

INFORMATION UPDATE & REPORTING REQUIREMENTS May 22, 2013

TOPIC:

1. MERS-CoV (Middle East Respiratory Syndrome – Coronavirus)
2. H7N9 avian influenza virus in eastern China

ACTION REQUIRED:

Enhanced vigilance, rapid notification and thorough infection control practice for severe acute respiratory (SARI) cases with links to affected areas in the preceding 10 days (i.e. residence, travel history or contact with someone with such history).

REPORTING:

Notify your regional Medical Officer of Health immediately of *confirmed* or *probable* cases of A(H7N9) or MERS-CoV. For after hours reporting, call the MOH on call at: (204) 788-8666.

When submitting samples for diagnostic testing, clearly write “**Suspected H7N9 or MERS-CoV**” and **call (204) 945-6123** to alert the lab that the sample has been sent.

The Epidemiology & Surveillance unit, Public Health Branch of Manitoba Health, continues to monitor reports regarding human cases of infection with novel H7N9 avian influenza virus as well as MERS-CoV. This is the third update on A(H7N9) and the first for MERS-CoV (Middle-East Respiratory Syndrome – CoronaVirus (MERS-CoV; formerly called novel Coronavirus, nCoV).

As of May 21st, 2013, there have been:

0 cases (confirmed or probable) A(H7N9) reported in **Manitoba**. Risk to Manitobans is **LOW**.

0 cases (confirmed or probable) A(H7N9) reported in **Canada**. Risk to Canadians is **LOW**.

0 cases (confirmed or probable) MERS-CoV reported in **Manitoba**. Risk to Manitobans is **LOW**.

0 cases (confirmed or probable) MERS-CoV reported in **Canada**. Risk to Canadians is **LOW**.

1. MERS-CoV: (INCREASING INCIDENCE)

Situation:

From [WHO](#) (released May 18th, 2013):

- It is now evident that **non-sustained human-to-human transmission has occurred**. Co-infection of novel coronavirus with influenza A has also been reported.
- It is not known what the virus reservoir is, how seemingly sporadic infections are being acquired, the mode of transmission between infected persons, the clinical spectrum of infection, or the incubation period.
- Human-to-human transmission of nCoV has now been documented in several clusters of cases, including **among family members and in health care facilities**. Two health care workers have been infected following contact with confirmed cases in hospital. So far, there has been no evidence of sustained transmission beyond the immediate clusters. The mode of transmission has not been determined either for sporadic cases or for human-to-human transmission, nor has a source of the virus been identified
- Limited evidence suggests that **nasopharyngeal swabs may not be as sensitive as lower respiratory specimens for detecting nCoV infections**. Lower respiratory specimens such as sputum, endotracheal aspirate or bronchoalveolar lavage should be used when possible in addition to nasopharyngeal swab until more information is available. If initial testing of a nasopharyngeal swab is negative in a patient strongly suspected to have nCoV infection, consideration should be given to retesting using a lower respiratory specimen.
- **All cases have had some link to the Middle East, although local transmission from recent travelers has been observed in France and the United Kingdom.**

Infection Control:

Manitoba Health supports the national recommendations for infection prevention and control in health care settings and for patients presenting with suspected or confirmed infection or co-infection with the novel coronavirus in acute care settings. These can be found online at <http://www.phac-aspc.gc.ca/erie/coronavirus/healthcare-soinssante-eng.php>. Please check this link often as updates will be posted as new information is received.

Surveillance:

Health care professionals are encouraged to maintain vigilance for cases of MERS-CoV infection, and notify the appropriate Public Health office, regional Medical Officer of Health, or the provincial Medical Officer of Health on call at 204-788-8666. The [national interim case definition for HCoV-EMC/2012](#) is to be used for the surveillance of this novel coronavirus. Please see Table 2 for case definitions and reporting requirements

Table 1. Infection Prevention and Control for Health Care Settings

Type of Precautions	Infection Prevention and Control Measures
Routine Practices	<ul style="list-style-type: none"> For all patients, at all times, in all health care settings.
Contact and Droplet Precautions	<ul style="list-style-type: none"> Includes gloves and a gown as per point of care risk assessment and routine practices. A mask and face/eye protection should be worn when the health care workers will be working within two metres of the patient. A respirator and face /eye protection should be worn when working within two metres of the patient if the patient is coughing forcefully and unable or unwilling to comply with respiratory hygiene (e.g., coughing or sneezing into sleeve, using tissues or wearing a mask).
Airborne Precautions	<ul style="list-style-type: none"> For performing aerosol-generating medical procedures. A respirator and face/eye protection is recommended for all health care workers present in a room where an aerosol-generating medical procedure is being performed on a patient.

