

Communicable Disease Advisory:**Severe Acute Respiratory Infection,
including MERS-CoV**

From the office of the Medical Officer of Health Calgary Zone

June 11, 2015

Context

The Republic of Korea is reporting the largest nosocomial outbreak of Middle East Respiratory Syndrome Coronavirus (MERS-CoV) outside of the Middle East – 121 confirmed cases and 9 deaths from May 20 to June 11. This outbreak is ongoing. The index case was a South Korean traveller to four countries in the Middle East who became ill upon return home and was subsequently hospitalized. Cases have been reported in close contacts (health care workers providing care, hospital inpatients and visiting relatives) and thousands of contacts have been quarantined.

Globally, since September 2012, WHO has been notified of 1218 confirmed cases of MERS-CoV, including at least 449 related deaths, a case fatality rate of approximately one-third. Human-to-human transmission has occurred in the household, work environment or health care setting. The situation in Korea exemplifies what can happen when recognition is delayed and appropriate infection control measures are not implemented at the outset. No MERS-CoV has been reported in Canada.

Middle East Respiratory Syndrome (MERS-CoV) is only one emerging pathogen that can cause **Severe Acute Respiratory Infection (SARI)** – see www.phac-aspc.gc.ca/eri-ire/index-eng.php. Other pathogens include variant influenza strains such as H7N9 and H5N1. **Healthcare providers must be prepared to identify and institute precautions for all patients with acute respiratory infection and consider SARI in returned travellers or individuals in contact with them. Note: The zone MOH will be your point of first contact in all suspect MERS-CoV and variant influenza cases.**

SARI Clinical Presentation:

Illness criteria: Fever (over 38.0°C) AND new onset (or exacerbation of chronic) cough or breathing difficulty AND clinical and radiological evidence of pulmonary parenchymal disease requiring hospitalization.

Exposure criteria: History of travel to countries where emerging respiratory illnesses such as MERS-CoV¹ or variant influenza strains have been reported OR close contact² with a confirmed or probable case within the 10-14 days prior to symptom onset.

Actions:

- Implement Infection Prevention and Control (IPC) measures **immediately**, including **contact and droplet precautions (gloves, gown, mask and eye protection)** for any patient with acute respiratory symptoms (i.e. Illness Criteria as above). See www.albertahealthservices.ca/ipc/hi-ipc-contact-and-droplet-precautions-info.pdf.
- Implement airborne precautions if aerosol-generating medical procedures (AGMP) are performed. Wear fit-tested and seal-checked N95 respirator/mask and use engineering controls (negative pressure room). See Public Health Agency of Canada for AGMP definition and other IPC details at <http://www.phac-aspc.gc.ca/eri-ire/coronavirus/guidance-directives/nCoV-ig-dp-eng.php>
- **Contact your Zone Medical Officer of Health (MOH) at (403) 264-5615** for notification and testing.

Laboratory testing:

- All requests for SARI testing at ProVLab must be coordinated through the local MOH. You will be advised about specimen transport accordingly.
- Collect the appropriate clinical specimens and write “Suspect MERS-CoV” or “Suspect variant influenza” on ProVLab requisitions:
 - One nasopharyngeal swab (in viral transport media)
 - One throat swab (in viral transport media)
 - One or more lower respiratory specimens as clinically indicated and possible

This letter has been posted on the AHS-MOH webpage www.albertahealthservices.ca/7082.asp

¹ **MERS CoV:** In addition to South Korea, affected countries in the Middle East include Jordan, Saudi Arabia, United Arab Emirates (UAE), and Qatar. Affected areas subject to change; see WHO website at www.who.int/csr/disease/coronavirus_infections/maps-charts/en/ for up to date information.

² A **close contact** is defined as a person who provided care for the patient, including health care workers, family members or other caregivers, or who had other similarly close physical contact **OR** who stayed at the same place (e.g. lived with or otherwise had close prolonged contact within two metres) as a probable or confirmed case while the case was ill.