

How to safely collect blood samples by phlebotomy from patients suspected to be infected with Ebola or Marburg

2017

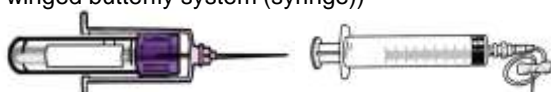
Step 1: Before entering patient room, assemble all equipment

Step 1a: Assemble equipment for collecting blood

- ☐ Laboratory sample tubes for blood collection (sterile glass or plastic tubes with rubber caps, vacuum-extraction blood tubes, or glass tubes with screw caps). EDTA tubes are preferred



- ☐ Blood sampling systems (Needle and syringe system, vacuum extraction system with holder, winged butterfly system (vacuum extraction) or winged butterfly system (syringe))



- ☐ Tourniquet (single-use)



- ☐ Skin antiseptic solution: 70% isopropyl alcohol



- ☐ Gauze pads



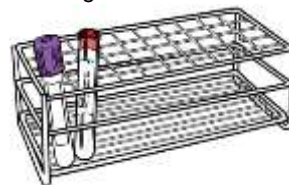
- ☐ Adhesive bandage



- ☐ Tray for assembling blood collection tools



- ☐ Rack for holding blood tubes



- ☐ Durable marker for writing on laboratory samples



Step 1b: Assemble equipment for preventing infections

For hand hygiene use

- ☐ Alcohol-based handrub **OR**
- ☐ Clean running water, soap and disposable (paper) towel



Personal Protective Equipment (PPE)

- ☐ Several pairs of disposable gloves (non-sterile, ambidextrous, single layer)
 - One pair for blood collection
 - Additional pairs as a replacement if they become damaged or contaminated



- ☐ Footwear: Rubber boots (wear socks in order to remove easily) or shoes with puncture-resistant soles with disposable overshoes secured around the shoes to prevent direct contact with ground and infected bodily fluid spills



- ☐ Long-sleeved, cuffed gowns (if in hospital) or disposable coverall suit (if in rural area)

Note: For tasks where contact with blood or body fluid could happen, an impermeable gown or a plastic apron over the non impermeable gown are recommended.



- ☐ Face protection: Face mask + [face shield **OR** goggles]



Waste management

- ☐ Leak-proof and puncture resistant sharps container
- ☐ Two leak-proof infectious waste bags
 - one for disposable material (destruction)
 - one for reusable materials (disinfection)



Step 1: Before entering patient room, assemble all equipment

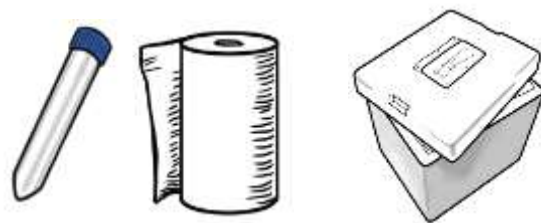
Step 1c: Fill out patient documentation

- ☐ **Label blood collection tubes** with date of collection, patient name, and his/her identifier number.
- ☐ **Do NOT forget to fill out necessary laboratory form and epidemiological questionnaire.**
- ☐ **If several patients have to be sampled in the same place or during the same investigation, create a line list.** One patient per line. The list should include: patient name, identifier number, sex, age (birthdate), clinical information: symptoms, date of onset, date specimen was collected, type of sample taken.

