PIONEERING DIAGNOSTICS

BIOMÉRIEUX

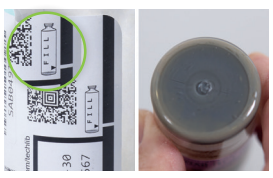
RECOMMENDATIONS FOR BLOOD CULTURE COLLECTION

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

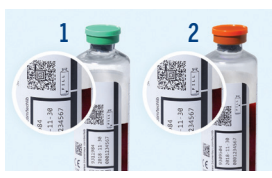
- Attach the collection set to the **adapter cap**.*

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

STEP 5 BOTTLE INOCULATION

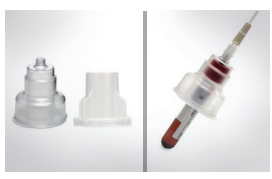
- Collect the **aerobic bottle first.**
- Place adapter cap **over bottle top**.
- **Press straight down** to pierce septum.

- Hold the bottle **upright** below the venipuncture site.†
- Collect **10 mL** of blood per **adult** bottle or **up to 4 mL** per **pediatric** bottle.



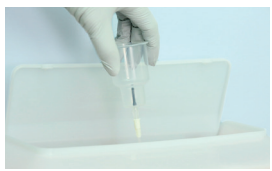
- Ensure the bottle is **correctly filled to the Fill-to Mark or target fill level**, as shown.
- Repeat for the **anaerobic bottle.**

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.‡

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* The use of blood collection sets without adapter caps is not recommended.

† 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.

‡ 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; Approved Guideline, CLSI® 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.

PIONEERING DIAGNOSTICS

BIOMÉRIEUX

RECOMMENDATIONS FOR BLOOD CULTURE COLLECTION

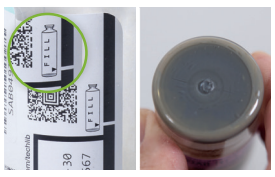
USING NEEDLE AND SYRINGE*

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.**

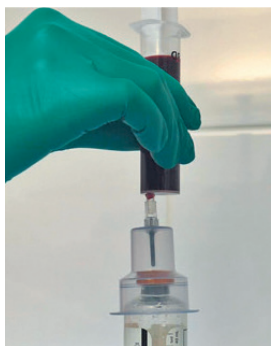
- **Disinfect** the skin.
- Allow the site to **air dry**.

STEP 4 VENIPUNCTURE

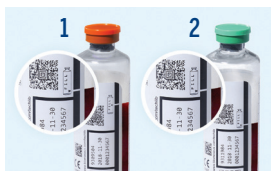
- Attach the needle to a syringe.

- 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.

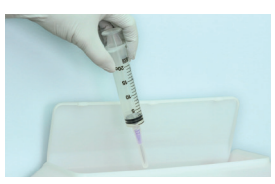


- Repeat for the **aerobic bottle.**
- Hold the bottle **upright.**
- Add **10 mL** of blood per **adult** bottle and **4 mL** per **pediatric** bottle.
- Ensure the bottle is **correctly filled to the fill-to mark or target fill level**, as shown.

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.‡

* 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; Approved Guideline, CLSI® 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.

1) 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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bioMérieux has made every effort to provide content that observes best practices for blood culture collection. However, the information on this poster is given as a guideline for reference purposes only and is not intended to be exhaustive, nor to be medical advice. Always consult a medical director, physician or other qualified health care provider regarding processes and/or protocols for diagnosis and treatment of a medical condition.