

(UNIT OF MEDICAL RESEARCH FOUNDATION)

2023

#### **DIRECTORY OF SERVICES**

## **DEPARTMENT OF MICROBIOLOGY & SEROLOGY**



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#### LOCATION OF OF DEPARTMENT OF MICROBIOLOGY & SEROLOGY

#### SN Main Campus, KNBIRVO Building 6th Floor

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#### **GENERAL INSTRUCTION ON SAMPLE COLLECTION**

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MICROBIOLOGY: The patients coming for Microbiological test should not take any antibiotic therapy prior to investigation. Ref: Test master list SNSC/CM/12A, 12B, 12C, 12D, 12E and 12F / Departmental manual for more details.

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## **TEST MASTER LIST**

#### **DEPARTMENT OF MICROBIOLOGY**

Collection procedure for tests under scope of NABL for SNSC Clinical Microbiology and Serology laboratory

S.No	Test code	Name of Test	Name of clinical specimen	Volume Criteria	Criteria for Acceptance of clinical specimen	Criteria for Rejection of Clinical specimen	Turn around time*	Temper ature of Storage
1	401	Grams Stain	Conjunctival Swab	One Swab Stick meant for direct smear	** (NA)	** (NA)	6-8 hours	2-8°C
			Sputum	3-5mL	Freshly collected sputum	Contaminat ed with saliva	6-8 hours	2-8°C
			Throat Swab	One Swab Stick meant for direct smear	** (NA)	** (NA)	6-8 hours	2-8°C
			Ocular specimens, non ocular specimens and biopsy	** (NA)	** (NA)	** (NA)	6-8 hours	2-8°C
2	402	KOH / Calcofluor Stain	Conjunctival Swab	One Swab Stick meant for direct smear	** (NA)	** (NA)	6-8 hours	2-8°C
			Sputum	3-5mL	Freshly collected sputum	Contaminat ed with saliva	6-8 hours	2-8°C
			Throat Swab	One Swab Stick meant for direct smear	** (NA)	** (NA)	6-8 hours	2-8°C
			Ocular specimens, non ocular specimens and biopsy	** (NA)	** (NA)	** (NA)	6-8 hours	2-8°C

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3	403	Giemsa Stain	Conjunctival Swab	One Swab Stick meant for direct smear	** (NA)	** (NA)	6-8 hours	2-8°C
			Throat Swab	One Swab Stick meant for direct smear	** (NA)	** (NA)	6-8 hours	2-8°C
			Ocular specimens, non ocular specimens and biopsy	** (NA)	** (NA)	** (NA)	6-8 hours	2-8°C
4	404	AFB Stain	Sputum	3-5mL	Freshly collected sputum	Contaminat ed with saliva	6-8 hours	2-8°C
			Throat Swab	One Swab Stick meant for direct smear	** (NA)	** (NA)	6-8 hours	2-8°C
			Ocular specimens, non ocular specimens and biopsy	** (NA)	** (NA)	** (NA)	6-8 hours	2-8°C
5	411	Aerobic Bacterial culture	Conjunctival Swab	One Swab Stick meant for culture	To be collected and transported in HBSS	If collected in a unsterile container	48 - 56 hours	2-8°C
			Sputum	3-5mL	Freshly collected sputum in a sterile container	Contaminat ed with saliva	48 - 56 hours	2-8°C
			Throat Swab	One Swab Stick meant for culture	To be collected in a sterile container	If collected in a unsterile container	48 - 56 hours	2-8°C

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6	437	Anaerobic Culture	Urine	5-10mL	Mid stream urine to be collected in a sterile container	If collected in a unsterile container, if the patient is on antibiotic therapy	48 - 56 hours	2-8°C
			Ocular specimens, non ocular specimens and biopsy	** (NA)	** (NA)	** (NA)	48 - 56 hours	2-8°C
7	412	Fungal culture	Conjunctival Swab	One Swab Stick meant for culture	To be collected in a sterile container	If collected in a unsterile container	12 days	2-8°C
			Sputum	3-5mL for inoculation to all plates	Freshly collected sputum in a sterile container	Contaminat ed with saliva	12 days	2-8°C
			Throat Swab	One Swab Stick meant for culture	To be collected in a sterile container	If collected in a unsterile container	12 days	2-8°C
			Ocular specimens, non ocular specimens and biopsy	** (NA)	** (NA)	** (NA)	12 days	2-8°C
8	414	Acantham oeba culture	Corneal scraping, Corneal biopsy, Contact lens solution, Contact lens	** (NA)	** (NA)	** (NA)	10 days	2-8°C

