

Outbreak Management of Respiratory Infections in Residential and Acute Care Settings

Yukon Communicable Disease Control
July 2022



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Introduction¹

Respiratory infections (RI)² are often spread when people cough or sneeze and droplets of their respiratory secretions come into direct contact with the mucous membranes of the eyes, mouth, nose or airway of another person. Because microorganisms in droplets can survive on other surfaces, droplet-spread infections can also be spread indirectly when people touch contaminated hands, surfaces and objects.

Outbreaks of RI occur predominantly between October and March but can occur at any time of the year. Although Influenza is a major cause of respiratory outbreaks, they can also be caused by other viruses such as parainfluenza, respiratory syncytial virus (RSV), coronavirus, rhinovirus, human metapneumovirus and adenovirus. Less commonly, outbreaks can be caused by bacterial pathogens such as *Streptococcus pneumoniae*, *Bordetella pertussis*, *Mycoplasma pneumoniae*, *Legionella* sp., and *Chlamydia pneumoniae*. The dominant causal organisms are highly variable from season to season and across geographic areas or specific locales or settings.

In early 2020, a global pandemic was declared following the identification of a novel coronavirus, later named COVID-19. Strict public health measures were implemented to curtail the morbidity and mortality due to the wild type and earlier variants. With a strong global effort to develop and implement an effective vaccine to reduce severity and with the change of the variant to a highly transmissible but less virulent strain, these robust public health measures are no longer indicated. COVID-19 has become endemic and is now considered to be a circulating respiratory infection similar to influenza or RSV. It is important to note, while there has been a strong uptake of COVID-19 vaccinations within the territory, those at risk for severe outcomes and/or hospitalization are those who are inadequately immunized, who are older (>70 years) and/or immunocompromised. Despite this, COVID-19 remains a concern due to its unpredictable behavior (lack of a seasonal variant) and its high infectivity rate, making it prone to outbreaks in congregate settings.

Influenza A and B viruses are also of concern because of their epidemic seasonal behavior, and their relatively high levels of morbidity and mortality, especially amongst those very young, adults > 60 years of age, and those who are immunocompromised or who have chronic diseases.

In Yukon, under the Public Health and Safety Act, the Chief Medical Officer of Health (CMOH) and designated Medical Officers of Health have the authority to make orders and establish rules and guidelines to protect and promote the health of Yukon residents. For ease of use in this document, the CMOH) and designates will be referred to as a Medical Officer of Health (MOH).

Purpose

These guidelines describe the infection prevention and control practices for respiratory infections that are primarily droplet spread. Implementing these guidelines will enable the healthcare system to detect and contain clusters and outbreaks of common respiratory infections and assist in the detection of novel pathogens.

Recognizing that influenza A and B are unique in that pre-influenza season preparation can be undertaken,

¹ Unless otherwise stated, the recommendations presented in the document have been adapted from two British Columbia sources 1) Interior Health "Respiratory Infection (RI) Outbreak Guidelines for Health Care Facilities", September 2018 and 2) PICNet BC "Respiratory Infection Outbreak Guidelines for Healthcare Facilities – Reference Document for use by Health Care Organizations for Internal Policy/Protocol Development", 2018

² The term RI is used in place of the Influenza-like-illness (ILI) to be inclusive of the many respiratory viruses which may present with similar symptoms and to align with the PICNET guidelines (PICNet, 2018).

sections of this guidance document are specific to seasonal influenza preparation and outbreak management.

Scope

While no single protocol can cover all of the more detailed aspects that might be necessary for some specific organism outbreaks, all respiratory outbreaks can initially be managed in a similar fashion with basic measures to prevent further respiratory transmission, at least until the organism is identified and more specific measures can be put into place (e.g. antiviral prophylaxis for influenza). The scope of this guidance document is such that it encompasses prevention planning and outbreak management. [Part One](#) of the document is specific to influenza, [Part Two to COVID-19](#), and Parts [Three and Four](#) applicable to the detection and management of RI outbreaks generally.

Although the basic control measures described in these guidelines are to be used for outbreak prevention and control of all respiratory infections, specific respiratory infections such as SARS, tuberculosis, or an emerging pathogen with unknown characteristics require special consideration and additional control measures. For known airborne spread infections (e.g. measles, TB), specific guidelines should be followed as laid out by Yukon Communicable Disease Control (YCDC), and the Public Health Agency of Canada. These illnesses are beyond the scope of this document. Pandemic Influenza events also fall beyond the scope of this document (PICNet BC, 2018).

Goal

The goal of this territorial guidance document is to provide Yukon acute care and residential facilities with the information and tools required to prevent, identify and control outbreaks of RI in a way that balances patient/resident and staff protection, with the least possible interference on facility function and patient/resident wellbeing. This document may also be useful for correctional and assisted-living facilities.

How to Use this Document

The document is organized into three sections:

[Part One: Pre-Season Planning and Prevention for Influenza](#)

[Part Two: COVID-19](#)

[Part Three: Outbreak Detection and Consultation](#)

[Part Four: Outbreak Management](#)

Each section includes tools to support facility planning and outbreak management.

Facilities are encouraged to familiarize themselves with this document in preparation for the implementation of the Pre-Season Planning and Prevention for Influenza. This should be done in the spring and fall.

Part One: Pre-Season Planning and Prevention of Influenza

The following is a quick checklist of activities for pre-season planning. Not all strategies are applicable to all types of facilities.

Familiarize staff with the current Yukon respiratory infection outbreak guidance document and facility specific protocols/policies, including notification process to be used to report a suspected outbreak.

- Arrange influenza vaccination clinics for Health Care Workers (HCW)
- Provide influenza and pneumococcal vaccine (as required) to residents
- Maintain staff and resident influenza immunization records in Panorama
- Maintain a current list of staff in the facility
- Order and maintain a supply of infection control supplies required for outbreak management
- Update resident antiviral medication pre-printed orders
- Provide a “readiness report” for YCDC, to be submitted by December 1st ([Appendix C](#))

Provide education to staff and residents including the importance of seasonal influenza vaccine, routine respiratory precautions, and respiratory outbreak management.

Influenza Vaccine Delivery

Influenza remains a significant cause of illness and death amongst the elderly and residents of care facilities. Influenza immunization of both residents and health care workers is the most effective measure for reducing the impact of influenza in residential and acute care facilities. It reduces the risk of severe illness and death from influenza infection, as well as the risk of influenza outbreaks. Immunization of health care staff is critical to the care of vulnerable clients in order to achieve the best protection for them.

Immunization of Health Care Workers (HCWs)

A HCW is any person carrying out paid or unpaid work in a health care facility, including persons who volunteer or undergo training in a health care facility for any period of time between October to April. Influenza vaccine is provided free of charge to all Yukon residents.

It is the recommendation of the MOH that facilities and services strive to immunize all residents and health care workers.

Immunization of HCWs should commence each year as soon as the vaccine becomes available. The vaccine will be available throughout the season and managers should ensure that staff are immunized whenever they commence working in a facility during the months October-April.

Staff may be immunized, as arranged, through their place of employment, or through community immunization clinics. The Yukon Immunization Program (YIP) statement for the current influenza season should be used to screen for contraindications and precautions to vaccine administration.

The YIP Manual can be accessed at: http://www.hss.gov.yk.ca/health_professionals_guidelines.php

It is important for each facility to keep an up to date record of who has received influenza vaccine, through either a paper document or Panorama.

The most responsible person in the facility should review the immunization rates by the end of December. If

staff rates are less than 80% and resident rates are less than 90%, the facility should develop a plan to increase immunization rates or mitigate the effect should an influenza outbreak be declared.

Requesting Influenza Immunization Information from HCWs

Currently in Yukon, influenza immunization for HCWs is voluntary. There are currently no work-related repercussions for not doing so. HCWs may choose whether or not to disclose their influenza immunization status.

