Summary


- **Criteria for Testing:** Patients must meet clinical and risk criteria for a patient under investigation (PUI) in order to submit specimens for COVID-19 virus testing: http://www.floridahealth.gov/diseases-and-conditions/COVID-19/providers/index.html

- **Specimen Collection:** Appropriate specimens should be collected for real-time reverse transcription polymerase chain reaction (rRT-PCR). Additional specimens may also be collected upon consultation with epidemiology staff for other testing. Specimens for rRT-PCR testing should be collected as soon as possible once a PUI is identified, regardless of the time of symptom onset. Preferred specimens include:
  - Upper respiratory tract specimens (nasopharyngeal and oropharyngeal swabs in 2-3 ml of viral transport media, each in a separate sterile tube).
  - Lower respiratory tract specimens (sputum, in a sterile leak-proof container), for those patients with productive coughs. Induction of sputum is not indicated.

- **Packaging and Shipping:**
  - **Commercial Carrier:** All suspect COVID-19 virus diagnostic specimens must be packaged according to International Air Transport Association (IATA) and U.S. Department of Transportation (USDOT) Packaging Instructions 650 for Biological substance, Category B agents. This requires specimens be packed in a basic triple packaging system with a primary watertight container wrapped with absorbent material, secondary watertight container and an outer shipping package.
  - **Courier:** As above, specimens should be packaged in a basic triple packaging system which consists of a primary watertight container wrapped with absorbent material, secondary watertight container and an outer shipping package.

- **Laboratory Requisition:** Complete and attach FDOH Form DH1847 (http://www.floridahealth.gov/programs-and-services/public-health-laboratories/forms-publications/index.html, navigate to “Commonly Used BPHL Forms”), including the specimen collection date. Enter the treating physician information, who will receive the BPHL test report, in the “Health Care Provider Information” section. In the virology section of the form, include specimen type, write “COVID-19” as the test request next to “Other”, include date of symptom onset, and recent travel history (country/territory with...
COVID-19 Diagnostic Specimen Collection, Packaging and Shipping Guidance for Laboratories and CHDs

- Documents on this topic dated after the version date, supersede this one.

- **Shipping to Jacksonville BPHL:**
  Bureau of Public Health Laboratories-Jacksonville
  1217 N. Pearl Street
  Jacksonville, FL 32202
  Attention: Valerie Mock

  **For Additional Information:** Contact Valerie Mock at 904-791-1539 or 904-637-9284
  Alternate contact Pamela Colarusso at 904-791-1540
  Email: JacksonvilleVirology@flhealth.gov

- **Shipping to Miami BPHL:**
  Bureau of Public Health Laboratories-Miami
  1325 NW 14th Ave.
  Miami, FL 33125
  Attention: Virology

  **For Additional Information:** Contact Aubrey Holland at 305-325-2537 or 305-509-9346
  Alternate contact Randy Weiss at 305-325-2531 or 305-797-5882

- **Shipping to Tampa BPHL:**
  Bureau of Public Health Laboratories-Tampa
  3602 Spectrum Blvd.
  Tampa, FL 33612
  Attention: Virology

  **For Additional Information:** Contact Edgar Kopp at 813-233-2260 or 813-285-1491
  Alternate contact Lea Heberlein-Larson at 813-233-2307 or 813-967-0330
  Email: TampaVirology@flhealth.gov

**Authorization**

**Testing requires prior approval before specimen submission.** Contact your local county health department (http://www.floridahealth.gov/diseases-and-conditions/disease-reporting-and-management/disease-reporting-and-surveillance/surveillance-and-investigation-guidance/_documents/chd-epi-contacts.pdf) prior to collecting and shipping any specimens from suspect COVID-19 cases for testing to BPHL. County epidemiology staff must alert their regional epidemiologist and laboratory liaison, or Bureau of Epidemiology on-call epidemiologist (if after hours) of all suspect cases.

**Criteria for Testing**

Patients must meet clinical and risk criteria for a patient under investigation (PUI) in order to submit specimens for Coronavirus Disease 2019 (COVID-19) virus testing: http://www.floridahealth.gov/diseases-and-conditions/COVID-19/providers/index.html

**Specimen Collection**

- Specimen collection should be performed following Standard, Contact, and Airborne Precautions, including the use of eye protection. Wear appropriate personal protective equipment (PPE) at all times while collecting and handling specimens (gloves, gown, respiratory protection, and eye protection). These procedures should take place in an
airborne infection isolation room (AIIR) or in an examination room with the door closed. Ideally, the patient should not be placed in a room where room exhaust is recirculated within the building without high-efficiency particulate air (HEPA) filtration.

