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**Lab Dept:** Microbiology/Virology

**Test Name:** NOSE CULTURE

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**General Information**

**Lab Order Codes:** NPC

**Synonyms:** Culture, Nose; Culture, NP; Culture, Nasopharyngeal

**CPT Codes:** 87070 – Culture, bacterial; any other source except urine, blood or stool, with isolation and presumptive identification of isolates

The following testing may be added if appropriate based on findings for organism identification (multiple additions are possible if more than one organism is identified) and to aid in patient treatment management.

87077 – Aerobic isolate, additional methods required for definitive identification, each isolate (if appropriate)  
87106 – Culture, fungi, definitive identification, each organism, yeast (if appropriate)  
87107 – Culture, mold, definitive identification, each organism, mold (if appropriate)  
87147 – Culture, typing; immunologic method, other than immunofluorescence (e.g., agglutination grouping), per antiserum (if appropriate)  
87184 – Susceptibility studies, disk method, per plate (if appropriate)  
87185 – Enzyme detection (eg, beta lactamase), per enzyme (if appropriate)  
87186 – Susceptibility studies, microdilution or agar dilution, each multi-antimicrobial, per plate (if appropriate)  
87206 – Smear, primary source with interpretation, fluorescent and/or acid fast stain for bacteria, fungi or cell types (if appropriate)

**Test Includes:** Culture for aerobic flora. This test **does not** include *Bordetella pertussis*.

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**Logistics**

**Lab Testing Sections:** Microbiology

**Phone Numbers:** MIN Lab: 612-813-5866

STP Lab: 651-220-6555

**Test Availability:** Daily, 24 hours

**Turnaround Time:** Preliminary report available at 24 hours, final report with 3 days.

**Special Instructions:**

- **Specimen site** and **date/time of collection** are required for processing.
  - State specific organism suspected if applicable (i.e., *Corynebacterium diphtheria*, *Neisseria meningitidis*, or *Staphylococcus aureus*) since special isolation procedures may be required. Refer to separate listings [Bordetella pertussis Culture](#), [MRSA Screen](#), [Chlamydia Culture](#) and [Viral Culture](#) for additional information.
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**Specimen**

**Specimen Type:** Anterior nares swab, nasopharyngeal swab, nasal aspirate, nasal wash

**Container:** Swab transport medium or sterile container (for washes/aspirates)

**Collection:****NP Swabs:**

1. Carefully insert a flexible wire NP swab into the posterior nasopharynx via the nose.
2. Rotate the swab slowly for 5 seconds to absorb secretions, keeping the swab near the floor and the septum of the nose.
3. Remove the swab and place in swab transport medium.

**Anterior Nares:**

1. Insert swab, pre-moistened with sterile saline, approximately 2 cm into the nares.
2. Rotate the swab against the nasal mucosa.
3. Place in swab transport medium.

**Nasopharyngeal Washings:**

1. Tilt patient's head back at a 70 degree angle.
2. Insert rubber bulb syringe containing 1-2 mL sterile saline until it occludes the nostril.
3. Collect specimen (Minimum: 1 mL) with one complete squeeze and release bulb.
4. Repeat in other nostril.
5. Place washings (1-2 mL) in sterile container and promptly forward to the laboratory.

**Nasal Aspiration:**

1. Prepare suction set up on low to medium suction.
2. Wash hands and put on protective barriers (e.g., gloves, gown, mask).
3. Collect specimen (Minimum: 1 mL) with one complete squeeze and release bulb.
4. Repeat in the other nostril.
5. Place washings (1-2 mL) in sterile container and promptly forward to the laboratory.

<b>Transport/Storage:</b>	<p><b>Onsite collections:</b> Transport to the laboratory immediately.</p> <p><b>Offsite collections:</b> Refrigerate specimen. Specimens must be promptly transported to the laboratory, with the next available courier, not to exceed 24 hours from the time of collection. However, delayed transport causes a delay of test results.</p>
<b>Sample Rejection:</b>	Improperly labeled specimen; specimens with prolonged transit time (see <a href="#">Transport/Storage</a> for requirements); specimen not submitted in appropriate transport container; insufficient volume; external contamination. If an unacceptable specimen is received, the physician or nursing station will be notified and another specimen will be requested before the specimen is discarded.

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### ***Interpretive***

<b>Reference Range:</b>	Usual upper respiratory flora.
<b>Alert Value:</b>	<ul style="list-style-type: none"> <li>• Significant isolates (<i>Corynebacterium diphtheria</i>; <i>Neisseria meningitidis</i>) will be called to the physician or patient's nurse.</li> <li>• Gram-negative rods identified as ESBL or Carbapenemase producers will be called to the physician or patient's nurse. Infection Prevention will be notified.</li> <li>• If MRSA is isolated for the first time, and the patient location is Emergency department, the result will be called to the physician or patient's nurse.</li> </ul>
<b>Limitations:</b>	<ul style="list-style-type: none"> <li>• This procedure will not detect <i>Bordetella pertussis</i>, <i>Chlamydia</i> sp. or viruses.</li> <li>• Nasopharyngeal specimens are not reliable for determining the causative agents of sinusitis, otitis media or lower respiratory infections.</li> </ul>
<b>Methodology:</b>	Culture
<b>Additional Information:</b>	Presence or absence of normal flora is usually reported. Normal flora of the nose includes <i>S. epidermidis</i> (coagulase negative staphylococci), <i>S. aureus</i> , <i>S. pneumoniae</i> , <i>H. influenzae</i> , <i>S. pyogenes</i> , <i>M. catarrhalis</i> , and <i>Neisseria</i> sp. Consequently, nasal cultures for bacteria rarely provide useful clinical information.
<b>References:</b>	<p>Cook, JH, and M Pezzlo (1992). Specimen receipt and accessioning. Section 1. Aerobic bacteriology, 1.2.1-4. In HD Isenberg (ed) Clinical Microbiology Procedures Handbook. American Society for Microbiology, Washington DC</p> <p>Miller, J Michael (1999) A Guide To Specimen Management in Clinical Microbiology, American Society for Microbiology, Washington DC</p>

Miller, J Michael, and HT Holmes (1999) Specimen Collection, Transport, and Storage In PR Murray et al, (ed), Manual of Clinical Microbiology, 7<sup>th</sup> edition, American Society for Microbiology, Washington DC, pp 33-104

**Updates:**

3/22/2010: CPT Update

3/7/2011: CPT Update

4/24/2012: Addition of Alert Value

6/20/2012: Edit of Alert Value information

12/17/2013: Added nasopharyngeal washings and nasal aspirates as acceptable specimens and collection information for them.

11/20/2014: Offsite information added.