Information is legally collected and disclosed under the authority of the Health Act and the Public Health and Safety Act, Communicable Disease Regulation Section 4. Information is also collected and disclosed under the authority of Health Information Privacy and Management Act (HIPMA) for the purpose of ongoing public health surveillance activities as outlined in s.53(c) + 54(c)(i) + 56(4).

A review of the following points should occur when discussing immunization status with HCWs:

- The request for collecting this information comes from the MOH
- The purpose of collecting HCW immunization information is to ascertain the immunization coverage rate per facility (residents and HCWs) as influenza immunization of HCWs can help prevent outbreaks from occurring
- Influenza outbreaks may still occur with sub-optimal immunization coverage among health care personnel or in the event of substantial virus drift away from the selected vaccine components
- Although influenza immunization may not prevent infection, it can prevent serious complications
- Even with some drift of the circulating virus away from the vaccine component, cross-protection against the drift variant can be provided by vaccination
- In the event of a facility influenza outbreak, knowing HCW influenza immunization status will expedite the offer of antiviral prophylaxis to those HCWs who are not immunized

HCWs who disclose immunization status should have their information kept confidential within the facility. As part of pre-season preparedness each fall, the MOH will request a report on HCW immunization uptake (facility wide) to be provided to YCDC. Additional information i.e. employee specific information may be requested at the discretion of the MOH.

Immunization of Residents of Acute and Residential Care Facilities

Residents of any age are eligible for free influenza vaccine and require immunization annually. Unimmunized residents who catch influenza can become very ill and can spread the virus to other residents and staff in the facility. Immunization helps prevent illness and reduces shedding of the virus.

Records and Reporting

Facilities should strive to maintain annual records of both resident and HCW influenza immunization status (although it is currently not mandatory that staff provide their immunization status) and have these records available in the event of an influenza outbreak.

Templates and reporting forms are included at the end of this section.

Influenza Outbreak Preparation

When the RI outbreak has been identified as an influenza outbreak based on the assessment of the MOH, including lab confirmation, the key to successful management is implementing all of the appropriate measures as soon as possible. All staff should be aware of how to put the measures into place.

To be prepared:

- Develop a facility protocol that outlines staff responsibilities for implementing outbreak response. This should include chain of reporting and communication within the facility and notification to YCDC and the MOH.
- Order specimen collection material/Respiratory Outbreak Collection Kits from Whitehorse General Hospital Laboratory by September 15th. These kits are prepared by BCCDC. Swabs may be ordered and replaced as needed ([Appendix D](#)).
- When the supply of testing kits is received, discard any remaining stock which may have expired.
- Keep a record of all residents who are immunized and request that staff report immunization status.
- Ensure new residents and/or patients are immunized.
- Prepare pre-printed orders for antiviral medication.
- Ensure adequate infection control and cleaning supplies are available, such as hand soap/sanitizer, masks, goggles, gowns, linens, surface disinfectants, waste-bins with step-on lids and signage.

Templates for these measures are included at the end of this section.

Anti-viral Preparation

When the RI outbreak has been identified as an influenza outbreak, antivirals are initiated, both for treatment and for prevention. *Pre-planning for antiviral medication dosage for prophylaxis and treatment of residents during an outbreak is essential.* Antivirals for treatment are most effective when started within the first two days of illness; similarly, the sooner prophylactic administration of antivirals occurs, the more effective it can be in controlling the outbreak.

Prior to the influenza season, each facility should establish with its medical director and/or Infection Control Practitioner (ICP) the protocol for administering antiviral medication in a timely manner during an outbreak.

Please refer to the Rapid Guide to Assessment & Management of ILI Yukon:

<https://yukon.ca/en/find-out-about-influenza-guidelines-health-professionals>

- Identify individuals with a contraindication to Oseltamivir. Please consult with the appropriate medical professional for dosing regimens in patients with reduced creatinine clearance below 30 mL/min.
- Zanamivir (Relenza) may be used as an alternative antiviral agent to Oseltamivir.
- The facility should be prepared to administer antiviral medication to all residents within a few hours of notice, for outbreak management. Each facility should establish a plan of action with the pharmacy or supplier, so that antivirals are obtained in a timely fashion (PICNet, 2018).

Prior to the end of October each year the facility should:

- Obtain pre-printed antiviral orders for both prophylaxis and treatment - approved by a physician and available on each patient/resident chart.
- Contraindications and precautions to antiviral prophylaxis and treatment should be reviewed with residents.
- A record of antiviral orders should be maintained so that this information is readily available in the event of a respiratory outbreak.
- Ensure the designated pharmacy can supply the volume of Oseltamivir required to provide prophylaxis to all of the facility residents and/or patients.

Part Two: COVID-19

Familiarize staff with the current Yukon respiratory infection outbreak guidance document and facility specific protocols/policies, including notification process to be used to report a suspected outbreak. Transitioning from COVID-19 pandemic to endemic appropriately moves management from the COVID-19 specific outbreak guidelines to incorporating COVID-19 into the RI outbreak guidelines. Given the unpredictability of COVID-19 with future evidence of COVID-19, accompanied by worsening outcomes/hospitalizations/epidemiology etc, the MOH may decide to re-institute the COVID-19 specific outbreak guidelines including testing, isolation etc.

- Encourage Health Care Workers (HCW) to be vaccinated against COVID-19 (this includes up to date boosters when applicable and recommended by public health)
- Encourage residents to be vaccinated against COVID-19 (this includes up to date boosters when applicable and recommended by public health)
- Maintain staff and resident COVID-19 immunization records in Panorama
- Maintain a current list of staff in the facility
- Order and maintain a supply of infection control supplies required for outbreak management
- Provide a “readiness report” for YCDC, to be submitted by December 1st ([Appendix C](#))

Provide education to staff and residents including the importance of COVID-19 vaccine, routine respiratory precautions, and respiratory outbreak management.

COVID-19 Vaccine Delivery

COVID-19 remains a cause of illness and death amongst the elderly and residents of care facilities. COVID-19 immunization of both residents and health care workers is the most effective measure reducing the risk of severe illness and death from COVID-19 infection.

Immunization of Health Care Workers (HCWs)

A HCW is any person carrying out paid or unpaid work in a health care facility, including persons who volunteer or undergo training in a health care facility. COVID-19 vaccine is provided free of charge to all Yukon residents.

COVID-19 vaccinations should be up to date and follow the most current public health recommendations. The YIP Manual can be accessed at: http://www.hss.gov.yk.ca/health_professionals_guidelines.php

It is important for each facility to keep an up to date record of who has received COVID-19 vaccine, through either a paper document or Panorama.

Requesting COVID-19 Immunization Information from HCWs

The implementation of potential mandates for both COVID-19 and Influenza vaccine may emerge based on epidemiological circumstances.

Information is legally collected and disclosed under the authority of the Health Act and the Public Health and Patient Safety Act, Communicable Disease Regulation Section 4. Information is also collected and disclosed under the authority of Health Information Privacy and Management Act (HIPMA) for the purpose of ongoing public health surveillance activities as outlined in s.53(c) + 54(c)(i) + 56(4).

A review of the following points should occur when discussing immunization status with HCWs:

- The request for collecting this information comes from the MOH
- The purpose of collecting HCW immunization information is to ascertain the immunization coverage rate per facility (residents and HCWs) as Covid 19 immunization of HCWs can help prevent outbreaks from occurring
- COVID 19 outbreaks may still occur with sub-optimal immunization coverage among health care personnel or in the event of substantial virus drift away from the selected vaccine components
- Although Covid 19 immunization may not prevent infection, it can prevent serious complications

HCWs who disclose immunization status should have their information kept confidential within the facility. As part of pre-season preparedness each fall, the MOH will request a report on HCW immunization uptake (facility wide) to be provided to YCDC. Additional information i.e. employee specific information may be requested at the discretion of the MOH.

