

## Ophthalmology Specimen Collection Guidelines for Microbiology Testing

### Calgary Zone MI6006

Edit Approved By: (10/04/2024)

Revision: 3.00

### Critical Eye Specimen Collection

#### Acceptable Types & Sources

- Types: aqueous fluid, aspirate, biopsy, scrapings, tissue, vitreous, wash, contact solution
- Sources: conjunctiva, cornea, corneal ulcer, lacrimal duct/gland, vitreous fluid, contact lens/case/solution

#### NOTE:

- Corneal scraping or contact lens are the specimen of choice for *Acanthamoeba*.
- **Swabs (conjunctival/corneal) are not considered critical eye specimens.** For information regarding collection of routine eye specimens refer to the routine eye specimen collection section of this guideline or Alberta Precision Laboratories Test Directory.

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#### Materials Required

- Appropriate Microbiology transport media, collection kit and/or culture media; refer to Critical Eye Specimen Collection Containers section of this guideline.
- Microbiology culture media kits and slides are available from Calgary Microbiology at the Diagnostic and Scientific Centre (DSC) using the [Corneal Scraping Bedside Media Kit Supply Order Form MI6133](https://www.albertahealthservices.ca/assets/wf/lab/if-lab-tc-cal-corneal-scraping-bedside-media-kit-order-form-mi6133.doc).  
<https://www.albertahealthservices.ca/assets/wf/lab/if-lab-tc-cal-corneal-scraping-bedside-media-kit-order-form-mi6133.doc>
- Check the expiry dates of all media/kits before use.

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#### Specimen Collection

- Collect sample aseptically and submit in a sterile container; fluid aspirates for bacterial culture may be injected aseptically through the stopper into anaerobic transport media (PRAS). For more information regarding collection containers and media to be used; refer to Critical Eye Specimen Collection Containers section of this guideline.
- Do NOT submit specimens in collection syringe.
- **If inoculating the media at the bedside**, then inoculate the appropriate media according to testing required **within one hour of collection**.
- Seal all inoculated containers using parafilm provided in the kit.

## Critical Eye Specimen Collection, Continued

### Labelling the Sample

Label all sample containers and media with **ALL** of:

- **Patient's full first and last name**
- **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/time of collection**
- **Specimen source/site**

When submitting slides inoculated at bedside, ensure **the slides themselves are labelled** (not slide container) with the patient's full first and last name.

- **If only one slide collected**, also clearly indicate on slide or requisition whether gram or fungal staining is requested.

**If ordering in Connect Care, the specimen label is both a patient demographic label and the requisition.** Ensure to attach the correct label to the correct specimen container.

- After ordering, labels will not print until the system is told the specimen has been collected. Instructions for prescriber (MD) workflow can be found here: <https://insite.albertahealthservices.ca/Main/assets/cistr/tms-cis-tr-beaker-prescriber-specimen-collection.pdf>
- If you need multiple tests to be performed on a single specimen, attach one of the labels to the specimen and ensure the labels for all tests ordered are put in the bag with the sample.

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### Lab Requisition (for clinics not on Connect Care ONLY)

- Order in Connect Care if at a Connect Care site
- For non-Connect Care sites, use the **Ophthalmology Microbiology Requisition - 22153** for all microbiology requests.
- Print the date and time the sample was collected on the requisition.
- **Fold** and place the requisition(s) in the **outside** pocket of the plastic re-sealable bag. **Do not** put the requisition in the bag with the sample collection container.

#### NOTE:






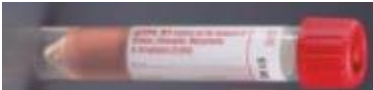

If a dedicated specimen is required for specific test (indicated in table below), submit a separate requisition with this specimen.

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### Sample Delivery to Lab

- **Store and transport specimens and inoculated media and slides at room temperature (RT).**
- Transport to the laboratory immediately.

