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<b>LABORATORY LOCATION:</b> (PERMANENT LABORATORY) 	Medical Laboratories, HUSM Makmal Patologi Hospital USM Jalan Raja Perempuan Zainab II, 16150 Kubang Kerian, Kelantan. , 16150, KELANTAN MALAYSIA
<b>ACCREDITED SINCE :</b>	19 MARCH 2025
<b>FIELD(S) OF MEDICAL TESTING :</b>	HISTOPATHOLOGY CYTOPATHOLOGY CHEMICAL PATHOLOGY CYTOGENETICS MOLECULAR TESTING HAEMATOLOGY MEDICAL MICROBIOLOGY MEDICAL MICROBIOLOGY (VIROLOGY) MEDICAL MICROBIOLOGY (IMMUNOLOGY)

The standard used for assessment of this laboratory is MS ISO 15189:2022 (ISO 15189:2022, IDT).

A medical laboratory's fulfilment of the requirements of ISO 15189 means the laboratory meets both the technical competence requirements and the management system requirements necessary for it to consistently deliver technically valid test results. The management system requirements in ISO 15189 are written in language relevant to a medical laboratory's operations. Medical laboratories that implement ISO 15189 operate generally in accordance with the principles of ISO 9001. (See Joint IAF-ILAC-ISO Communiqué, November 2021)

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<b>CENTRAL LOCATION</b>	Medical Laboratories, HUSM Makmal Patologi Hospital USM Jalan Raja Perempuan Zainab II, 16150 Kubang Kerian, Kelantan. , 16150, Kelantan
<b>FIELD(S) OF MEDICAL TESTING :</b>	HISTOPATHOLOGY, CYTOPATHOLOGYCHEMICAL PATHOLOGYCYTOGENETICSMOLECULAR TESTINGHAEMATOLOGYMEDICAL MICROBIOLOGYMEDICAL MICROBIOLOGY (VIROLOGY)MEDICAL MICROBIOLOGY (IMMUNOLOGY)

**SCOPE OF MEDICAL TESTING : HISTOPATHOLOGY**

<b>Specimen Tested</b>	<b>Type of Test/ Properties Measured/</b>	<b>Test Methods,Specifications/ Equipment/Techniques Used</b>
Surgical Pathology (formalin Fixed)	HistologyExamination (Routine HPE)	Specimen Preparation and Staining (Automated and Manual Method) Method as documented in HUSM/PATH/QP-02 and HUSM/PATH/QP-02/STM-01
	Special Stain	Special Staining (Manual Method) Method as documented in HUSM/PATH/QP-02/STM-02
	Immunohistochemistry	Specimen Preparation and Staining (Automated and Manual Method) Method as documented in HUSM/PATH/QP-02 and HUSM/PATH/QP-02/STM-03
Fresh Tissue Specimens	Frozen Section Examination	Specimen Preparation and Staining (Manual Method) Method as documented in HUSM/PATH/QP-02 and HUSM/PATH/QP-02/STM-04
Renal Biopsies Tissue	Renal Histology Examination	Specimen Preparation and Staining (Manual Method) Method as documented in HUSM/PATH/QP-02 and HUSM/PATH/QP-02/STM-05
Rectal Biopsies Tissue	Enzyme Examination (ACH)	Specimen Preparation and Staining (Manual Method) Method as documented in HUSM/PATH/QP-02 and HUSM/PATH/QP-02/STM-06
<b>Oral Pathology</b> Surgical Oral Pathology (formalin Fixed)	Histology Examination (Routine HPE)	Specimen Preparing and Staining as Documented in HUSM/OPATH/QP-02 and HUSM/OPATH/QP-02/STM-01

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**SCOPE OF MEDICAL TESTING : CYTOPATHOLOGY**

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
Body Fluid (csf, Peritoneal Fluid, Pleural Fluid, Pericardial Fluid, Bronchiol Washing, Sputum, Bronchiol Brushing, Urine And Etc)	Non Gynae Cytology Examination (Papanicolaou Stain and Diff Quick Stain)	Specimen Preparation and Staining (Manual Method): Method as documented in HUSM/PATH/QP-03 and HUSM/PATH/QP-03/STM-01
Needle Aspiration From Palpable Lump (breast, Thyroid, Lymph Node And Etc)	Fine Needle Aspiration Cytology Examination (Papanicolaou Stain and Diff Quick Stain)	Specimen Preparation and Staining (Manual Method): Method as documented in HUSM/PATH/QP-03, HUSM/PATH/QP-03/STM-01 and HUSM/PATH/QP-03/STM-02