<sup>\*</sup> Time taken from the receipt of specimen(s) in the Microbiology and Serology department to the time, soft copy of the reports will be available in the HMS format of the department

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<sup>\*\*</sup> The intraocular specimens are directly received in the Microbiology laboratory from the OPD or from OT



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**Ocular specimens:** Conjunctival swab, Conjunctival scraping, Corneal scraping, Corneal button, Aqueous aspirate, Vitreous aspirate, Lens aspirate, Infected Suture, Infected buckle, Donor corneal rim (DCR), Iris tissue, Intra ocular lens (IOL), Contact lens, Capsular bag, Eviscerated material, Canalicular pus and orbital pus and any other ocular biopsy tissue, Sub retinal mass, and Scleral nodule, Lasik flap and Orbital biopsy.

**Non-ocular and other clinical specimens:** Throat swab, Sputum, Pus, Urine, Cerebro spinal fluid (CSF), Biopsy\*, Nail clippings, Hair, Scrapings from genital lesions, Amniotic fluid, Bronchial wash, Ascitic fluid, Pleural fluid, Bronchoalveolar Lavage, Tracheal aspirate, Nasopharyngeal aspirate, Vesicle fluid, Synovial fluid, CAPD, Skin scraping, Gastric washing.

\*Biopsy – Bone marrow, Bone, Lymph node, Fine needle aspiration biopsy (FNAB), Sub retinal mass ,Abscess fluid, Gastric biopsy, Lung biopsy, Liver biopsy, Brain biopsy, Ileo caecal biopsy, Granuloma, Endometrial biopsy, Skin nodule or any other biopsy specimens.

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#### **DIRECTORY OF SERVICES**

## **TEST MASTER LIST**

#### **DEPARTMENT OF SEROLOGY**

Collection procedure for Serological <u>tests under scope of NABL</u> for SNSC Clinical Microbiology and Serology laboratory

S. No	Test code	Name of Test	Sample to be collected ( Vacutainer)	Volume Criteria <sup>a</sup>	Criteria for Acceptance of serum/plasma	Criteria for Rejection of serum/ plasma	Turn around time*	Temper ature of Storag e
1.	202	Non Treponemal (RPR) and treponemal (TPHA) antibodies	Plain blood/ EDTA, Heparinized/ citrated Blood	2-4 mL	Free from RBCs, and of required volume	Grossly Haemolysed/ contaminated /lipemic	2-3 days #	2-8°C
2.	203	Rheumatoid arthritis (RA) Factor (Nephelometry)	Plain blood	2-4 mL	Free from RBCs and of required volume	Grossly Haemolysed/ contaminated /lipemic	2-3 days #	2-8°C
3.	218	C - Reactive protein (CRP) ( Nephelometry )	Plain blood	2-4 mL	Free from RBCs and of required volume	Grossly Haemolysed/ contaminated /lipemic	2-3 days#	2-8°C
	317	HBs Ag, Antibodies to HCV, Non Treponemal (RPR) and Treponemal (TPHA) antibodies	Plain blood/ EDTA, Heparinized/ Citrated Blood	2-4 mL	Free from RBCs and of required volume	Grossly Haemolysed/ contaminated /lipemic	24- 36hours <sup>\$</sup>	2-8°C

