

Training Bulletin

Novel Coronavirus (2019-nCoV)

Issue Number 120 – Version 1.0
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Emergency Health Regulatory and Accountability Branch
Ministry of Health

To all users of this publication:

The information contained in this training bulletin has been carefully compiled and is believed to be accurate at date of publication.

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Novel Coronavirus (2019-nCoV)

Introduction

While the risk to Ontarians remains low, this training bulletin is designed to provide background information on the Novel Coronavirus (2019-nCoV) and a reminder regarding current infection control guidelines outlined in version 2.2 of the [Patient Care and Transportation Standards](#) (PCTS). The training bulletin also provides links to additional resources and information to ensure paramedics and Paramedic Services have access to the most up-to-date information regarding 2019-nCoV.

The Emergency Health Regulatory and Accountability Branch (EHRAB) is continuing to work with Health System Emergency Management Branch of the Ministry of Health, Public Health Ontario, Paramedic Services and the Ontario Base Hospital Group Medical Advisory Committee to monitor the evolving situation and provide additional guidance to paramedics if necessary.

Additional information for paramedics and Paramedic Services can be found in the “Novel Coronavirus (2019-nCoV) Guidance for Paramedic Services” that will be made available on the [Ministry of Health – Health Care Professionals website](#).

Up-to-date information and resources for the public related to the 2019-nCoV can be found on the [Ministry of Health website](#).

Definitions

Case definitions for 2019-nCoV patients are adapted from the Public Health Agency of Canada’s National Case Definition and are subject to change. Up-to-date case definitions can be found on the [Ministry of Health – Health Care Professionals website](#).

Dispatch Screening Tool

On January 25, 2020 active screening for possible 2019-nCoV infections began at all provincial Central Ambulance Communication Centres / Ambulance Communication Services. The screening tool is intended to assist Ambulance Communications Officers (ACOs) with the initial assessment and management of all patients.

Screening questions are asked by the ACO when receiving all requests for service and where Febrile Respiratory Enteric Illness (FREI) is present or if the individual self-identifies the risk of infection prior to the Pre-Arrival Information (PAI) being provided to the caller. There is an exception for persons who are in cardiac arrest or

choking, though additional screening attempts will take place after PAI has concluded.

The questions are designed to identify patients who might be infected with nCoV based on travel history and medical symptoms. All relevant travel history and the symptoms identified through these questions are then provided to the paramedics at the time of dispatching.

In all cases where the person has screened positive, the ACO shall notify the paramedic crew.

Paramedic Considerations

On-Scene Screening by Paramedics

In addition to the active screening done by the ACO, paramedics should screen all patients using the “2019-nCoV Screening Tool” below. The assessment should be conducted by one paramedic, appropriately protected as described in this training bulletin, immediately upon arrival and prior to a second paramedic entering the scene.

The paramedic screening the patient shall remain at a minimum distance of two (2) metres before each interaction with a patient and/or the patient’s environment to evaluate the likelihood of exposure to an infectious agent/infected source and to choose the appropriate safe work practices.

2019-nCoV Screening Tool

1. Is the patient presenting with fever and/or new onset of cough or difficulty breathing?
2. Has the person travelled to Hubei province (includes Wuhan), China, in the 14 days before the onset of illness?

OR

Did the person have close contact with a confirmed or probable case of 2019-nCoV (novel coronavirus)?

OR

Did the person have close contact with a person with acute respiratory illness who has been to Hubei Province (Wuhan) within 14 days prior to their illness onset?

- If **YES** to Question 1 and **YES** to **any** part of Question 2 - patient screened **POSITIVE**
- If **YES** to Question 1 and **NO** to **all** of Question 2 - patient screened **NEGATIVE** (stop screening and document response)
- If **NO** to Question 1 and **YES** to **any** part of Question 2 - patient screened **NEGATIVE** (stop screening and document response)

If patient screens **POSITIVE**, document and continue use of routine and additional precautions outlined in this training bulletin.

If the patient screens positive using the 2019-nCoV Screening Tool, paramedics should notify the ACO and attempt to notify the receiving facility prior to arrival so that precautions can be taken for the arrival of the patient.

