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

From the Office of the Medical Officers of Health North Zone June 11, 2015

Context

Severe Acute Respiratory Infection (SARI) is caused by various emerging pathogens including Middle East Respiratory Syndrome Coronavirus (MERS-CoV) and variant influenza strains such as H7N9 and H5N1 – see www.phac-aspc.gc.ca/eri-ire/index-eng.php for more information.

The Republic of Korea is reporting a nosocomial outbreak of MERS-CoV with 121 confirmed cases and 9 deaths since May 20. The index case was a South Korean traveler to 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 visitors) and thousands of contacts have been quarantined. This exemplifies what can happen when recognition is delayed and appropriate infection control measures are not implemented at the outset.

A case fatality rate of approximately one-third (1218 confirmed cases with at least 449 related deaths since September 2012) has been observed for MERS-CoV worldwide. No MERS-CoV has been reported in Canada.

SARI Clinical Presentation:

Healthcare providers must consider SARI in returned travellers or individuals in contact with them.

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-CoV[1] or variant influenza strains have been reported, OR
- close contact[2] 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) immediately for all suspect MERS-CoV and variant influenza cases**:
  - 1-855-513-7530 - CDC Intake during regular business hours, or
  - 1-800-732-8981 - Public Health On Call after hours and on weekends.
- **Laboratory testing:**
  - All requests for SARI testing at ProvLab must be coordinated through the Zone 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 meters) as a probable or confirmed case while the case was ill.