Table 2. Case Definitions of MERS-CoV and REPORTING requirements to Manitoba Health

Confirmed (REPORT TO MANITOBA HEALTH: Call MOH and complete [Investigation Form](#))

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

Probable (REPORT TO MANITOBA HEALTH: Call MOH and complete [Investigation Form](#))

A person with an acute respiratory infection with clinical, radiological, or histopathological evidence of pulmonary parenchymal disease (e.g. pneumonia or Acute Respiratory Distress Syndrome, (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.

Person Under Investigation (NOTIFY CADHAM PROVINCIAL LABORATORY THAT SAMPLE IS IN TRANSIT (204)945-6123 and label package with “Suspected MERS-CoV”)

- 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 **AND** any of the following:
 - History of travel to, or residence in the Arabian Peninsula or neighbouring countries within 10 days before onset of illness.
 - History of 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 countries within 10 days before onset of illness.
 - The disease occurs as part of a cluster 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, *even if another aetiology has been identified*, if that alternate aetiology does not fully explain the presentation or clinical course of the patient.
- A person with an acute respiratory illness of any degree of severity who, within 10 days before onset of illness, had close contact with a confirmed or probable case of novel coronavirus infection, while the case was ill.

The following people should be investigated and tested for MERS-CoV:

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 ARDS), based on clinical or radiological evidence of consolidation, who requires admission to hospital. In addition, clinicians should be alert to the possibility of atypical presentations in patients who are immunocompromised.

AND any of the following:

- The disease is in a cluster 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 etiology has been identified.
 - The person has history of travel to the Middle East within 10 days before onset of illness, unless another aetiology has been identified.
 - The person develops an unusual or unexpected clinical course, especially sudden deterioration 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. Individuals with acute respiratory illness of any degree of severity who, within 10 days before onset of illness, were in close physical contact with a confirmed or probable case of novel coronavirus infection, while that patient was ill.

A(H7N9): (DECLINING INCIDENCE)

Situation:

- WHO has reported 131 confirmed human cases, including 36 deaths. The case fatality rate (CFR) is 27%.
- The risk to Canadians remains LOW.
- Cases have been reported in China from eight Provinces (Anhui, Henan, Hunan, Fujian, Jiangsu, Jiangxi, Shandong, and Zhejiang) and two Municipalities (Beijing and Shanghai). In addition, a travel-related case was reported in Taiwan.
- Most human cases (approximately three out of four patients) report a history of exposure to animals, mostly chickens.
- The virus has been detected in poultry in live bird markets.
- The number of human cases appears to have decreased after closure of live animal markets and continues to decline.
- Laboratory testing has confirmed that the avian influenza A(H7N9) virus is susceptible to the neuraminidase inhibitors oseltamivir and zanamivir, two antiviral medications that are available in the National Antiviral Stockpile and National Emergency Stockpile System should they be needed to treat Canadians.

Infection Control:

Manitoba's Guidelines for *Routine Practices and Additional Precautions in Health Care Settings* are available at: <http://www.gov.mb.ca/health/publichealth/cdc/docs/ipc/rpap.pdf>

The Public Health Agency of Canada has posted an Interim Guidance document for A(H7N9) infection prevention and control at: <http://www.phac-aspc.gc.ca/eri-ire/h7n9/guidance-directives/h7n9-ig-dp-eng.php>

Surveillance:

The updated National [Case definitions for severe acute respiratory infection \(SARI\)](#) are to be used for the surveillance and reporting of avian influenza A(H7N9) virus. Confirmed and probable cases must be reported to Manitoba Health using the appropriate [Investigation Form](#).

For links to the latest information on A/H7N9, please visit:

<http://www.manitoba.ca/health/publichealth/environmentalhealth/avian.html>

Healthcare providers who suspect a novel pathogen (e.g. H7N9 or NCoV owing to links to affected areas) are reminded to:

- consult their local public health unit and/or Medical Officer of Health and to report cases of SRI to Manitoba Health using the form at: http://www.phac-aspc.gc.ca/erie/coronavirus/assets/pdf/SRI_form-MRS-formulaire-eng.pdf
- clearly mark sample packaging for nasopharyngeal or respiratory samples for diagnostic testing of a suspected case with “Suspected MERS-CoV or A(H7N9).” Please notify CPL that the sample is in transit by calling (204) 945-6123.

Thank you for your assistance in sharing this information with your colleagues in all healthcare facilities.

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