Immunization of Residents of Acute and Residential Care Facilities

Residents of any age are eligible for free COVID-19 vaccine. Immunization helps prevent severe outcomes and hospitalizations due to COVID-19 infection.

Records and Reporting

Facilities should strive to maintain annual records of both resident and HCW COVID-19 immunization status and have these records available in the event of a COVID-19 outbreak.

Templates and reporting forms are included at the end of this section.

COVID-19 Outbreak Preparation

When the RI outbreak has been identified as a COVID-19 outbreak based on the assessment of the MOH, including lab confirmation, the key to successful management is implementing all of the appropriate measures as soon as possible. All staff should be aware of how to put the measures into place.

To be prepared:

- Develop a facility protocol that outlines staff responsibilities for implementing outbreak response. This should include chain of reporting and communication within the facility and notification to YCDC and the MOH.
- Order specimen collection material/Respiratory Outbreak Collection Kits from Whitehorse General Hospital Laboratory. Swabs may be ordered and replaced as needed ([Appendix D](#)).
- When the supply of testing kits is received, discard any remaining stock which may have expired.
- Keep a record of all residents who are immunized and request that staff report immunization status.
- Review whether residents and/or patients are immunized and offer if applicable.
- Ensure adequate infection control and cleaning supplies are available, such as hand soap/sanitizer, masks, goggles, gowns, linens, surface disinfectants, waste-bins with step-on lids and signage.

Templates for these measures are included at the end of this section.

Anti-virals

At the time of writing, the only currently available oral anti-viral therapy is Paxlovid (nirmatrelvir/ritonavir). Paxlovid is NOT a prophylactic medication but rather a treatment option. Due to adverse effects and numerous drug interactions, Paxlovid is not recommended for all individuals. If a resident is symptomatic and tests positive for COVID-19, the most responsible physician will determine if Paxlovid is indicated or not.

Common Viral Pathogens That Cause Respiratory Infection Outbreaks

Viral Organism	Epidemiology	Incubation period	Symptoms and symptom duration	Period of communicability	Prophylaxis and treatment
Influenza A	Typically November to April Causes mild to severe symptoms Causes infection in all age groups with highest incidence in children; highest mortality in elderly and those with comorbidity Can infect animals and humans Causes most outbreaks	1-4 days	Fever*, cough (often severe and may last longer than other symptoms), headache, muscle/joint pain, sore throat, prostration and exhaustion. Gastro-intestinal symptoms may occur in children Duration: 2-7 days	Probably 3-5 days from clinical onset in adults; up to 7 days in young children Asymptomatic people may be infectious	Yearly vaccine (for A&B) Antivirals for prophylaxis and treatment: Neuraminidase inhibitors are preferred (for A&B): i.e. Oseltamivir
Influenza B	November-April Causes milder infection Mostly affects children Can cause outbreaks			Probably 3-5 days from clinical onset in adults; up to 7 days in young children Asymptomatic people may be infectious	

Viral Organism	Epidemiology	Incubation period	Symptoms and symptom duration	Period of communicability	Prophylaxis and treatment
COVID-19	Entire year (no seasonal pattern at this time).	2-14 days, median of 5-7 days; however this is variant dependent (ex: Omicron median is 3 days).	Cough, fever, myalgia/arthralgia, prostration, sore throat, headache	Most cases are infectious from 48 hours prior to symptom onset and 7-10 days following onset. This may be longer if an individual is immunocompromised or has severe disease.	No prophylaxis available. Majority of cases are mild and require symptomatic treatment only. Oral treatment available, requires physician consultation. Additional treatment may be indicated if hospitalized, requires physician consultation.
Parainfluenza virus	Entire year (little seasonal pattern) Predominantly causes infection & outbreaks in young children and the elderly	2-6 days	Fever, cough, wheezing, croup	From shortly prior to clinical onset and for duration of active disease	Symptomatic treatment only
Respiratory Syncytial virus (RSV)	Usually late winter and early spring Predominantly causes infection & outbreaks in young children and the elderly	Usually 4-6 days, range 2-8 days	Fever, cough, wheezing bronchiolitis in children pneumonia in adults	From a day or so before clinical onset and usually for 3-8 days. However, viral shedding may persist for several weeks or longer after symptoms have subsided, especially in children	Symptomatic treatment only. For severe pediatric cases consult a Pediatrician or an Infectious Disease physician

Viral Organism	Epidemiology	Incubation period	Symptoms and symptom duration	Period of communicability	Prophylaxis and treatment
Adenovirus	Usually fall and winter Causes infection in all ages	Usually 4-5 days, range 2-14 days for respiratory disease	Conjunctivitis, sore throat, fever, and other respiratory symptoms	From up to a week prior to clinical onset and for duration of active disease Viral shedding may persist for a long period of time	Symptomatic treatment only
Common respiratory viruses such as: -Rhinovirus -Coronavirus other than COVID-19 -Metapneumovirus -Echovirus -Coxsackie- virus -other enteroviruses. (Currently included in multiplex panels)	Throughout the year with peaks in the spring and fall	Usually 2-3 days, but may be longer	'Common cold' type illness: Sneezing, runny nose, cough, sore throat, sinus congestion malaise, headache, myalgia and/or low grade fever	Viral shedding usually most abundant during the first 2-3 days of clinical illness. Shedding usually ceases by 7-10 days, but may continue for up to 3 weeks in young children	Symptomatic treatment only

Bacterial Pathogens That Cause Respiratory Infection Outbreaks (Uncommon)

Bacterial Organism	Epidemiology	Incubation period	Symptoms and symptom duration	Period of communicability	Prophylaxis and treatment
<i>Chlamydia pneumoniae</i>	Throughout year, no seasonality	21 days	Fever, sore throat, prolonged cough, headache, malaise	Not defined	Antibiotics based on clinical picture
<i>Bordetella pertussis</i>	Neither infection nor immunization provides lifelong immunity	7-10 days (range 5-21 days)	Mild URI with minimal or no fever, progresses to cough and then paroxysms of cough with inspiratory whoop and commonly followed by vomiting. Duration 6-10 weeks	From onset of early mild symptoms and first 2 weeks of cough	Immunization, chemoprophylaxis for all household and close contacts regardless of age and immunization status. Antibiotic therapy for treatment
<i>Legionella</i> sp.	Acquired through inhalation of aerosolized contaminated water, NOT from person to person	2-10 days	Fever, cough, progressive respiratory distress. Occurs most commonly in those who are elderly, immunocompromized or have other underlying lung disease	Person to person transmission not documented	Antibiotic therapy for treatment
<i>Mycoplasma pneumoniae</i>	Worldwide non seasonal. More common in school age and young adults	2-3-weeks (range 1-4 weeks)	Fever, acute bronchial cough non-productive initially	Duration of symptoms	Mild illness may resolve on own, inherently resistant to beta-lactam agents

Tools for Pre-Season Preparation and Prevention For Influenza

Appendix A: Respiratory Outbreak Pre-Printed Orders



Test/Antiviral Medication	Ordering Provider: Signature: Date (YYYY/MM/DD):
Estimated Glomerular Filtration Rate (eGFR) in chart ¹ within the past 12 months (if client stable and >18 years) Serum Creatinine (SCr) as appropriate. Lack of documented GFR results should not delay the initiation of antivirals , where renal insufficiency is suspected and a SCr/eGFR has already been drawn.	<input type="checkbox"/> YES <input type="checkbox"/> NO
Oseltamivir prophylaxis in event of influenza outbreak	<input type="checkbox"/> YES (Complete Accompanying Antiviral Script – Appendix B) <input type="checkbox"/> NO Reason:
Oseltamivir treatment in event of infection in influenza outbreak.	<input type="checkbox"/> YES (Complete Accompanying Antiviral Script – Appendix B) <input type="checkbox"/> NO Reason:

¹Recent (within previous 12 months) SCr and eGFR are not required before starting oseltamivir, unless there is reason to suspect renal impairment. If renal impairment is suspected and a SCr and eGFR is not available, initiate antivirals AND collect blood work on same day. If renal impairment is present (eGFR 60mL/min or less), a recent Scr and eGFR (in the previous 4 weeks) is required to adjust the osteltamivir dosage and regime.

