Blood Culture Collection

Blood cultures should be collected from animals showing clinical signs of septicemia. Bacteremia occurs just prior to the onset of fever. It is recommended that three separate sets of blood cultures be collected within 24 hours as early or low level bacteriemia can be difficult to detect.

Cultures should be obtained prior to beginning antibiotic therapy.

1. Vigorously cleanse chosen venipuncture site with 70% isopropyl or ethyl alcohol swabs. Allow to dry.
2. Apply 2% tincture of iodine or 10% povidone-iodine to the venipuncture site starting at the center and moving in concentric circles to the periphery to cover about a two-inch radius around the site. Allow to dry 30-60 seconds.
3. Open the needle and syringe with sterile technique. If the venipuncture site must be touched after preparation, sterile gloves or exam gloves disinfected with 70% alcohol should be used.
4. Carefully draw the required amount of blood.
5. Remove the plastic caps, but not the metal bands or rubber stoppers from two blood culture bottles. A single pediatric blood culture bottle may be used for smaller volume collections (1-3 ml). Wipe the rubber stoppers with 70% isopropyl or ethyl alcohol. Allow to dry.
6. Inject the required amount of blood into each bottle by puncturing the rubber stopper. Invert bottle gently to mix. Inoculate two bottles (aerobic and anaerobic) with 1-5 ml of blood each or a single pediatric* bottle with 1-3 ml of blood. Volume of blood drawn should be appropriate for the size of the animal. Record the amount of blood added to the bottle on the side of the bottle. Safely dispose of needle and syringe in a biohazard sharps container.
   *Pediatric bottles are recommended for use with small animal (<20 lbs) collections or for sample volumes of <3 ml. Only one bottle is required if pediatric bottles are used. If a small volume of blood is drawn and no pediatric bottles are available, inoculate the entire volume in an aerobic bottle.
7. Do NOT vent culture bottles.
8. Transport the bottle(s) to the laboratory at approximately room temperature (avoid temperature extremes), ideally within 24 hours of collection. Bottles will be incubated and subcultured at the laboratory.

We recommend contacting a local hospital or clinic to request pediatric blood culture bottles. If pediatric bottles are unavailable, request an aerobic blood culture bottle.

Please contact the laboratory with any questions!