January 14, 2020

Laboratory guidance for the diagnosis of patients suspected of being infected with the novel coronavirus which originated in Wuhan, China (2019-nCoV)

Laboratory testing of a person(s) under investigation for 2019-nCoV infection will be considered after consultation with the local Medical Health Officer and the BCCDC Public Health Laboratory Medical Microbiologist On Call (604-661-7033). Persons under investigations should have:

• Fever and acute respiratory illness, with or without pneumonia; AND
• Recent travel to Wuhan within the 14 days prior to symptom onset; OR
• Another potential relevant exposure

Definitive testing for the 2019-nCoV is being developed. Person(s) under investigation will be tested for the common respiratory pathogens. Testing protocols will be revised as more information becomes available.

Once the MHO and On Call microbiologist are made aware of the person(s) under investigation the BCCDC Public Health Laboratory will perform any additional routine testing and specific 2019-nCoV testing as required.

Contact and droplet precautions should apply during specimen collection; additionally, N95 masks and eye protection should be donned during specimen collection that may generate aerosols (e.g. nasopharyngeal aspirate, bronchoalveolar lavage (BAL) etc).

While coronaviruses are considered CL2 agents within the laboratory context, given the limited information on 2019-nCoV, laboratories should consider handling specimens under CL2+ procedures until further information is available.

To ensure maximal sensitivity please collect at a minimum both an upper and a lower respiratory sample using the collection kits identified below:

Specimen Collection and Handling

<table>
<thead>
<tr>
<th>Specimen(s)</th>
<th>Container</th>
<th>Collection Volume</th>
<th>Collection</th>
</tr>
</thead>
</table>
| Nasopharyngeal washing or swab | COPAN red- or blue-top with Universal Transport Media | Optimal: N/A Min: N/A | • Collection kit includes flocked swab and tube of transport medium.  
  • Insert the swab approximately 6 cm with a slow, steady motion along the floor of the nose until a point of resistance is met (2/3 of the distance from nostrils to external opening of }
<table>
<thead>
<tr>
<th>Sample Type</th>
<th>Collection Medium</th>
<th>Optimal: N/A</th>
<th>Min: N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Throat swab</td>
<td>COPAN red- or blue-top with Universal Transport Media</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aspirated respiratory secretions</td>
<td>Sterile container</td>
<td></td>
<td></td>
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<tr>
<td>Sputum</td>
<td>Sterile container</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bronchial wash</td>
<td>Sterile container</td>
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</tbody>
</table>

Given the limited information currently available on the shedding pattern of this 2019-nCoV, please also collect the following:

1) Stool sample
2) Urine sample
3) Serum for acute serology

See [http://www.elabhandbook.info/PHSA/Test/PrintPageWithMaster.aspx](http://www.elabhandbook.info/PHSA/Test/PrintPageWithMaster.aspx)

**Transport** - All samples must be in acceptable sample collection containers and properly packaged as per Transport Canada, Transport of Dangerous Goods Regulations (TDGR).

**REFRIGERATE SAMPLE**

SHIP TO:
BCCDC Lane Level Receiving/drop-off
Rear of BCCDC building
655 West 12th Ave
Vancouver, BC

OPEN:
Monday to Friday - 0700-2100 hrs
Saturday - 0800-1700 hrs
Sunday & Stat holidays - drop-off box