
Lab Dept: Microbiology

Test Name: ENDOTRACHEAL ASPIRATE CULTURE AND GRAM STAIN

General Information

Lab Order Codes: ETC

Synonyms: Culture, Endotracheal Aspirate; Culture, ETT; ETT Culture

CPT Codes: 87070 - Culture, bacterial; aerobic with isolation and presumptive identification of isolates, any source except urine, blood or stool
87205 – Smear, primary source with interpretation; Gram or Giemsa stain for bacteria, fungi or cell types

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 and Gram stain.

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 reports are available at 24 hours. Cultures from which pathogens are isolated require at least 2 days for completion.

Special Instructions:

- **Specimen site** and **date/time of collection** are required for processing.
- Specify organism suspected if appropriate since special isolation procedures may be required.

Specimen

Specimen Type: Endotracheal aspirate

Container: Sterile container or luki tube

Volume: 0.5 mL aspirate

Collection: Aspirate the specimen into a sterile container or luki tube.

Transport/Storage: Transport to the Microbiology Laboratory immediately to prevent loss of specimen due to drying.

Sample Rejection: Specimen with a transit time exceeding 2 hours after collection; specimen not submitted in appropriate transport container; improperly labeled specimen; 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.

Interpretive

Reference Range: Usual respiratory flora

Alert Value:

- Gram-negative rods identified as ESBL or Carbapenemase producers will be called to the physician or patient's nurse. Infection Prevention will be notified.
- If MRSA is isolated for the first time, and the patient location is not Emergency department, the result will be called to the physician or patient's nurse.

Limitations: Patients with endotracheostomies rapidly become colonized with Gram negative bacilli and other nosocomial pathogens. Such colonization may not have clinical relevance, but these organisms may be aspirated into the lungs and cause pneumonia. Thus, it may be difficult to determine the etiological agent of pneumonia in these patients.

Methodology: Culture

References:

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

Miller, J Michael (1999) A Guide To Specimen Management in Clinical Microbiology, American Society for Microbiology, Washington DC

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

Updates:

3/22/2010: CPT Updates

3/7/2011: CPT Updates

6/20/2012: Added Alert Value

5/10/2023: CPT update and removed culture with quantitation