The results of the 2019-nCoV Screening Tool shall be documented using Ambulance Call Report (ACR) codes:

- Miscellaneous Procedures - "407.02 - 2019-nCoV Screening POSITIVE"
- Miscellaneous Procedures - "407.03 - 2019-nCoV Screening NEGATIVE"

Infection Prevention and Control

The Ministry of Health is currently developing guidance specific to 2019-nCoV for Health Care Providers. To date, the Ministry has created the “Novel Coronavirus (2019-nCoV) Guidance for Primary Care Providers in a Community Setting” and the “Novel Coronavirus (2019-nCoV) Guidance for Paramedic Services”. These guidance documents will be made available on the [Ministry of Health – Health Care Professionals website](#).

Routine Practices and Additional Precautions

Section B of the PCTS v2.2 describes routine practices and additional precautions for preventing the transmission of infection, especially infectious respiratory diseases. Routine practices are to be followed at all times.

Appropriate and consistent use of these practices not only reduces the incidence of cross infection of patients, especially the most vulnerable, but also the incidences of infection transmission to co-workers, family members and the public.

As of January 31, 2020 the Ministry of Health recommends health care workers at risk of exposure to a confirmed case, presumptive confirmed case, probable case or person under investigation (PUI) and/or the patient's environment use routine practices and additional precautions (Contact, Droplet, and Airborne) for protection against transmission of 2019-nCoV.

For more information on Routine Practices and Additional Precautions, paramedics should refer to the Provincial Infectious Diseases Advisory Committee's (PIDAC) [PIDAC Routine Practices and Additional Precautions In All Health Care Settings](#) and [Annex B: Prevention of Transmission of Acute Respiratory Infection in all Health Care Settings](#).

The following is a brief summary of routine practices and additional precautions, including contact, droplet, and airborne precautions, consistent with the PCTS v2.2 and the above referenced documents.

Hand Hygiene

Hand hygiene is the most important measure in preventing the spread of infection. The use of an alcohol-based hand rub containing 70-90% alcohol (isopropanol or ethanol) is the most effective method of hand hygiene as it kills organisms in seconds when applied correctly. Washing hands with soap and water is an effective method to remove microorganisms. Soap suspends easily removable organisms from the skin and allows them to be rinsed off.

Alcohol-based hand rubs are the preferred method for cleaning hands, with the exception of when hands are visibly soiled. When hands are visibly soiled, either wash hands with soap and water OR remove the soil with a moistened towel/towelette

followed by alcohol-based hand rub. Hands must be rubbed until completely dry. It is important not to touch one's face and mucous membranes (including eyes) with the hands until appropriate hand hygiene has been completed.

Hand hygiene shall be performed:

- before donning personal protective equipment;
- before contact with the patient or their environment;
- after direct patient contact;
- before performing invasive procedures;
- after contact with blood, body fluids, secretions, excretions, items known or considered likely to be contaminated with secretions;
- immediately after removing gloves and personal protective equipment;
- before contact with the paramedic's face;
- before cleaning/decontamination of equipment and vehicles/aircraft; and
- after cleaning/decontamination of equipment and vehicles/aircraft.

In addition to the points above, it is considered best practice to perform hand hygiene:

- any time hands are visibly soiled;
- before entering the emergency department;
- before leaving the emergency department;
- before and after handling food;
- before and after smoking;
- after using the bathroom, or other personal body functions (e.g. sneezing, coughing);
- at the end of a shift; and
- whenever there is doubt about the necessity to do so.

As a reminder, always follow Routine Practices which includes frequent hand hygiene. This information is included in the Public Health Ontario "[Best Practices for Hand Hygiene in All Health Care Settings, 4th edition](#)".

Gloves

Gloves are to be used as an additional measure, not as a substitute for proper hand hygiene. Medical grade, non-latex, non-sterile gloves shall be worn when anticipating contact with blood, body fluids, secretions, excretions, mucous membranes or non-intact skin. In addition:

- gloves must cover the sleeve cuffs when a gown is worn;
- gloves should be changed between patient care activities and procedures with the same patient after contact with materials that may contain high concentrations of microorganisms such as after open suctioning of an endotracheal tube;
- Do not wash or re-use gloves;

- The same pair of gloves must not be used for the care of more than one client/patient/resident;
- gloves should not be worn in the cab of an ambulance to prevent contamination of surfaces and equipment; and
- hand hygiene must be performed immediately after removing gloves, before touching one's nose, mouth or eyes, or touching another person.