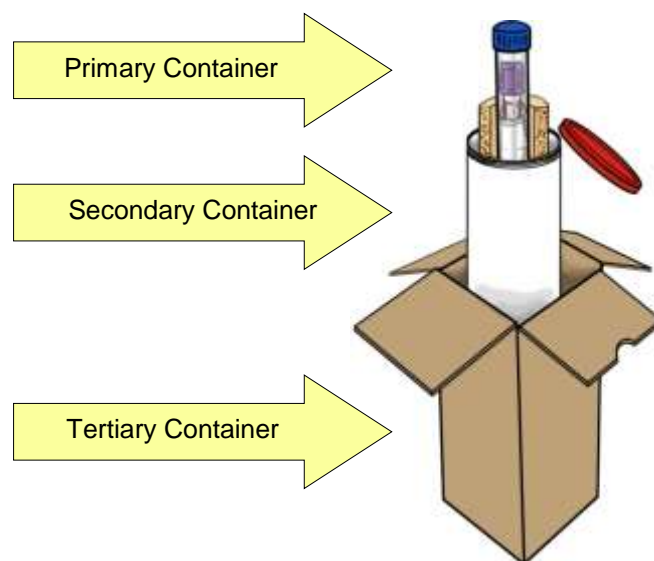


Step 1d: Assemble materials for packaging of samples

- ☐ Plastic leak-proof packaging container
- ☐ Disposable (paper) towels
- ☐ Cooler or cold box, if sample requires refrigeration



For the shipment of samples to the National Central Laboratory follow Sample Shipment packaging requirements (see document "How to safely ship Emerging and Dangerous Pathogen samples")



Important: A designated Assistant wearing gloves should be available to help you. This person should stand outside the patient room. He/She will help you prepare the sample for transport. He/She will assist you with putting on the personal protective equipment. He/She will provide any additional equipment you may need.

Step 2: Put on all personal protective equipment (PPE)

DO NOT ENTER THE PATIENT AREA IF YOU DO NOT HAVE ALL PROTECTIVE GEAR ON

Step 2a: Perform hand hygiene. Duration of the entire procedure: **40-60 sec** if handwashing with soap and water; **20-30 sec** if handrubbing with an alcohol-based solution.



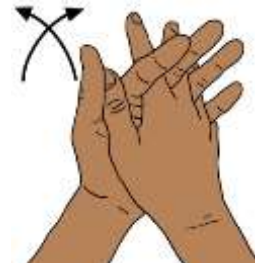
Wet hands with water and enough soap to cover all hand surfaces



Rub hands, palm to palm



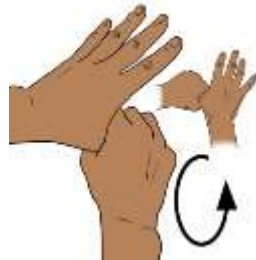
Right palm over left dorsum with interlaced fingers and vice versa



Palm to palm with fingers interlaced



Back of fingers to opposing palms with fingers interlocked



Rotational rubbing of left thumb clasped in right palm and vice versa

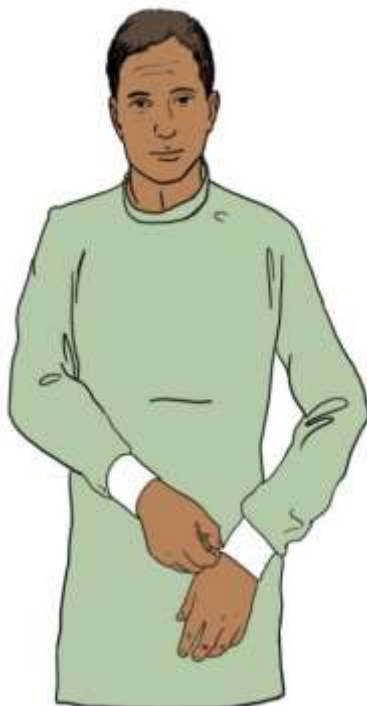


Rinse hands with water



Dry hands thoroughly with single use towel

Step 2b: Put on a gown



Step 2c: Put on face protection

Put on a medical mask



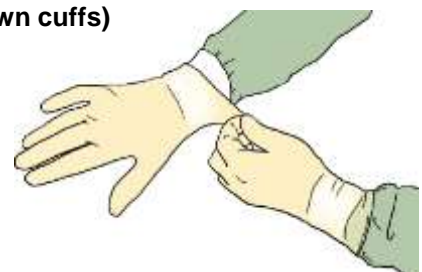
Put on eye protection (face shield OR goggles)



