

COVID Evaluation of Risk for Emergency Departments (COVERED) Project
SAMPLE COLLECTION AND PROCESSING INSTRUCTIONS

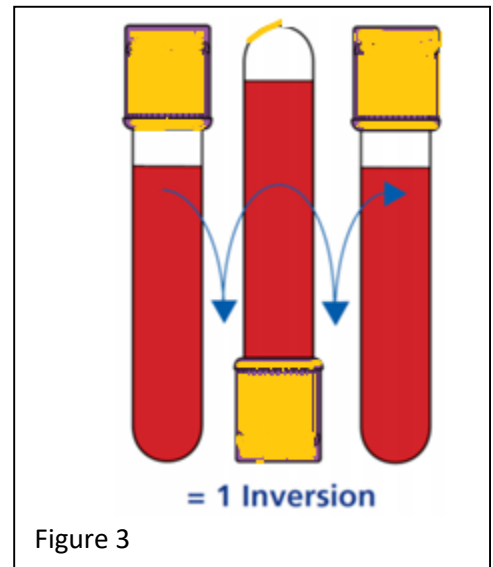
1.0 Blood Draw Collection

The tube for blood collection will not be provided. Therefore, the individual drawing the blood (i.e. nurse, phlebotomist, etc.) should obtain a 5 mL gold top serum separator tube (SST) from their facility (see Figure 1). This tube contains a clot activator and serum gel separator. Fill out the label provided (see Figure 2) and place on tube immediately prior to blood draw collection. The “Subject Identifier” is a unique 4-digit identification number assigned to the participant and can be found in REDCap. If the identification number found in REDCap is less than 4-digits, add leading zero’s to create a 4-digit number. The “Site #” is also a 4-digit number assigned to each site, and can be found in the MOP. For those sites that have participants working at 2 hospitals, both sites will have the same Site #. Also include the date and time of blood collection on the label. Using an appropriate gauge needle, draw blood allowing the tube to fill until the vacuum is exhausted. Gently invert the blood collection tube 5 times (see Figure 3) to ensure mixing of clot activator with blood. Be careful with this step to avoid vigorous mixing. Next, allow the vacutainer drawn blood to sit at room temperature in a vertical position for at least 30 minutes. This will give the blood enough time to clot.



Subject Identifier: _____
Site#: _____
Collection Date: _____
Time: _____

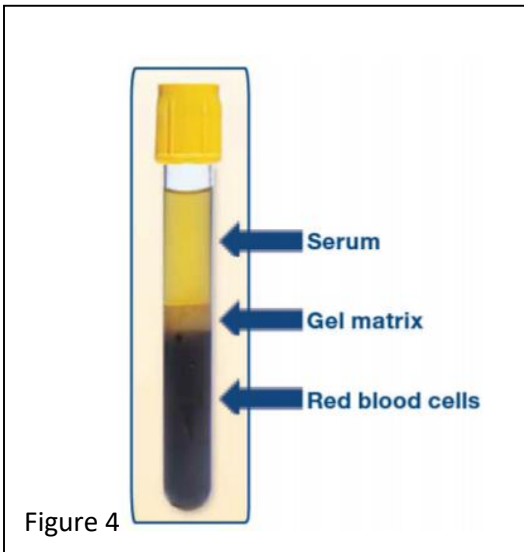
Figure 2



1.1 Blood Processing

Gently transport the specimen to your local lab or wherever the centrifuge is located, but avoid shaking the specimen. Centrifuge the specimen within 90 minutes of blood collection at 1300-2000 g for 10 minutes, or until a complete barrier has formed. This will allow the serum to separate from the red blood cells (see Figure 4). Check with your site’s local lab for their centrifuging standard practice for a SST tube. Remove the gold stopper and carefully transfer all serum from tube using a disposable pipette into the 4 mL standard transfer specimen transport tube (see figure 5) provided by ARUP Laboratories. Serum

should be clear and free from all red cells. A minimum of 1.0 mL of serum must be transferred in order for ARUP Laboratories to be able to perform the (ELISA) antibody testing for SARS-CoV-2.



