

 <p>central peninsula hospital 250 Hospital Place Soldotna, AK 99669</p>	<p><b>POLICY TITLE:</b> Collection of Nasopharyngeal Swabs for Respiratory Virus PCR</p>	<p><b>DEPARTMENT:</b> Laboratory <b>CATEGORY:</b> Laboratory Services <b>SECTION:</b> Microbiology</p>
	<p><b>POLICY NUMBER:</b> CPGH.705.040</p>	<p><b>EFFECTIVE DATE:</b> May 2023 <b>Original Date of Policy:</b> 6/91 (MC-546)</p>
	<p><b>AUTHORIZED BY:</b> Laboratory Medical Director</p>	<p><b>Revised:</b> CPGH.705.040 8/15, (MC-546 12/91, 2/92, 2/94, 5/94, 4/95, 9/2000, 2/06, 1/10, 11/17, 1/20, 4/23 <b>Reviewed:</b> 1/99, 7/2000, 8/01, 5/03, 10/04, 7/07, 12/08, 11/09, 6/11, 10/12, 5/13, 12/16, 1/19, 1/20, 7/20, 7/21, 5/23</p>

- APPLIES TO:** Collection of nasopharyngeal swabs for respiratory virus PCR testing.
- RESPONSIBILITY:** All staff responsible for collecting nasopharyngeal samples for respiratory virus PCR including medical providers, nursing staff, phlebotomists, cardiopulmonary technicians, and other qualified medical staff.
- DEFINITIONS:**  
 PCR – polymerase chain reaction  
 VTM – viral transport media  
 UTM – universal transport media  
 eNAT - Guanidine-thiocyanate based medium that stabilizes the RNA and DNA of Viruses, Bacteria, Chlamydia, Trichomonas vaginalis, and Mycoplasma.  
 NP - nasopharyngeal
- PURPOSE:** To instruct collection personnel in the proper procedures for collection, storage and transport of NP swabs for PCR testing.
- PRINCIPLE:** Proper specimen collection from the patient is extremely critical for successful isolation and identification of infectious organisms. The Xpert® Nasopharyngeal Sample Collection Kit is intended for the collection and transport of nasopharyngeal swab specimens containing viruses from patients from the collection site to the testing laboratory prior to analysis with Xpert and Xpress tests or FilmArray Respiratory Pathogen Panel RP (RP2.1).
- The Copan Universal Transport Medium (UTM-RT) consists of modified Hank’s balanced salt solution supplemented with bovine serum albumin, cysteine, gelatin, sucrose, and glutamic acid. The pH is buffered with HEPES buffer. Phenol red is used to indicate pH. Vancomycin, amphotericin B, and colistin are incorporated in the medium to inhibit growth of competing bacteria and yeast. The medium is isotonic and non-toxic to mammalian host cells. The presence of sucrose acts as a cryoprotectant, which aids in the preservation of respiratory viruses if specimens are frozen (-70 °C) for prolonged storage.
- MATERIALS:** Xpert Nasopharyngeal Sample Collection Kit or equivalent  
 Appropriate PPE such as gloves, a lab coat, and mask or face shield, if indicated.  
 Specimen labels  
 Pen or indelible marker  
 Biohazard specimen transport bag  
 Biohazard waste receptacle
- STORAGE:** Xpert® Nasopharyngeal Sample Collection Kit:
- The product should be stored in its original container at 2–25 °C. Do not overheat. Do not incubate or freeze prior to use.
  - Improper storage will result in a loss of efficacy. Do not use after the expiration date.

For alternate manufacturers, store unopened, unused kits and materials according to manufacturer package insert.

**SPECIMEN:** **Xpert Nasopharyngeal Sample Collection Kit or equivalent**  
Refer to assay policies for assay-specific sample specifications.

**PROCEDURE:**

1. Don appropriate PPE before approaching the patient & perform hand hygiene.
2. Verify the patient's identity according to CPH protocol.
3. Position the patient:
  - o Instruct the patient to sit erect on the edge of the bed or chair facing the collector. If the patient cannot sit up, or movement is medically contraindicated, the procedure may be performed with the patient laying down.
  - o Infants and small children may lie down or be held and secured by a parent or guardian.
  - o Older children may be held in a parent/guardian's lap with their head secured against the parent/guardian's chest.
4. Collect the specimen according to **Attachment A – Nasopharyngeal Specimen Collection.**
  - o Note: when collecting from an infant or young child, grasp the swab about 1 inch up the shaft from the tip. Insert the swab until your fingers touch the outside of the nostril. Do not insert the swab past this point.
5. Label with appropriate patient information according to CPGH.700.080.
6. Transport sample to the laboratory for analysis.

**REPORTING RESULTS:** N/A

**REFERENCE RANGES:** N/A

**QUALITY CONTROL:** N/A

**CALIBRATION:** N/A

**MAINTENANCE:** N/A

**LIMITATIONS:**

- If Xpert Nasopharyngeal Collection kits are unavailable an acceptable alternate, as determined by the clinical laboratory, may be used.
- Specimens should be handled aseptically.
- The Xpert Nasopharyngeal Sample Collection Kit is intended for use as a collection and transport medium for respiratory viruses only.
- The Xpert Nasopharyngeal Sample Collection Kit is intended to be used with the medium tube and swab provided in the kit. The use of tubes of medium or swabs from any other source could affect the performance of the product.

**REVISION RESPONSIBILITY:** Microbiology supervisor or designee

**REFERENCES:** Xpert® Nasopharyngeal Sample Collection Kit (For Viruses). 302-6819, Rev. B August 2022. Ref. SWAB/B-100.  
Nasopharyngeal Sample Collection. 301-6052, Rev. H September 2021. Cepheid 2001.