

**Ophthalmology Specimens - Microbiology Collection**
**Acceptable  
Types &  
Sources**
**Invasive Eye Specimens:**

- Types: aqueous fluid, aspirate, biopsy, scrapings, tissue, vitreous, wash, contact solution
- Sources: conjunctiva, cornea, corneal ulcer, vitreous fluid, contact lens/case and solution  
**Note:** corneal scraping or contact lens are the specimen of choice for Acanthamoeba.

**Routine Eye Specimens:**

- Superficial swabs (conjunctival/corneal)

**Materials  
Required**

- See Collection Containers table below.
- **For invasive eye specimens**, Microbiology culture media and slides are available from:
  - Calgary Zone: use the [Corneal Scraping Bedside Media Kit Supply Order Form MI6133](#) and email [APL.CALMicrobiologyInventoryGroup@albertaprecisionlabs.ca](mailto:APL.CALMicrobiologyInventoryGroup@albertaprecisionlabs.ca)
  - Edmonton Zone: phone (825) 394-1785 ext 7514 for culture media and (780) 407-7031 (Public Health Labs) for Pages Amoeba Saline
  - Chinook Regional Hospital: phone (403) 388-6107
- Check the expiry dates of all media/kits before use.

**Specimen  
Collection**
**Invasive Eye Specimens:**

- 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.
- 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.

**Routine Eye Specimens:**

- Swab the inferior tarsal conjunctiva and the fornix of the eye (mucosal surface inside the surface of the eyelid), then carefully place swab in the container without contaminating.

**Labelling the  
Sample**

Label all sample containers and media 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 available, attach patient demographic label to the outside of the container
- **If multiple specimens are collected**, also label each specimen with **specimen source/site** and **date/time of collection**.

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**
- 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.
- (for clinics not on Connect Care ONLY)**
- 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.

- Sample Delivery to Lab**
- **Store and transport specimens and inoculated media and slides at room temperature.**
  - Transport to the laboratory immediately.

**INVASIVE/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/Yeast culture)	<p><b>Anaerobic Transport Media:</b>            Use to collect Fluids &lt;5mL. Inject collected fluid through the vial stopper.            Examples:</p>  <p><b>Sterile Container/Tube:</b> Use to collect Fluids &gt;5mL, scrapings, tissues            Examples:</p> 	<p><b>Media to Inoculate at Bedside:</b></p> <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>

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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>	Fungal Culture [LAB1294]	<b>Sterile Container</b> (all specimens) Examples: 	<b>Media to Inoculate at Bedside:</b> <ul style="list-style-type: none"> <li>Inhibitory Mold Agar (IMA) or Sabourand Dextrose Agar (SAB-DEX)</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]		Testing performed at Public Health Labs. 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>  or 	
<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>  <b>**Check container label closely, can be confused with ESwab**</b>	Testing performed at Public Health Labs. 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 Public Health Labs Dedicated specimen required.

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**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>  <b>**DO NOT confuse ESwab with UTM. Package label will state ESwab.**</b>	Direct bedside inoculation of media/slides is not required.
	Neisseria gonorrhoea Culture [LAB235]		Performed only if <3 months old, treatment failure, sexual exposure/assault, environmental exposure
	Chlamydia and Gonorrhoea Screen [LAB1376]	<b>APTIMA Unisex BLUE swab</b>  <b>HOLOGIC® Aptima®</b> <small>Unisex Swab Specimen Collector Kit for Endocervical and Male Urethral Swab Specimens</small>	<b>Discard white swab in package.</b>  <b>Collect specimen with the blue swab and submit <u>only</u> the blue swab to the lab for testing.</b>
	Keratitis/ conjunctivitis NAT panel [LAB4156]  Includes adenovirus, enterovirus, HSV, VZV, paraechovirus	<b>Universal Transport Medium (UTM)</b>  <b>**Check container label closely, can be confused with ESwab**</b>	Testing performed at Public Health Labs.  Dedicated specimen required.