



**Department of Virology  
Public Health Laboratories Division  
National Institutes of Health**



**Ministry of National Health Services, Regulations & Coordination  
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**Standard Operating Procedure (SOP) for Collection, Storage & Transportation of  
Viral Conjunctivitis Specimen**

**1. Materials Needed**

- 1.1.1 Personal protective equipment (PPE), including disposable gloves, disposable gown, surgical mask, and eye protection (goggles or face shield)
- 1.1.2 Sterile Dacron or nylon flocked swab
- 1.1.3 Viral Transport Medium (VTM)
- 1.1.4 Specimen transport container with ice packs
- 1.1.5 Specimen label
- 1.1.6 Pen/marker
- 1.1.7 Test Requisition Form
- 1.1.8 Biohazard waste disposal bags
- 1.1.9 Soap and water/Hand sanitizer
- 1.1.10 Disinfectant

**2. Roles/Responsibilities**

2.1 Specimen collection should be performed by well-trained healthcare personnel ensuring that all vials are labeled appropriately.

**3. Procedure**

**3.1 Safety Requirements and PPE**

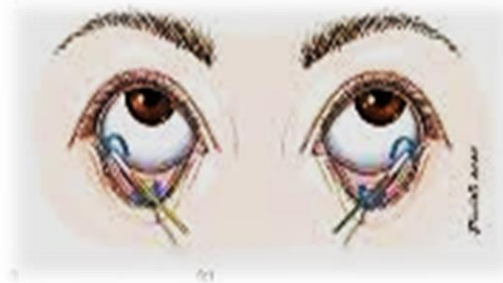
- 3.1.1 Always wear proper personal protective equipment (PPE) and eye protection.
- 3.1.2 Always perform hand hygiene before and after the procedure by washing hands thoroughly with soap and water or using hand sanitizer with at least 70% alcohol.
- 3.1.3 Wear a surgical mask to minimize exposure to infection during specimen collection.
- 3.1.4 Dispose of all contaminated waste (gloves, swab handles, etc.) into biohazard waste disposal bags for disposal.
- 3.1.5 Clean and disinfect any equipment used during the procedure.

**3.2 Swab Collection**

- 3.3.1 Explain the procedure and its purpose to the patient, ensuring their consent.
- 3.3.2 Position the patient that is comfortable for both the patient and the healthcare personnel.
- 3.3.3 Open the swab package and remove the swab.
- 3.3.3 Gently pull down the lower eyelid of the patient to expose the conjunctiva that lines the inside of the eyelid and covers the white part of the eye. (see figure below).



3.3.4 Collect the specimen by gently rotating the swab over the infected area 2-3 times, avoiding touching the cornea (the clear front part of the eye).



3.3.5 Gently remove the swab and place it into the transport medium immediately. Cut the excess swab handle to fit the transport medium vial and reattach the cap securely.

3.3.6 Repeat the steps 3.3.3 to 3.3.5 for the other eye if necessary. A separate swab is required for each eye.

3.3.7 Avoid touching the swab applicator below the molded break point as this could lead to contamination and incorrect results.

3.3.8 Dispose of any waste materials according to the standard protocols.

3.3.9 Label the sample appropriately e.g. (Name, DOB, and MR or Hospital No).

### 3.3 Sample Storage and Transportation

3.5.1 The specimen should be transported to the laboratory in triple packaging as soon as possible maintaining a cold chain (2-4°C) throughout. If there is a delay of more than 72 hours, the sample should be stored at -70°C.

3.5.2 Ensure that specimen transporters have the necessary knowledge and skills in safe handling practices and spill decontamination procedures.

3.5.4

**Note:** A subset of samples (20-30 from each affected districts) should be sent to the Department of Virology, PHLD, NIH Islamabad for sequencing purposes. The specimens should be collected keeping in view geographic representation and during the acute phase of infection.

**Table1.** Specimen transport and storage

<b>Specimen</b>	<b>Transport to laboratory</b>	<b>Storage till testing</b>	<b>Comments</b>
Conjunctival Swab	2-4 °C	≤48 hours: 2-4 °C >02 to ≤07 days: -20 °C >07 days: -70 °C	All specimens being transported should have appropriate triple packaging, proper labeling, patient history forms.

#### **4. Rejection Criteria**

- 4.1 Inappropriate containers used.
- 4.2 The swab is not labeled or is labeled incorrectly.
- 4.3 Specimen is not accompanied by a requisition form. The transport medium is expired.
- 4.4 The swab is suspected to be contaminated.

#### **5. References**

- 5.1 NHS - Procedure for taking a conjunctival swab (2015), Eye Swab Culture (2021)
- 5.2 WHO – Specimen collection and transport for Microbiological Investigation
- 5.3 Caribbean regional microbiology standard operating procedure - Eye Swabs and Canalicular Pus – SOP No: CRM-SOP 23.
- 5.4 CDC- Diagnosing Pink Eye (Conjunctivitis)

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### Conjunctivitis Test Requisition Form

**SAMPLING DETAILS:**

Sample Date			-				-	2	0		
Shipment Date			-				-	2	0		
Sample Type	<input type="checkbox"/> Conjunctival swab <input type="checkbox"/> Corneal swabs <input type="checkbox"/> Other										
Sample Site	<input type="checkbox"/> Right Eye <input type="checkbox"/> Left Eye <input type="checkbox"/> Both										

**SENDER INFORMATION:**

Name		Designation	
Hospital/Site		City	
Contact No		Email	

**PATIENT INFORMATION:**

Patient Name																
CNIC						-							-			
DOB																
Age (in Years)		Gender	<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Other													
Address																
City							Province/State									
Mobile																

**CLINICAL HISTORY:**

Symptoms	<input type="checkbox"/> Redness <input type="checkbox"/> Edematous eyelids <input type="checkbox"/> Tearing <input type="checkbox"/> Burning/ Itching <input type="checkbox"/> keratitis <input type="checkbox"/> Cold/Flu <input type="checkbox"/> Photophobia <input type="checkbox"/> Blurred vision <input type="checkbox"/> Hyperemia <input type="checkbox"/> Pain <input type="checkbox"/> Discharge (pus or mucus)										
Date of Onset of Symptoms											
Medical History											
Allergies	<input type="checkbox"/> YES <input type="checkbox"/> NO										

(Signature)