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5	220	Antibodies to HIV 1 and HIV 2 and HIV-1 p24 antigen ( Screening and ELISA)	Plain blood/ EDTA, Heparinized/ citrated Blood	2-4 mL	Free from RBCs and of required volume	Grossly Haemolysed/ contaminated /lipemic	24-36 hours\$	2-8°C
6	222	Hepatitis B surface antigen ( HBsAg ) ( Screening and ELISA)	Plain blood/ EDTA, Heparinized/ citrated Blood	2-4 mL	Free from RBCs and of required volume	Grossly Haemolysed/ contaminated /lipemic	24-36 hours <sup>\$</sup>	2-8°C
7	260	Antibodies to HBsAg	Plain blood/ EDTA, Heparinized/ Citrated Blood	2-4 mL	Free from RBCs and of required volume	Grossly Haemolysed/ contaminated /lipemic	3 days or two samples whichever is earlier	2-8°C
8	223	Antibodies to Hepatitis C virus (HCV) ( Screening and ELISA)	Plain blood/ EDTA, Heparinized/ citrated Blood	2-4 mL	Free from RBCs and of required volume	Grossly Haemolysed/ contaminated /lipemic	24- 36hours <sup>\$</sup>	2-8°C
9	206	Anti nuclear antibody (Fluorescent and ELISA)	Plain blood	2-4 mL	Free from RBCs and of required volume	Grossly Haemolysed/ contaminated /lipemic	2-3 days #	2-8°C
10	276	Antibodies to dsDNA (Fluorescent)	Plain blood	2-4 mL	Free from RBCs and of required volume	Grossly Haemolysed/ contaminated /lipemic	2-3 days #	2-8°C
11	234	IgG antibodies to cANCA (Proteinase3)	Plain blood/ EDTA, Heparinized/ Citrated plasma	2-4 mL	Free from RBCs and of required volume	Grossly Haemolysed/ contaminated /lipemic	2-3 days#	2-8°C
12	235	IgG antibodies to pANCA (Myeloperoxidase)	Plain blood/ EDTA/ Heparin/ Citrated plasma	2-4mL	Free from RBCs and of required volume	Grossly Haemolysed/ contaminated /lipemic	2-3 days#	2-8°C
13	233 A	Antibodies to Aquaporin 4 (NMO – IgG) Antibodies to Myelin oligodentrocyte glycoprotein (MOG)	Plain blood/ EDTA, Heparinized/ Citrated Blood	Not applicable	Free from RBCs and of required volume Transportation at 2–4°C Transportation at 2 – 4°C	Grossly Haemolysed/ Contaminate d /lipemic  Not applicable	3 – 4 days or five samples whichever is earlier	-20°C

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#### **DEPARTMENT OF MICROBIOLOGY AND SEROLOGY**

Collection procedure for tests  ${\color{red} {\rm NOT~UNDER~SCOPE}}$  of NABL for SNSC Clinical Microbiology and Serology laboratory

S. No	Test code	Name of Test	Sample to be collected ( Vacutainer)	Volume Criteria <sup>a</sup>	Criteria for Acceptance of serum/plasma	Criteria for Rejection of serum/plasma	Turn around time*	Tempera ture of Storage
1	205	Widal Test	Plain blood	2-4 mL	Free from RBCs and of required volume	Grossly Haemolysed/ contaminated/ lipemic	24-30 hours	2-8°C
2	217	Anti streptolysin O (ASO) (Latex)	Plain blood	2-4 mL	Free from RBCs and of required volume	Grossly Haemolysed/ contaminated/ lipemic	2-3 days <sup>#</sup>	2-8°C
3	219	Serum Lysozyme assay	Plain blood	2-4mL	Free from RBCs and of required volume	Grossly Haemolysed/ contaminated/ lipemic	2-3 days <sup>#</sup>	2-8°C
4	277	Antibodies to SSA and SSB (LIA)	Plain blood	2-4 mL	Free from RBCs and of required volume	Grossly Haemolysed/ contaminated/ lipemic	2-3 days #	2-8°C
5	458	Bacterial culture- Blood culture by BACTEC ( Fungi, Aerobic and Anaerobic bacteria)	Blood	10 mL for adults 5 mL for children below 5 yrs	Collected and inoculated immediately aseptically	Collected in a vacutainer with or without anticoagulant	14 days	Not applicabl e
6	455	AFB culture ( LJ medium)	Ocular specimens (Refer to page 5)	Not applicable	Collected in a sterile container	Not collected in a sterile container, leaky container	42 days	2-8°C

