Lab Dept: Microbiology/Virology

Test Name: WOUND CULTURE AND GRAM STAIN

**General Information**

**Lab Order Codes:** WDC

**Synonyms:** Culture, Wound

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

- 87075 – Culture, bacterial; any source, except blood, anaerobic with isolation and presumptive identification, each isolate
- 87076 – Anaerobic isolate, additional methods required for definitive identification of isolates
- 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 (e.g., 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:** Gram stain and culture for aerobes. All aerobic organisms will be identified.

**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 1 day, final report within 2 - 5 days.

**Special Instructions:**
- **Specimen site** and **date/time of collection** are required for specimen processing.
- Indicate organisms suspected and diagnosis. If a Mycobacterium species (AFB, TB) or fungus is suspected, request **AFB Culture** or **Fungal Culture**.

---

**Specimen**

**Specimen Type:** Pus or other material properly obtained from a wound. Aspirated material is superior to a swab specimen. If a swab must be used, collect two, one for culture and one for Gram stain.

**Container:** Swab transport medium or sterile container

- a. Store in dark at room temperature.
- b. Discard if media turns pink/purple.
- c. Discard after expiration date.

**Volume:** 0.5 mL pus preferred or swab in appropriate medium

**Collection:**

**Bite Wounds:**

Do not culture fresh bites, as infectious agents may not be recovered.

1. Remove surface exudate by wiping with 70% alcohol.
2. Aspirate pus from the wound, or obtain it at the time of incision, drainage or debridement of infected wound.

**Deep Wounds:**

1. Disinfect the surface with 70% alcohol and then with 2% tincture of iodine.
2. Aspirate the deepest portion of the lesion or pass a swab deep into the lesion, firmly sampling the lesion’s leading edge. Avoid contamination by the wound surface.
3. If collection is done at surgery, a portion of the abscess wall should also be sent for culture.
4. Transfer material into a sterile container
5. Remove tincture of iodine with 70% alcohol to prevent burn.

**Soft Tissue Aspirate:**

1. Disinfect the surface with 70% alcohol and then with 2% tincture of iodine.
2. Aspirate the deepest portion of the lesion or sinus tract or pass a swab into the lesion, firmly sampling the lesion’s edge. Avoid contamination by the wound surface.
3. Transfer material into a sterile container
**Transport/Storage:**

**Onsite collections:** Transport to the Microbiology Laboratory immediately at room temperature. **Do not refrigerate.**

**Offsite collections:** Specimens must be promptly transported to the laboratory, with the next available courier, not to exceed 24 hours from the time of collection.

- Transport aerobic swab or aspirate refrigerated.

**Sample Rejection:**

Improperly labeled specimen; specimens with prolonged transit (see Transport/Storage for requirements); 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:**

No growth

**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.
- Any culture positive for potential agents of Bioterrorism – *Bacillus anthracis*, *Brucella*, *Burkholderia mallei/pseudomallei*, *Franciscella tularensis*, or *Yersinia pestis* will be called to Infectious Disease and/or Infection Prevention.
- If any acid-fast bacilli is isolated, the result will be called to the physician or patient's nurse.

**Limitations:**

If anaerobes are suspected, specifically order **Anaerobic Culture.** Any specimen submitted for microbial culture can be contaminated with colonizing organisms that are not contributing to disease. Organisms most likely to contaminate specimens of this type include, but are not limited to, *Corynebacterium* sp. and coagulase-negative staphylococci. However, these organisms may be pathogenic in certain settings.

Slow-growing *Mycobacterium* sp. or *Nocardia* sp. will not be recovered in routine bacterial cultures even if present, since extended incubation periods or special media are necessary for their isolation. Cultures for these organisms should be specifically requested.

**Methodology:**

Culture

**References:**


Updates:
3/23/2010: CPT Updates
3/7/2011: CPT Updates
6/20/2012: Addition of Alert Value
11/14/2018: Updated information on anaerobes