

# Blood Culture Guideline



## When

Temp  $\geq 38^{\circ}\text{C}$ ?  
Signs of sepsis?  
*e.g. Chills,  
Rigors,  
 $\uparrow\text{HR}$ ,  $\downarrow\text{BP}$*

Yes

Blood cultures taken  
in the last 24hrs?  
*Avoid unnecessary  
sampling.*

Yes

Observe and  
reassess

Or

Could this be a  
non-infectious  
inflammatory  
condition?

Yes

Discuss with  
Medical Staff

No

Collect 2 sets of  
blood cultures  
[ $\pm$  other  
appropriate  
samples]

## Where

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Ideally one set from the central line and the other set from a peripheral site or both sets collected from peripheral sites (sequentially or within 12 hours).

**Adults and children greater than 30Kg** - A set is two bottles; 20ml of blood should be drawn per set and the volume of blood dispensed equally between the two bottles.

**Children less than 30kg** - A set is one bottle; 0.25ml/kg (min 1ml - max 5 ml) Use the **PINK** paediatric bottle

Gather required equipment

Perform hand hygiene

Prepare blood culture bottles; remove caps and disinfect bung with alcoholic chlorhexidine

## How

### Peripheral blood culture

#### Skin preparation:

- Apply tourniquet and palpate to identify vein
- After palpation, clean venepuncture site with alcoholic chlorhexidine wipe
- Swab concentrically, starting at the centre
- Allow the site to dry 20-60seconds
- Do not palpate the vein after skin has been disinfected

#### Blood collection:

- Perform hand hygiene and don non-sterile gloves
- Perform venepuncture using safety butterfly set and blood transfer device to withdraw required blood volume
- Fill Aerobic (BLUE) first then Anaerobic (PURPLE) second.

### Central line blood culture

#### Accessing central catheter:

- Perform hand hygiene and don non sterile gloves
- If drawing draw blood sample through a needleless connector, first replace the needleless connector
- Cleanse the new needleless connector with alcoholic chlorhexidine wipe and allow to dry
- Ensure connector does not become re-contaminated by placing it on a sterile guard if required

#### Blood collection:

- Withdraw required blood volume using a syringe/s
- Use blood transfer device to add blood to bottles
- Fill Aerobic(BLUE) first then Anaerobic(PURPLE) second
- For adults and children >30kg no discard is needed
- For children < 30kg, remove dead space volume prior to aspirating sample

Always fill blood culture bottles first before inoculating other blood tubes

Do not allow air to enter the purple bottle. Invert bottles to mix.

For adults and children > 30kg, distribute blood sample equally into aerobic and anaerobic bottles using blood transfer device and

Dispose of sharps appropriately.

Remove gloves and perform hand hygiene.

**Label specimens:** Do not cover base of bottle or barcode with label.

Place specimen in biohazard bag then transport cone and transport to laboratory as soon as possible.

Attempt to take sets at the same time