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**Lab Dept:** Microbiology

**Test Name:** CATHETER TIP CULTURE

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***General Information***

**Lab Order Codes:** CTC

**Synonyms:** Culture, Catheter Tip; Culture, Arterial Catheter Tip; Culture, Broviac Catheter Tip; Culture, CVP Catheter Tip; Culture, Hickman Catheter Tip; Culture, Swan Gantz Catheter Tip; Culture, Tenckhoff Catheter Tip; Culture, Umbilical Arterial Catheter Tip (UAC)

**CPT Codes:** 87071 – Culture, bacterial; quantitative, aerobic with isolation and presumptive identification of isolates, any source except urine, blood or stool

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:** Quantitative culture of aerobic flora; susceptibility testing if requested. Refer to [Miscellaneous Culture and Gram Stain](#) for specimens other than intravascular catheter tip, example: ventricular peritoneal shunt tubing, tracheostomy tubing, port-a-cath hub.

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***Logistics***

**Lab Testing Sections:** Microbiology

**Phone Numbers:** MIN Lab: 612-813-5866  
STP Lab: 651-220-6555

<b>Test Availability:</b>	Daily, 24 hours
<b>Turnaround Time:</b>	Preliminary report available at 1 day, final report within 2 - 5 days.
<b>Special Instructions:</b>	<ul style="list-style-type: none"><li>● <b>Specimen site</b> and <b>date/time of collection</b> are required for processing.</li><li>● Foley catheters are <b>not</b> acceptable.</li></ul>

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### ***Specimen***

<b>Specimen Type:</b>	Catheter tip
<b>Container:</b>	Sterile container
<b>Volume:</b>	2 inch segment
<b>Collection:</b>	<ol style="list-style-type: none"><li>1. Before removing the catheter, cleanse the skin around insertion site with 70% alcohol to reduce contaminating skin flora and remove any residual antimicrobial ointment. Allow to dry.</li><li>2. Aseptically remove catheter and clip 2 inches of the distal tip of the catheter directly into a sterile container.</li><li>3. Transport directly to the Microbiology Laboratory to prevent drying.</li></ol>
<b>Special Processing:</b>	Roll catheter tip on culture plate for quantitation.
<b>Transport/Storage:</b>	Transport within 15 minutes to the Microbiology Laboratory at room temperature.
<b>Sample Rejection:</b>	Specimen with a transit time exceeding 1 hour after collection; Foley catheter tips; specimen not submitted in appropriate transport container; improperly labeled specimen; insufficient volume. If an unacceptable specimen is received, the physician or patient's nurse will be notified and another specimen will be requested before the specimen is discarded.

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### ***Interpretive***

<b>Reference Range:</b>	<15 colonies per plate
<b>Alert Value:</b>	<ul style="list-style-type: none"><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 not Emergency department, the result will be called to the physician or patient's nurse.</li></ul>
<b>Methodology:</b>	Quantitative method described by DG Maki

**Additional Information:**

Patients with catheter related septicemia will usually have >15 colonies per plate. Patients with inflammation at the catheter site but no related septicemia will usually have <15 colonies per plate.

**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, 7<sup>th</sup> edition, American Society for Microbiology, Washington DC, pp 33-104

**Updates:**

3/22/2010: CPT Updates

3/7/2011: CPT Updates

6/19/2012: Addition of Alert Value