January 23, 2020

Subject: Novel Coronavirus

Dear Colleagues,

Attached is the latest information available from the Michigan Department of Health and Human Services concerning the 2019 novel coronavirus (2019-nCoV) outbreak. Currently there have been more than 570 cases reported worldwide, as well as 17 deaths. Most of these cases have occurred in China, although cases have also been confirmed in Taiwan, Japan, Thailand and South Korea. One US case was reported earlier this week in Washington State but there are no other known US cases at this time. Currently the CDC states that the risk to residents in the US is “low”; however, this may change if the outbreak becomes more widespread.

Please refer to the attached Michigan Health Alert for further information on this disease, as well as what to do in the event that you have a patient whom you feel needs evaluation and testing for 2019-nCoV.

If you have further questions, please contact me at 616-494-5548.

Sincerely,

Paul A. Heidel, MD, MPH
Medical Director
Ottawa County Department of Public Health
From Michigan Health Alert Network:

**Background:** On December 31, 2019, an outbreak of pneumonia in Wuhan City, Hubei Province, China was reported to the World Health Organization. This outbreak is now known to be caused by the 2019 novel coronavirus (2019-nCoV). As of January 21, 2020, the Centers for Disease Control and Prevention (CDC) reported approximately 300 human infections in China with six deaths. Exported cases have been confirmed in Thailand, Japan, The Republic of Korea, and the United States. Initially, most patients reported exposure to a large seafood and animal market, suggesting animal-to-person spread. However, many recent patients do not report visiting animal markets, providing evidence that some person-to-person transmission is occurring. At this time, limited information is available to characterize the clinical illness associated with 2019-nCoV and guidance is subject to change as additional information becomes available. Patients infected with 2019-nCoV may experience fever, cough, dyspnea, chest tightness, and pneumonia. More information may be found at: [https://www.cdc.gov/coronavirus/2019-ncov/index.html](https://www.cdc.gov/coronavirus/2019-ncov/index.html)

**Case Identification:** Healthcare providers should obtain a detailed travel history for patients being evaluated with fever and acute respiratory illness. Patients in the United States who meet the following criteria should be evaluated as a patient under investigation (PUI) in association with the outbreak of 2019-nCoV.

- Fever\(^1\) **AND** symptoms of lower respiratory illness (e.g., cough, difficulty breathing) **AND**

  1. In the last 14 days before symptom onset, a history of travel from Wuhan City, China **-OR-**
  2. In the last 14 days before symptom onset, close contact with a person who is under investigation for 2019-nCoV while that person was ill.

- **OR**

- Fever\(^1\) **OR** symptoms of lower respiratory illness (e.g., cough, difficulty breathing) **AND** in the last 14 days before symptom onset, close contact with a person who is under investigation for 2019-nCoV while that person was ill.

**Note:** The criteria are intended to serve as guidance for evaluation. Patients should be evaluated and discussed with public health departments on a case-by-case basis if their clinical presentation or exposure history is equivocal (e.g., uncertain travel or exposure).

\(^1\)Fever may not be present in some patients, such as those who are very young, elderly, immunosuppressed, or taking certain fever-lowering medications. Clinical judgment should be used to guide testing of patients in such situations.
Close contact is defined as:

1. being within approximately 6 feet (2 meters), or within the room or care area, of a novel coronavirus case for a prolonged period of time while not wearing recommended personal protective equipment or PPE (e.g., gowns, gloves, NIOSH-certified disposable N95 respirator, eye protection); close contact can include caring for, living with, visiting, or sharing a health care waiting area or room with a novel coronavirus case. – or –
2. having direct contact with infectious secretions of a novel coronavirus case (e.g., being coughed on) while not wearing recommended personal protective equipment.

**Case Reporting:** Healthcare providers should immediately notify both infection control personnel at their healthcare facility and their local health department in the event a patient under investigation (PUI) for 2019-nCoV is identified. Local health departments should notify the Michigan Department of Health & Human Services (MDHHS). The attached PUI form should be completed by the physician and faxed to the MDHHS Communicable Disease Division at (517) 335-8263. Suspect cases should be entered into the Michigan Disease Surveillance System (MDSS) under the "Novel Coronavirus" category with the Outbreak Name: "WUHAN19-20". Any questions regarding 2019-nCoV may be directed to the MDHHS Communicable Disease Division at (517) 335-8165.

