

Fluid Specimen - Microbiology Collection Instructions

- Collection Container(s):**
- Sterile 60 mL plastic container (orange-top)
 - Sterile 10 mL tube
 - Anaerobic transport system if available at your site (eg. PRAS, Port-A-Cul, Starplex)
 - Blood Culture bottles: BacTAlert® (Calgary zone) or BACTEC® (All other zones)

Volume Optimal volume: 15-25 mL
Minimum volume: 1-5 mL

- Collection Instructions:**
- General Instructions:
1. **Collect specimen prior to antimicrobial therapy for greatest diagnostic sensitivity.**
 2. Perform the aspiration aseptically. Prior to collection, clean and disinfect puncture site with alcohol and chlorhexidine or iodine.
 3. Wherever possible, fluid specimen should be submitted for culture. Submission of a swab of sterile fluid is strongly discouraged and should only occur if extremely low fluid quantity.
 4. For Fungal or Mycobacterial cultures, specimen must be collected into a sterile tube or container (anaerobic transport containers and blood culture bottles are not acceptable).

Instructions for specific sources

- **For normally sterile body fluids (eg. pericardial, pleural, amniotic, cyst, peritoneal fluids, etc.),**
 - Submit at least 1-3 mL of fluid for Gram Stain and direct planting. Submit in sterile tube/container or anaerobic transport system.
 - If sufficient volume is available, also inoculate directly into blood culture bottles:
 - Clean blood culture bottle septum with 70% isopropyl alcohol before inoculating.
 - Inoculate 8-10 mL into aerobic blood culture bottle. If anaerobic culture is required, inoculate 8- 10 mL into anaerobic blood culture bottle.
 - If less than 8 mL total volume is available, inoculate 1-3 mL into a pediatric blood culture bottle.
- **For synovial fluid specimens,**
 - 1-2 mL of specimen should be added into sterile tube/container or anaerobic transport system for culture **before** adding to hematology or chemistry containers that contain additives (EDTA, etc).
 - If sufficient volume (1-3 mL) remains, inoculate into a pediatric blood culture bottle.
- **For peritoneal dialysate specimens (PD fluid),**
 - Submit 50 mL in a sterile container.
 - Alternatively, fluid can be directly inoculated into aerobic and anaerobic blood culture bottles as described above.
- **For drainage fluids or abscess aspirates/fluids,**
 - Aseptically collect a fresh sample of fluid and place into a sterile tube or container. Use anaerobic transport system when anaerobic culture is required.
 - Collection from drains that have been in place for greater than 72 hours is discouraged, as interpretation may be confounded by colonization with bacteria/yeast.

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Cautions

- **Do not** submit fluid in a syringe, with or without the needle. Specimens are likely to leak and those with needles attached are a laboratory hazard.
- **Do not** submit specimen in containers containing microbial inhibitory substances such as Heparin, EDTA, Citrate. Results may not be reliable.
- **Do not** submit leaking specimens. Ensure containers are sealed.

Most common Microbiology Tests:

- Fluid Culture, Routine [LAB269] (Bacterial/Yeast culture)
- AFB / Mycobacterial Culture [LAB877] (not routinely indicated)
- Fungal culture [LAB1294] (not routinely indicated)

Labelling Requirements:

Label all sample containers with:

- **Patient's full first and last name**
- **Second Identifier** e.g. Personal Health Number (PHN/ULI) or other Government issued identification (Military, Federal, RCMP, Immigration)
 - If a patient demographic label is available, attach this label to the outside of the container
- **Date and time of collection**, the **specimen type** (e.g. synovial Fluid) and **source** (e.g. Right Knee) must be indicated on the requisition.
- **If multiple specimens are collected, the specimen source should also be indicated on the label.**

For more information regarding specimen labelling see:

[Sample Labeling & Identification | Alberta Precision Laboratories](#)

Deliver to laboratory as soon as possible after collection.

Questions? Call Alberta Precision Laboratories at 1-877-868-6848