1. PURPOSE
After sample collection, a nasal swab tip with the specimen sample is placed into a transport tube, which needs to be sealed for delivery to the lab. Most nasopharyngeal swabs are approximately 150-160 mm long, which allows for enough length in the swab to reach the sample location without placing the hand of the person collecting the sample too close to the patient. However, most transport tubes are shorter than this length (commonly 80-118 mm), and thus the swab needs to be shortened to fit into the tube. This allows for the swab to fit into short tubes, and also keeps the portion of the swab touched by the health care provider from being included in the patient sample. It is common for swabs to have a break point as a feature, which allows for the swab to be easily snapped off at the appropriate length to fit in a transport tube. Most commonly, testing kits instruct the user to place the swab into the transport tube and break it to a length that fits within the tube by bending the swab handle against the side of the tube with one hand.

This protocol is designed to test the functionality of the break point on swabs.

![Figure 1](image_url)
2. MATERIALS / EQUIPMENT
   3.1 Transport tube that is being used at your local hospital or facility or any of the following:
      3.1.1. GeneXpert Xpress Nasopharyngeal Sample Collection Kit for viruses (Cepheid, Sunnyvale CA)
      3.1.2. BD Universal Viral Transport for Viruses, Chlamydiae, Mucoplasmas and Ureaplasmas (Becton, Dickinson and Company Sparks, MD)
      3.1.3. A sterile conical tube (e.g., VWR Scientific, Radnor, PA)
   3.2 Nasal swab samples being evaluated
   3.3 Optional- Test tube rack

3. PROCEDURE
   1. Follow the swab manufacturer’s instructions for use (IFU) for breaking off the swab in the tube, then proceed to step 3. If there are no specific instructions regarding how to break off the swab, proceed to step 2 for generic instructions.

   2. Place the transport tube in your non-dominant hand. Grasp the nasal swab at the handle with your dominant hand, place into the tube with the break point aligned with the edge of tube, and with your dominant hand, bend the handle of the swab downwards towards the outer side of the tube until the swab breaks or you have reached the side of the tube and can’t bend any further (Figure 2).

   Figure 2. Demonstration of breaking off a swab during protocol testing. The fluid was removed from the transport tube prior to the test. The same transport tube can be used to test multiple swabs. Note- gloves are required for actual clinical use.
3. If the swab doesn't break, repeat the bending process until the collection tip of the swab breaks off and is separated from the handle. Record the number of bending attempts needed to break off the swab.

4. Confirm the swab fits in the tube by capping and sealing the tube.

4. **RESULTS**

Record how many bending attempts it takes to break the swab. If the swab does not break after multiple repeated attempts (e.g., Figure 3) or if the swab tip ejects out of the tube, this constitutes a failure. If the tube cannot be capped and sealed with the swab in place, this constitutes a failure.

Figure 3. This particular swab buckled at the neck, upstream from the breakpoint. This made it impossible to break off the swab with one hand. This was recorded as a failure.

### Revision History

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