



Health and Wellness

Health PEI

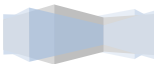
Severe Acute Respiratory Infection (SARI) Guidelines

Chief Public Health Office
Department of Health & Wellness

A decorative graphic consisting of overlapping, semi-transparent geometric shapes in shades of blue and grey, forming a horizontal band. The year "2020" is prominently displayed in the center of this band.

2020

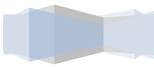
Severe Acute Respiratory Infection (SARI) Guidelines



Severe Acute Respiratory Infection (SARI) Guidelines

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Severe Acute Respiratory Infection (SARI) Guidelines

Background

Surveillance for the clinical signs and symptoms of severe acute respiratory infection (SARI) is increasingly important. Humans, and viruses, can now easily circumnavigate the globe in less than 24 hours. When a new respiratory virus is introduced to a naive population clinical signs and symptoms of SARI will present first. Unlike with known pathogens, health professionals cannot rely on laboratory confirmation and routine reporting mechanisms for SARI.

An inherent quality of new, emerging respiratory viruses is they are not yet fully characterized; surveillance for the clinical symptoms of SARI introduces a more sensitive case definition designed to detect infections of emerging respiratory pathogens prior to laboratory confirmation.

Prompt recognition of SARI and reporting to public health facilitates epidemiological investigation which can potentially curb the spread of disease. In addition to the importance of recognizing SARI for surveillance purposes, prompt recognition of SARI assists health care workers in implementing appropriate infection prevention and control measures to protect not only themselves, but other patients and those in contact with the case.

This document serves as a guide for health professionals when they encounter a case of SARI on Prince Edward Island and was created by adapting both national and other provincial/territorial documents.

Increased vigilance is needed for surveillance of SARI since the emergence of Avian Influenza A (H7N9) in China, Middle East Respiratory Syndrome Coronavirus (MERS-CoV) on the Arabian Peninsula and 2019 Novel Coronavirus (2019-nCoV).

Avian Influenza A

Since February 2013, well over 1500 human cases of A/H7N9 have been reported with a case fatality of 39%. To date, all cases have been confined to or linked to travel to China. Although the etiology remains unknown, the majority of cases report contact with poultry.

MERS-CoV

Since the emergence of MERS-CoV in Saudi Arabia in September 2012, there have been over 160 cases with a case fatality of 42%. All cases of MERS have been linked through travel to, or residence in, countries in and near the Arabian Peninsula. The reservoir for this novel coronavirus has yet to be elucidated, although bats and camels have been postulated. MERS-CoV has spread from ill people to others through close contact, such as caring for or living with an infected person.

Novel Coronavirus 2019

In December 2019, China identified an outbreak of respiratory illness in Wuhan, China, which early reports link to a large seafood and animal market, suggesting animal-to-person spread. In January 2020, it was determined that there was person-to-person transmission.



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Duty to Report

Clinicians should be alert for patients presenting with SARI (see case definition, p.8) in particular with appropriate travel history or contact with someone with a travel history. Physicians should report any hospitalized patients with suspected SARI to the Chief Public Health Office¹ (as per Public Health Act requirements). The **Case Report Form** available in Appendix A will need to be completed as soon as possible.

The Chief Public Health Office will follow-up immediately to facilitate² any contact tracing using the **Contact Tracing Form** (Appendix B). Contacts that will be investigated include:

- Anyone who stayed at the same place (e.g. lived with, visited within the same room) as a probable or confirmed case while the case was symptomatic; OR
- Anyone who provided direct care for a case, including health workers and family members or anyone who had other similarly close physical contact

Infection Control Measures

Prior to any patient interaction, all healthcare workers (HCWs) have a responsibility to assess the infectious risk posed to themselves and to other patients, visitors, and HCWs. Infection control precautions are important to protect HCWs and other patients and visitors. Recommendations for infection prevention and control measures for patients presenting with suspected infection with SARI in all health care settings include:

1. **Routine Practices:** For all patients, at all times, in all healthcare settings including when performing a point-of-care risk assessment, and adherence to respiratory hygiene and hand hygiene.
2. **Contact and Droplet Precautions** (*should be implemented empirically*):
 - Wear gloves and a long-sleeved gown upon entering the patient's room, cubicle or bedspace.
 - Wear facial protection (surgical or procedure mask and eye protection, or face shield, or mask with visor attachment) when within two (2) metres of a patient suspected or confirmed to have SARI infection.
3. **Airborne Precautions:** When performing aerosol-generating medical procedures (AGMPs³). A respirator and face/eye protection should be used by all HCWs present in a room where an AGMP is being performed on a patient suspected or confirmed to have SARI infection. Whenever possible, AGMPs should be performed in a negative pressure room.