**SCOPE OF MEDICAL TESTING : CHEMICAL PATHOLOGY**

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
Serum / Plasma	Alanine Aminotransferase	IFCC (L-alanine, tris buffer) Method, Abbott Architect C8000 analyzer (B & C) (HUSM/MPK/STM/A 009)
	Albumin	Bromocresol Green Dye Binding, Colorimetric Method Abbott Architect C8000 analyzer (B & C) (HUSM/MPK/STM/A 008)
	Alkaline Phosphatase	IFCC (p-nitrophenol phosphate substrate, AMP Buffer) Method, Abbott Architect C8000 analyzer (B & C) (HUSM/MPK/STM/A 011)
	Amylase	p-Nitrophenyl Linked Substrate (Blocked maltoheptaoside - G7 PNP) Method, Abbott Architect C8000 analyzer (B & C) (HUSM/MPK/STM/A 012)
	Arterial Blood Gas	ISE Method, Radiometer ABL 90 Flex (HUSM/MPK/STM/B 032)
	Aspartate Aminotransferase	IFCC (aspartate, tris buffer) Method, Abbott Architect C8000 analyzer (B & C) (HUSM/MPK/STM/A 010)

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Bilirubin Total	Colorimetric Test, 2,4-Dichloroaniline (DCA), Abbott Architect C8000 analyzer (B & C) (HUSM/MPK/STM/A 006)
Bilirubin Conjugated	Colorimetric Test, 2,4-Dichloroaniline (DCA), Abbott Architect C8000 analyzer (B & C) (HUSM/MPK/STM/A 005)
Calcium	Arsenazo- III, Colorimetric Method, Abbott Architect C8000 analyzer (B & C) (HUSM/MPK/STM/A 026)
Chloride	ISE (Indirect) Method, Abbott Architect C8000 analyzer (B & C) (HUSM/MPK/STM/A 024)
Creatine Kinase	IFCC (UV, NAC active) Method, Abbott Architect C8000 analyzer (B & C) (HUSM/MPK/STM/A 016)
Creatinine	Jaffe (alkaline picrate, rate, compensated) Method, Abbott Architect C8000 analyzer (B & C) (HUSM/MPK/STM/A 003)
Cholesterol	Cholesterol-oxidase Enzymatic, Endpoint Colorimetric Method, Abbott Architect C8000 analyzer (B & C) (HUSM/MPK/STM/A 004)
HDL- Cholesterol	Direct, homogenous, immunological inhibition method, Abbott Architect C8000 analyzer (B & C) (HUSM/MPK/STM/A 018)
Lactate Dehydrogenase	DGKC Optimized Standard (Pyruvate to Lactate) Method, Abbott Architect C8000 analyzer (B & C) (HUSM/MPK/STM/A 014)
Magnesium	Xylidyl Blue Dye Binding, Colorimetric Method (HUSM/MPK/STM/A 027)
Phosphate	Ammonium phosphomolybdate Formation, End-Point Colorimetric Method, Abbott Architect C8000 analyzer (A & B) (HUSM/MPK/STM/A 025)
Potassium	ISE (indirect) Method, Abbott Architect C8000 analyzer (B & C) (HUSM/MPK/STM/A 024)
Sodium	ISE (Indirect) Method, Abbott Architect C8000 analyzer (B & C) (HUSM/MPK/STM/A 024)

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	Total Protein	Biuret, End-Point Colorimetric Method, Abbott Architect C8000 analyzer (B & C) (HUSM/MPK/STM/A 007)
	Triglyceride	GPO-PAP Enzymatic, End-Point Colorimetric Method, Abbott Architect C8000 analyzer (B & C) (HUSM/MPK/STM/A 017)
	Urea	Urease/GLDH Kinetic Method, Abbott Architect C8000 analyzer (B & C) (HUSM/MPK/STM/A 002)
	Uric Acid	Uricase/peroxidase, End-Point Colorimetric Method, Abbott (B & C) (HUSM/MPK/STM/A 015)
	1. Free thyroxine 2. Thyroid Stimulating Hormone 3. Free triiodothyronine Intact Human Chorionic Gonadotropin + the $\beta$ subunit (Total HCG)	In-vitro Quantitative Determination using Electrochemiluminescence Immunoassay Technique; Cobas e immunoassay analyzer as documented in HUSM/ENDO/STM-02  In vitro quantitative determination of the sum of human chorionic gonadotropin (hCG) plus the hCG $\beta$ -subunit in human serum and plasma are performed using Automated Cobas e Immunoassay Analyzers based on electrochemiluminescent technology as documented in HUSM/ENDO/STM 4
Plasma	Glucose	Glucose oxidase Method, Abbott Architect C8000 analyzer (B & C) (HUSM/MPK/STM/A 001)
Serum	Osmolality	Freezing Point Depression Method, Gonotec Osmomat 030 (STM:MPK/DL/05) & Osmomat 3000 (STM:MPK/DL32)
	Amikacin	Fluorescence Polarization Immunoassay/ Cobas Integra 400 plus/ Roche as documented in HUSM/TDM/STM 1
	Gentamycin	Fluorescence Polarization Immunoassay/ Cobas Integra 400 plus/ Roche as documented in HUSM/TDM/STM 1
	Vancomycin	Fluorescence Polarization Immunoassay/ Cobas Integra 400 plus/ Roche as documented in HUSM/TDM/STM 1