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7	207	Antibodies to Toxoplasma gondii ( lgG and lgM)	Plain blood/ EDTA/ Heparin/ Citrated plasma	2-4mL	Free from RBCs and of required volume	Grossly Haemolysed/ contaminated/ lipemic	2-3 days <sup>#</sup>	2-8°C
8	210	Antibodies to Rubella virus ( lgG and lgM)	Plain blood	2-4 mL	Free from RBCs and of required volume	Grossly Haemolysed/ contaminated/ lipemic	2-3 days#	2-8°C
9	211	Antibodies to CMV ( lgG and lgM)	Plain blood	2-4 mL	Free from RBCs and of required volume	Grossly Haemolysed/ contaminated/ lipemic	2-3 days#	2-8°C
10	212	Antibodies to HSV ( IgG and IgM)	Plain blood	2-4 mL	Free from RBCs and of required volume	Grossly Haemolysed/ contaminated/ lipemic	2-3 days#	2-8°C
11	263	QuantiFERON – TB test Platinum IGRA test	Blood – Use only BD vacutainer heparin tubes provided with the kit.	2-4 mL	Collected in only BD vacutainer heparin tubes provided with the kit	Collected in ordinary anticoagulated vacutainer	2-3 days#	22-26°C

- \*: Time taken from the receipt of specimen(s) in the Microbiology and Serology department to the time, soft copy of the reports will be available in the HMS format of the department
- #: Serology days: Tuesday/Thursday/Saturday: Samples received in the Microbiology department till 10.00am on the day of testing will be included and the report will be generated by 5.30 pm on the day of testing.
- \$: Serum Samples received in the Microbiology department till 10.00am will be included in that day for testing by ELISA for Antibodies to HIV 1 and HIV2, HBsAg and antibodies to HCV and the report generated by 5.30 pm on the day of testing. Samples received after 10.00 am will be included in the next working day.
- a: volume of blood for patients < 1 yr is 1.0-1.5ml

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# ACCEPTANCE / REJECTION CRITERIA FOR RECEIVING SPECIMEN AT SNSC LAB – MICROBIOLOGY AND SEROLOGY

	Acceptance Criteria	Rejection Criteria
1.	Microbiology Collections: Proper Collection and Transportation	1.Swabs submitted for culture not identified its <b>source</b> 2. Improper transport: a. Urine specimens for culture left at room temperature for more than two hours or refrigerated for more than 24 hours. b. Anaerobic cultures not transported in an anaerobic environment.
2.	All clinical specimen collected in sterile container for microbiology tests	Culture specimen received in unsterile containers/non-laboratory containers as evidenced by contamination of containers, leaking containers and containers with foreign material.
3.	Clinical specimen transported in appropriate transport medium for tests requested.	Samples which are not sufficient / Single swab submitted for multiple requests (for eg.direct smear study and culture for aerobic and anaerobic bacteria fungus and <i>Mycobacterium tuberculosis</i> ./isolation of viruses etc)
4.	Samples collected before initiation of antibiotic therapy.	Samples collected after initiation of antibiotic therapy.
5.	Mid stream urine samples for pyogenic bacterial culture collected with aseptic precautions and transported within half an hour to laboratory	Urine samples (for pyogenic bacterial culture) collected immediately after performing fundus fluorescence angiogram.  Twenty four-hour specimen collections for pyogenic urine culture
6.	Sputum sample should be examined by Grams stain and score of leucocytes and squamous epithelial cells to be determined as in procedure N of manual. The sample grouped under 4,5,6 grade is accepted for testing.	Sputum sample should be examined by Grams stain and score of leucocytes and squamous epithelial cells to be determined as in procedure N of manual. The sample grouped under 1,2,3 grade is not accepted for testing.

**Note:** If the specimens are sent for both Microbiological as well as Histopathological investigation, the specimen would be received in unfixed condition and half of the specimen should be sent to Histopathology lab from Microbiology laboratory.

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Acceptance Criteria	Rejection Criteria
Serum samples that are clear without lysis or lipemic	Serum samples that are lysed, serum that look lipemic and turbid with bacterial growth.
Serum sample sufficient for test requested	Serum sample insufficient for test requested
Primary /Secondary sample as given in table 1 for respective tests.	Primary /Secondary sample not as given in table 1 for respective tests.

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