## Critical Eye Specimen Collection, Continued

CRITICAL EYE SPECIMEN COLLECTION CONTAINERS (Fluids, Scrapings, Tissues, Contact Lenses)			
Specimen Type	Test Required	Collection Container	Notes
<ul style="list-style-type: none"> <li>Vitreous/ aqueous fluid</li> <li>Corneal scraping</li> <li>Tissue / Biopsy</li> <li>Aspirate</li> <li>Wash</li> </ul>	Eye Culture, Invasive [LAB4076]  (bacterial culture)	<b>PRAS (Pre-Reduced Anaerobic Sterilized) Transport Media:</b> Use to collect Fluids <5mL. Inject collected fluid through the vial stopper.   <b>Sterile Container:</b> Use to collect Fluids >5mL, scrapings, tissues 	<b>Media to Inoculate at Bedside:</b> <ul style="list-style-type: none"> <li>Blood agar plate</li> <li>Chocolate agar</li> <li>Thioglycolate broth</li> <li>Slide for gram stain</li> </ul>
	Fungal Culture [LAB1294]	<b>Sterile Container</b> (all specimens) 	<b>Media to Inoculate at Bedside:</b> <ul style="list-style-type: none"> <li>Inhibitory Mold Agar (IMA)</li> <li>Slide for Calcofluor white stain. <b>Submit a second slide if both gram and fungal stains required.</b></li> </ul>
	Mycobacteria culture (Acid-fast bacilli, AFB) [LAB877]	<b>Sterile Container</b> (all specimens) 	Testing performed at ProvLab. Dedicated specimen required.
<ul style="list-style-type: none"> <li>Vitreous/aqueous fluid</li> <li>Corneal scraping</li> <li>Tissue / Biopsy</li> <li>Aspirate</li> <li>Wash</li> <li>Contact lens</li> <li>Contact lens solution</li> </ul>	Acanthamoeba culture [LAB4048]	Submit specimen in sterile container with 10 mL <b>Pages Amoeba Saline</b> 	
<ul style="list-style-type: none"> <li>Corneal scraping</li> </ul>	Keratitis/ conjunctivitis NAT panel [LAB4156]  Includes Adenovirus, Enterovirus, HSV, Paraechovirus, VZV	<b>Universal Transport Medium (UTM)</b> 	Testing performed at ProvLab. Dedicated specimen required.
<ul style="list-style-type: none"> <li>Vitreous/aqueous fluid</li> </ul>	Chorioretinitis NAT Panel [LAB4152]  Includes: CMV, HSV/VZV, <i>Toxoplasma gondii</i>	<b>Sterile Container</b> 	Testing performed at ProvLab. Dedicated specimen required.

## Routine Eye Specimen Collection

### Acceptable Sources

Conjunctival/corneal swab

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### Specimen Collection

- Collect samples using appropriate collections swabs; refer to Routine Eye Specimen Collection Containers section of this guidelines (below).
  - **Inoculation at bedside is not required.** If inoculating the media at the bedside, then inoculate the appropriate media according to testing required within one hour of collection and transport to the lab immediately.
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### Labelling the Sample

Label all sample containers and media with **ALL** of:

- **Patient's full first and last name**
- **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/time of collection**
- **Specimen source/site**

**If ordering in Connect Care, the specimen label is both a patient demographic label and the requisition.** Ensure to attach the correct label to the correct specimen container.


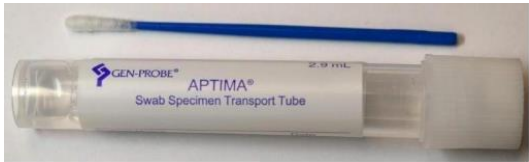

- After ordering, labels will not print until the system is told the specimen has been collected. Instructions for prescriber (MD) workflow can be found here: <https://insite.albertahealthservices.ca/Main/assets/cistr/tms-cis-tr-beaker-prescriber-specimen-collection.pdf>
  - If you need multiple tests to be performed on a single specimen, attach one of the labels to the specimen and ensure the labels for all tests ordered are put in the bag with the sample.
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### Lab Requisition

- Order in Connect Care if at a Connect Care site
- For non-Connect Care sites, use the **Ophthalmology Microbiology Requisition - 22153** for all microbiology requests.
- Print the date and time the sample was collected on the requisition.
- **Fold** and place the requisition(s) in the **outside** pocket of the plastic re-sealable bag. **Do not** put the requisition in the bag with the sample collection container.

#### NOTE:

- If a dedicated specimen is required for specific test (indicated in table below), submit a separate requisition with this specimen.

ROUTINE EYE SPECIMEN COLLECTION CONTAINERS (Swabs)			
Specimen	Test Required	Collection Container	Notes
<ul style="list-style-type: none"> <li>Conjunctival swab</li> <li>Corneal swab</li> </ul>	Eye Culture, Superficial [LAB943] (bacterial culture)	<b>ESwab® Liquid Amies Swab</b>  eSwab kit with liquid Amies - for BACTERIAL CULTURE Note: large tipped brown swab, clear fluid, pink cap (not red), name on tube and package 	Direct beside inoculation of media/slides is not required.
	Neisseria gonorrhea Culture [LAB235]	<b>**Check container label closely, can be confused with UTM**</b>	Performed only if <3 months old, treatment failure, sexual exposure/assault, environmental exposure
	Chlamydia and Gonorrhea Screen [LAB1376]	<b>APTIMA Unisex BLUE swab</b> 	<b>Discard white swab in package, collect specimen with the blue swab</b>
	Keratitis/conjunctivitis NAT panel [LAB4156]  Includes adenovirus, enterovirus, HSV, VZV, paraechovirus	<b>Universal Transport Medium (UTM)</b>  Yocon Viral Transport Media kit with a NP swab Note: fine tipped white swab, pink/red fluid, red cap (not pink), name on tube and package  Kits provided for lesion or eye swabs have a larger tip (white) <b>**Check container label closely, can be confused with ESwab**</b>	Testing performed at ProvLab.  Dedicated specimen required.

#### Questions?

- Call Alberta Precision Laboratories Lab Information Centre at 403-770-3600 or
- Refer to Alberta Precision Laboratories Test Directory  
<https://www.albertaprecisionlabs.ca/tc/Page13850.aspx>