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	Phenytoin	Fluorescence Polarization Immunoassay/ Cobas Integra 400 plus/ Roche as documented in HUSM/TDM/STM 1
	Valproic Acid	Fluorescence Polarization Immunoassay/ Cobas Integra 400 plus/ Roche as documented in HUSM/TDM/STM 1
<b>Tumor Markers</b> Serum	Prostate Specific Antigen (PSA)	Enzyme Immunoassay, Cobas e 411 Immunoassay Analyzer (HUSM/MPK/STM/A 031)
	CA 125	Enzyme Immunoassay, Cobas e 411 Immunoassay Analyzer (HUSM/MPK/STM/A 030)
	CEA	Enzyme Immunoassay, Cobas e 411 Immunoassay Analyzer (STM: MPK/RR/23) (HUSM/MPK/STM/A 029)
<b>Pharmacology</b> Urine	Morphine	Screening: Enzyme Immunoassay Technique: Drug Analyzer Viva-E (SIEMENS) as document in (HUSM/ PHARMACO/QP-20)  Confirmation: Qualitative test based on TLC (Thin Layer Chromatography) method in (HUSM/ PHARMACO/QP-07)
	Cannabis	Screening: Enzyme Immunoassay Technique; Drug Analyzer Viva-E (SIEMENS) as document in (HUSM/ PHARMACO/ QP-20)  Confirmation: Qualitative test based on TLC (Thin Layer Chromatography) method in (HUSM/ PHARMACO/ QP-08)
Whole Blood	HbA1c	In-vitro Quantitative Determination using Capillary Electrophoresis Technique; Sebia Analyzer as documented in HUSM/ENDO/STM-01

**SCOPE OF MEDICAL TESTING : CYTOGENETICS**

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
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Peripheral Blood, Bone Marrow	Chromosome Analysis & Karyotyping	In-House Method based on Barch et al (1997) 3 rd edition* as documented in Dokumen Aras 3 HUSM (2015) Manual Method Using Cytovision/Metasystem. Chromosome Banding, ISCN 2020 *Human Chromosome Manual HUSM/GENETIC/STM01 HUSM/GENETIC/STM02 HUSM/GENETIC/STM03 HUSM/GENETIC/STM04 HUSM/GENETIC/STM05
	Fluorescence-in-situ Hybridization (FISH)	In-House Method based on Barch et al (1997) 3 rd edition* as documented in Dokumen Aras 3 HUSM (2015) Manual Method Using Cytovision/Metasystem. Chromosome Banding, ISCN 2020 *Human Chromosome Manual HUSM/GENETIC/STM06

**SCOPE OF MEDICAL TESTING : MOLECULAR TESTING**

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
Peripheral Blood	Sex-determining Region-Y (SRY)	SRY Gene Detection Analysis using Polymerase Chain Reaction (PCR) based on Berta P. et. al. (1990) and Kocovo M. et al. (2008), a Minor Modification Documented in HUSM/GENETIC/STM07 HUSM/GENETIC/STM08 HUSM/GENETIC/STM09 HUSM/GENETIC/STM10 HUSM/GENETIC/STM11

**SCOPE OF MEDICAL TESTING : HAEMATOLOGY**

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
<b>Routine Haematology</b> Edta Blood	FBC	DC Detection Method on Sysmex XN1000 as documented in HUSM/HEMA/STM-R2

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	ESR	Westergren Reference Method on MixRate X20 / Sedy 40 as documented in HUSM/HEMA/STM-R4
	FBP: Auto Differential Count	DC Detection Method on Sysmex XN1000 as documented in HUSM/HEMA/STM-R2
	Blood Film Differential / Morphology	Manual Smear & Wright's Stain Read by Hematologist as Documented in HUSM/HEMA/STM-R3
Dried Blood	G6PD Screening	Fluorescent Spot Detection Method on UV Viewing Box as documented in HUSM/HEMA/STM-G6PD
Edta Blood	Reticulocyte Count	DC Detection Method on Sysmex XN1000 as documented in HUSM/HEMA/STM-R2
<b>Molecular</b> Edta Blood/ Edta Bone Marrow	Qualitative JAK 2 (V617F)	Allele-specific oligonucleotide (ASO) - Polymerase Chain Reaction (PCR) Method as documented in HUSM/HEMA/STM-M1 HUSM/HEMA/STM-M5
<b>Coagulation</b> Plasma	APTT	Coagulometric Test-Mechanical Clot Detection Method on STA R Max B / STA R Max as documented in HUSM/HEMA/STMC1
	PT / INR	Coagulometric Test-Mechanical Clot Detection Method on STA R Max B / STA R Max as documented in HUSM/HEMA/STMC1
	Fibrinogen	Mechanical Clot Detection Method on STA R Max B / STA R Max documented in HUSM/HEMA/STM-C2
	Factor Assay: Factor VIII & Factor IX	Mechanical Clot Detection Method on STA Compact as documented in HUSM/HEMA/STM-C3
	D-Dimer	Immunoassay Tests - Mechanical Clot Detection on STA R Max B /STA R Max Method as documented in HUSM/HEMA/STM-C4

