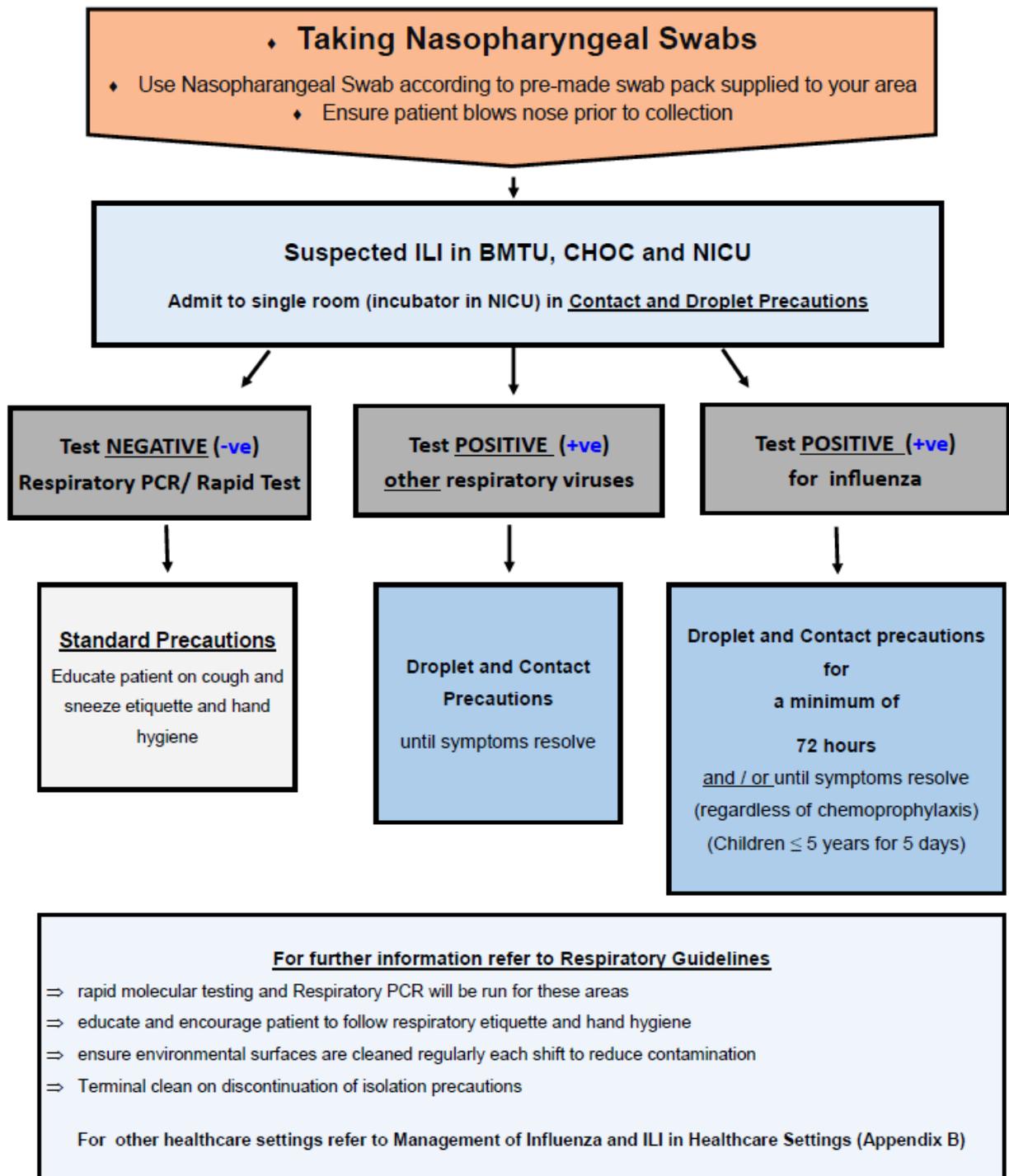
Appendix B. Flowchart: Management of Influenza and ILI in Healthcare Settings

Management of Influenza and ILI in Healthcare Settings



Appendix C. Flowchart: Management of Influenza and ILI in BMTU / CHOC / NICU

Management of Influenza and ILI in BMTU / CHOC / NICU



Appendix D. Patient Information Sheet (Available on [IPC Intranet site](#))



Canterbury
District Health Board
Te Pori Hauora ō Waitaha

INFECTION PREVENTION & CONTROL SERVICE

Influenza Information for Patients & Visitors

What is Influenza?

Influenza, commonly known as the flu, is very different to a cold and people often confuse these two conditions. Both are caused by viruses, but if you have Influenza, you become much more unwell. The risk of becoming very unwell with Influenza is higher in elderly people, children, pregnant women and those with serious health problems. Even younger healthy people can become very unwell with Influenza.

Some people with Influenza will need to go to hospital, and every year people die from it. Influenza causes people to miss work, school and university for a least one week, but it can often take several weeks to return to normal health.

The symptoms of Influenza come on suddenly.

What are the symptoms?

- Fever
- Sweats
- Muscle and joint aches
- Headaches
- Lack of energy
- Sore throat
- Chesty cough
- Runny nose and eyes

How did I get Influenza?

Influenza is spread easily by infected people coughing and sneezing and by contact with their respiratory secretions. If you are unwell, it's important that you stay away from work, school, and gatherings of other people.

Will I need to be isolated in hospital?

- You will need to be placed in isolation while in hospital to prevent the spread of Influenza to other patients. You may be in a single room or in a multi-room with a curtain separating the head of your bed from another patient beside you.
- You may be asked to put on a facemask to protect others during transfer if you are taken to another ward or department.
- Staff caring for you will wear a mask, and may wear gloves and gowns or aprons to prevent them carrying Influenza to other patients.

Appendix D continued

Will it affect my family and friends?

Visitors must wash their hands or use alcohol-based hand rub on leaving your room. Visitors are not required to wear masks however social distancing is advised (1-2m separation). It is recommended the following people do not visit:

- Infants (under 1 year)
- Visitors with Influenza-like symptoms
- Pregnant women
- Others susceptible to infection

What makes it better?

- Plenty of rest
- Drink plenty of fluids

How can it be treated?

Some people with influenza may need to stay in hospital because of complications such as dehydration or pneumonia. You may be prescribed a drug called Ozeltamivir (Tamiflu). It is used to prevent Influenza getting worse but it has to be taken within 48hrs of your symptoms starting.