¹ Chief Public Health Office: 902-368-4996 or fax: 620-3354 or after hours on-call number: 902-629-9624

² Assistance with contact tracing may include: ICPs, occupational health and safety and public health nursing

³ Procedures that can generate aerosols include: intubation, manual ventilation, open endotracheal suctioning, cardiopulmonary resuscitation, sputum induction, nebulization, surgery, non-invasive positive pressure ventilation (CPAP, BiPAP) and autopsy.



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Further infection prevention and control information for **MERS-CoV** can be found at the link:
<http://www.phac-aspc.gc.ca/eri-ire/coronavirus/guidance-directives/nCoV-ig-dp-eng.php>

Further infection prevention and control information for H7N9 can be found at the link :
<http://www.phac-aspc.gc.ca/eri-ire/h7n9/guidance-directives/h7n9-ig-dp-eng.php>

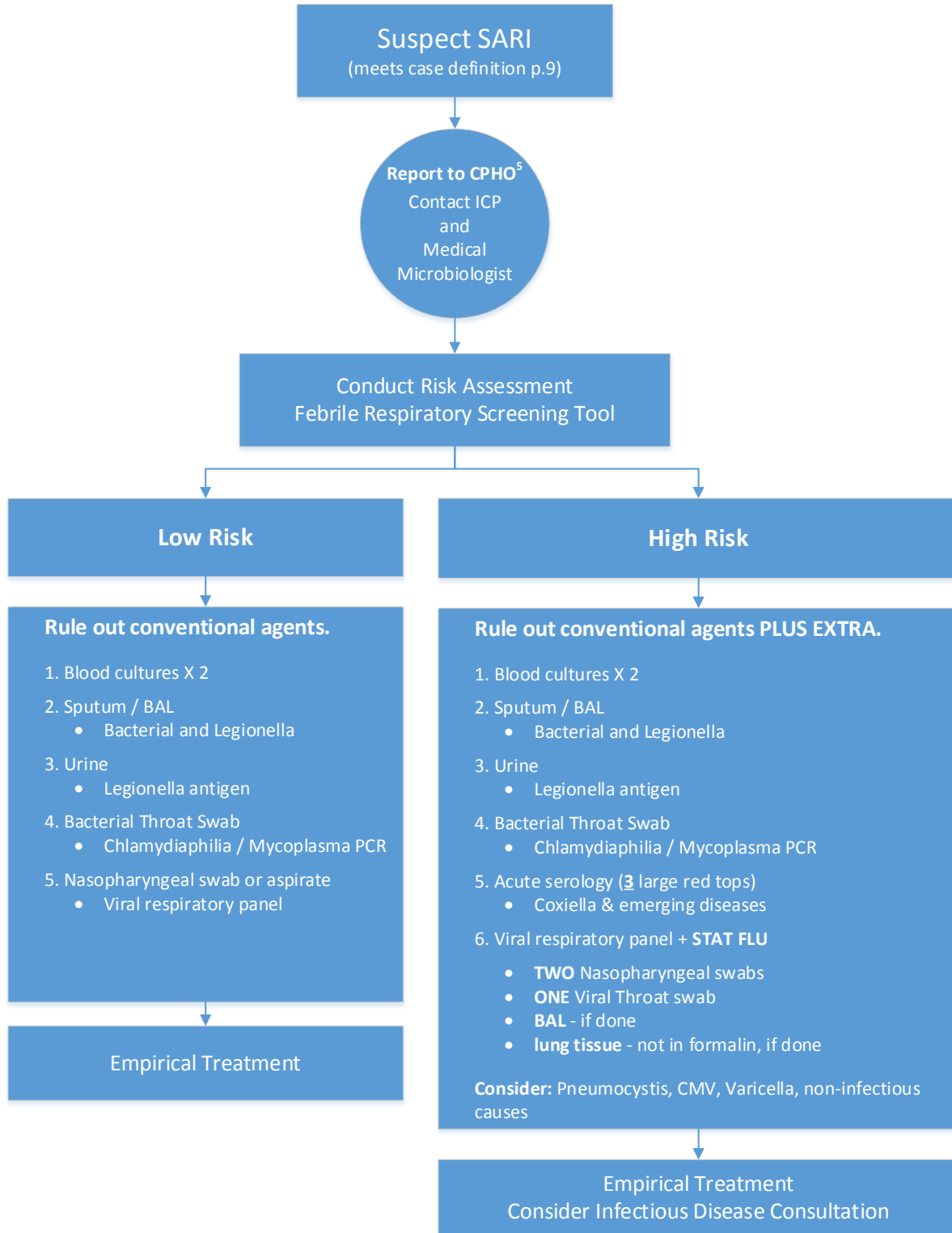


Severe Acute Respiratory Infection (SARI) Guidelines

Laboratory Information / Health Care Algorithm

Front-line staff are asked to continue to use the *Febrile Respiratory Screening Tool* at triage as per usual practice.

NOTE: All patients who are admitted to hospital with respiratory illness should be tested for COVID-19



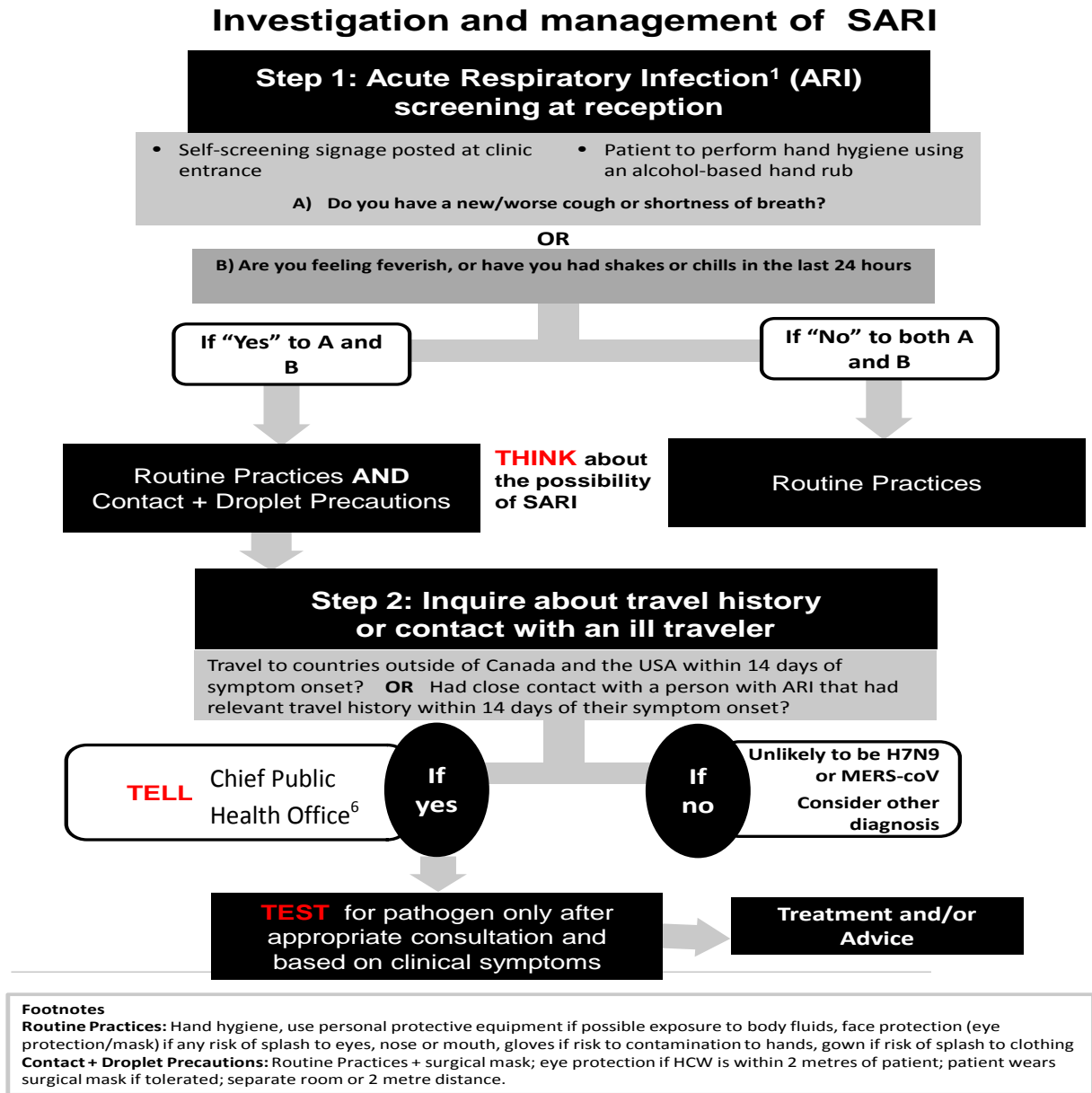
⁵ Chief Public Health Office: 902-368-4996 or fax: 620-3354 or after hours on-call number: 902-629-9624