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	Lupus Anticoagulant	Mechanical Clot Detection Method on STA Compact as documented in HUSM/HEMA/STM-C6 HUSM/HEMA/STM-C7
	Lupus Anticoagulant	Mechanical Clot Detection Method on ST art 4 as documented in HUSM/HEMA/STM-C8
<b>Flow Cytometry</b> Edta Blood	Immunophenotyping	Flow Cytometry on FACS CANTO II as documented in HUSM/HEMA/STM-F1
Haemopoetic Progenitor Cell-Apheresis (hpc-a) Anticoagulated With Acda; Peripheral Blood Stem Cell In Edta Container	Quantitation of CD34 Positive Cells	FACS Calibur Flowcytometer Single Platform ISHAGE Gating Strategy using Flowcytometry as documented in HUSM/UPT/STM-F2
<b>Haemoglobin Analysis</b> Edta Blood	Haemoglobin Electrophoresis	Agarose Gel / System Electrophoresis method on Interlab G26 as Documented in HUSM/HEMA/STM-SH2 HUSM/HEMA/STM-SH3
	Hb Analysis	HPLC Method on Bio-Rad Variant II as documented in HUSM/HEMA/STM/SH-1 CE Method on Sebia Capillary Electrophoresis as documented in HUSM/HEMA/STM/SH-4
<b>Immunohaematology</b> Edta Blood	ABO/Rh Grouping	Tile/Tube Method / Gel Card (IH-500) (Antibody- Antigen Reaction) as documented in HUSM/UPT/STM-T1
	Antibody Screen (Indirect Coombs Test)	Gel Card (IH-500) (Antigen-Antibody Reaction) as documented in HUSM/UPT/STM-T3
	Cross Match	Gel Card (Antigen-Antibody Reaction) Tube Method (Immediate Spin) as documented in HUSM/-UPT/STM-T4
	Direct Antiglobulin Test	Gel Card (Antigen-Antibody Reaction) as documented in HUSM/-UPT/STM-T6
	Red Cell Antigen Phenotyping	Gel Card/ Tube Method (Antigen-Antibody Reaction) as documented in HUSM/UPT/STM-T7
	Antibody Identification	Gel Card (Antigen-Antibody Reaction) as documented in HUSM/UPT/STM-T8

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<b>Transfusion Microbiology</b> Serum/plasma	HIV, HCV and HBsAg Screening for Blood Donor	Abbott Architect (Chemiluminescent Microparticle Immunoassay (CMIA) as documented in HUSM/UPT/STM- S1
<b>Bone Marrow</b> Aspirated Bone Marrow	Bone marrow examination and cytochemical staining	Manual Smear & Staining Method as documented in HUSM/HEMA/STM-BM1 HUSM/HEMA/STM-BM2 HUSM/HEMA/STM-BM3 HUSM/HEMA/STM-BM4 HUSM/HEMA/STM-BM5 HUSM/HEMA/STM-BM6 HUSM/HEMA/STM-BM7

**SCOPE OF MEDICAL TESTING : MEDICAL MICROBIOLOGY**

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
<b>Bacteriology</b> - Blood - Csf - Urine - Sputum - Endotracheal / Tracheal Fluid - Bronchoalveolar Lavage - Bronchial Washing - Eye Swab - Corneal Scraping - Ear Swab - Abscess / Aspirates - Skin & Wound Swab - Throat Swab - Antral Washout Fluid - Tissue / Biopsy - Genital Specimens - Pleural Fluid - Synovial Fluid - Peritoneal Dialysis Fluid - Sterile Body Fluid - Bone Marrow Aspirate	Culture and Identification of Bacterial Pathogens	Blood Culture: Bactec Automated Blood Culture System as documented in HUSM/MICRO/STM-01(01) Other Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Vitek Automated ID Machine / Manual Method as documented in HUSM/MICRO/STM-01(02)
<b>Bacteriology</b> Stool	Culture and Identification of Vibrio cholerae	Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Serotyping / Manual Method as documented in HUSM/MICRO/STM-01(02)

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Culture and Identification of Salmonella Species and Shigella Species	Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Serotyping / Manual Method as documented in HUSM/MICRO/STM-01(02)
Culture and Identification of Enteropathogenic Escherichia coli (EPEC)	Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Serotyping / Manual Method as documented in HUSM/MICRO/STM-01(02)
Culture and Identification of Campylobacter species	Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Vitek Automated ID Machine / Manual Method as documented in HUSM/MICRO/STM-01(02)
Culture and Identification of Aeromonas hydrophila	Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Vitek Automated ID Machine / Manual Method as documented in HUSM/MICRO/STM-01(02)
Clostridium difficile Toxin	Immuno Chromatography Method as documented in HUSM/MICRO/STM-01(02)

