

Health **FAX**

Novel Coronavirus (nCoV) Infections: Update

Attention: **Physicians, Emergency Departments, Nurse Practitioners, Infection Control Practitioners, Occupational Health Professionals, Walk-In Clinics/Urgent Care Clinics, Midwives, Family Health Teams, NSM LHIN, Central LHIN, County of Simcoe Paramedic Services, Medavie EMS Ontario – Muskoka, Rama Mnjikaning EMS**

Date: May 8, 2013

On May 3, 2013, the World Health Organization indicated that 27 cases of human infection with the novel coronavirus, including 16 deaths have been confirmed in five countries (United Arab Emirates, United Kingdom, Jordan, Qatar, and Kingdom of Saudi Arabia) since April 2012. Cases have generally presented with pneumonia, though a number have also had renal failure. As of May 3, 2013 no sustained person-to-person transmission has been identified. Although a family cluster in the United Kingdom confirms that the virus can spread between humans, the risk is considered to be low.

Coronaviruses are large, enveloped positive strand RNA viruses, and are typically associated with mild upper respiratory illness - such as the common cold and/ or gastrointestinal illness. Although rare, some types of coronaviruses produce more severe illnesses, particularly in infected infants, in the elderly and in people who are immunocompromised. Human coronaviruses are spread by respiratory droplets and contact with respiratory secretions.

The following information and further updates may be found at the Ministry of Health and Long-Term Care (MOHLTC) website:

English: <http://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/>

French: <http://www.health.gov.on.ca/fr/pro/programs/publichealth/coronavirus/>

Case Definitions - Based on Public Health Agency of Canada's April 12, 2013 Interim Case Definition

Person under Investigation

1. A person with an **acute respiratory infection**, which may include history of fever and cough and indications of pulmonary parenchymal disease (e.g. pneumonia or the acute respiratory distress syndrome [ARDS]), based on clinical or radiological evidence of consolidation, **who requires admission to hospital**.

AND any of the following:

- **History of travel** to, or residence in the Arabian Peninsula or neighbouring countries¹ within 10 days before onset of illness.
- **History of a close contact** with a person with acute respiratory illness of any degree who had a history of travel to, or residence in the Arabian Peninsula or neighbouring countries¹ within 10 days before onset of illness.
- The disease occurs as part of a **cluster**³ that occurs within a 10-day period, without regard to place of residence or history of travel, unless another aetiology has been identified.

- The disease occurs in a **health care worker** who has been working in an environment where patients with severe acute respiratory infections are being cared for, particularly patients requiring intensive care, without regard to place of residence or history of travel, unless another aetiology has been identified.
 - Develops an **unexpectedly severe clinical course** despite appropriate treatment, without regard to place of residence or history of travel, ***even if another aetiology has been identified***, if that alternate aetiology does not fully explain the presentation or clinical course of the patient.
2. A person with an **acute respiratory illness of any degree of severity** who, within 10 days before onset of illness, had **close contact**² with a confirmed or probable case of novel coronavirus infection, while the case was ill.

Probable

A person with an acute respiratory infection⁴ with clinical, radiological, or histopathological evidence of pulmonary parenchymal disease (e.g. pneumonia or ARDS); **AND**

- no possibility of laboratory confirmation for novel coronavirus either because the patient or samples are not available for testing; **AND**
- close contact with a laboratory-confirmed case.

Confirmed

A person with laboratory confirmation of infection with the novel coronavirus.

Case Definition Footnotes

1. Countries considered to be in the Arabian Peninsula and neighbouring countries include: Bahrain, Iraq, Iran, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian territories, Qatar, Saudi Arabia, Syria, the United Arab Emirates (UAE), and Yemen.
2. Close contact is defined as: anyone who provided care for 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 the case was ill.
3. A cluster is defined as two or more persons with onset of symptoms within the same 10-day period and who are associated with a specific setting, such as a classroom, workplace, household, extended family, hospital, other residential institution, military barracks or recreational camp.
4. This may include but is not limited to cases with a history of fever or measured fever.

Occupational Health & Safety and Infection Prevention & Control

The MOHLTC is recommending the use of **routine practices and contact, droplet and airborne precautions** by health workers at risk of exposure to a confirmed case, probable case or persons under investigation and/or the patient's environment. These precautions include:

- use of airborne infection isolation rooms when possible
- masking the patient with a surgical mask when outside of an airborne infection isolation room
- use of gloves, gowns and fit-tested, seal-checked N95 respirators and eye protection by health workers when entering the same room as, transporting or caring for the patient

For more information on routine practices and contact, droplet and airborne precautions, see The Provincial Infectious Diseases Advisory Committee's [Routine Practices and Additional Precautions in All Health Care Settings, available at: http://www.oahpp.ca/resources/pidac-knowledge/best-practice-manuals/routine-practices-and-additional-precautions.html](http://www.oahpp.ca/resources/pidac-knowledge/best-practice-manuals/routine-practices-and-additional-precautions.html)

The use of airborne precautions is a higher level of precaution than is being recommended by Public Health Agency of Canada, or that is normally recommended for coronavirus. The MOHLTC is recommending airborne precautions based on its application of the precautionary principle to this novel virus for which little information about transmission and clinical severity is available.

Treatment

There is currently no specific treatment targeting the virus.

Laboratory testing

The following samples are recommended for novel coronavirus testing on persons under investigation, ill contacts and clusters who meet the aforementioned criteria:

- respiratory tract samples, e.g. nasopharyngeal (NP) swab; if patient is intubated, both an NP swab and bronchoalveolar lavage (where possible)
- urine
- EDTA blood (purple top tube)
- If the patient has gastrointestinal symptoms, submit a stool sample in a dry sterile container - do not use other transportation media containers such as Cary-Blair.

Health workers should submit samples using the Public Health Ontario Laboratories (PHOL) general test requisition form available at: <http://www.oahpp.ca/resources/laboratory-materials.html>

- include the patient's health insurance number, date of illness onset, patient setting, travel history, signs and symptoms and specify "Novel Coronavirus"
- contact PHOL Customer Service Centre at 416-235-6556/1-877-604-4567 prior to submission or for questions regarding testing of patients who do not meet the criteria
- package and ship the primary clinical samples to the local PHOL following Category B/UN 3373 Transportation of Dangerous Goods instructions

Further Information:

For more information, call the Ministry of Health and Long-Term Care's Health Care Provider Hotline at 1-866-212-2272.

For additional information or to report suspect nCoV cases or cases under investigation please contact the Simcoe Muskoka District Health Unit, Communicable Disease Team at (705)721-7520 or 1-877-721-7520 extension 8809.