- Upper respiratory tract specimens: Collect oropharyngeal (OP) and nasopharyngeal (NP) swabs. Each must be in 2-3 ml of viral transport medium (VTM). Keep OP and NP swabs in separate tubes. Use only synthetic fiber swabs with plastic shafts. Do not use calcium alginate swabs or swabs with wooden shafts. Place swabs immediately into sterile tubes containing VTM.
- Lower respiratory tract specimens: Sputum (induction is not indicated): Have the patient rinse the mouth with water and then expectorate deep cough sputum directly into a sterile, leak-proof, screw-cap sputum collection cup or sterile dry container.
- Other acceptable specimens (not preferred)
  - Upper respiratory tract specimens:
    - Nasopharyngeal wash/aspirate, or nasal aspirate: collect 2-3 mL into a sterile, leak-proof, screw-cap sputum collection cup or sterile dry container.
  - Lower respiratory tract specimens:
    - Bronchoalveolar lavage or lower respiratory tract aspirates: collect 2-3 mL into a sterile, leak-proof, screw-cap sputum collection cup or sterile dry container.

- Each specimen must be labeled with at least two patient-specific identifiers. Examples of acceptable identifiers are patient name, date of birth, hospital number, requisition number, accession number, or unique random number.
- Place each specimen tube in a separate zip closure bag.
- Refrigerate specimens at 2-8°C prior to shipping and ship overnight to BPHL on frozen gel ice packs. Alternatively, specimens can be driven by car by FDOH personnel if the specimens are high priority.

### Packaging requirements: Transport by Commercial Carrier

Package specimens in combination packaging according to International Air Transport Association (IATA) and U.S. Department of Transportation (USDOT) regulations.

**NOTE:** Per these regulations anyone who handles, offers for transport, or transports specimens must be trained to do so. This document is not a replacement for packaging and shipping training.

- General Packaging Requirements
  - Package the specimens as a Category B agent using IATA/USDOT Packaging Instructions 650 for Category B Agents which requires specimens be packed in a basic triple packaging system with a primary leakproof container wrapped with absorbent material, secondary leakproof container and a rigid outer shipping package.
  - Enclose an itemized list of contents between the secondary packaging and the outer packaging.
  - Package on frozen gel ice packs.

- Inner Packaging Requirements
  - Primary receptacle(s) must be leakproof.
  - Secondary receptacle(s) must be leakproof.
Absorbent material must be placed between the primary receptacle(s) and secondary receptacle and be of sufficient quantity to absorb the entire contents of the primary receptacle(s).

The primary or secondary receptacle must also be pressure compliant (95kPa).
- An example of a preferred pressure compliant secondary receptacle is Therapak 95kPa compliant transport bags, Fisher Scientific catalog #22-130-021.

BPHL recommends an inner packaging such as one tube or container (the primary leakproof receptacle) placed in a zip closure bag such as a biohazard transport bag with an outer pocket containing the requisition form.
- Place only one specimen per bag to avoid cross-contamination between specimens if one were to leak.
- Multiple zip closure bags are then placed in one pressure compliant bag containing absorbent paper (the secondary leakproof receptacle).

An itemized list of the contents enclosed between the secondary receptacle and the outer packaging.

Include sufficient cushioning between the combined primary-secondary receptacles and the outer package to prevent shifting in transport.

### Outer Packaging Requirements
- Package must be rigid.
- Package must be properly labeled with the UN 3373 marking, the shipping name, “Biological Substance, Category B”, and orientation labels.
- Package must pass required testing.

### Packaging Requirements: Transport by Local Courier

Package specimens in combination packaging according to Title 49 of the Code of Federal Regulations or CFR-49 (www.ecfr.gov, browse for Title 49 – Transportation and refer to Part 173 and Subpart 173.6 – Materials of trade exceptions).

**NOTE:** Per these regulations anyone who handles, offers for transport, or transports specimens must be trained to do so. This document is not a replacement for packaging and shipping training.

### General Packaging Requirements
- Packaging must coincide with CFR-49 and specimens must be packed in a basic triple packaging system with a primary leakproof container wrapped with absorbent material, secondary leakproof container and an outer shipping package.
- Enclose an itemized list of contents between the secondary packaging and the outer packaging.
- Package on frozen gel ice packs.

### Inner Packaging Requirements
- Primary receptacle(s) must be leakproof.
- Secondary receptacle(s) must be leakproof.
  - Absorbent material must be placed between the primary receptacle(s) and secondary receptacle and be of sufficient quantity to absorb the entire contents of the primary receptacle(s).
BPHL recommends an inner packaging such as one tube or container placed in a zip closure bag such as a biohazard transport bag with an outer pocket containing the requisition form (the primary leakproof receptacle).

