

**Department of Microbiology
Catheter Tip & Shunt Culture Procedure**

I. Specimen Types

- A. All intravenous catheter tips
- | | |
|-----------------|-----------------------------|
| CVP | Swan Ganz |
| Femoral | Arterial (A)-line |
| Supraclavicular | Broviac |
| Subclavian | Hyperalimentation |
| Hickman | Umbilical catheter (infant) |
| | IV named according to vein |
- B. Non-intravenous tips
- Penrose
 - Chest tube
 - Jackson Pratt
 - Shunts – any CSF shunt

II. Potential Pathogens

All organisms

III. Work-up and Reporting of Intravenous Catheter Tips

- A. At 24 h incubation
1. If the culture is sterile, report **No Growth to Date**, and re-incubate the plate.
 2. If there are >15 colonies each on the plate:
 - a. Identify the isolate(s) based on gross morphology, and perform testing to give a genus and species identification when indicated.
 - b. Report the isolate(s).
 - c. Report the colony count as: **>15 colonies: More than 15 colonies from a catheter tip culture indicates that the catheter may be the source of an associated bacteremia, providing there are blood cultures positive with the same organism. In general, antimicrobial treatment for positive catheter tips without bacteremia or signs of sepsis is discouraged. [C15]**
 - d. Susceptibility testing is not routinely performed.
 - e. Re-incubate the plate.
 3. If there are < 15 colonies each on the plate:
 - a. Identify the isolate(s) based on gross morphology, and perform testing to give a genus and species identification when indicated.
 - b. Report the isolate(s).
 - c. Report the colony count as: **<16 colonies: Less than 16 colonies from a catheter tip culture indicates that the catheter is not the source of an associated bacteremia. [C14]**
 - d. Susceptibility testing is not routinely performed.
 - e. Re-incubate the plate.
- B. At 48 h incubation
1. If the culture is sterile, report: **No Growth**, and finalize the culture.
 2. If there is growth on the plate, see **III.A.1.b** and **III.A.1.c**. Do not re-incubate the plate.

IV. Work-up and Reporting of Non-Intravenous Catheter Tips and Shunts

- A. At 24 h incubation
 - 1. If the culture is sterile:
 - a. Report: **No Growth to Date.**
 - b. Re-incubate the plates.
 - 2. If the culture has growth:
 - a. If 1-3 organisms are isolated
 - i. Speciate and report the presumptive isolate(s) according to the identification charts, and report in the computer. Isolates are not reported with quantitation.
 - ii. Perform susceptibility testing on organisms, if appropriate.
 - b. If >3 organisms are isolated
 - i. Bring the culture up on Rounds.
- B. At 48h incubation
 - 1. If the culture is sterile:
 - a. Report: **No Growth.** Finalize the culture.
 - 2. If the culture has growth:
 - a. See **IV.A.2.** above.

Document Control

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