

Guidelines for Evaluation of Severe Respiratory Illness Associated with a Novel Coronavirus

To: Health Care Providers, Hospitals, and Ambulatory Care Centers
From: Matthew Thomas PhD, Epidemiologist

– Please Distribute Widely –

Summary

The Centers for Disease Control and Prevention (CDC) is working closely with the World Health Organization (WHO) and other partners to better understand the public health risk posed by a novel coronavirus. Novel coronavirus is a beta coronavirus that was first described in September 2012, when it was reported to have caused fatal acute lower respiratory illness in a man in Saudi Arabia. As of March 12, 2013, 15 laboratory-confirmed cases of novel coronavirus infection have been reported to WHO. Illness onsets were from April 2012 through February 2013. Of the 15 cases, nine were fatal.

Background

Novel coronavirus infection has been identified in 15 people: eight from Saudi Arabia, two from Qatar, two from Jordan, and three from the United Kingdom (UK). Genetic sequence analyses have shown that this new virus is different from other known human coronaviruses, including the one that caused severe acute respiratory syndrome (SARS). There is no specific treatment for novel coronavirus infection; care is supportive. To date, no cases have been reported in the United States. Diagnoses rely on testing with specific polymerase chain reaction (PCR) assays. Specimens should be sent to CDC for PCR testing.

The three confirmed cases in the UK were reported in February 2013 as part of a cluster within one family. Only the index patient had a history of recent travel outside the UK (to Pakistan and Saudi Arabia). This index patient is receiving intensive care treatment and tested positive for both novel coronavirus and influenza A (H1N1) virus. The other two patients became ill after contact with the index patient. One died, and one has recovered from mild illness. This cluster of illnesses is still under investigation by the UK Health Protection Agency, but provides the first clear evidence of human-to-human transmission of this novel coronavirus, co-infection of this novel coronavirus with another pathogen (influenza A), and a case of mild illness associated with this novel coronavirus infection.

Requested Actions –

Evaluate patients for novel coronavirus infection who meet the following criteria for “patient under investigation”:

- A person with an acute respiratory infection, which may include fever ($\geq 38^{\circ}\text{C}$, 100.4°F) and cough; AND
- suspicion of pulmonary parenchymal disease (e.g., pneumonia or acute respiratory distress syndrome based on clinical or radiological evidence of consolidation); AND
- history of travel from the Arabian Peninsula or neighboring countries* within 10 days; AND
- not already explained by any other infection or etiology, including all clinically indicated tests for community-acquired pneumonia[†] according to local management guidelines.

Contact the Vermont Department of Health for guidance on evaluating the following patients for novel coronavirus infection:

- People who develop severe acute lower respiratory illness of known etiology within 10 days after traveling from the Arabian Peninsula or neighboring countries* but who do not respond to appropriate therapy; OR
- People who develop severe acute lower respiratory illness who are close contacts[‡] of a symptomatic traveler who developed fever and acute respiratory illness within 10 days of traveling from the Arabian Peninsula or neighboring countries.*

Contact the Health Department Laboratory at (802) 863-7335 for assistance with specimen collection and shipment for testing.

Report any patients undergoing evaluation to the Health Department 24/7 by calling (802) 863-7240.

For more information:

CDC guidance on infection control (including use of personal protective equipment), case investigation, and specimen collection and shipment for testing:

<http://www.cdc.gov/coronavirus/ncv/case-def.html>

CDC guidelines for processing and transport of clinical specimens from patients under investigation for novel coronavirus:

- <http://www.cdc.gov/coronavirus/ncv/downloads/Interim-Guidelines-NCV-Collection-Processing-Transport.pdf>
- <http://www.cdc.gov/coronavirus/ncv/downloads/Interim-NCV-Lab-Biosafety-Guidelines.pdf>

March 7, 2013 MMWR (Morbidity & Mortality Weekly Report):

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm62e0307a1.htm?s_cid=mm62e0307a1_e

* Countries considered to be on or neighboring the Arabian Peninsula include Bahrain, Iraq, Iran, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian territories, Qatar, Saudi Arabia, Syria, the United Arab Emirates (UAE), and Yemen.

† Examples of respiratory pathogens causing community-acquired pneumonia include influenza A and B, respiratory syncytial virus, adenovirus, Streptococcus pneumoniae, and Legionella pneumophila.

‡ Close contact is defined as 1) any person who provided care for the patient, including a health-care worker or family member, or who had other similarly close physical contact, or 2) any person who stayed at the same place (e.g., lived with or visited) as the patient while the patient was ill.

You have received this message based upon the information contained within our emergency notification data base. If you have a different or additional e-mail or fax address that you would like us to use please contact your Health Alert Network Coordinator at vthan@state.vt.us or brett.larose@state.vt.us