**Specimen Collection and Testing:** The CDC recommends collecting lower respiratory, upper respiratory, and serum specimens from suspect case-patients. Other specimen types (e.g., stool, urine) may be collected and stored. Specimens must be approved by the MDHHS Communicable Disease Division at (517) 335-8165 before submission to MDHHS Bureau of Laboratories (BOL). BOL will forward specimens to the CDC for confirmatory testing. Additional information on specimen collection and submission may be found at: https://www.cdc.gov/coronavirus/2019-nCoV/clinical-criteria.html

Interim guidance for laboratory professionals may be found at: https://www.cdc.gov/coronavirus/2019-nCoV/guidance-laboratories.html

**Infection Control:** As the transmission of this new virus is not yet fully understood, CDC and MDHHS recommend a cautious approach to PUIs. Patients should be asked to wear a surgical mask as soon as they are identified and be evaluated in a private room with the door closed, ideally in an airborne infection isolation room. Healthcare personnel entering the room should use standard precautions, contact precautions, airborne precautions, and use eye protection (e.g., goggles or a face shield). Additional infection control information may be found at: https://www.cdc.gov/coronavirus/2019-nCoV/infection-control.html
For individuals who are confirmed to have, or are being evaluated for 2019-nCoV infection, but do not require hospitalization, please see the interim guidance on coordinating home care and isolation at: https://www.cdc.gov/coronavirus/2019-ncov/guidance-home-care.html

**Travel Screening and Advisory Status:** Exit screening is being conducted for airline passengers leaving Wuhan; entry screening is being performed in multiple countries, including at three U.S. airports (San Francisco, Los Angeles, and New York-JFK). Entry screening will be initiated at two additional U.S. airports (Chicago-ORD and Atlanta) later this week. The current CDC Health Alert being provided to travelers from Wuhan, China is attached. At this time, there are no recommendations for public health to actively monitor travelers from impacted areas. Travelers are instead asked to self-monitor for symptoms. The current CDC travel advisory is set at Alert-Level 2, Practice Enhanced Precautions. Older adults with underlying comorbidities who are infected with 2019-nCoV may be at increased risk for severe disease. More information on travel safety and precautions may be found at: https://wwwnc.cdc.gov/travel/notices/alert/novel-coronavirus-china
Michigan Interim 2019 Novel Coronavirus (2019-nCoV) Patient Under Investigation (PUI) Cover Sheet
January 2020

Please use the attached CDC Interim 2019 novel coronavirus (2019-nCoV) patient under investigation (PUI) form. Specimens must be approved by the Michigan Department of Health & Human Services (MDHHS) Communicable Disease Division (517) 335-8165 prior to submission to the MDHHS Bureau of Laboratories (BOL). The completed CDC PUI Form with intact cover sheet (with patient identifiers below) should be faxed to the MDHHS Communicable Disease Division at (517) 335-8263.

(This cover sheet with patient identifiers will be removed by MDHHS before sending the PUI Form to the CDC.)

Patient Information:

First name __________________ Last name __________________

MDSS ID number (MDHHS use): __________________

Date of birth ___/___/___ Age ___ Sex: □ Female □ Male

Street address __________________ City _____________ County __________________

Patient phone number(s): ______________________________________________________

Healthcare Facility Name: ________________ Hospital ID (Medical Record) number ____________

For additional information about 2019 Novel Coronavirus, please see: https://www.cdc.gov/coronavirus/2019-ncov/index.html

PROVIDERS: DO NOT TEAR OFF THIS COVER SHEET
PLEASE KEEP ATTACHED TO THE CDC PUI FORM when you fax to MDHHS Communicable Disease Division at 517-335-8263
Interim 2019 novel coronavirus (2019-nCoV) patient under investigation (PUI) form

