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| **Reviewed/Approved by/Date:**  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**This SOP has been read and understood by:**

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| **Name** | **Signature** | **Date** |
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**INTRODUCTION**

Bacteremia is the invasion of bacteria in the blood stream, which can be transient and self-limiting but can also lead to life-threatening septicemia. This constitutes one of the most serious infectious diseases and therefore, the expeditious detection and identification of blood-borne bacterial pathogens is one of the most important functions of the diagnostic microbiology laboratory. Rapid detection of the organism by BACTEC FX 40 is therefore necessary for rapid outcome. It also important to ensured that blood is taken under strict aseptic technique, to avoid contamination of blood samples with normal skin flora during collection thus ensuring accurate results from blood sampling.

**PRINCIPLE**

Bactec is used for rapid detection of bacterial or fungi in a blood. Blood cultures are generally ordered to determine the presence of septicemia. Blood is usually sterile but on occasion organisms maybe recovered from healthy asymptomatic individuals.

**QUALITY** CONTROL:

Maintenance requirements:

Daily:

1. Record temperatures. Acceptable range is 33.5 – 36.5

2. Check LED red and green stations for each vial station.

3. Check external red, yellow and green LED at the handle of the door and audible alert system.

**Monthly**:

1. Clean and change filters.

**PROCEDURE**:

**Vial entry into the Bactec machine:**

1. Open door. The barcode scanner will turn on.

2. Scan the vial sequence barcode label.

3. Place the vial into an available station (solid green light indicates available station).

4. Enter accession number and save. Go to specimen and press add. Add the patient name and ID then you save.

5. Repeat for any remaining bottles.

6. Close the door completely.

**Unloading positive vials:**

A red light on the outside of the door indicates that there is a positive vial awaiting removal.

1. Open the door.

2. The positive vial will be indicated by a flashing red light.

3. Pull the vials out.

4. Scan the vial with the barcode reader.

5. Close door gently.

**Unloading negative vials:**

A green light on the outside of the door indicates that there are negative vials awaiting removal.

1. Open the door.

2. Negative vials awaiting removal will have a flashing green indicator.

3. Pull out vials

4. Close the door gently.

**Unloading anonymous vial:**

An anonymous vial will be identified by a yellow question mark on the Screen.

1. Open the door.

2. The bottle will be indicated by a yellow flashing light or select identify anonymous on the status

display.

3. Pull the bottle out.

4. Scan the vial sequence barcode label.

5. After scanning, place the bottle back into the same station that it was pulled from. It will be flashing green.

6. Close the door.

7. The bottle will turn into an ongoing vial.

**REFERENCES**

BACTEC FX 40 MANUAL