

Blood Cultures Orders



Blood Culture

- The diagnosis of bacteremia or sepsis can usually be made by collecting 2 or 3 blood cultures sets (20-30 mL of blood) from the patient within a 24 hour period. Blood cultures are collected by peripheral venipuncture, usually by a trained phlebotomist. In order to isolate aerobic, facultative anaerobic and anaerobic bacteria, a blood culture set consists of one aerobic BACTEC blood culture bottle and one anaerobic BACTEC blood culture bottle. It is a Wellspan Policy that when a blood culture is ordered at least 2 blood culture sets must be collected. It is never acceptable to collect a single blood culture set because: (i) failure to isolate a potential pathogenic microorganism can result when a suboptimal volume of blood is cultured; and (ii) it will be difficult to differentiate a false positive blood culture or skin contaminant from true bacteremia when a potential pathogen is recovered.

-Place orders for 2 **Blood Culture** sets (LAB462). These may be collected simultaneously from two separate venipuncture sites or can be collected 30 minutes apart from the same or different venipuncture sites.

Blood Culture Central VAD

- A Blood Culture Central Vascular Access Device (VAD) is used for the diagnosis of sepsis in a patient that lacks venous access.

- This test should only be ordered after two attempts have been made to collect a **Blood Culture** by venipuncture. The original Blood Culture order needs to be canceled and an order needs to be obtained from the physician for a Blood Culture Central VAD.

- A Blood Culture Central VAD set consists of one aerobic BACTEC blood culture bottle and one anaerobic BACTEC blood culture bottle which will allow for the detection of aerobic, facultative anaerobic and anaerobic bacteria. The identification of the microorganism causing sepsis may give a clue to the origin or focus of infection, e.g. heart valve, internal abscess, prosthetic implant, or a vascular access device. This culture should be ordered and results obtained prior to collecting a blood culture for catheter-related sepsis (see below).

- Place orders for 2 **Blood Culture Central VAD** sets (LAB9704). These sets are collected 30 minutes apart from the central venous access device by Nursing.

Blood Culture (Catheter-Related Sepsis)

- Used to determine if sepsis in a patient with a vascular access device is due to a colonized or infected catheter site.
- Blood Culture (Catheter-Related Sepsis) consists of collecting two quantitative blood cultures collected simultaneously or within 15 minutes of each other. One is collected by peripheral venipuncture by a phlebotomist and the other one collected from the VAD by a nurse. The blood is put into **Isolator Tubes** rather than into blood culture bottles.
- Once the same microorganism is isolated and identified from each site, the number of colony forming units per mL of blood from the peripheral site versus the VAD is compared. If the VAD has greater than 5 times more microorganisms than the peripheral site, this is indicative of catheter-related sepsis.
- Order **Blood Culture Catheter-Related Sepsis** (LAB9730)

Videos showing the proper collection of all three blood culture types can be viewed on the Wellspan Laboratory Services website at www.wellspanlabs.org. Go to the News and Information Menu and select Educational Materials from the pull-down list.

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