



DEPARTMENT OF MICROBIOLOGY
ALL INDIA INSTITUTE OF MEDICAL SCIENCES,
NEW DELHI, INDIA

Document Name : Sample Collection and Transport Manual for SARS Coronavirus-2
Molecular Testing

Document No. : AIIMS/MICRO/VIRO/MANUAL/02

Date of Review : New Document

Holder Name : Virology Laboratory, Department of Microbiology, AIIMS

Proprietary Statement:

This document belongs to the Virology Laboratory, Department of Microbiology, AIIMS, New Delhi.

Department of Microbiology, AIIMS				
Doc. No.: AIIMS/MICRO/VIRO/MANUAL/02	Sample Collection and Transport Manual for SARS Coronavirus-2 Molecular Testing			
Issue No.:	01	Issue Date:	20.03.2020	Copy Number: 1
Amend No.:		Amend Date:		Page 1 of 4

1.0 SCOPE

To be used by the clinician/ health care worker in hospital to collect appropriate samples as indicated for molecular testing of SARS Coronavirus – 2.

2.0 PURPOSE

The purpose of this document is to specify procedures used to collect and transport of respiratory samples as indicated for molecular testing of SARS Coronavirus - 2.

Appropriate sample collection and handling is crucial for COVID-2019 testing. The type and quality of samples collected will determine the success of diagnosis. In addition, storage conditions from the time of collection until the specimen is processed in the laboratory are very important for the viral diagnosis.

3.0 RESPONSIBILITY

Qualified and experienced medical staff (physician/ nurse/ trained medical staff) assigned to follow the procedure. All biosafety precautions and personal protective equipment (PPE) to be adopted as recommended. Sample selection recommendation is as per prevailing ICMR guidelines and updated case definitions as per MOHFW, Govt. of India.

RESPIRATORY SAMPLES – for SARS Coronavirus-2 testing

4.0 SALIENT POINTS

4.1 Laboratory Point of Contact – Virology Office, 8008, 8th floor, Convergence Block, AIIMS, Delhi

4.2 Respiratory samples –

- Preferred sample - **Combined nasal and throat swab** – collected in VTM (Viral Transport Medium) using dacron swab
- If patient is **intubated/ tracheostomized** - combine **nasal swab** in VTM along with **tracheal aspirate** in a sterile screw capped container

4.3 Samples should be transported to the testing laboratory as early as possible. If chance of delay, samples are to be kept in refrigerator or with ice packs

Department of Microbiology, AIIMS			
Doc. No.: AIIMS/MICRO/VIRO/MANUAL/02		Sample Collection and Transport Manual for SARS Coronavirus-2 Molecular Testing	
Issue No.:	01	Issue Date:	20.03.2020
Amend No.:		Amend Date:	
			Copy Number: 1
			Page 2 of 4

5.0 MATERIALS PROVIDED BY THE LABORATORY (from Laboratory Point of Contact)

- 5.1 Viral Transport Medium (VTM)
- 5.2 Two Swabs (Dacron/ Rayon/ Viscose/ Polyester/ Nylon)
- 5.3 Zip lock bags – 2
- 5.4 Specimen requisition form

OTHER MATERIALS REQUIRED (Not provided by laboratory)

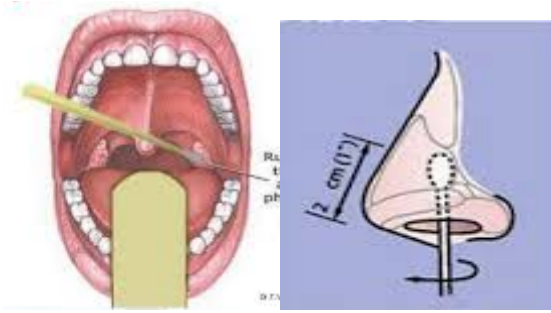
- 5.5 N95 mask
- 5.6 Eye protection
- 5.7 Gown
- 5.8 Nitrile gloves
- 5.9 Thermocol box (with biohazard label) with ice/ frozen gel packs

6.0 PROCEDURE

Combined Nasal and Throat swab

- Label the VTM vial (specimen collection vial) with the patient identifier (name/ age/ UHID) and date.
- Sample should be collected under good illumination.
- Wear appropriate PPE (gown, N95 mask, gloves and eye protection) and follow all biosafety precautions.
- Gently tilt the patient's head back, steady the chin, the patient is asked to open their mouth, tongue is depressed using a tongue depressor, a sterile swab is taken and both the tonsils and the posterior pharynx are swabbed vigorously using a rotating motion.
- The swab is placed in a tube containing VTM, the applicator stick is broken/ snapped off and the tube is screw capped.
- Gently tilt the patient's head back, steady the chin, insert the swab in the nostril parallel (1-2 cm) to the palate until the resistance is met at nasal turbinates.
- Keep the swab there for few seconds and then withdraw slowly in a firmly rotating motion (5 times clockwise and 5 times anti-clockwise).
- Specimens from both nostrils are obtained with the same swab. The **nasal swab is placed in the same VTM tube containing throat swab**. The applicator stick is broken/ snapped off and the tube is screw capped tightly.

Department of Microbiology, AIIMS				
Doc. No.: AIIMS/MICRO/VIRO/MANUAL/02	Sample Collection and Transport Manual for SARS Coronavirus-2 Molecular Testing			
Issue No.:	01	Issue Date:	20.03.2020	Copy Number: 1
Amend No.:		Amend Date:		Page 3 of 4



- Keep the VTM vial in a zip lock bag. Place the vial with inner zip lock bag in an outer zip lock bag.
- Place the outer zip lock bag with sample in the thermocol box (with biohazard label) outer container with ice/ frozen gel packs. The specimen requisition form should be carried separately (not inside the sample container).
- Samples should preferably be kept on ice as soon as collected and transported to the laboratory with completed requisition form, as soon as possible.
- If there is chance of delay, sample should be stored at 4°C refrigerator in the lower compartment (do not freeze) or in ice box, till transported to the testing laboratory.



- All waste including PPE (personal protective equipment) should be discarded as per hospital biomedical waste management guidelines.

7.0 REFERENCES

- ICMR-NIV. Specimen collection, packaging and transport guidelines for 2019 novel coronavirus (2019-nCoV)
- WHO guidelines 2019-nCoV

Department of Microbiology, AIIMS			
Doc. No.: AIIMS/MICRO/VIRO/MANUAL/02		Sample Collection and Transport Manual for SARS Coronavirus-2 Molecular Testing	
Issue No.:	01	Issue Date:	20.03.2020
Amend No.:		Amend Date:	
		Copy Number: 1	
		Page 4 of 4	