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<b>Bacteriology</b> - Blood - Csf - Urine - Stool - Sputum - Endotracheal / Tracheal Fluid - Bronchoalveolar Lavage - Bronchial Washing - Eye Swab - Corneal Scraping - Ear Swab - Abscess / Aspirates - Skin & Wound Swab - Throat Swab - Antral Washout Fluid - Tissue / Biopsy - Genital Specimens - Pleural Fluid - Synovial Fluid - Peritoneal Dialysis Fluid - Sterile Body Fluid - Bone Marrow Aspirate - Other Sterile Body Fluids - Peritoneal Dialysis - Fluid/dialysate Fluid	Antimicrobial Susceptibility Testing for Bacterial Pathogens	Disk Diffusion and MIC Method using SemiAutomated Biomic® AST Reader as documented in HUSM/MICRO/STM-01(01)
Csf	Direct Microscopic Examination	Manual Method as documented in HUSM/MICRO/STM-01(01)
	Antigen Detection for Primary Pathogens of Bacterial Meningitis: Hemophilus influenzae Type b Group B Streptococcus Streptococcus pneumoniae Neisseria meningitidis CYW135 Escherichia coli K1	Latex Agglutination Kit/Manual Method as documented in HUSM/MICRO/STM-01(02)
Nasal Swab	MRSA Screening	Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Vitek Automated ID Machine / Manual method as documented in HUSM/MICRO/STM-01(02)
Urine	Group B Streptococcus Antigen	Latex Agglutination Kit/Manual Method as documented in HUSM/MICRO/STM-01(02)
<b>Mycology</b> Serum, Csf	Detection of Cryptococcal Antigen	Latex Agglutination Kit / Lateral flow (strip) / Manual Method as documented in HUSM/MICRO/STM-02

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Sterile Body Samples	Fungal Culture and Identification for Yeast	Culture: Manual Method as documented in HUSM/MICRO/STM-02 Identification: Vitek Automated ID Machine / Manual Method as documented in HUSM/MICRO/STM-02
<b>Clinical Specimens:</b> <ul style="list-style-type: none"> <li>- Blood</li> <li>- Csf</li> <li>- Urine</li> <li>- Sputum</li> <li>- Endotracheal / Tracheal Fluid</li> <li>- Bronchoalveolar Lavage</li> <li>- Bronchial Washing</li> <li>- Eye Swab</li> <li>- Corneal Scraping</li> <li>- Ear Swab</li> <li>- Abscess / Aspirates</li> <li>- Wound Swab</li> <li>- Throat Swab</li> <li>- Antral Washout Fluid</li> <li>- Tissue / Biopsy</li> <li>- Genital Specimens</li> <li>- Pleural Fluid</li> <li>- Synovial Fluid</li> <li>- Peritoneal Dialysis Fluid</li> <li>- Sterile Body Fluid</li> <li>- Bone Marrow Aspirate</li> <li>- Hair</li> <li>- Nail</li> <li>- Skin</li> </ul>	Microscopic examination, culture, identification of fungal isolates from clinical specimens	Culture: Manual Method as documented in HUSM/MICRO/STM-02 Identification: Vitek Automated ID Machine / Manual Method as documented in HUSM/MICRO/STM-02
<b>Mycobacteriology</b> <ul style="list-style-type: none"> <li>- Sputum</li> <li>- Tissue &amp; Biopsy</li> <li>- Csf</li> <li>- Urine</li> <li>- Abscess / Aspirates</li> <li>- Gastric Lavage</li> <li>- Endotracheal / Tracheal Fluid</li> <li>- Pleural Fluid</li> <li>- Peritoneal Fluid</li> <li>- Ascites Fluid</li> <li>- Synovial Fluid</li> <li>- Bone Marrow Aspirate</li> </ul>	Direct Microscopic Examination for Acid-Fast Bacilli (AFB)	Manual / Ziehl Neelsen / Fluorescence Stain as documented in HUSM/MICRO/STM-06

