



COMMONWEALTH of VIRGINIA

Department of Health

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Dear Colleague:

Thank you for all that you are doing to provide care to patients in Virginia. Today, I am writing to ask for your continued assistance in the early detection and subsequent control of novel influenza viruses A H7N9 and A H3N2v and novel coronavirus (Middle East Respiratory Syndrome Coronavirus, MERS-CoV) infections. Clinicians are at the frontline in suspecting these infections and working with public health to assess the case under investigation and conduct appropriate laboratory testing.

The attached table summarizes illness and exposure criteria to assist you in evaluating patients you suspect may be potentially infected with novel viruses. **If you suspect your patient may have one of these infections, please contact your local health district.** The local health district will work with you to evaluate your patient's clinical status and exposure history to assure the criteria are met for testing for these viral infections by the state public health laboratory, the Division of Consolidated Laboratory Services (DCLS). The attached table also provides links to additional guidance from the Centers for Disease Control and Prevention (CDC).

Variant Influenza A H3N2v. Since June 2013, 12 cases of influenza H3N2v virus infection have been identified in Indiana. Similar to the cases identified in 2012, the infections are associated with exposure to swine at agricultural fairs. Last year's multi-state outbreak of influenza H3N2v resulted in 306 cases, including 16 hospitalizations and 1 fatality. **There were no cases in Virginia in 2012.** In addition to asking about swine exposure in anyone who presents with influenza-like illness, VDH is recommending that you advise patients who are at high risk for influenza complications to avoid exposure to pigs and swine barns at fairs.

Avian Influenza A H7N9. As of June 3, 2013, Chinese public health officials have reported more than 130 cases of human infection with H7N9 from 10 provinces and municipalities in mainland China and Taiwan. Most patients were hospitalized with severe respiratory illness and reported poultry contact prior to illness onset. No sustained person-to-person spread of the H7N9 virus has been found at this time and preliminary results from influenza-like illness surveillance suggest that H7N9 has not caused widespread mild illness in China. **At this time, no cases of human infection with H7N9 have been detected in the United States, despite testing more than 60 individuals with respiratory illness who also reported travel to China.** Since H7N9 is not spreading easily from person-to-person at this time, CDC does not recommend that people delay or cancel trips to China. CDC advises travelers to China to take precautions, like not touching birds or other animals and washing hands often.

For both H3N2v and H7N9, commercially available rapid influenza diagnostic tests (RIDTs) may not detect these viruses in respiratory specimens. A negative RIDT does not exclude infection with H3N2v, H7N9 or any influenza virus. A positive RIDT cannot confirm H3N2v or H7N9 virus infection, because these tests cannot distinguish between influenza A virus subtypes (i.e., they do not differentiate between other human influenza A viruses and H3N2v or H7N9 viruses).

Middle East Respiratory Syndrome Coronavirus. MERS-CoV causes a viral respiratory illness first reported in Saudi Arabia in 2012. So far, all the cases have been linked to four countries in or near the Arabian Peninsula. **No cases have been identified in the United States.** Most people who have been confirmed to have MERS-CoV infection developed severe acute respiratory illness. As of July 18, 2013, the World Health Organization is reporting 84 cases of MERS-CoV infection; 45 of these individuals have died. This virus has spread from ill people to others through close contact; however, the virus has not been shown to spread in a sustained way in communities.

Please contact your [local health district](#) if you have questions or need further information.

Your assistance in this collaborative effort is greatly appreciated. Together, we can continue to protect the health of all Virginians by preventing further emergence of these serious infections.

Sincerely,

Cynthia C. Romero, MD, FAAFP
State Health Commissioner

REPORT ANY SUSPECT CASE TO THE LOCAL HEALTH DISTRICT.

Both the illness & severity criteria and the exposure history criteria must be met for testing to be performed by DCLS.

	Variant Influenza A H3N2v	Avian Influenza A H7N9	Middle East Respiratory System Coronavirus (MERS-CoV)
Illness & Severity	Illness compatible with influenza	New-onset severe acute respiratory infection requiring hospitalization (i.e., illness of suspected infectious etiology that is severe enough to require inpatient medical care in the judgment of the treating clinician)	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	AND	AND	AND
Exposure History	Recent (within 7 days of illness onset) contact with swine or recent attendance at an event (such as an agricultural fair) where swine were present. Contact with swine may be direct contact (i.e., touching or handling a pig) or indirect contact (coming within about 6 feet (2 meters) of a pig without known direct contact).	Recent travel (within <10 days of illness onset) to areas where human cases of avian influenza A (H7N9) virus infection have become infected or to areas where avian influenza A (H7N9) viruses are known to be circulating in animals. Currently, only China meets criteria.	History of travel from the Arabian Peninsula or neighboring countries within 14 days of illness onset. Currently, the included countries are Bahrain, Iraq, Iran, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian Territories, Qatar, Saudi Arabia, Syria, the United Arab Emirates, and Yemen.

LOCAL HEALTH DEPARTMENT MUST COORDINATE ANY TESTING WITH DCLS.

Preferred Samples	Nasopharyngeal (NP) swab, or nasal aspirate or wash, or two swabs combined into one viral transport media vial (e.g., combined nasal swab with oropharyngeal swab or combined NP swab with oropharyngeal swab).	NP swab, or nasal aspirate or wash, or two swabs combined into one viral transport media vial (e.g., combined nasal swab with oropharyngeal swab or combined NP swab with oropharyngeal swab). For patients with lower respiratory tract illness, a lower respiratory tract specimen (e.g., an endotracheal aspirate or bronchoalveolar lavage) is preferred.	To increase the likelihood of detecting MERS-CoV, CDC recommends collection of specimens from different sites—for example, a NP swab and a lower respiratory tract specimen such as sputum, bronchoalveolar lavage, bronchial wash, or tracheal aspirate. Specimens should be collected at different times after symptom onset, if possible. Lower respiratory tract specimens should be a priority for collection and PCR testing. Specimens should be collected with appropriate infection control precautions.
Treatment Recommendation for Confirmed or Suspected Cases	Consider antiviral treatment with oral oseltamivir or inhaled zanamivir. Antiviral treatment is most effective when started as soon as possible after influenza illness onset.	Antiviral treatment with a neuraminidase inhibitor, as early as possible. Treatment should be initiated even if it is more than 48 hours after onset of illness.	Supportive care. No specific treatment recommendations.
Most Recent CDC Health Advisory	emergency.cdc.gov/HAN/han00351.asp (July 5, 2013)	emergency.cdc.gov/HAN/han00347.asp (June 7, 2013)	emergency.cdc.gov/HAN/han00348.asp (June 7, 2013)
Additional CDC Information	www.cdc.gov/flu/swineflu/h3n2v-cases.htm	www.cdc.gov/flu/avianflu/h7n9-virus.htm	www.cdc.gov/coronavirus/mers/index.html