

<b>Policy #:</b>	602 (PLH-602-04)	<b>Effective Date:</b>	9/30/2004	<b>Reviewed Date:</b>	8/1/2016
<b>Subject:</b>	COLLECTION OF CEREBROSPINAL FLUID & OTHER STERILE BODY FLUIDS FOR CULTURE				
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## COLLECTION OF CEREBROSPINAL FLUID & OTHER STERILE BODY FLUIDS FOR CULTURE

### Lumbar puncture:

1. Optimal volume of CSF is 9 ml for routine, fungal, and mycobacterial cultures. Minimum acceptable volume of CSF is 5 ml for routine, fungal, and mycobacterial cultures. Minimum acceptable volume of CSF is 0.5 ml for routine culture only.
2. Clean the puncture site with antiseptic solution and alcohol before needle insertion to prevent introduction of infection.
3. Slowly drain the CSF into the sterile leak proof tubes. Three tubes are generally required for microbiology, hematology, and chemistry testing. The first tube will generally go to Chemistry. The second tube drawn will generally go to microbiology, and the third tube drawn will generally go to hematology. (In traumatic taps, the CSF will often clear as the later tubes are collected.) *Note: always send the most turbid tube to microbiology.*

Meningitis/Encephalitis		
Diagnostic Test	Optimal Specimen	Transport Device
Fluid culture & smear	0.5-1 ml CSF	3 or 4 Sterile tubes by lumbar puncture
Fluid anaerobe culture		
AFB culture/smear	>5 ml CSF	
Fungus culture/smear	>5 ml CSF	
Cryptococcal Antigen	0.5- 1 ml CSF	
HSV by PCR	0.1 mL CSF	

**Brain abscess:**

1. Most brain abscesses will grow anaerobic bacteria and should be collected and transported under anaerobic conditions; such as in a capped syringe with air expelled and without the needle or sterile container.
2. Aspirated material from a lesion provides a better specimen than swabs of the lesion.
3. Transport the specimen without delay to the microbiology laboratory for immediate processing.

**Central Nervous System (CNS) Biopsy Samples:**

CNS biopsy obtained from the lesion at surgery should be sent on saline moistened gauze in a sterile container to the microbiology laboratory. *Do not add formalin.*

**Other Sterile body fluids excluding CSF, urine, and blood:**

1. Clean the needle puncture site with alcohol and disinfect it with an iodine solution (1 to 2% tincture of iodine or a 10% solution of povidone-iodine [1% free iodine]) to prevent introduction of infection. (If tincture of iodine is used, remove with 70% ethanol after the procedure to avoid burn.)
2. The physician will aseptically perform percutaneous aspiration to obtain pleural, pericardial, peritoneal, or synovial fluids.
3. Expel air bubbles from the syringe; send the specimen in the syringe without the needle, the collection bag or a sterile container.

<b>Infections of the Pleural Space (pleural fluid, thoracentesis fluid, etc)</b>		
<b>Diagnostic Test</b>	<b>Optimal Specimen</b>	<b>Transport Device</b>
Fluid culture & smear	50ml Pleural Fluid and/or pleural biopsy	Sterile container/bag
Fluid anaerobe culture		
AFB culture/smear		
Fungus culture/smear		
<b>Pericarditis/Myocarditis</b>		
<b>Diagnostic Test</b>	<b>Optimal Specimen</b>	<b>Transport Device</b>
Fluid culture & smear	50ml Pericardial fluid or pericardial biopsy	Sterile container/bag
Fluid anaerobe culture		
AFB culture/smear		
Fungus culture/smear		
<b>Sterile Abdominal Fluids (peritoneal, ascities, pancreatic, PD fluid)</b>		
<b>Diagnostic Test</b>	<b>Optimal Specimen</b>	<b>Transport Device</b>
Fluid culture & smear	50ml of fluid	Sterile container/bag
Fluid anaerobe culture		
AFB culture/smear		
Fungus culture/smear		