Today's date

State patient MDSS ID____________ NNDSS ID________ State________ County____________

Interviewer's name____________________________ Phone__________________________ Email__________________________

Physician's name____________________________ Phone__________________________ Pager or Email__________________________

Sex □ M □ F Age______yr □ mo Residency □ US resident □ Non-US resident, country____________

PUI Criteria

Date of symptom onset________________________

Does the patient have the following signs and symptoms (check all that apply)?
□ Fever1 □ Cough □ Sore throat □ Shortness of breath

In the 14 days before symptom onset, did the patient:

Spend time in Wuhan City, China? □ Y □ N □ Unknown

□ Does the patient live in Wuhan City? □ Y □ N □ Unknown

Date traveled to Wuhan City_________ Date traveled from Wuhan City_________ Date arrived in US_________

Have close contact1 with a person who is under investigation for 2019-nCoV while that person was ill? □ Y □ N □ Unknown

Have close contact2 with a laboratory-confirmed 2019-nCoV case while that case was ill? □ Y □ N □ Unknown

Additional Patient Information

Is the patient a health care worker? □ Y □ N □ Unknown

Have history of being in a healthcare facility (as a patient, worker, or visitor) in Wuhan City, China? □ Y □ N □ Unknown

Is patient a member of a cluster of patients with severe acute respiratory illness (e.g., fever and pneumonia requiring hospitalization) of unknown etiology in which nCoV is being evaluated? □ Y □ N □ Unknown

Does the patient have these additional signs and symptoms (check all that apply)?
□ Chills □ Headache □ Muscle aches □ Vomiting □ Abdominal pain □ Diarrhea □ Other, Specify____________

Diagnosis (select all that apply): Pneumonia (clinical or radiologic) □ Y □ N Acute respiratory distress syndrome □ Y □ N

Comorbid conditions (check all that apply): □ None □ Unknown □ Pregnancy □ Diabetes □ Cardiac disease □ Hypertension

□ Chronic pulmonary disease □ Chronic kidney disease □ Chronic liver disease □ Immunocompromised □ Other, specify

Is/was the patient: Hospitalized? □ Y, admit date______________ □ N Admitted to ICU? □ Y □ N

Intubated? □ Y □ N ECMO? □ Y □ N Patient died? □ Y □ N

Does the patient have another diagnosis/etiology for their respiratory illness? □ Y, Specify______________ □ N □ Unknown

Respiratory diagnostic results

<table>
<thead>
<tr>
<th>Test</th>
<th>Pos</th>
<th>Neg</th>
<th>Pending</th>
<th>Not done</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza rapid Ag</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Influenza PCR</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>RSV</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>H. metapneumovirus</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Parainfluenza (1-4)</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Adenovirus</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

Specimens for 2019-nCoV testing

<table>
<thead>
<tr>
<th>Specimen type</th>
<th>Specimen ID</th>
<th>Date collected</th>
<th>Sent to CDC?</th>
</tr>
</thead>
<tbody>
<tr>
<td>NP swab</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OP swab</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sputum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAL fluid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tracheal aspirate</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Test                        | Pos | Neg | Pending | Not done |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhinovirus/enterovirus</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Coronavirus (OC43, 229E, HKU1, NL63)</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>M. pneumoniae</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>C. pneumoniae</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

Specimen type | Specimen ID | Date collected | Sent to CDC? |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Stool</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other, specify</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Fewer may not be present in some patients, such as those who are very young, elderly, immunosuppressed, or taking certain medications. Clinical judgement should be used to guide testing of patients in such situations.

2 Close contact is defined as: a) being within approximately 6 feet (2 meters) or within the room or care area for a prolonged period of time (e.g., healthcare personnel, household members) while not wearing recommended personal protective equipment (i.e., gowns, gloves, respirator, eye protection); or b) having direct contact with infectious secretions (e.g., being coughed on) while not wearing recommended personal protective equipment. Data to inform the definition of close contact are limited. At this time, brief interactions, such as walking by a person, are considered low risk and do not constitute close contact.

Version 1.0

January 22, 2020