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<b>Mycobacteriology</b> - Sputum - Tissue & Biopsy - Blood - Csf - Urine - Abscess / Aspirates - Gastric Lavage - Endotracheal / Tracheal Fluid - Pleural Fluid - Peritoneal Fluid - Ascites Fluid - Synovial Fluid - Bone Marrow Aspirate	Culture for Mycobacterium Species	Manual / Solid Medium Culture as documented in HUSM/MICRO/STM-06
<b>Parasitology</b> Whole Blood	Detection of Malaria Parasite / Microfilaria	Blood Film Malarial-Parasite Method as documented in HUSM/MICRO/STM-05
Stool	Detection of Ova & Cyst in Stool	Manual Method as documented in HUSM/MICRO/STM-05
<b>Serology</b> Serum, Plasma	Hepatitis B Surface Antigen (HBsAg)	Roche-Cobas HBsAg based on ECLIA Technology as documented in HUSM/MICRO/STM-03 (B)
	Hepatitis B Surface Antibodies (anti-HBs)	Roche-Cobas Anti-HBs based on ECLIA Technology as documented in HUSM/MICRO/STM-03 (B)
	Hepatitis B e Antigen (HBeAg)	Roche-Cobas HBeAg based on ECLIA Technology as documented in HUSM/MICRO/STM-03 (B)
	Hepatitis B e Antibodies (anti-HBe)	Roche-Cobas Anti-HBe based on ECLIA Technology as documented in HUSM/MICRO/STM-03 (B)
	Anti-HCV Screening	Roche-Cobas Anti-HCV based on ECLIA Technology as documented in HUSM/MICRO/STM-03 (B)
	Anti-HCV Confirmation	Inno-LIA HCV Method based on Tendigo Automated Instrument as documented in HUSM/MICRO/STM-03 (B)
	HIV Ab/Ag Combo Screening	Roche-Cobas HIV Ab/Ag combo based on ECLIA Technology as documented in HUSM/MICRO/STM03 (B)
	Anti-HIV Confirmation	Inno-LIA HIV Method based on Tendigo Automated Instrument as documented in HUSM/MICRO/STM03(B)

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Dengue Specific Antigen NS1/IgM/IgG Antibodies	Manual Immunochromatography test method (ICT) Dengue NS1/IgM/IgG as documented in HUSM/MICRO/STM-03(B)
Treponemal test	Roche-Cobas Syphilis based on ECLIA Technology as documented in HUSM/MICRO/STM-03 (B)
Non-treponemal test (If ECLIA is Positive)	Manual/Flocculation Method as documented in HUSM/MICRO/STM-03(B)
2 nd Treponemal test (If 1st confirmation with RPR is Negative)	Manual/Treponema pallidum Particle Agglutination Method as documented in HUSM/MICRO/STM-03(B)
HSV 1 & 2 Specific IgG Antibodies	Roche-Cobas HSV 1 & 2 Specific IgG ECLIA Technology as documented in HUSM/MICRO/STM-03(B)
CMV Specific IgM Antibodies	Roche-Cobas CMV Specific IgM ECLIA Technology as documented in HUSM/MICRO/STM-03(B)
CMV Specific IgG Antibodies	Roche-Cobas CMV Specific IgG ECLIA Technology as documented in HUSM/MICRO/STM-03(B)
Anti-streptolysin O Titer (ASOT)	Manual/Latex Agglutination Method as documented in HUSM/MICRO/STM-03(B)
Mycoplasma pneumoniae Specific IgM Antibodies	
EBV-VCA Specific IgM Antibodies	EBV-VCA Specific IgM based on Personal Lab ELISA Automated Instruments as documented in HUSM/MICRO/STM-03(B)
Toxoplasma Specific IgM Antibodies	Roche-Cobas Toxoplasma Specific IgM ECLIA Technology as documented in HUSM/MICRO/STM-03(B)
Toxoplasma Specific IgG Antibodies	Roche-Cobas Toxoplasma Specific IgG ECLIA Technology as documented in HUSM/MICRO/STM-03(B)
Leptospira Specific IgM Antibodies	Leptospira Specific IgM Antibodies based on Personal Lab ELISA Automated Instruments as documented in HUSM/MICRO/STM-03(B)

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**SCOPE OF MEDICAL TESTING : MEDICAL MICROBIOLOGY (VIROLOGY)**

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
<b>Bacteriology</b> - Blood - Csf - Urine - Sputum - Endotracheal / Tracheal Fluid - Bronchoalveolar Lavage - Bronchial Washing - Eye Swab - Corneal Scraping - Ear Swab - Abscess / Aspirates - Skin & Wound Swab - Throat Swab - Antral Washout Fluid - Tissue / Biopsy - Genital Specimens - Pleural Fluid - Synovial Fluid - Peritoneal Dialysis Fluid - Sterile Body Fluid - Bone Marrow Aspirate	Culture and Identification of Bacterial Pathogens	Blood Culture: Bactec Automated Blood Culture System as documented in HUSM/MICRO/STM-01(01) Other Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Vitek Automated ID Machine / Manual Method as documented in HUSM/MICRO/STM-01(02)
<b>Bacteriology</b> Stool	Culture and Identification of Vibrio cholerae	Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Serotyping / Manual Method as documented in HUSM/MICRO/STM-01(02)
	Culture and Identification of Salmonella Species and Shigella Species	Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Serotyping / Manual Method as documented in HUSM/MICRO/STM-01(02)
	Culture and Identification of Enteropathogenic Escherichia coli (EPEC)	Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Serotyping / Manual Method as documented in HUSM/MICRO/STM-01(02)



