

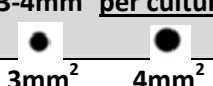
<b>Policy #:</b>	607 (PLH-607-05)	<b>Effective Date:</b>	9/30/2004	<b>Reviewed Date:</b>	8/1/2016
<b>Subject:</b>	COLLECTION AND TRANSPORT OF TISSUE AND SKIN SPECIMENS FOR CULTURE				
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## COLLECTION AND TRANSPORT OF TISSUE AND SKIN SPECIMENS FOR CULTURE

### Deep wounds, aspirates, and tissue specimens:

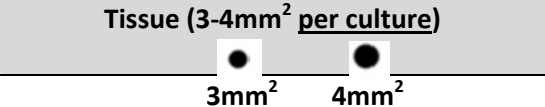
#### Bite wounds

- Aspirate pus from wound, or obtain it at the time of incision, drainage, or debridement of infected wound. (Do not culture fresh bite wounds, as infectious agents will likely not be recovered.)

Diagnostic Test	Optimal Specimen	Transport Device
Misc culture & smear	Tissue (3-4mm <sup>2</sup> per culture) or aspirate (0.5ml per culture)	Sterile container*
Misc anaerobe culture		Sterile container
AFB culture/smear		Sterile container
Fungus culture/smear		Sterile container
	<div style="background-color: #cccccc; padding: 5px; display: inline-block;">Tissue (3-4mm<sup>2</sup> per culture)</div> 	

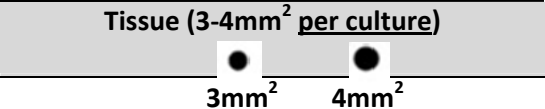
**Bone**

1. Obtain bone specimen at surgery.
2. Submit in sterile container without formalin. Specimen may be kept moist with less than 1 ml of sterile 0.85% NaCl.

Diagnostic Test	Optimal Specimen	Transport Device
Misc culture & smear	Tissue (3-4mm <sup>2</sup> <b>per culture</b> ) or aspirate (0.5ml <b>per culture</b> )	Sterile container*
Misc anaerobe culture		Sterile container
AFB culture/smear		Sterile container
Fungus culture/smear		Sterile container
		

**Deep wounds or abscesses**

1. Disinfect the surface with 70% alcohol and then with an iodine solution (1 to 2% tincture of iodine or a 10% solution of povidone-iodine [1% free iodine]). Tincture of iodine must be removed with 70% alcohol to prevent burn.
2. Aspirate the deepest portion of the lesion, avoiding contamination by the wound surface. If collection is done at surgery, a portion of the abscess wall should also be sent for culture.

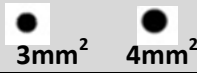
Diagnostic Test	Optimal Specimen	Transport Device
Misc culture & smear	Tissue (3-4mm <sup>2</sup> <b>per culture</b> ) or aspirate (0.5ml <b>per culture</b> )	Sterile container*
Misc anaerobe culture		Sterile container
AFB culture/smear		Sterile container
Fungus culture/smear		Sterile container
		

**Punch skin biopsies**

1. Disinfect the skin surface with 70% alcohol and then with an iodine solution (1 to 2% tincture of iodine or a 10% solution of povidone-iodine [1% free iodine]). Allow to dry. Tincture of iodine must be removed at completion of procedure to prevent burn.
2. Collect 3 to 4 mm<sup>2</sup> sample with dermal punch.
3. Submit for microbiological analysis in sterile container without formalin.

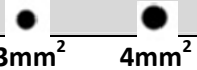
**Soft tissue aspirate**

1. Disinfect the surface with 70% alcohol and then with an iodine solution (1 to 2% tincture of iodine or a 10% solution of povidone-iodine [1% free iodine]). Allow to dry. Remove tincture of iodine with alcohol after procedure to avoid burn.
2. Aspirate the deepest portion of the lesion or sinus tract. Be careful to avoid contamination by the wound surface.

Diagnostic Test	Optimal Specimen	Transport Device
Misc culture & smear	Tissue (3-4mm <sup>2</sup> per culture) or aspirate (0.5ml per culture)	Sterile container*
Misc anaerobe culture		Sterile container
AFB culture/smear		Sterile container
Fungus culture/smear		Sterile container
	<b>Tissue (3-4mm<sup>2</sup> per culture)</b> 	

**Burn specimens**

1. Disinfect the surface with 70% alcohol and then with an iodine solution (1 to 2% tincture of iodine or a 10% solution of povidone-iodine [1% free iodine]). Allow to dry. Remove tincture of iodine with alcohol after procedure to avoid burn.
2. Collect tissue, aspirate or swab exudates for testing.
3. Collect a punch biopsy sample (3 to 4 mm<sup>2</sup>) for quantitative culture.
4. Place in a sterile collection container for transport to the microbiology lab.

Diagnostic Test	Optimal Specimen	Transport Device
Misc culture & smear	Tissue (3-4mm <sup>2</sup> per culture) or aspirate (0.5ml per culture)	Sterile container*
Misc anaerobe culture		Sterile container
AFB culture/smear		Sterile container
Fungus culture/smear		Sterile container
	<b>Tissue (3-4mm<sup>2</sup> per culture)</b> 	

**Superficial wound, bacterial**

1. Syringe aspiration is optimal method of collection.
2. Disinfect the surface with 70% alcohol and then with an iodine solution (1 to 2% tincture of iodine or a 10% solution of povidone-iodine [1% free iodine]). Allow to dry. Remove tincture of iodine with alcohol after procedure to avoid burn.
3. Using a 3 to 5 mL syringe with a 22- to 23-gauge needle, a physician will aspirate the deepest portion of the lesion. If a vesicle is present, collect both fluid and cells from the base of the lesion.
4. If the initial aspiration fails to obtain material, inject sterile, nonbacteriostatic 0.85% NaCl subcutaneously.
5. Repeat the aspiration attempt.
6. If no material is obtained, rinse needle and syringe with sterile 0.85% saline by drawing through the needle into the syringe.

**Superficial lesion, fungal**

1. Clean the surface with sterile water or saline.
2. Using a scalpel blade, scrape the periphery of the lesion border. Samples from scalp lesions should include hair that is selectively collected for examination. If there is nail involvement, obtain scrapings of debris or material beneath the nail plate. Transport in a sterile container.

**Ulcers and nodules**

1. Disinfect the surface with 70% alcohol and then with an iodine solution (1 to 2% tincture of iodine or a 10% solution of povidone-iodine [1% free iodine]). Allow to dry. Remove tincture of iodine with alcohol after procedure to avoid burn.
2. Remove overlying debris.
3. Swab the base of the ulcer or nodule using a culturette transport system. Send to the microbiology lab.
4. If exudate is from ulcer or nodule, collect it with a syringe or sterile swab.

**Reference:**

- Versalovic, James (Editor in Chief), editors Karen C, Carroll, Guido Funke, James H. Jorgenson, Marie Louise Landry, David W. Warnock, 2011. 10<sup>th</sup> Edition. Manual of Clinical Microbiology, American Society for Microbiology, Washington, D.C.
- Garcia, Lynne S. (Editor in chief), 2010. Third Edition Microbiology Procedure Handbook. American Society for Microbiology, Washington, D.C.