BLOOD CULTURE COLLECTION

Collection of Specimens for Microbiology

Proper transport and storage of specimens are prerequisites for reliable culture results. Ensure that the requisition and specimen are labeled with:

- patient's full name
- date of birth or health card number
- **source of specimen**
- collection date and time

The examination requested should be specified on the requisition.

Information concerning anti-microbial therapy or allergy, pregnancy, clinical diagnosis, or underlying disease should also be noted.

Specimens should be transported promptly to LifeLabs Laboratory. Delays to processing, beyond the recommended acceptable holding times, will compromise culture results.

All specimens and body fluids are considered potentially hazardous. They should be treated as if capable of causing disease. Clinical information or patient history as provided by the physician determines the scope of the laboratory investigation by ensuring that all laboratory services are relevant or adequate for each clinical situation.

Microbiology Collection Containers:

Aerobic Blue **Anaerobic Purple** **Pediatric Pink**

Bactec Blood Culture Bottles

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LifeLabs provides special blood culture bottles upon request. Patient blood is drawn directly into these containers, mixed well and sent directly to the laboratory.

A sufficient volume of blood withdrawn per culture is one of the most important features to optimize recovery of organisms from blood. Mark each bottle label before collection with the desired fill line to indicate the desired collection volume. Overfilling of bottles should be avoided.

The patient's full name, date of birth or health card number and **date and time of collection** should be specified on the requisition **and** blood culture bottle. Also include on the requisition any **antibiotics** in use and important **clinical history** (i.e. fever of unknown origin, query endocarditis).

Maintain Blood cultures at room temperature. Optimally submit to laboratory WITHIN 12 hours of collection.

Specimens are adequate if submitted within 24 hours of collection.

Adult Collection

Requests	Collection Procedure
Routine Blood Cultures	Collect **two (2) sets** of blood cultures. 1st set: 10 mL of blood collected into 1 aerobic (blue) **and** 10 mL of blood collected into 1 anaerobic (purple) BACTEC bottle 2nd set: 10 mL of blood collected into 1 aerobic (blue) **and** 10 mL of blood collected into 1 anaerobic (purple) BACTEC bottle *collected from a 2nd venipuncture site.* There is **no need to wait between collection of sets** of blood cultures unless endocarditis is suspected (see below).
Endocarditis, SBE, Bartonella, Brucella, HACEK, Prosthetic (mitral, aortic, tricuspid) Value, Fever of Unknown Origin, Pyrexia of Unknown Origin, Central Line Infection**	Collect **three (3) sets** of blood cultures. Each set should be **at least 30 minutes** apart. 1st set: 10 mL of blood collected into 1 aerobic (blue) **and** 10 mL of blood collected into 1 anaerobic (purple) BACTEC bottle 2nd set: 10 mL of blood collected into 1 aerobic (blue) **and** 10 mL of blood collected into 1 anaerobic (purple) BACTEC bottle *collected from a 2nd venipuncture site.* 3rd set: 10 mL of blood collected into 1 aerobic (blue) **and** 10 mL of blood collected into 1 anaerobic (purple) BACTEC bottle *collected from a 3rd venipuncture site.* ****Notify the Medical Microbiologist if Brucella requested**

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Child Collection

Weight	Approximate Age	Total Volume of Blood	Collection Procedure
< 1 kg (< 2.2 lb)	Neonate (< 1 month)	2 mL	1 BACTEC PEDS (pink bottle)
1.1 – 2.0 kg (2.4 to 5 lbs)	Infant (1 month to 2 years)	4 mL (2 mL per bottle)	2 BACTEC PEDS collected from same site
2.1 – 12.7 kg (5 to 28 lbs)	Infant (1 month to 2 years)	6 mL (3 mL per bottle)	2 BACTEC PEDS collected from same site
12.8 – 36.3 kg (28 to 80 lbs)	Children (2 to 12 years)	20 mL (10 mL per bottle)	2 aerobic BACTEC collected from different venipuncture sites
> 36.3 kg (> 80 lb)	Adolescent (> 12 years)	40 mL (10 mL per bottle)	2 aerobic BACTEC 2 anaerobic BACTEC collected from different venipuncture sites

Request for Fungus, Yeast, *Cryptococcus,* Mycobacteria, TB, AFB or MAI

Requests	Collection Procedure
Fungi/Yeast • ***Cryptococcus*** • ***Candida***	Collect **two (2) sets** of blood cultures. 1st set: 10 mL of blood collected into 1 aerobic (blue) **and** 10 mL of blood collected into 1 anaerobic (purple) BACTEC bottle 2nd set: 10 mL of blood collected into 2 aerobic (blue) **and** *collected from a 2nd venipuncture site.*
Dimorphic Fungi: • ***Histoplasmosis*** • ***Blastomycosis*** • ***Coccidiodes*** **Mould:** • ***Aspergillus*** • ***Zygomycetes*** • ***Malassezia furfur***	Sodium Heparin (green stopper) vacutainer tube (7 mL) Maintain at room temperature. Submit to PHL within 24 hours with a completed PHL requisition.
Mycobacteria /TB/AFB/MAI	