Gowns/Coveralls

Long-sleeved gowns or coveralls are to be worn to protect uncovered skin and to prevent soiling of clothes during procedures and patient care activities that may generate splashes or sprays of blood, body fluids, secretions or excretions, which include cough producing and aerosol-generating procedures. Gowns should be securely tied at the neck and waist and discarded in an appropriate waste receptacle as soon as the interaction is complete.

Masks

To minimize transmission of infectious respiratory diseases transmitted by large droplets, masks, protective eyewear or face shields shall be worn to protect the mucous membranes of the eyes, nose and mouth when within two metres of a coughing patient, during procedures and patient care activities likely to generate splashes or sprays of blood, body fluids, secretions or excretions, which include cough-producing and aerosol-generating procedures.

In the general health care setting, fluid resistant surgical masks are considered adequate to prevent transmission of respiratory infections spread predominantly by large droplets. However, in the pre-hospital setting where situations are often uncontrolled and procedures with potential for aerosolization are frequently carried out, the routine use of a Particulate Respirator is recommended (i.e., N95 respirator).

Masks should be:

- donned and doffed according to the manufacturer's instructions;
- removed carefully, down and away from one's face, using the straps so as not to self-contaminate;
- changed between each patient, and if crushed, wet or contaminated by patient or paramedic's secretions; and
- seal checked on each use (when a fit-tested particulate respirator is used).

Perform hand hygiene after removal of the mask.

Particulate Respirator Mask

When in contact with patients in the pre-hospital setting presenting with respiratory symptoms suggestive of a respiratory infection, or when performing a procedure with potential for aerosolization, paramedics must wear a particulate respirator. Particulate

respirators are designed to filter sub-micron particulate ranging in size from 0.1 to >10 microns.

Particulate respirators must be qualitatively or quantitatively fit tested and seal checked to ensure maximum respirator effectiveness. It is important that individuals perform a particulate respirator mask fit test to determine which respirator mask is best suited to their facial features and respiratory needs. Once the testing is complete, paramedics should note and use the style and size of particulate respirator assigned to them. Additional information regarding respirator fit testing can be found [here](#).

Protective Eyewear

Protective eyewear shall be worn to prevent the exposure of the conjunctiva of the eyes from respiratory droplets that might contain infectious microorganisms. Paramedics should consider the following points with respect to eye protection:

- Prescription eye glasses do not provide adequate protection against splashes and sprays.
- Paramedics must wear appropriate protective eyewear specifically designed to be worn over prescription eye glasses.
- Choose eye protection that does not impair vision and thereby interfere with patient care.
- To prevent self-contamination, paramedics must not touch their eyes or face during care of a patient with a respiratory infection.
- Protective eyewear must be removed carefully to prevent self-contamination.
- Following the removal of eye protection, perform hand hygiene.

Masking of Patients with Symptoms of Respiratory Infection

As an added precaution, patients presenting with symptoms of an undiagnosed respiratory infection should be fitted with a surgical mask, if tolerated, to contain respiratory secretions.

Oxygen Administration for Patients with Symptoms of Respiratory Infection

The patient will wear:

- a surgical mask, if tolerated, with a nasal cannula if low concentration oxygen is required; and
- low flow/high concentration oxygen mask outfitted with a hydrophobic submicron filter if high concentration oxygen is required.

Decontamination of Equipment and Vehicles/Aircraft

Following every transport of a confirmed case, presumptive confirmed case, probable case or PUI and/or the patient's environment, paramedics must decontaminate the

vehicle/aircraft, stretcher and any re-usable patient care equipment utilized during the call using a hospital-grade disinfectant in accordance with local Paramedic Service policies.

Conclusion

This training bulletin provides a summary of available information regarding the current status of the 2019-nCoV and links to resources to ensure paramedics and Paramedic Services have access to the most up-to-date information. As this situation continues to evolve, this training bulletin may be updated with additional clinical and infection prevention and control considerations.

Paramedics are encouraged to further review information regarding the 2019-nCoV found on the [Ministry of Health – Health Care Professionals website](#), and where appropriate, discuss considerations, including personal infection prevention and control (e.g., handwashing, proper cough and sneeze etiquette) with patients.

