Blood Culture SOP

-Note: This SOP is for use with the BBL SEPTI-CHECK system

1. Specimen Collection And Handling

All Blood samples should be obtained prior to initiating antibiotic therapy. If this is not possible, blood should be drawn immediately before administering the next dose.

Samples should be obtained before meals, since hyperlipemia may obscure visible evidence of growth in the liquid media.

In order to detect septicemia with sufficient accuracy, it may be necessary to set up one to three blood cultures at designated time intervals, depending on the clinical situation. It is recommended that samples be obtained at the first sign of fever.

A. To avoid possible false positives, the puncture site must be cleaned thoroughly and disinfected.
B. Prepare and label the appropriate culture bottle.
C. DO NOT UNSCREW CAP! Remove the protective top of the screw cap on the blood culture bottle.
D. Disinfect the visible part of the rubber stopper with isopropyl or ethyl alcohol (70%) and allow to dry.
E. Using a needle and syringe, obtain approximately 8-10 ml of blood.
F. Transfer the blood immediately into the culture bottle under aseptic conditions.
G. Allow the blood culture to incubate for 4-6 hours at 35 ±2 °C

2. Performance Of Test

NOTE: All below steps are to be preformed after the initial 4-6 hour incubation of the blood culture bottle at 35±2 °C.

A. Prepare and label one BBL SEPTI-CHECK slide. Attach the label in such a way that the agar surfaces are still visible.
B. Unscrew the cap of the BBL SEPTI-CHECK blood culture bottle.
C. Unscrew the unlabeled cap of the BBL SEPTI-CHECK slide and screw the slide onto the thread of the culture bottle. FINGER TIGHTEN ONLY. Ensure that the cap of the slide is fixed tightly.
D. Tip the whole system (Combined bottle and slide) and rotate it 180 degrees around the longitudinal axis to allow complete flooding of the agar surfaces. DO NOT HOLD THE SYSTEM INVERTED FOR LONGER THAN 15 SECONDS, AND DO NOT SHAKE. ALSO, DO NOT PLACE THE SYSTEM INVERTED ON THE BENCH SURFACE.
E. Revert into an upright position (Slide up, bottle down)

F. Incubate the system for 7 days at 35 ±2 °C without agitation.
G. Check for growth daily and invert slide system periodically.

3. Results and interpretation

If present, bacterial growth usually becomes evident within 48 hours. However, cultures should be incubated for **at least 7 days** before results are reported as negative.

If blood culture is positive, gram stain and subculture each different type of bacteria present to a purity plate and proceed to identify bacteria using appropriate microscan panel.
Note: If bacteria present is a gram negative, perform oxidase test prior to running a microscan panel.