



DEPARTMENT OF MICROBIOLOGY & SEROLOGY



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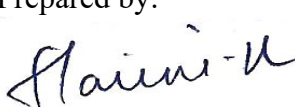
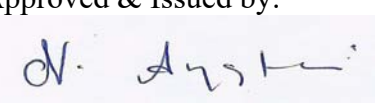



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LOCATION OF OF DEPARTMENT OF MICROBIOLOGY & SEROLOGY

SN Main Campus, KNBIRVO Building 6th Floor

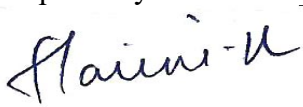

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GENERAL INSTRUCTION ON SAMPLE COLLECTION

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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* | Temperature 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 | Contaminated 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 | Contaminated 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 | Contaminated 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 | Contaminated 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 | Contaminated 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 | Acanthamoeba culture | Corneal scraping, Corneal biopsy, Contact lens solution, Contact lens | ** (NA) | ** (NA) | ** (NA) | 10 days | 2-8°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

** The intraocular specimens are directly received in the Microbiology laboratory from the OPD or from OT

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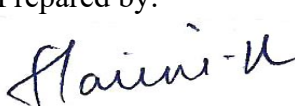
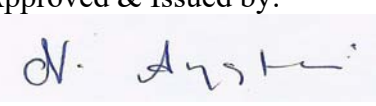


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Ocular specimens: Conjunctival swab, Conjunctival scraping, Corneal scraping, Corneal button, Aqueous aspirate, Vitreous aspirate, Lens aspirate, Infected Suture, Infected buckle, Donor corneal rim (DCR), Iris tissue, Intra ocular lens (IOL), Contact 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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TEST MASTER LIST

DEPARTMENT OF SEROLOGY

Collection procedure for Serological tests 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 ^a | Criteria for Acceptance of serum/plasma | Criteria for Rejection of serum/ plasma | Turn around time* | Temperature of Storage |
|-------|------------|--|--|------------------------------|---|---|-------------------------|------------------------|
| 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 |
| 4 | 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 [§] | 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 [§] | 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 [§] | 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 oligodendrocyte glycoprotein (MOG) | Plain blood/ EDTA, Heparinized/ Citrated Blood | 2-4 mL | Free from RBCs and of required volume Transportation at 2-4°C | Grossly Haemolysed/ Contaminated /lipemic | 3 – 4 days or five samples whichever is earlier | -20°C |
| | | | CSF | Not applicable | Transportation at 2 – 4°C | Not applicable | | 2-8°C |

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TEST MASTER LIST

DEPARTMENT OF MICROBIOLOGY AND SEROLOGY

Collection procedure for tests **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 ^a | Criteria for Acceptance of serum/plasma | Criteria for Rejection of serum/plasma | Turn around time* | Temperature 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 [#] | 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 [#] | 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 applicable |
| 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 <i>Toxoplasma gondii</i> (IgG and IgM) | 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 |
| 8 | 210 | Antibodies to Rubella virus (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 |
| 9 | 211 | Antibodies to CMV (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 |
| 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

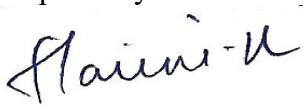

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**ACCEPTANCE / REJECTION CRITERIA FOR RECEIVING SPECIMEN
AT SNSC LAB – MICROBIOLOGY AND SEROLOGY**

| | Acceptance Criteria | Rejection Criteria |
|----|---|--|
| 1. | Microbiology Collections: Proper Collection and Transportation | 1. Swabs submitted for culture not identified its source 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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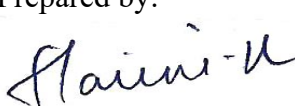
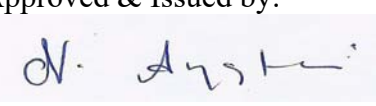


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| | Acceptance Criteria | Rejection Criteria |
|--|---|---|
| | Serum samples that are clear without lysis or lipemic | Serum samples that are lysed, serum that look lipemic and turbid with bacterial growth. |
| | Serum sample sufficient for test requested | 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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