**Oseltamivir
Treatment and Prophylaxis
of Influenza A and B**

Allergies - check box: (✓)

None known Unable to obtain See Allergy Record (if in use at the facility)

List _____

TREATMENT : Continue for 5 days. Active treatment for symptomatic patients should be initiated within 48 hours of symptom onset.

Select one	eGFR/CrCl (mL/min)	Oseltamivir TREATMENT greater than and equal to 13 years
<input type="checkbox"/>	>60 mL/min	75 mg PO BID for 5 days
<input type="checkbox"/>	>30 - 60 mL/min	75mg PO ONCE DAILY OR 30 mg PO TWICE daily X 5 days
<input type="checkbox"/>	10 - 30 mL/min	30 mg PO once daily X 5 days Please consult with internist for dosing regimens in patients with reduced creatinine clearance below 30 mL/min.

PROPHYLAXIS: Continue oseltamivir until outbreak is declared over

<input type="checkbox"/>	eGFR/CrCl (mL/min)	Oseltamivir PROPHYLAXIS greater than and equal to 13 years
<input type="checkbox"/>	>60 mL/min	75 mg PO once DAILY until prophylaxis no longer required
<input type="checkbox"/>	>30 - 60 mL/min	75mg PO on ALTERNATE days OR 30 mg ONCE DAILY until prophylaxis no longer required
<input type="checkbox"/>	10 - 30mL/min	30 mg PO on ALTERNATE days until prophylaxis no longer required Please consult with internist for dosing regimens in patients with reduced creatinine clearance below 30 mL/min.

For pediatric Oseltamivir TREATMENT and PROPHYLAXIS dosing (**equal to and greater than one year to 12 years**), refer to the Association of Medical Microbiology and Infectious Disease in Canada (AMMI). For pediatric cases with renal impairment, consultation with an infectious disease physician and/or clinical pharmacist is strongly suggested (AMMI, 2019)

Note: A recent (within previous 12 months) SCr and eGFR **are not** required before starting oseltamivir, unless there is reason to suspect renal impairment.

If renal impairment **is suspected** and a SCr and eGFR is not available, initiate antivirals **AND** collect blood work on same day.

If renal impairment **is known** (eGFR 60mL/min or less), a recent Scr and eGFR (within previous 4 weeks) is required to adjust the osteltamivir dosage and regime

Readiness Report – to be completed and submitted by December 1

Date: (yyyy-mm-dd) _____ Facility: _____

Person Completing Form: _____

(Name)

(Phone #)

Unit	# of residents	# of residents immunized for seasonal influenza	# of pre-printed orders (prophylaxis and treatment) for residents	# of residents with up to date immunizations for COVID-19	# of staff	# of staff immunized for seasonal influenza	# of staff with up to date immunizations for COVID-19
Total #							

Total number of available beds in facility

Total number of beds occupied

Comments: _____

Fax to YCDC (867) 667-8349 or email YCDCSurveillance@gov.yk.ca



Laboratory Guide to Services

WGH LABORATORY – SUPPLIES ORDER FORM			
Instructions:			
1. Fax (867-393-8772) or drop off completed form to the WGH Laboratory.			
2. Orders will be filled within 1 week and delivered to the WGH doctors' lounge for pick up.			
Ordering Clinic Information:			
Clinic Name:		Ordered by:	
		Order Date:	
Requisitions:	Quantity	Supplies:	Quantity
WGH Lab On-Site Testing		Amies Swabs- with Charcoal	
Referred Out Testing		Amies Swabs- Clear	
WGH Microbiology		Uricult Trio (BacTube) (for C&S urine)	
		Viral Collection kits- Respiratory (red top)	
		Viral Collection kits- Non-Respiratory (blue top)	
		Chlamydia/Gonorrhoeae: <u>Swab</u> Collection kits	
		Chlamydia/Gonorrhoeae: <u>Urine</u> Collection kits	
		Stool O & P (SAF fixative red top containers)	
		Stool C & S (white lid container with spoon)	
		Pertussis Collection kits (Swabs- Amies with Charcoal)	
		Semen Analysis kits	
		24 hr. Urine collection containers	
		FIT kits (Colorectal Cancer screening)	
Referral Lab Requisitions: see website links on YHC website		Harmony (prenatal testing) kits	
Laboratory Use Only:			
Issued by:		Date:	
Comments:			

Part Three: Outbreak Detection and Consultation

This section contains information and tools to assist facilities when they suspect an outbreak is caused by a respiratory infection. Facilities need to be aware of staff and patients who meet the case definition for a respiratory infection.

Surveillance for Respiratory Illness

RI outbreaks may occur at any time, but are more frequent during the winter season due to common circulating viruses, including influenza. RI may have different presentations but a common symptom to watch for is a new or worsening cough.

Facility managers should make every attempt to ensure that both health care workers and residents are monitored for the presence of new or worsening cough and other signs of respiratory illness. As part of outbreak readiness, designate one staff member to be responsible for maintaining records for the RI outbreak.

Identifying an Outbreak

Case Definition for Respiratory Infection

Prior to lab confirmation of infection by a particular organism, the following case definition is used to identify possible cases of RI:

- New or worsening cough **and/or** fever (greater than 38°C, or a temperature that is abnormal for that individual) **AND** a least one of the following symptoms:
 - myalgia/arthralgia, prostration, sore throat, shortness of breath, headache

Note: There may be groups within the population that would not meet this definition, yet are infected with an organism that can cause respiratory outbreaks.

Practice Point

Young children, the elderly, the immuno-compromised, or those taking medications such as steroids, NSAIDS, or ASA, **may not develop a fever** or may have a lowered temperature as a result of the infection.

A temperature of less than 35.6C or greater than 37.4C in the elderly may be an indication of infection.

Suspected Respiratory Infection Outbreaks

Early detection of respiratory outbreaks and implementation of control measures will reduce the impact on the health of both staff and residents. Use a definition of a “suspected outbreak” to investigate cases for the presence of a causative organism and to facilitate the efficient implementation of control measures should this be considered likely. At the discretion of the MOH and/or delegate, some control measures may be implemented at the “suspected outbreak” stage while other more invasive measures await confirmation.

RI Outbreak may be suspected in the following circumstances:

One laboratory confirmed case of health care facility acquired RI, and no other cases of RI within 7 days and within a geographic area

OR

More than one geographic area (e.g., unit or floor – may vary depending on facility layout and movement of staff/residents) having a health care facility acquired case of RI within 7 days.

Definition of a Respiratory Infection Outbreak:

Two or more epidemiologically linked cases of RI occurring within 7 days in a geographic area. One of these cases must be a resident/patient/client.

When a suspected RI outbreak occurs in a facility, staff should:

- Obtain nasopharyngeal swabs on residents/patients meeting the criteria of a case definition
- Be on the lookout for more cases and,
- Be ready to implement full unit wide control measures including (contact/droplet precautions)

Reporting a Suspected Respiratory Infection Outbreak

The most responsible person in each residential care facility should review annually and clarify the details of how to report a suspected respiratory infection outbreak for their facility staff. This annual review is best done in early September of each year.

A suspected respiratory outbreak needs to be reported as soon as possible to the Director of Care or the facility designated most responsible person and the infection control practitioner (ICP), if applicable, who will ensure outbreak measures are put in place.