1.2 Blood Storage

The 1.0 mL serum that has been collected in the standard transfer specimen transport tube should be placed in a -20°C or -70°C freezer for storage until shipment. Another option is to refrigerate the specimen in a $2-6^{\circ}\text{C}$ fridge. The sample can only remain in the fridge for a maximum of 2 weeks, but in the freezer, the specimen can remain for a maximum of 1 month. It is advised to place the specimens upright whether storing in a fridge or freezer. Use the cardboard racks provided to store specimens upright. If you are unable to place the specimen in a fridge or freezer immediately after transferring the serum, the specimen may be left ambient for a maximum of 24 hours from time of transfer.

At least 4-5 hours prior to shipment, the specimens must be placed upright in a -20°C or -70°C freezer to allow the specimens to freeze before shipping on dry ice.

2.0 Nasal Swab Collection

Each participant will collect their own mid-turbinate nasal swab using the nasal swab provided by ARUP laboratories (see Figure 6). Turbinates are structures within the nasal passageway made of bone and soft tissue. Fill out the label provided (see Figure 2) following the instructions provided in Section 1.0. On the label you will include the date and time of nasal swab collection. Place completed label on nasal transport media tube.

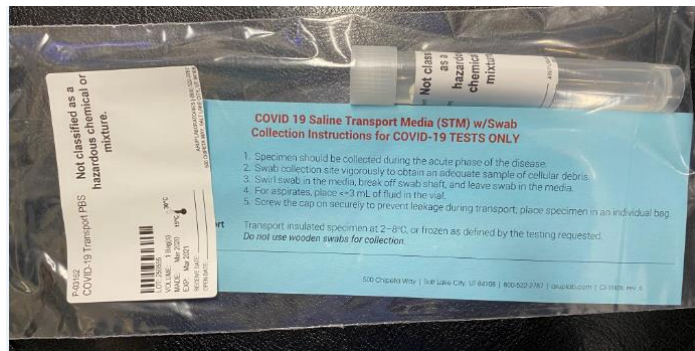


Figure 6

Provide the following instructions to the participant:

- 1) Insert the swab about ½-1 inch into either the right or left nares. This is where resistance will be met at the turbinates (see Figure 7).
- 2) Rotate the swab several times against the nasal wall for about 10-15 seconds.
- 3) Repeat steps 1-2 on the other nare (both nares must be sampled with the same swab).
- 4) Remove swab from nare and place in sterile viral transport media tube and gently break off the applicator stick at the designated marking.

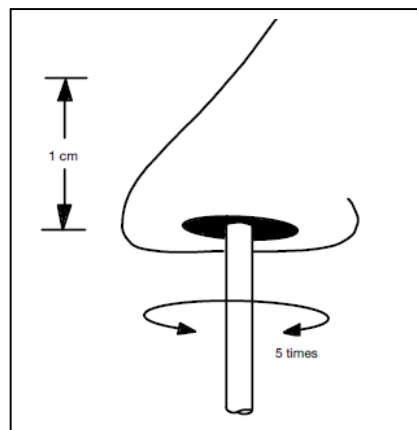


Figure 7

2.1 Nasal Swab Storage

The nasal swab should be placed upright in a -20°C or -70°C freezer immediately after collection if possible. The nasal swab can also be placed upright immediately in a $2-6^{\circ}\text{C}$ fridge. Use the cardboard racks provided to store the specimens upright. However if it is not possible to place the nasal swab in a freezer or fridge immediately after collection, place the specimen in ice or wrapped in a cold pack until you are able to move it to the appropriate storage conditions. The specimens should not be left ambient.

The nasal swab can be left in the freezer for a maximum of 1 month. However, it can only be placed in a fridge for a maximum of 2 days. At least 4-5 hours prior to shipment, the specimens must be placed upright in a -20°C or -70°C freezer to allow the specimens to freeze before shipping on dry ice.

Upon receipt of shipment, ARUP laboratories will be performing PCR testing to identify SARS-CoV-2.