OR



Step 2d: Put on gloves (over gown cuffs)



Step 3: Collect blood sample from patient

Step 3a: Prepare room

- ✓ Put infectious waste bags and leak-proof and puncture resistant sharps container into patient room and make sure they are ready for use
- ✓ Place all blood collection equipment in a place that is easy to access



Step 3b: Identify and prepare the patient

- ✓ Introduce yourself to the patient and explain what you will do with the blood sample and why
- ✓ Make sure that this is the correct patient from whom you wish to take the blood sample



Step 3c: Select the site, preferably at the bend of the elbow

- ✓ Palpate the area; locate a vein of good size that is visible, straight and clear
- ✓ The vein should be visible without applying a tourniquet



Step 3d: Apply a tourniquet around the arm

- ✓ Tie approximately 4–5 finger widths above the selected site



Step 3e: Ask the patient to form a fist so that the veins are more prominent



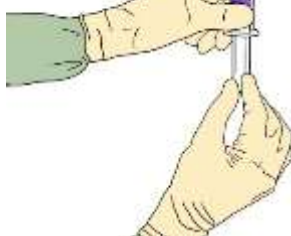
Step 3f: Disinfect the area where you will put the needle.

- ✓ Use 70% isopropyl alcohol
- ✓ Wait 30 seconds for the alcohol to dry
- ✓ DO NOT touch the site once disinfected



Step 3g: When using vacuum extraction system with holder, insert the blood collector tube into the holder

- ✓ Avoid pushing the collector tube past the recessed line on the needle holder or you may release the vacuum



Step 3h: Anchor the vein by holding the patient's arm and placing a thumb BELOW the place where you want to place the needle

- ✓ DO NOT touch the disinfected site
- ✓ DO NOT place a finger over the vein to guide the needle



Step 3i: Perform the blood draw

- ✓ Enter the vein swiftly at a 30° angle

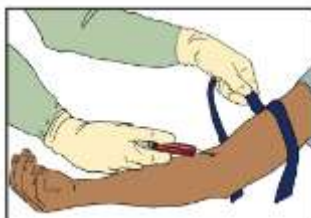


Step 3: Collect blood sample from patient

Step 3j: When blood starts to flow, ask patient to open his/her hand



Step 3k: Once sufficient blood has been collected (minimum 5ml), release the tourniquet **BEFORE withdrawing the needle**

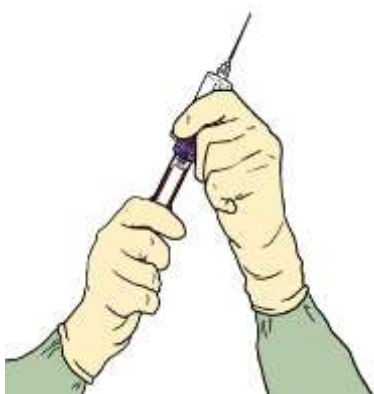


Step 3l: Withdraw the needle gently

- ✓ Give the patient a clean gauze or dry cotton wool ball to press gently on the site
- ✓ Ask the patient **NOT** to bend the arm



Step 3m: Remove blood collector tube from holder and put in rack



Step 3n: Put needle into leak-proof and puncture resistant sharps container

If the sharps container **DOES NOT HAVE a needle remover:**

- ✓ Put the needle and holder into a sharps container
- ✓ Do not remove the needle from the holder
- ✓ **Do not reuse the needle**

If the sharps container **DOES HAVE a needle remover:**

- ✓ Remove the needle following instructions on the sharps container
- ✓ Put the holder into the infectious waste bag for disinfection



Step 3o: Stop the bleeding and clean the skin

Step 3p: Put items that drip blood or have body fluids on

Quick Tips

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_27661