Severe Acute Respiratory Infection (SARI) Guidelines

If a patient is admitted to **Intensive Care** please use the following algorithm for SARI screening:

NOTE: All patients admitted for respiratory illness should be tested for COVID-19



Severe Acute Respiratory Infection (SARI) Guidelines

Case Definition⁴

The provincial case definition for SARI is applicable to any person meeting **ALL of the following** five criteria (I, II, III, IV, and V):

I. Respiratory symptoms

- Fever (≥ 38.0 degrees Celsius)¹ **AND**
- New onset of (or exacerbation of chronic) cough or breathing difficulty

AND

II. Evidence of illness progression

- Either radiographic evidence of infiltrates consistent with pneumonia, or a diagnosis of acute respiratory syndrome (ARDS) or severe ILI², which may also include complications such as encephalitis, myocarditis or severe and life-threatening complications

AND

III. ICU/ventilation

- Admission to intensive care unit or other area of facility where critically ill patients are cared for **OR** mechanically ventilated

AND

IV. No alternative diagnosis within the first 72 hours of hospitalization

- Results of preliminary clinical and/or laboratory investigations, within the first 72 hours, cannot ascertain a diagnosis that reasonably explains the illness

AND

V. One or more of the following exposures/conditions:

- Residence, recent travel (within ≤ 10 days of illness onset) to a country where human cases of novel influenza virus or other emerging/re-emerging pathogens have recently been detected or are known to be circulating in animals.
- Close contact with an ill person who has been to an affected area/site within 10 days prior to onset of symptoms.
- Exposure to settings in which there have been mass die-offs or illness in domestic poultry or swine in the previous 6 weeks.
- Occupational exposure involving direct health care, laboratory or animal exposure:
 - Health care exposure involving health care workers who work in an environment where patients with severe acute respiratory infections are being cared for, particularly patients requiring intensive care; or
 - Laboratory exposure in a person who works directly with laboratory biological specimens; or
 - Animal exposure in a person employed as one of the following;
 - Poultry/swine farm worker
 - Poultry/swine processing plant worker
 - Poultry/swine culler (catching, bagging, transporting, or disposing of dead birds/swine)
 - Worker in live animal market
 - Dealer or trader of pet birds, pigs or other potentially affected animals
 - Chef working with live or recently killed domestic poultry, swine or other potentially affected animals
 - Veterinarian worker

⁴ Case definition was adapted from the Public Health Agency of Canada.



Severe Acute Respiratory Infection (SARI) Guidelines

- Public health inspector/regulator

For Chief Coroner's Office use ONLY: SARI following autopsy	
A deceased person with the following:	
I.	History of respiratory symptoms <ul style="list-style-type: none">• History of unexplained acute respiratory illness (including fever, and new onset of (or exacerbation of chronic) cough or breathing difficulty) resulting in death
AND	
II.	Autopsy performed with findings consistent with SARI <ul style="list-style-type: none">• Autopsy findings consistent with the pathology of ARDS without an identifiable cause
AND	
III.	No alternate diagnosis that reasonably explains the illness
AND	
IV.	One or more of exposures/conditions, as listed above.

¹ As per the influenza-like illness (ILI) definition, fever may not be prominent in patients under 5 years or over 65 years as well as in immuno-suppressed individuals. Failure to take temperature should not rule out a history of self-reported fever. Clinical judgment should always prevail with regard to these groups.

² Severe ILI: In addition to the symptoms of ILI, severe ILI may include complications such as encephalitis, myocarditis or other severe and life-threatening complications.

³ Close contact is defined as: Anyone who provided care of the patient, including a health care worker or family member, or who had other similarly close physical contact; anyone who stayed at the same place (e.g. lived with, visited) as a probable or confirmed case while case was ill.

