

ADDENDUM 3

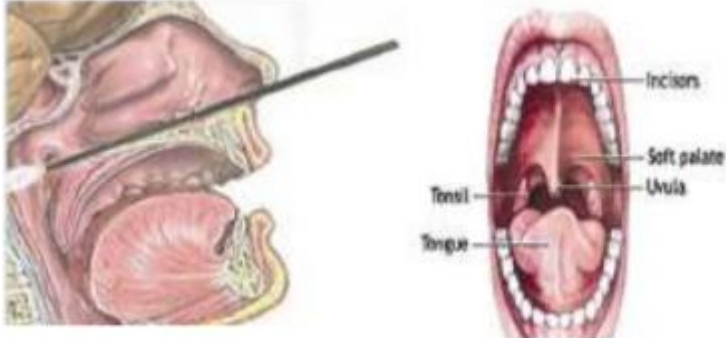
SPECIMEN COLLECTION COVID-19

Specimen collection poses a risk of aerosol production. Airborne precautions in addition to contact and droplet precautions should be implemented. Try to limit exposure. It is recommended that the person attending to the patient should collect the specimen. All specimens must be handled as potentially infectious.

Good quality specimens (e.g. containing sufficient cells and secretions), the appropriate packing and transport (e.g. keep the virus viable and detectable) is essential. Ensure specimens are stored correctly, at the right temperature (2-8°C in a cooler box with ice packs) whilst awaiting for transport to the laboratory. Specimens have to be send as soon as possible.

COLLECTION OF NASO/OROPHARYNGEAL SWABS FOR RESPIRATORY VIRUS DETECTION

TOPIC	ACTION
Step 1: Equipment and material	<ul style="list-style-type: none"> • Specimen submission form and case investigation form • Nasopharyngeal (NP) and oropharyngeal (OP) flocked swab • Tube containing universal transport medium (UTM) • Tongue depressor • Gloves • N95 respirator (fit tested) • Goggles • Biohazard bag for disposal of non-sharp materials • Tissue for patient to wipe nose after sample collection • Alcohol handrub for use by both the patient (after cleaning their nose) and healthcare worker • Cooler box and cooled ice packs • Ziploc plastic specimen bag
Step 2: Record keeping	<ul style="list-style-type: none"> • Complete all three documents • Place the specimen submission form into the Ziploc specimen bag • Label the tube of universal transport media (UTM) and other samples with the patient's name and date of birth
Step 3: Collection of nasopharyngeal swab (NP swab)	<ul style="list-style-type: none"> • Don a gown, eye protection, a pair of gloves, and an N95 respirator (size according to fit testing and a seal check performed), prior to entering the room • Open a sterile flocked swab at the plastic shaft • Ask the patient to tilt his/her head back. Estimate the distance from the patient's nose to the ear: This is how far the swab should be inserted

	<ul style="list-style-type: none"> • Gently insert swab into the nostril and back (not upwards) into the nasopharynx until a slight resistance is met • Rotate swab 2-3 times and hold in place for 2-3 seconds • If resistance is met remove and try another nostril • Slowly withdraw swab and without touching it, put it into a UTM • Break plastic shaft at the break point line and close the tube
<p>Step 4: Collection of oropharyngeal swab (OP swab)</p>	<ul style="list-style-type: none"> • Keeping the same pair of gloves on, and holding the UTM with the nasopharyngeal swab in, take a second flocked swab and open it at the plastic shaft • Ask the patient to tilt their head back and open mouth wide • Hold the tongue down with a tongue depressor • Have the patient say “aahh” to elevate the uvula • Swab each tonsil first, then the posterior pharynx in a “figure 8” movement • Avoid swabbing the soft palate and do not touch the tongue with the swab tip as this procedure can induce the gag reflex. • Place the swab into the same UTM tube with the NPS already in and break off the shaft at the break point line • Tightly close the tube • Place the closed tube with two swabs in the Ziploc specimen bag • Remove gloves and N95 respirator • Perform hand hygiene
<p>Diagram: How to collect a NPS (left) and a OPS (right)</p>	
<p>Step 5: Transport of specimens</p>	<ul style="list-style-type: none"> • Ensure the cooler box and ice packs stay at 2-8 °C • Transport to NICD if permission obtained to send it • Mark: Suspected COVID-19 CRDM and send to the following address: NHLS/NICD, Centre for Respiratory Disease and Meningitis (CRDM) Lower North Wing, SAVP building 1 Modderfontein Rd, Sandringham, Johannesburg, 2131 <i>The private labs will send the specimens to the NICD.</i>

TYPE OF SPECIMENS THAT CAN BE COLLECTED FOR DIAGNOSIS OF COVID-19 AND TRANSPORT REQUIREMENTS

This is applicable for symptomatic patients and after consultation with the NICD Hotline.

SPECIMEN TYPE	COLLECTION MATERIALS	STORAGE AND TRANSPORT	COMMENT
Sputum*	Deep cough sputum in sterile leak proof container	<ul style="list-style-type: none"> Refrigerate and courier at 2-8°C up to 48 hours If >48 hours freeze at -70°C and courier on dry ice 	This is the preferred sample, but need to ensure the material is from the lower respiratory tract.
Bronchoalveolar lavage*	2-3 ml in sterile leak proof container	<ul style="list-style-type: none"> Refrigerate and courier at 2-8°C up to 48 hours If >48 hours freeze at -70°C and courier on dry ice 	There may be some dilution of virus, but still a worthwhile specimen.
(Endo)tracheal or nasopharyngeal aspirate*	2-3 ml in sterile leak proof container	<ul style="list-style-type: none"> Refrigerate and courier at 2-8°C up to 48 hours If >48 hours freeze at -70°C and courier on dry ice 	
Nasopharyngeal and oropharyngeal swab	Dacron or nylon flocked swab in Universal Transport Medium (UTM) in a sterile leak proof container	<ul style="list-style-type: none"> Refrigerate at 2-8°C up to 5 days If >5 days freeze at -70°C and courier on dry ice 	Nasopharyngeal and oropharyngeal swabs should be placed in the same tube to increase the viral load.
Lung tissue from biopsy	Sterile container with saline	<ul style="list-style-type: none"> Refrigerate and courier at 2-8°C up to 48 hours If >48 hours freeze at -70°C and courier on dry ice 	

*Aerosol-generating procedures may pose an infection risk for healthcare workers.

ENSURE THAT THE FOLLOWING DOCUMENTS ACCOMPANY THE SPECIMEN(S):

The referred document are accessible on the NICD Website <https://www.nicd.ac.za/diseases-a-z-index/covid-19/covid-19-guidelines/> and on the Mediclinic intranet at the following link: <http://intranet/communities/ClinicalServices/IPC/Guidelines/Forms/CoronaView.aspx>

1. Patient under investigation (PUI) form: Request for 2019-nCoV Testing
2. Centre for Respiratory Diseases and Meningitis: Specimen Submission Form
3. Covid-19 Contact Monitoring Register
4. Notifiable Medical Condition Form

Scan the completed forms and e-mail it to the COVID-19 e-mail address to notify Mediclinic Corporate Office and the following addresses at the NICD: covid.NMCmediclinic@Mediclinic.co.za and ncov@nicd.ac.za