- The facility must notify YCDC (Monday to Friday 08:30-16:30) at 867- 667-8323 and/or email: YCDCSurveillance@gov.yk.ca. If an outbreak is identified after business hours on week days, report it the following business day. On weekends, notify the MOH on call at 867-332-6922
- Designate an individual to be responsible for daily outbreak tracking, including submission of the initial RI Outbreak Report Form and the Daily Line List for Residents and Staff. Complete all forms and send to YCDC ([Appendices H and I](#)).

Information required by YCDC upon initial notification includes:

- total number of residents ill and the dates of symptom onset
- total number of residents who reside on the affected unit
- total number of staff ill and the dates of symptom onset
- total number of staff who work on the affected unit including time and date of last shift worked
- location of outbreak in facility
- number of swabs sent (this is to be reflected on the line list)
- general outbreak measures initiated

- staff immunization rates (estimate if actual not available)
- resident immunization rates

YCDC's Role in Facilitating Specimen Submission

YCDC is responsible for notifying Whitehorse General Hospital (WGH) and PHSA Laboratory to expect specimens that are part of a RI Outbreak Investigation. YCDC will:

- Notify the WGH laboratory (867-393-8739) and BCCDC Virology (604-707-2623) via telephone
- Identify the outbreak code¹ being used
- Fax WGH laboratory and BCCDC the BCCDC/PHSA Laboratories Influenza-Like Illness (ILI) Form <http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Forms/Labs/ILIForm.pdf> (one form per outbreak).
- Remind the facility to include the outbreak code³ on all specimens labels and requisitions to ensure appropriate lab testing occurs

Identifying Causative Organisms

Currently in Yukon, nasopharyngeal (NP) swabs are the preferred method used to detect several viruses that can cause respiratory illness.

Respiratory Outbreak Kits are ordered from the WGH Laboratory (obtained from BCCDC). Kits should be ordered by September 15th of each year. To order please use the order form provided in [Appendix D](#). WGH Lab Phone: 867-393-8739.

When an institutional outbreak of a respiratory infection is suspected, specimens are collected for virus testing:

- One NP swab should be collected from each ill individual as per instructions in the swab kits (residents and staff; a maximum of 6 different individuals who meet the case definition for RI Outbreak)
- Swabs should be collected within 48-72 hours of symptom onset
- Swabs should be sent as soon as possible by courier (or by other local arrangements approved by your facility) to the WGH Laboratory

A sample requisition is provided in [Appendix F](#).

Declaring a Respiratory Infection Outbreak

The MOH is responsible for declaring the RI outbreak and determining when to close and reopen a facility to admissions and transfers. YCDC and the ICP within the facility may be consulted as required.

The care facility should alert service providers and others as appropriate (e.g. EMS, WGH, oxygen delivery services, pharmacy) that the facility is under outbreak protocols.

When there are additional cases identified beyond those recognized within one of the two “suspect outbreak” definitions, an outbreak is said to exist. See [Part 3](#).

³ The outbreak code is a unique alphanumeric code, created by YCDC, specific to the outbreak within the facility, as outlined in the Panorama User Manual, Quick Reference, Create OB

Tools for Outbreak Detection and Consultation

Specimen Collection Principles

Respiratory specimens should be collected as per the instructions of the laboratory processing the specimen or as outlined below (detailed procedures for specimen collection are provided in [Appendix E](#)):

- Wear personal protective equipment when collecting the specimens as required (i.e. gloves, mask, eye protection and gowns). This is to protect from a splash or a spray with a body fluid, substance, excretion or secretion, i.e. if the resident coughs or sneezes during the procedure.
- Specimens should be collected only from symptomatic individuals within 48 to 72 hours of onset of symptoms, including members of the health-care staff if available. From acutely ill patients, specimens collected after 72 hours may be acceptable.
- After collection, keep specimens at refrigerator temperature (2°C to 8°C) as much as possible after collection and during transport to the laboratory; this may be achieved by using an ice pack. Do not freeze the specimens.
- For institutional outbreaks, specimens from up to 6 symptomatic individuals should be initially submitted. If no etiological agent can be identified, further specimens may be sent.
- Always label the specimen with the resident's full legal name, date of birth, health care number and the date the specimen was collected.
- Complete a requisition form for each specimen ([Appendix F](#)). These must be sent with the specimens to the laboratory. Include the outbreak code provided by YCDC.
- Update the line list to indicate which ill person was swabbed and when ([Appendices H and I](#))
(Adapted from PICNet, 2018)

Transportation of Specimens

Assemble the swabs with the accompanying virology requisitions and ship in a cooler marked Diagnostic Specimens. Include an icepack if possible.

Send the specimen as soon as possible to the WGH Laboratory to allow for shipping on the next business day.

Nasal/Nasopharyngeal Swab Specimen Collection

NOTE: For personal protection it is recommended that gloves and a mask be worn when collecting specimens.

NOTE: Collect the specimens within 48-72 hours of symptom onset.

- Assemble sterile supplies – PHSA Respiratory Outbreak swab
- Have patients with copious discharge gently clean their nose with a tissue
- Incline the patient’s head as required and insert the cotton swab provided 2-3 cm into the nostril
- Swab around the inside of the nostril and along the nasal septum, a minimum of 6 times
- Place the swab into the accompanying vial of transport media and tighten the lid securely
- Label the container appropriately
- For further instructions on how to collect an NP swab, refer to the *How to collect a Nasopharyngeal (NP) swab* available at <https://yukon.ca/sites/yukon.ca/files/hss/hss-imgs/npswab.pdf>

Complete the Requisition – or test results will not be processed

- Send one [PHSA Laboratories Virology Requisition](#) for each nasal swab taken
- Under Examination Requested, enter “Respiratory Outbreak”
- under Return Address, enter the full name and billing number of facility (or physician) to whom the final report will be sent
- under Copy Report To, enter YCDC

(Adapted from Interior Health, September 2018)



Public Health Laboratory
655 West 12th Avenue, Vancouver, BC V5Z 4R4
www.bccdc.ca/publichealthlab



Section 1 - Patient/Provider Information (Two matching unique patient identifiers on sample container and requisition are required for sample processing)

PERSONAL HEALTH NUMBER (or out-of-province Health Number and province)		ORDERING PRACTITIONER Name and MSCR		LABORATORY USE ONLY
PATIENT SURNAME		Address of report delivery		
PATIENT FIRST AND MIDDLE NAME		<input type="checkbox"/> I do not require a copy of the report <input type="checkbox"/> I am a Locum ¹ ¹ If Locum, include name of Practitioner you are covering for		
DOB (DD/MM/YYYY)	SEX <input type="checkbox"/> M <input type="checkbox"/> F <input type="checkbox"/> X <input type="checkbox"/> U (Link)	ADDITIONAL COPIES TO PRACTITIONER / CLINIC: (Name, Address / MSCR / PHSA Client#) (Limit of 3 copies available)		
PATIENT ADDRESS				
CITY				
PROVINCE	POSTAL CODE			OUTBREAK ID
				SAMPLE REF. NO.
				DATE COLLECTED (DD/MM/YYYY)
				TIME COLLECTED (HH:MM)

