

### **Collection of Ascites and Peritoneal Fluid Specimens for Microbiology Testing**

Current microbiology and Infectious Disease Society of America guidelines for collection and culture of ascites or peritoneal fluid indicate that it is acceptable to inoculate specimens at the bedside or within the laboratory provided the specimens are transported quickly. This is one of the few specimen types where direct inoculation at the patient bedside remains a recommended/acceptable standard of care for microbiology testing. Bedside inoculation has an increased likelihood of contamination and should only be performed by trained individuals. With that in mind, physicians may culture ascites or peritoneal fluid as follows:

#### **Option 1:**

1. Order a "Culture, Anaerobic/Aerobic with Smear." (ACL Test Order Code AANC)
2. Collect at least 25 mL of fluid in a sterile syringe.
3. Remove and discard the needle, remove excess air to the extent possible, cap and label the syringe.
4. Send the specimen to the laboratory for testing.

#### **Option 2:**

1. Order a "Culture, Anaerobic/Aerobic with Smear." (ACL Test Order Code AANC)
2. Collect at least 50 mL of fluid in a sterile syringe (minimum is 25 mL).
3. Remove the cap from the blood culture bottle and clean the septum with an alcohol wipe.
4. Aseptically, insert the syringe needle into the septum and inoculate 10 mL of fluid into an aerobic blood culture bottle.

NOTE: The bottles are designed for optimal recovery with a 10 mL inoculation; however, the vacuum in the bottles may draw up to 25 mL of fluid without intervention so inoculation volume must be monitored carefully to avoid overfilling.

5. Aseptically, inoculate 10 mL of fluid into an anaerobic blood culture bottle (see previous note).
6. Place the two bottles into a specimen bag.
7. Remove and discard the needle from the syringe, remove excess air to the extent possible, cap and label the syringe.
8. Place the capped syringe in a separate specimen bag and place that bag in the bag with the blood culture bottles.
9. Send the blood culture bottles and the capped syringe to the laboratory for incubation and additional testing including Gram Stain and inoculation of additional media.

With both options, providers will receive a primary Gram stain and will have the same types of media inoculated. Option 2 will allow the media to be inoculated closer to the collection time, which may increase the recovery rate of some bacteria, especially fastidious aerobic bacteria and anaerobic bacteria. If <25 mL of fluid is obtained, ACL recommends using option 1 to ensure that inoculation of culture media is prioritized appropriately to maximize the recovery of microorganisms.