

Communicable Disease Advisory:

September 17, 2015

Context

Middle East Respiratory Syndrome (MERS-CoV), a novel coronavirus related to SARS, is an emerging viral pathogen that can cause Severe Acute Respiratory Infection (SARI).¹ Human illness from MERS-CoV was first reported in Saudi Arabia in 2012. Globally, since September 2012, the World Health Organization (WHO) has been notified of 1,542 laboratory-confirmed cases of infection with MERS-CoV in 25 countries, including at least 544 related deaths, a case fatality rate of 35%. Note that a single imported case in South Korea recently initiated an outbreak with 186 cases and 36 deaths, all associated with transmission in health care facilities. Crowded emergency departments and delayed recognition with initiation of IPC precautions in patients with febrile respiratory illness were noted as key factors. No cases of MERS-CoV have been reported in Canada.

Mechanisms of respiratory transmission are being investigated. The virus does not appear to be spread easily from person to person. Those at increased risk are household contacts, co-workers, or healthcare workers. While the risk for Canadians is low, healthcare providers should be prepared to identify and control potential cases. As increased travel to Saudi Arabia is expected for the week of the Hajj pilgrimage (September 21 - 26), healthcare providers are reminded to maintain a high index of suspicion for SARI in returned travellers.

Consider a diagnosis of MERS-CoV if:

Exposure criteria: Patient has a travel history to countries in or near the Arabian Peninsula² OR close contact³ with a confirmed or probable case within the 14 days prior to onset of illness

Illness criteria: Patients who develop fever over 38°C (or have a history of fever) AND new onset (or exacerbation of chronic) cough or breathing difficulty AND clinical and radiological evidence of pulmonary parenchymal disease requiring hospitalization

If you consider a diagnosis of MERS-CoV, please take the following Actions:

- Implement Infection Prevention Control (IPC) measures **immediately**, including [contact and droplet precautions](#)⁴ for any patient meeting the exposure and illness criteria. See the AHS triage algorithm at www.albertahealthservices.ca/assets/info/hp/ipc/if-hp-ipc-ebola-triage.pdf.
- Implement [airborne precautions if aerosol-generating procedures are performed](#).⁵ Wear a fit-tested and fit-checked N95 respirator and use engineering controls (negative pressure room).
- **Contact the Medical Officer of Health (MOH) at (403) 264-5615** to report and coordinate testing.

Laboratory testing:

- All requests for MERS-CoV testing at Provlab must be coordinated through the Zone MOH.
- Collect the appropriate clinical specimens and write “Suspect MERS-CoV” on Provlab requisitions:
 - One nasopharyngeal swab (in viral transport media) for respiratory viral panel
 - One viral throat swab (in viral transport media)
 - A lower respiratory specimen should be collected as clinically indicated and possible: Sputum (Consider induced sputum (using airborne precautions) if patients do not have productive cough and cannot produce a sputum sample), or endotracheal secretions or bronchoalveolar lavage (BAL) in sealed sterile containers. Do not send specimens in traps with tubing.
- For more information on specimen collection/transport refer to the recent Provlab bulletin at: <http://www.provlab.ab.ca/LabBulletin2015%5Cwf-lab-bulletin-pl-Lab-Guidance-Testing-Emerging-Respiratory-Viruses-pt-SARI-June-18-2015.pdf>

¹ For more information on SARI, see <http://www.phac-aspc.gc.ca/eri-ire/saricd-dciras-eng.php>

² MERS CoV: Affected countries in the Middle East include Jordan, Saudi Arabia, United Arab Emirates (UAE), and Qatar. Affected areas subject to change; see <http://www.who.int/emergencies/mers-cov/en/> for up to date information.

³ 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.

⁴ **Contact and droplet precautions** - see www.albertahealthservices.ca/ipc/hi-ipc-contact-and-droplet-precautions-info.pdf

⁵ **Airborne Precautions for AGMP** - see www.phac-aspc.gc.ca/eri-ire/coronavirus/guidance-directives/nCoV-ig-dp-eng.php