Section 2 - Test(s) Requested

RESPIRATORY PATHOGENS <input type="checkbox"/> Influenza A, Influenza B, RSV <input type="checkbox"/> COVID-19 <input type="checkbox"/> MERS (Approval and travel history required*) <input type="checkbox"/> Enterovirus D68 (Seasonal; when outside season, approval required) <input type="checkbox"/> Other, specify: _____ Indicate sample site: <input type="checkbox"/> Nasopharynx <input type="checkbox"/> Nares <input type="checkbox"/> Oropharynx <input type="checkbox"/> Throat <input type="checkbox"/> Lower Respiratory Tract: _____ <input type="checkbox"/> Other, specify: _____ Indicate container type: <input type="checkbox"/> Swab with transport media <input type="checkbox"/> Saline gargle <input type="checkbox"/> Wash: _____ <input type="checkbox"/> Others: _____		For other available tests and sample collection information, consult the Public Health Laboratory's <i>eLab Handbook</i> : www.elabhandbook.info/PHSA/Default.aspx				
VIRUS SUBTYPING <input type="checkbox"/> Influenza A <input type="checkbox"/> Adenovirus (Surveillance/outbreak investigations only) Ct value: _____ or viral signal: weak / strong		PATIENT STATUS / TRAVEL HISTORY* / EXPOSURE (Please provide travel history where indicated*) _____ _____ _____				
HEPATITIS VIRUSES Please see the Serology Screening Requisition to order HCV RNA and/or HCV genotyping testing.		HERPES SIMPLEX 1,2 / VARICELLA ZOSTER VIRUSES <input type="checkbox"/> Genital lesion swab <input type="checkbox"/> Non-genital lesion swab <input type="checkbox"/> Skin swab <input type="checkbox"/> Other, specify: _____ ENCEPHALITIS VIRUSES Cerebrospinal Fluid for: <input type="checkbox"/> HSV 1, HSV 2, VZV and Enterovirus <input type="checkbox"/> West Nile virus (Seasonal) (Summer/early fall; when outside of season, specify travel history to endemic area*) <input type="checkbox"/> Other, specify: _____ (Note: Send CSF from <6 months old directly to BC Children's & Women's Hospital Laboratory for testing that includes parechovirus)				
		OUTBREAK LOCATION / INFORMATION _____ _____ _____				
		GASTROINTESTINAL VIRUSES Feces** for: <input type="checkbox"/> Gastrointestinal Panel (Norovirus, Adenovirus, Astrovirus, Rotavirus, Sapovirus) <input type="checkbox"/> Enterovirus <input type="checkbox"/> Other, specify: _____ **Guideline for Ordering Stool Specimens www.bccguidelines.ca/gpac/guideline_diarrhea.html				
		BIOPSY / AUTOPSY / OTHER TESTS <input type="checkbox"/> Plasma for West Nile virus (Seasonal) <input type="checkbox"/> Eye sample for Adenovirus, HSV 1, HSV 2, VZV <input type="checkbox"/> Other, specify: _____				
		<table border="1"> <tr> <td> MEASLES <input type="checkbox"/> Nasopharyngeal swab <input type="checkbox"/> Throat swab <input type="checkbox"/> Urine <input type="checkbox"/> Other, specify: _____ </td> <td> MUMPS <input type="checkbox"/> Buccal/Oral swab <input type="checkbox"/> Urine <input type="checkbox"/> Other, specify: _____ </td> <td> RUBELLA <input type="checkbox"/> Nasopharyngeal washing/swab <input type="checkbox"/> Throat swab <input type="checkbox"/> Urine <input type="checkbox"/> Other, specify: _____ </td> </tr> </table>		MEASLES <input type="checkbox"/> Nasopharyngeal swab <input type="checkbox"/> Throat swab <input type="checkbox"/> Urine <input type="checkbox"/> Other, specify: _____	MUMPS <input type="checkbox"/> Buccal/Oral swab <input type="checkbox"/> Urine <input type="checkbox"/> Other, specify: _____	RUBELLA <input type="checkbox"/> Nasopharyngeal washing/swab <input type="checkbox"/> Throat swab <input type="checkbox"/> Urine <input type="checkbox"/> Other, specify: _____
MEASLES <input type="checkbox"/> Nasopharyngeal swab <input type="checkbox"/> Throat swab <input type="checkbox"/> Urine <input type="checkbox"/> Other, specify: _____	MUMPS <input type="checkbox"/> Buccal/Oral swab <input type="checkbox"/> Urine <input type="checkbox"/> Other, specify: _____	RUBELLA <input type="checkbox"/> Nasopharyngeal washing/swab <input type="checkbox"/> Throat swab <input type="checkbox"/> Urine <input type="checkbox"/> Other, specify: _____				
		<input type="checkbox"/> Recent MMR vaccination <input type="checkbox"/> Recent travel (Provide travel history if available*)				

The personal information collected on this form is collected under the authority of the Personal Information Protection Act. The personal information is used to provide medical services requested on this requisition. The information collected is used for quality assurance management and disclosed to healthcare practitioners involved in providing care or when required by law. Personal information is protected from unauthorized use and disclosure in accordance with the Personal Information Protection Act and when applicable the Freedom of Information and Protection of Privacy Act and may be used and disclosed only as provided by those Acts.

Form DCVI-100-0001f Version 3.1 07/2020

Quick Reference Guide for Respiratory Outbreaks

Trigger to launch a Respiratory Infection outbreak investigation:

2 or more people with new or worsening cough **and/or** fever (greater than 38 degrees or temperature that is abnormal for that individual) **AND** at least one of the following symptoms:

- myalgia/arthralgia, prostration, sore throat, shortness of breath, headache

1. Report as a suspect RI outbreak to YCDC. If after hours, consult MOH by calling 867-332-6922
2. Implement general RI outbreak measures and initiate surveillance forms (appendix K and L)
3. Offer Influenza vaccine to unimmunized residents and staff
4. Collect NP swabs on symptomatic persons

Laboratory Confirmed
Influenza or COVID?

NO

Yes

Consult YCDC/MOH for direction

Note: not all RI can be detected using an NP swab results. Sputum collection or swabs for bacterial pathogens may be required

1. Maintain general outbreak control measures
2. Review other potential causative organisms, additional testing required and possible modification of outbreak control measures

Report to YCDC/MOH

1. Maintain RI outbreak control measures
2. Continue to fax daily line list for residents and staff to YCDC
3. In consultation with MOH, initiate anti-viral protocols as appropriate
4. Continue to offer influenza vaccine to unimmunized residents, staff and visitors
5. Post public awareness posters

Fax (867-667-8349) a summary report to YCDC daily for the duration of the outbreak ([Appendix H](#))

Today's Date:

Facility:

Affected Unit:



Outbreak Surveillance Form - Patients/Residents/Clients

RI Case Definition (resident must meet case definition to be listed):

- New or worsening cough **and/or** fever (greater than 38°C, or a temperature that is abnormal for that individual) **AND**
- At least one of the following symptoms: myalgia/arthritis, prostration, sore throat, shortness of breath, headache

Legal Name (Last, First)	YHIS #	Room #	Gender	DOB YYYY/MM/DD	Date of Symptom onset YYYY/MM/DD	Symptoms (List all that meet RI definition) C=cough F=Fever M/A=myalgia/arthritis P= prostration ST=sore throat SOB=shortness of breath H=headache	Swab Collection Date YYYY/MM/DD	Swab Result (POS, NEG, or IND)	Name and start date of Antivirals YYYY/MM/DD O=Oseltamivir Z=Zanamivir P=Paxlovid	Start date isolation YYYY/MM/DD	Date isolation ended YYYY/MM/DD	Severe Outcomes (YYYY/MM/DD)			Recovered YYYY/MM/DD
												X-ray pneumonia	Hospitalization	Death	

Today's Date:

Facility:

Affected Unit:



Outbreak Surveillance Form – Healthcare Staff

RI Case Definition (staff must meet case definition to be listed):

- New or worsening cough **and/or** fever (greater than 38°C, or a temperature that is abnormal for that individual) **AND**
- At least one of the following symptoms: myalgia/arthritis, prostration, sore throat, shortness of breath, headache

Legal Name (Last, First)	Gender	DOB YYYY/MM/DD	Occupation	Date last worked on affected unit YYYY/MM/DD	Symptoms (List all that meet RI case definition) C=cough F=Fever M=myalgia P= prostration ST=sore throat SOB=shortness of breath H-headache	Swab Collection Date YYYY/MM/DD	Result (POS, NEG, or IND)	Name and date of antivirals YYYY/MM/DD O= Oseltamivir Z=Zanamivir P=Paxlovid	Severe Outcomes (YYYY/MM/DD)			Recovered (YYYY/MM/DD)
									X-ray pneumonia	Hospitalization	Death	

Initial RI Outbreak Form (one form per affected unit)

Date form completed: _____ Affected Facility: _____

Affected Unit: _____

Date YCDC Notified: _____

Outbreak Lead Name and Phone Number: _____

Alternate Lead Name and Phone Number: _____

Have there been any changes to Readiness Report? YES NO

If no, proceed to 2) below.

