

**Blood Culture Collection**

Each blood specimen should be placed into a separate blood culture bottle. If antibiotics will be started or changed, two blood cultures should be collected using separate line preparations and separate blood culture bottles. Exception: asymptomatic BMT patients being started on antibiotic prophylaxis for neutropenia do not warrant cultures (unless ill).

**Volume recommendation:**

Collect at least 1 ml of blood w/ 1 additional ml of blood for each year of age for a max of 10 ml. (See Table below) Volumes of blood less than 1 ml are generally insufficient for the accurate exclusion of bacteremia. Although we never reject a blood culture, the volume of blood is critical (more is better but don't exceed bottle's upper limit - 3ml pink bottle; 10ml blue bottle)

**Collection Procedure:****Technique #1 – syringe or butterfly**

1. Perform hand hygiene and don gloves. Verify pt. name/MRN.
2. Scrub top of blood culture bottle with sterile alcohol pad and friction for 15 seconds. LET DRY.
3. Set a blood transfer device on top of each blood culture bottle.
4. PREP skin with ChloroPrep® for 30 SECONDS, using a back and forth motion, allow to dry (approx. 30 sec). Do not wipe off. If allergic or if  $\leq 27$ wks gestation and/or  $\leq 1000$ gms (until 2 wks of age) use 3 Betadine swabsticks (one at a time) in concentric circles from center outward and allow to dry (approx. 2 minutes). Remove betadine with sterile alcohol (or Sali-wipe if  $\leq 27$  weeks gestation and/or  $\leq 1000$ gms until 2 weeks of age). LET DRY.
5. Do not palpate directly over insertion site after prepping skin. If it is necessary, you must use a sterile glove or re-prep.
6. Using safety syringe/needle, perform venipuncture or arterial stick and draw specimen. If using butterfly, attach syringe to end of butterfly and perform venipuncture. Draw off blood volume needed for culture (refer to volume Table above)
  - Syringe: Remove needle from pt. Activate safety-glide cover over needle. Remove the protected needle from syringe.
  - Butterfly: Remove butterfly from patient, and activate safety feature to protect needle. Remove specimen syringe.

Vol limits: **Pink bottle** – 1-3 ml **Blue bottle** - >3 ml up to 10 ml

*\*\*If the blood is also going to be used for other labs, put into blood culture bottle first and then into other lab tubes.*
7. Connect specimen syringe to blood culture transfer device and allow blood to flow into bottle.
8. Remove transfer device from blood culture bottle and discard with syringe into sharps container. If drawing more than one culture, use two sequential syringes to get each specimen. Use a new transfer device when inserting the specimen into each blood culture bottle.

Bottle and Volume Selection Chart		
Age	mLs needed per bottle	Blood Culture Bottle Type
Birth - < 1 year	1mL	(PINK) BD Bactec Peds Plus
1year	2mL	(PINK) BD Bactec Peds Plus
2year	3mL	(PINK) BD Bactec Peds Plus
3year	4mL	(BLUE) BD Bactec Plus
etc.	Etc	(BLUE) BD Bactec Plus
9y and Older	10mL	(BLUE) BD Bactec Plus

**Technique #2 – during peripheral IV insertion** Attach specimen syringe to T-connector (maintain sterility).

1. Perform hand hygiene and don gloves. Verify pt. name/MRN. Attach specimen syringe to extension set (maintain sterility).
2. Scrub top of blood culture bottle with sterile alcohol pad and friction for 15 seconds. LET DRY
3. Set a blood transfer device on top of each blood culture bottle.
4. PREP skin with ChloroPrep® for 30 SECONDS, using a back and forth motion, allow to dry (approx. 30 sec). Do not wipe off. If allergic or if  $\leq 27$ wks gestation and/or  $\leq 1000$ gms (until 2 wks of age) use 3 Betadine swabsticks (one at a time) in concentric circles from center outward and allow to dry (approx. 2 minutes). Remove with alcohol (or Sali-wipe if  $\leq 27$  weeks gestation and/or  $\leq 1000$ gms until 2 weeks of age). LET DRY.
5. Do not palpate directly over insertion site after prepping the skin. If it is necessary, you must use a sterile glove or re-prep.
6. Insert and secure IV, remove needle, activate safety feature and then attach extension set.
7. Attach specimen and draw off blood volume needed for culture (refer to volume Table above).
  - Vol limits: **Pink bottle** – 1-3 ml **Blue bottle** - >3 ml up to 10 ml

*\*\*If the blood is also going to be used for other labs, put into blood culture bottle first and then into other lab tubes.*
8. Clamp extension set and remove specimen syringe from extension set. Connect specimen syringe to blood culture transfer device and allow blood to flow into bottle. Flush IV per flushing protocol.
9. Remove transfer device from blood culture bottle and discard with syringe into sharps container. If drawing more than one culture, use two sequential syringes to get each specimen. Use a new transfer device when inserting the specimen into each blood culture bottle.

For more information, review the CHCO [Blood Culture Collection Policy](#)