



PROCEDURE CHECKLIST

Blood cultures

Aseptic collection of paired aerobic and anaerobic blood culture bottles to identify bloodstream infection while minimising contamination.



EM Orbit

Patient reference

Date

Time

Completed by

Equipment ready

- ☐ Blood culture bottle set: aerobic and anaerobic (paediatric bottle for small children)
- ☐ Winged blood collection set (butterfly) or needle with blood culture adaptor / holder
- ☐ 2% chlorhexidine in 70% isopropyl alcohol skin applicator
- ☐ 70% alcohol (or chlorhexidine–alcohol) wipes for bottle tops
- ☐ Non-sterile gloves (sterile gloves if the site must be re-palpated) and apron
- ☐ Tourniquet, gauze and plaster
- ☐ Clean tray, sharps bin, labels and request form
- ☐ Additional blood tubes if required (collected after the culture bottles)

Before · Decision and patient

- ☐ Confirm the indication and whether the patient has already received antibiotics.

- ☐ **Do not delay antibiotics in suspected sepsis or meningitis in order to obtain blood cultures.**

Take cultures before the first dose only if this does not delay treatment beyond the target time (within 1 hour for suspected sepsis with high risk features).

- ☐ Identify the patient positively (name, date of birth, hospital number or wristband).
- ☐ Explain the procedure and obtain verbal consent.

Before · Preparation

- ☐ Check the bottle expiry dates and that the broth is clear, and mark the target fill volume on each bottle.
- ☐ Perform hand hygiene and put on gloves and apron.
- ☐ Remove the plastic caps from the bottles and clean each rubber septum with an alcohol wipe; allow it to dry.
- ☐ Apply the tourniquet and select a vein, ideally in the antecubital fossa; do not use a femoral site unless unavoidable.
- ☐ Clean the skin with 2% chlorhexidine in 70% alcohol using a back-and-forth scrub for about 30 seconds and allow it to dry completely (about 30 seconds).

- ☐ **Do not re-palpate the vein after cleaning the skin.**

If you must, put on sterile gloves and re-clean the site.

During · Collection

- ☐ Use an aseptic non-touch technique: do not touch the key parts (needle, bottle tops, cleaned skin).
- ☐ Insert the winged needle into the vein; when blood flashes back, attach the holder to the aerobic bottle first.
- ☐ Hold the bottle upright below the level of the puncture site to prevent back-flow into the vein.
- ☐ Fill each bottle to the target volume, then attach the anaerobic bottle.
- ☐ **Do not overfill the bottles.**
Overfilling can give false positive signals on automated systems.
- ☐ Collect any other blood tubes after the culture bottles.
- ☐ Release the tourniquet, withdraw the needle, apply pressure with gauze and activate the safety device.

During · Second set

- ☐ Take a second set from a different venepuncture site, ideally before antibiotics, especially in suspected endocarditis.
- ☐ If a central venous catheter-related infection is suspected, take one set peripherally and one through the line at the same time and label each clearly.

- ☐ **Do not change needles between venepuncture and inoculation, and do not re-sheath needles.**

Changing needles increases needlestick injury risk and does not reduce contamination.

After · Labelling and transport

- ☐ Dispose of sharps immediately into the sharps bin.
- ☐ Label each bottle at the bedside with patient details, date, time and site of collection.
- ☐ Complete the request form with clinical details, suspected source and antibiotics already given.
- ☐ Send the bottles to the laboratory promptly; do not refrigerate them.

After · Documentation and follow-up

- ☐ Remove gloves and apron and perform hand hygiene.
- ☐ Document the date, time, site, number of sets and whether antibiotics had been given; many units use a blood culture sticker.
- ☐ Start antibiotics immediately if indicated.
- ☐ Ensure a named clinician follows up positive results.



A drafted procedure checklist, awaiting senior review. Perform procedures only within your training, competence and local policy. It does not replace your clinical judgement.

EM Orbit · Emergency medicine, in one orbit · proc-blood-cultures · red rows are the steps that must not be missed