If yes, complete 1.):

1.)

Unit	# of residents	# of residents immunized for seasonal influenza	# of pre-printed orders (prophylaxis and treatment) for residents	# of residents with up to date immunizations for COVID-19	# of staff	# of staff immunized for seasonal influenza	# of staff with up to date immunizations for COVID-19

2) Line list for residents and staff completed? YES NO

NP swab collected? YES NO

- Outbreak code provided to facility by YCDC, and placed on requisition? YES NO
- NP swab entered on line list? YES NO
- Total number of specimens sent?

Comments: _____

Fax to YCDC (867) 667-8349 or email YCDCSurveillance@gov.yk.ca

Part Four: Outbreak Management

This section contains information and tools to assist facilities in managing a RI outbreak. Initial outbreak management strategies are generic to all respiratory infection outbreaks and specific measures are applied when the causative agent is identified as influenza.

General Measures

If a facility is experiencing a respiratory outbreak identified as influenza or COVID-19, non-immunized residents and staff who do not have contraindications to influenza or COVID-19 immunization should be offered the vaccine, and recommended boosters if not yet received.

Staff with ILI or respiratory illness should be excluded from the facility for the duration of their acute symptoms or 5 days, whichever is longer. If a staff member has tested positive for COVID-19, please follow the most up-to-date recommendations for case management, if available.

The following measures are to be implemented when two or more people meet the definition for a respiratory illness (RI Outbreak definition). Once the causative organism is isolated, or on the advice of the MOH, additional control measures may be required.

Immediate controls, isolation

- **Isolate** the resident in their room
- **Follow** droplet and contact precautions and use appropriate personal protective equipment. Staff who are entering the room of a patient awaiting viral pathogen testing must follow droplet and contact precautions. This includes:
 - Gloves,
 - Long-sleeved cuffed gown (cover front of body from neck to mid-thigh),
 - Procedure/surgical mask,
 - Face/eye protection (i.e. face shield, mask with attached visor, non-vented safety glasses, or goggles)
 - N95 respirators/Max Air are only necessary when conducting an AGMP.
- **Setup** a PPE station in an easy to access location (i.e. outside of resident's door).
- **Post** droplet and contact precaution signs on the door of the resident's room

Test resident

- **Obtain** a nasopharyngeal (NP) swab specimen
 - For instructions on how to collect a nasopharyngeal swab see the following link:
<https://yukon.ca/sites/yukon.ca/files/hss/hss-imgs/npswab.pdf>
 - i. The swab should be obtained as soon as possible after symptom onset
 - ii. Refer to [Identifying Causative Organisms](#), [Specimen Collection Principles](#) and [Transportation of Specimens](#)

Surveillance

- **Continue** monitoring other residents and staff for RI symptoms

- **Documentation of all residents and staffs who meet RI case definition:** Complete the Initial RI Outbreak Report Form and the Daily Line List for Residents and Staff ([Appendices H and I](#)).

Notification

- **Notify** leaders of resident care for the residential care facility as appropriate such as the Outbreak Management Team, Infection Control Practitioner.
- **Notify:**
 - Resident's primary care provider: Direct staff to notify resident's usual primary care provider to determine if further assessment and treatment is indicated.
 - Resident's family / substitute decision-maker / next-of-kin: Direct staff to notify family of illness and testing being done.
 - Complete the Initial RI Outbreak Form and Daily Line Lists ([Appendix H and I](#)) as directed in your facility
 - Send completed forms daily and provides updates as appropriate to YCDC at: YCDCSurveillance@gov.yk.ca

Continued client care

- **Restrict** symptomatic residents to their room, this includes meal time and other activities.
- **Limit** transfer of residents in or out of the facilities to those deemed urgent in nature. Depending upon the infecting organism, the severity of illness, the extent of the outbreak and the physical layout of the building, the admission and transfer restrictions might not be applied or may be applied to one floor, one wing or the entire facility. The MOH will assess and may lift restrictions based on case number/attack rate, clinical severity, and type of respiratory pathogen, if known. Decisions to modify the limitation of transfer of residents need to be made in conjunction with the Medical Health Officer or delegate.
- **Notify** receiving facility of the outbreak so they can initiate appropriate precautions (incoming resident or their decision-maker and the family physician should be made away of the outbreak and be able to provide informed consent regarding the admission)
- Consider **Assigning** groups of staff to work in either affected or non-affected areas but not both. If not possible to cohort, staff should work first in unaffected areas or with well residents, using strict hand hygiene between residents and areas
- Review activities and consider **cancelling or modifying** in order to cohort ill residents with ill residents and well residents and well residents.
 - Weigh the importance of group activities to resident well-being against the needed infection control measures
 - Consider cancelling non-critical volunteer services (e.g. hair dressing, animal visits)

Continued management of the facility/residence

- **Cleaning:** Continue enhanced and frequent disinfection of commonly touched surfaces or items such as handrails, elevator buttons and door handles. Use a product approved for use on viruses. Provide sufficient receptacles for safe disposal of contaminated items such as tissues. Clean and disinfect all equipment between use for different residents or areas

- **Encourage** diligence in hand washing and use of alcohol-based hand sanitizer for all patient/residents/staff, before and after contact with each resident
- **Provide** hand sanitizer at all entrances and exits with signage on how to use
- **Post** signs noting infection control practices for both visitors and staff (Appendices [J](#), [K](#) and [N](#))

Additional Measures for RI outbreaks caused by Influenza A and/or B

Well health care workers:

- Currently in Yukon there is no exclusion policy for health care workers who have chosen not to be immunized for influenza
- Consideration may be given for unimmunized HCWs to be reassigned (if logistically feasible for the facility) for the duration of the outbreak unless taking antiviral medication
- Initiate antiviral medication (treatment and prophylaxis). See [Antiviral Medical Usage](#) section below for further information

Anti-viral Medication Usage

PROPHYLAXIS

The recommended oral dose of Oseltamivir for prophylaxis of influenza in persons ≥ 13 years of age, with a creatinine clearance or eGFR >60 mL/min, is 75mg once daily until the outbreak is declared over. No dose adjustment is necessary.

For those with a creatinine clearance/eGFR of 30-60mL/min, reduce the dosage of Oseltamivir to 75 mg every second day or 30 mg once daily.

For those with a creatinine clearance/eGFR of 10-30 mL/min, reduce the dosage of Oseltamivir to 30 mg once every other day until prophylaxis no longer required (Please consult with internist for dosing regimens in patients with rates below 30 mL/min).The discontinuation of prophylaxis will come at the discretion of the CMOH.

Refer to [Appendix B](#) for prophylaxis dosing guidelines.

TREATMENT

The recommended oral dose of Oseltamivir for the treatment of influenza in persons ≥ 13 years of age is 75 mg twice daily for 5 days.

The recommended oral dose of Oseltamivir for the treatment of influenza in persons ≥ 13 years of age with a creatinine clearance or eGFR of 30-60 ml/min, is 75 mg once daily for 5 days or 30 mg twice daily for 5 days.

For those with a creatinine clearance or eGFR of 10-30 mL/min reduce the dosage of Oseltamivir to 30 mg once daily for 5 days (Please consult with internist for dosing regimens in patients with rates below 30 mL/min).

