

# RECOMMENDATIONS FOR BLOOD CULTURE COLLECTION

# USING WINGED BLOOD COLLECTION SET (PREFERRED METHOD OF COLLECTION)

## STEP 1 CHECK PATIENT ID AND PREPARE MATERIALS



■ Confirm the **patient's identity**.



Prepare the collection kit.



- Do not inoculate bottles **past their expiration date**.
- Do not use bottles showing signs of damage, deterioration, or contamination.
- Identify the fill-to mark or mark the target fill level on the label.

#### **STEP 2 PREPARE BOTTLES FOR INOCULATION**



Wash hands or use an alcohol hand rub.



- Remove the plastic "flip-cap".
- Disinfect the bottle septum and allow to dry.

## **STEP 3 PREPARE VENIPUNCTURE SITE**



Apply a disposable **tourniquet**.



- Palpate to find a vein.
- Apply clean examination gloves.



- Disinfect the skin.
- Allow the site to air dry.

# **STEP 4 VENIPUNCTURE**



Attach the collection set to the adapter cap.\*



- To prevent contamination, **do not re-palpate.**
- Insert the needle into the prepared vein.

#### **STEP 5 BOTTLE INOCULATION**



- Collect the aerobic bottle first.
- Place adapter cap over bottle top.
- Press straight down to pierce septum.
- Hold the bottle upright below the venipuncture site.<sup>†</sup>
- Collect 10 mL of blood per adult bottle or up to 4 mL per pediatric bottle.



- Ensure the bottle is **correctly filled to the Fill-to Mark or target fill level**, as shown.
- Repeat for the **anaerobic bottle**.

### **STEP 6 OTHER BLOOD TESTS**



- - Always collect blood cultures first.
  - If the adapter cap used requires an insert, place the insert into the cap before collecting blood for other tests.

# **STEP 7 FINISH THE PROCEDURE**



- **Discard the collection set** into a sharps container and **cover** the puncture site.
- Remove gloves and wash hands.



- Record collection date, time and site and label bottles according to your facility's recommendations.
- Transport inoculated bottles as quickly as possible to the laboratory for testing in the BACT/ALERT® blood culture system.<sup>‡</sup>

<sup>\*</sup>The use of blood collection sets without adapter caps is not recommended

<sup>†</sup> Avoid holding the blood culture bottle in a horizontal or upside down position or drawing blood with a needle connected directly to the adaptor cap, as fill level cannot be monitored during collection and there is a possible risk of media reflux into the bloodstream.

<sup>‡</sup> Inoculated bottles should be transported to the laboratory for testing as quickly as possible, preferably within 2 hours per CLS1\* (Principles and procedures for Blood Cultures; Approved Guideline, CLS1\* document M47-A. Clinical and Laboratory Standards Institute (CLSI\*); Wayne, PA 2007). If delays are expected, it is important to refer to the manufacturer's Instructions for Use for guidance.

These recommendations illustrate the best practices for blood culture collection based on the World Health Organization recommendations (WHO guidelines on drawing blood: best practices in phlebotomy. 2010. ISBN 978 92 4 159922 1). Best practices may vary between healthcare facilities; refer to guidelines applicable in your facility.



# RECOMMENDATIONS FOR BLOOD CULTURE COLLECTION

# **USING NEEDLE AND SYRINGE\***

Wherever possible, replace conventional needles and syringes with winged blood collection sets, which are safer. (1-3)

### STEP 1 CHECK PATIENT ID AND PREPARE MATERIALS



Confirm the **patient's identity**.



Prepare the collection kit.



- Do not inoculate bottles **past their expiration date.**
- Do not use bottles showing signs of damage, deterioration, or contamination.
- Identify the fill-to mark or mark the target fill level on the label.

# **STEP 2** PREPARE BOTTLES FOR INOCULATION



Wash hands or use an alcohol hand rub.



- Remove the plastic "flip-cap".
- Disinfect the bottle septum and allow to dry.

### **STEP 3 PREPARE VENIPUNCTURE SITE**



Apply a disposable tourniquet.



- **Palpate** to find a vein.
- Apply clean examination gloves.



- Disinfect the skin.
- Allow the site to air dry.

### STEP 4 VENIPUNCTURE



Attach the needle to a syringe.



- To prevent contamination, do not re-palpate.
- **Insert the needle** into the prepared vein.
- Collect the sample.

# **STEP 5 BOTTLE INOCULATION**



- Attach a transfer safety device.
- Inoculate the **anaerobic bottle first**.
- Hold the bottle upright.
- Add 10 mL of blood per adult bottle or up to 4 mL per pediatric bottle.
- Repeat for the aerobic bottle.
- Hold the bottle upright.
- Add 10 mL of blood per adult bottle and 4 mL per pediatric bottle.



■ Ensure the bottle is **correctly filled to the fill-to mark or target fill level**, as shown.

### **STEP 6 OTHER BLOOD TESTS**



If collecting blood for additional tests, always collect blood cultures first.

# STEP 7 FINISH THE PROCEDURE



- **Discard the needle and syringe** into a sharps container and **cover** the puncture site.
- Remove gloves and wash hands.



- Record collection date, time and site and label bottles according to your facility's recommendations.
- Transport inoculated bottles as quickly as possible to the laboratory for testing in the BACT/ALERT® blood culture system.<sup>‡</sup>

<sup>\*</sup> Refer to recognized guidelines such as: • http://www.who.int/injection\_safety/phleb\_final\_screen\_ready.pdf • http://www.cdc.gov/niosh/docs/2000-108/pdfs/2000-108.pdf † Inoculated bottles should be transported to the laboratory for testing as quickly as possible, preferably within 2 hours per CLSI\* (Principles and procedures for Blood Cultures; Approve

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<sup>1)</sup> Applied Phlebotomy. Dennis J. Ernst. Lippincott Williams & Wilkins, 2005. • 2) Essentials Of Medical Laboratory Practice. Lieseke C, et al. 2012. • 3) Qamruddin A, Khanna N, Orr D. Peripheral blood culture contamination in adults and venepuncture technique: prospective cohort study. J Clin Pathol. 2008;61:509-513.

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