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	Culture and Identification of Campylobacter species	Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Vitek Automated ID Machine / Manual Method as documented in HUSM/MICRO/STM-01(02)
	Culture and Identification of Aeromonas hydrophila	Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Vitek Automated ID Machine / Manual Method as documented in HUSM/MICRO/STM-01(02)
	Clostridium difficile Toxin	Immuno Chromatography Method as documented in HUSM/MICRO/STM-01(02)
<b>Bacteriology</b> - Blood - Csf - Urine - Stool - Sputum - Endotracheal / Tracheal Fluid - Bronchoalveolar Lavage - Bronchial Washing - Eye Swab - Corneal Scraping - Ear Swab - Abscess / Aspirates - Skin & Wound Swab - Throat Swab - Antral Washout Fluid - Tissue / Biopsy - Genital Specimens - Pleural Fluid - Synovial Fluid - Peritoneal Dialysis Fluid - Sterile Body Fluid - Bone Marrow Aspirate - Other Sterile Body Fluids - Peritoneal Dialysis - Fluid/dialysate Fluid	Antimicrobial Susceptibility Testing for Bacterial Pathogens	Disk Diffusion and MIC Method using SemiAutomated Biomic® AST Reader as documented in HUSM/MICRO/STM-01(01)
Csf	Direct Microscopic Examination	Manual Method as documented in HUSM/MICRO/STM-01(01)

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	Antigen Detection for Primary Pathogens of Bacterial Meningitis: Hemophilus influenzae Type b Group B Streptococcus Streptococcus pneumoniae Neisseria meningitidis CYW135 Escherichia coli K1	Latex Agglutination Kit/Manual Method as documented in HUSM/MICRO/STM-01(02)
Nasal Swab	MRSA Screening	Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Vitek Automated ID Machine / Manual method as documented in HUSM/MICRO/STM-01(02)
Urine	Group B Streptococcus Antigen	Latex Agglutination Kit/Manual Method as documented in HUSM/MICRO/STM-01(02)
<b>Mycology</b> Serum, Csf	Detection of Cryptococcal Antigen	Latex Agglutination Kit / Lateral flow (strip) / Manual Method as documented in HUSM/MICRO/STM-02
Sterile Body Samples	Fungal Culture and Identification for Yeast	Culture: Manual Method as documented in HUSM/MICRO/STM-02 Identification: Vitek Automated ID Machine / Manual Method as documented in HUSM/MICRO/STM-02

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<b>Clinical Specimens:</b> <ul style="list-style-type: none"> <li>- Blood</li> <li>- Csf</li> <li>- Urine</li> <li>- Sputum</li> <li>- Endotracheal / Tracheal Fluid</li> <li>- Bronchoalveolar Lavage</li> <li>- Bronchial Washing</li> <li>- Eye Swab</li> <li>- Corneal Scraping</li> <li>- Ear Swab</li> <li>- Abscess / Aspirates</li> <li>- Wound Swab</li> <li>- Throat Swab</li> <li>- Antral Washout Fluid</li> <li>- Tissue / Biopsy</li> <li>- Genital Specimens</li> <li>- Pleural Fluid</li> <li>- Synovial Fluid</li> <li>- Peritoneal Dialysis Fluid</li> <li>- Sterile Body Fluid</li> <li>- Bone Marrow Aspirate</li> <li>- Hair</li> <li>- Nail</li> <li>- Skin</li> </ul>	Microscopic examination, culture, identification of fungal isolates from clinical specimens	Culture: Manual Method as documented in HUSM/MICRO/STM-02 Identification: Vitek Automated ID Machine / Manual Method as documented in HUSM/MICRO/STM-02
<b>Mycobacteriology</b> <ul style="list-style-type: none"> <li>- Sputum</li> <li>- Tissue &amp; Biopsy</li> <li>- Csf</li> <li>- Urine</li> <li>- Abscess / Aspirates</li> <li>- Gastric Lavage</li> <li>- Endotracheal / Tracheal Fluid</li> <li>- Pleural Fluid</li> <li>- Peritoneal Fluid</li> <li>- Ascites Fluid</li> <li>- Synovial Fluid</li> <li>- Bone Marrow Aspirate</li> </ul>	Direct Microscopic Examination for Acid-Fast Bacilli (AFB)	Manual / Ziehl Neelsen / Fluorescence Stain as documented in HUSM/MICRO/STM-06