Refer to [Appendix B](#) for treatment dosing guidelines.

RENAL IMPAIRMENT

Availability of a recent result of a serum creatinine or creatinine clearance based on 24-hour urine collection is **not** required before starting Oseltamivir prophylaxis, unless there is reason to suspect significant renal impairment. (PICNet, 2018)

Practice Point

Lack of GFR should not delay the initiation of antivirals, where renal insufficiency is suspected and a creatinine/GFR has already been drawn.

PEDIATRICS

For pediatric Oseltamivir TREATMENT and PROPHYLAXIS dosing (equal to and greater than one year to 12 years), refer to the Association of Medical Microbiology and Infectious Disease in Canada (AMMI).

For pediatric cases with renal impairment, consultation with an infectious disease physician and/or clinical pharmacist is strongly suggested (AMMI, 2019).

HEALTH CARE WORKERS

All symptom-free, unimmunized HCWs should be offered influenza antiviral medication and/or vaccine as soon as possible. Antiviral prophylaxis should continue until the outbreak has been declared over (usually 8 days after the onset of illness in the last case) or until 14 days after immunization if the outbreak has not been declared over.

Health care workers may return to work as soon as they have received their first dose of antiviral medication. Staff must obtain a prescription for the antiviral medication from their health care provider. A sample letter for staff to take to their physician can be found in [Appendix M](#). Facilities may issue this letter to their eligible staff members, who would then present it to their family physician.

SURVEILLANCE OF SIDE EFFECTS FROM ANTIVIRALS

As with any medication, surveillance of adverse side effects should be documented in the resident chart. Particular or unusual concerns that arise should be reported to their primary care provider, the facility or ICP as applicable.

More detailed information on the use of antivirals including indications for use, dosage and potential side effects can be found in the most current Compendium of Pharmaceuticals (CPS).

Tracking an Outbreak

Once an outbreak has been identified, an ongoing record of new cases, their symptoms and other information is required.

Required Reporting:

The Initial Outbreak Form (appendix I) should be completed and faxed to YCDC at the start of the outbreak. The Daily Line Lists should be faxed to YCDC every day at a specific time, as agreed upon between the manager of the outbreak and YCDC (including weekends) for the duration of the outbreak, even when there are no new cases. Only those meeting RI case definition need to be added to the list.

Declaring the Outbreak Over

As a general rule outbreaks are declared over following the twice the upper length of incubation period for the causative virus. This may be 8 days for influenza, 7 days for Omicron variant COVID, and in some milder RI, on the 4th day. The MOH will consider the virus, the severity of illnesses and the impact of the outbreak on the facility in making the decision to declare the outbreak over. Refer to [Common Viral Pathogens That Cause Respiratory Infection Outbreaks](#) for incubation periods.



DROPLET & CONTACT PRECAUTIONS

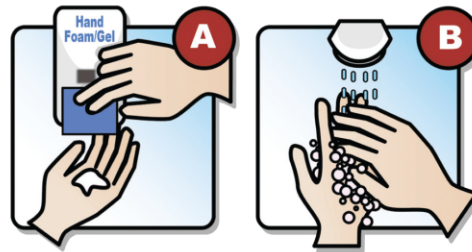
Bed #

Families and visitors:



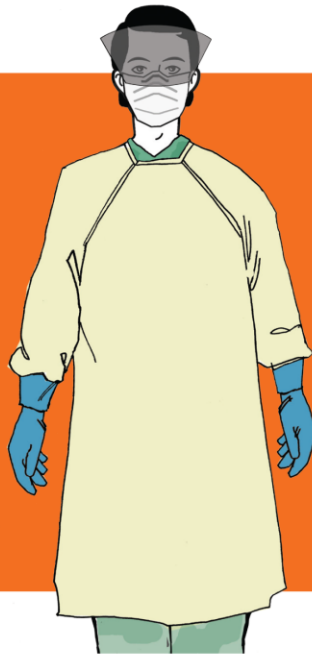
Please report to staff before entering

Clean hands before entering and when leaving room



Clean hands with **A)** hand foam/gel or **B)** soap and water

Staff:



Required:

- **Point of Care Risk Assessment**
- **Gown & Gloves**
- **Procedure mask with eye protection**
When within 2 metres of patient
- **Keep 2 metres between patients**

KEEP SIGN POSTED UNTIL ROOM CLEANED
HOUSEKEEPER will remove sign after "Discharge" cleaning

Taking off (Doffing) Personal Protective Equipment (PPE)

1 Gloves

A Grasp the outside edge of the glove near the wrist and peel away from the hand, turning the glove inside-out.

- ◆ Hold the glove in the opposite gloved hand.

B Slide an ungloved finger or thumb under the wrist of the remaining glove.

C Peel the glove off and over the first glove, making a bag for both gloves.

- ◆ Put the gloves in the garbage.

2 HAND HYGIENE

A Using an alcohol-based hand rub is the preferred way to **clean your hands**.

B If your hands look or feel dirty, soap and water must be used to wash your hands.

3 Gown

A Carefully unfasten ties.

B Grasp the outside of the gown at the back of the shoulders and pull the gown down over the arms.

C Turn the gown inside out during removal.

- ◆ Put in hamper or, if disposable, put in garbage.

4 HAND HYGIENE

- ◆ **Clean your hands.** (See No. 2)
- ◆ Exit the patient room, close the door and **clean your hands** again.

5 Eye protection or face shield

- ◆ Handle only by headband or ear pieces.
- ◆ Carefully pull away from face.
- ◆ Put reusable items in appropriate area for cleaning.
- ◆ Put disposable items into garbage.

6 Mask or N95 respirator

- ◆ Bend forward slightly and carefully remove the mask from your face by touching only the ties or elastic bands.
- ◆ Start with the bottom tie, then remove the top tie.
- ◆ Throw the mask in the garbage.

There are different styles of N95 respirators but all styles have the same basic steps for doffing.

7 HAND HYGIENE

- ◆ **Clean your hands.** (See No. 2)

March 2020

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Appendix M: Sample HCW Antiviral Prophylaxis Letter to Physician

Date:

Dear Physician:

Re: Influenza Antiviral Prophylaxis for:

Due to an outbreak of influenza within their place of work, this susceptible person could be offered influenza antiviral chemoprophylaxis (Oseltamivir).

Prophylaxis must continue until the outbreak is over (usually 8 days after the last case) or 14 days after vaccination, if the outbreak has not been declared over before this interval.

Information on contraindications, precautions, adverse effects and dosage can be found in the product monograph for Tamiflu™ or Oseltamivir (antiviral) in the CPS.

Oseltamivir is effective against certain strains of Type A and Type B influenza.











If the antiviral is discontinued prior to completion of treatment, or if this person has a valid medical contraindication for the use of these antiviral medications, it is the person's responsibility to notify the employer for possible reassignment or exclusion from work.

Thank you,

Insert applicable facility/unit manager name and signature



REDUCE THE SPREAD OF VIRUSES WASH YOUR HANDS

	1 Wet hands with warm water		2 Apply soap		3 For at least 20 seconds, make sure to wash:		4 Rinse well		5 Dry hands well with paper towel		6 Turn off taps using paper towel
	palm and back of each hand		between fingers		under nails		thumbs				



References

British Columbia Provincial Infection Control Network (PICNet) (2018). Respiratory Infection Outbreak Guidelines for Healthcare Facilities – Reference Document for use by Health Care Organizations for Internal Policy/Protocol Development. Available at: <http://www.picnetbc.ca/>

Interior Health, Respiratory Infection (RI) Outbreak Guidelines for Health Care Facilities, September 2018. Retrieved from <https://www.interiorhealth.ca/YourEnvironment/CommunicableDiseaseControl/Documents/RI%20Outbreaks%20Prevention%20and%20Control%20in%20RC.pdf>

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