- Place only one specimen per bag to avoid cross-contamination between specimens if one were to leak.
- Multiple zip closure bags are then placed in one large zip closure bag containing absorbent paper (the secondary leakproof receptacle).

- An itemized list of the contents enclosed between the secondary receptacle and the outer packaging.
- Include sufficient cushioning between the combined primary-secondary receptacles and the outer package to prevent shifting in transport.

**Outer Packaging Requirements**
- Package must be rigid.

**Laboratory Requisition**

Complete and include in the package FDOH Form DH1847 (http://www.floridahealth.gov/programs-and-services/public-health-laboratories/forms-publications/index.html, navigate to “Commonly Used BPHL Forms”):

- In the “Patient Information” section, record the specimen collection date and patient information (last name, first name, date of birth, county, sex, street address, city, state, and ZIP code).
  - It is important that the patient-specific identifiers on this form match the two identifiers on each specimen.
- Record the name and phone number of the treating physician who will receive the BPHL test report in the “Health Care Provider Information” section.
  - If a patient is positive for COVID-19, the local county health department epidemiologist will also directly notify the treating physician using the contact information recorded on this form.
- In the “Virology” section of the form:
  - Indicate the specimen type.
  - Write “COVID-19” as the test request next to “Other.”
  - Record date of symptom onset.
  - Record recent travel history (country/territory with dates), or indicate the patient had no recent travel.
**Ship to Locations**

**Ship specimens to the appropriate BPHL (see table below).** Addresses for each location can be found on page 2. Deliver or ship samples immediately, at least by next day mid-morning delivery. If driving the samples, please use the closest BPHL. If shipping overnight, please ship to your designated BPHL per the below table.

<table>
<thead>
<tr>
<th>Counties</th>
<th>Ship to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alachua, Baker, Bradford, Brevard, Clay, Columbia, Dixie, Duval,</td>
<td>Jacksonville BPHL</td>
</tr>
<tr>
<td>Flagler, Franklin, Gadsden, Gilchrist, Hamilton, Jefferson, Lafayette,</td>
<td></td>
</tr>
<tr>
<td>Leon, Liberty, Madison, Marion, Nassau, Orange, Putnam, Seminole,</td>
<td></td>
</tr>
<tr>
<td>St. Johns, Suwannee, Taylor, Union, Volusia, Wakulla</td>
<td></td>
</tr>
<tr>
<td>Broward, Collier, Dade, Glades, Hendry, Indian River, Lee, Martin,</td>
<td>Miami BPHL</td>
</tr>
<tr>
<td>Monroe, Okeechobee, Palm Beach, St. Lucie</td>
<td></td>
</tr>
<tr>
<td>Bay, Calhoun, Charlotte, Citrus, Desoto, Escambia, Gulf, Hardee,</td>
<td>Tampa BPHL</td>
</tr>
<tr>
<td>Hernando, Highlands, Hillsborough, Holmes, Jackson, Lake, Levy,</td>
<td></td>
</tr>
<tr>
<td>Manatee, Okaloosa, Osceola, Pasco, Pinellas, Polk, Santa Rosa,</td>
<td></td>
</tr>
<tr>
<td>Sarasota, Sumter, Walton, Washington</td>
<td></td>
</tr>
</tbody>
</table>

**Laboratory Notification and/or Questions:**

On shipment of specimens for a suspect COVID-19 patient to BPHL or if you have questions related to laboratory testing, please notify the following person(s) at the respective BPHL laboratory locations. For commercially shipped specimens, provide a shipping tracking number.

- **Jacksonville**
  - Email to JacksonvilleVirology@flhealth.gov or Valerie Mock (Valerie.Mock@flhealth.gov), Bureau of Public Health Laboratories at 904-791-1539 or 904-637-9284; alternate is Pamela Colarusso (Pamela.Colarusso@flhealth.gov) at 904-791-1540
- **Miami**
  - Aubrey Holland (Aubrey.Holland@flhealth.gov), Bureau of Public Health Laboratories at 305-325-2537 or 305-509-9346; alternate is Randy Weiss (Randy.Weise@flhealth.gov) at 305-325-2531 or 305-797-5882
- **Tampa**
  - Email to TampaVirology@flhealth.gov or Edgar Kopp (Edgar.Kopp@flhealth.gov) 813-233-2260 or 813-285-1491, Bureau of Public Health Laboratories; alternate is Lea Heberlein-Larson (Lea.Heberlein-Larson@flhealth.gov), at 813-233-2307 or 813-967-0330
- For emergency notification outside the hours of 8:00 AM to 5:00 PM, Monday through Friday or on holidays contact 866-FLA-LABS (866-352-5227).
- For any non-laboratory related or other questions, call 866-779-6121.