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<b>Mycobacteriology</b> - Sputum - Tissue & Biopsy - Blood - Csf - Urine - Abscess / Aspirates - Gastric Lavage - Endotracheal / Tracheal Fluid - Pleural Fluid - Peritoneal Fluid - Ascites Fluid - Synovial Fluid - Bone Marrow Aspirate	Culture for Mycobacterium Species	Manual / Solid Medium Culture as documented in HUSM/MICRO/STM-06
<b>Parasitology</b> Whole Blood	Detection of Malaria Parasite / Microfilaria	Blood Film Malarial-Parasite Method as documented in HUSM/MICRO/STM-05
Stool	Detection of Ova & Cyst in Stool	Manual Method as documented in HUSM/MICRO/STM-05
<b>Serology</b> Serum, Plasma	Hepatitis B Surface Antigen (HBsAg)	Roche-Cobas HBsAg based on ECLIA Technology as documented in HUSM/MICRO/STM-03 (B)
	Hepatitis B Surface Antibodies (anti-HBs)	Roche-Cobas Anti-HBs based on ECLIA Technology as documented in HUSM/MICRO/STM-03 (B)
	Hepatitis B e Antigen (HBeAg)	Roche-Cobas HBeAg based on ECLIA Technology as documented in HUSM/MICRO/STM-03 (B)
	Hepatitis B e Antibodies (anti- HBe)	Roche-Cobas Anti-HBe based on ECLIA Technology as documented in HUSM/MICRO/STM-03 (B)
	Anti-HCV Screening	Roche-Cobas Anti-HCV based on ECLIA Technology as documented in HUSM/MICRO/STM-03 (B)
	Anti-HCV Confirmation	Inno-LIA HCV Method based on Tendigo Automated Instrument as documented in HUSM/MICRO/STM-03 (B)
	HIV Ab/Ag Combo Screening	Roche-Cobas HIV Ab/Ag combo based on ECLIA Technology as documented in HUSM/MICRO/STM03 (B)
	Anti-HIV Confirmation	Inno-LIA HIV Method based on Tendigo Automated Instrument as documented in HUSM/MICRO/STM03(B)

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Dengue Specific Antigen NS1/IgM/IgG Antibodies	Manual Immunochromatography test method (ICT) Dengue NS1/IgM/IgG as documented in HUSM/MICRO/STM-03(B)
Treponemal test	Roche-Cobas Syphilis based on ECLIA Technology as documented in HUSM/MICRO/STM-03 (B)
Non-treponemal test (If ECLIA is Positive)	Manual/Flocculation Method as documented in HUSM/MICRO/STM-03(B)
2 nd Treponemal test (If 1st confirmation with RPR is Negative)	Manual/Treponema pallidum Particle Agglutination Method as documented in HUSM/MICRO/STM-03(B)
HSV 1 & 2 Specific IgG Antibodies	Roche-Cobas HSV 1 & 2 Specific IgG ECLIA Technology as documented in HUSM/MICRO/STM-03(B)
CMV Specific IgM Antibodies	Roche-Cobas CMV Specific IgM ECLIA Technology as documented in HUSM/MICRO/STM-03(B)
CMV Specific IgG Antibodies	Roche-Cobas CMV Specific IgG ECLIA Technology as documented in HUSM/MICRO/STM-03(B)
Anti-streptolysin O Titer (ASOT)	Manual/Latex Agglutination Method as documented in HUSM/MICRO/STM-03(B)
Mycoplasma pneumoniae Specific IgM Antibodies	
EBV-VCA Specific IgM Antibodies	EBV-VCA Specific IgM based on Personal Lab ELISA Automated Instruments as documented in HUSM/MICRO/STM-03(B)
Toxoplasma Specific IgM Antibodies	Roche-Cobas Toxoplasma Specific IgM ECLIA Technology as documented in HUSM/MICRO/STM-03(B)
Toxoplasma Specific IgG Antibodies	Roche-Cobas Toxoplasma Specific IgG ECLIA Technology as documented in HUSM/MICRO/STM-03(B)
Leptospira Specific IgM Antibodies	Leptospira Specific IgM Antibodies based on Personal Lab ELISA Automated Instruments as documented in HUSM/MICRO/STM-03(B)

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**SCOPE OF MEDICAL TESTING : MEDICAL MICROBIOLOGY (IMMUNOLOGY)**

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
<b>Bacteriology</b> - Blood - Csf - Urine - Sputum - Endotracheal / Tracheal Fluid - Bronchoalveolar Lavage - Bronchial Washing - Eye Swab - Corneal Scraping - Ear Swab - Abscess / Aspirates - Skin & Wound Swab - Throat Swab - Antral Washout Fluid - Tissue / Biopsy - Genital Specimens - Pleural Fluid - Synovial Fluid - Peritoneal Dialysis Fluid - Sterile Body Fluid - Bone Marrow Aspirate	Culture and Identification of Bacterial Pathogens	Blood Culture: Bactec Automated Blood Culture System as documented in HUSM/MICRO/STM-01(01) Other Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Vitek Automated ID Machine / Manual Method as documented in HUSM/MICRO/STM-01(02)
<b>Bacteriology</b> Stool	Culture and Identification of Vibrio cholerae	Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Serotyping / Manual Method as documented in HUSM/MICRO/STM-01(02)
	Culture and Identification of Salmonella Species and Shigella Species	Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Serotyping / Manual Method as documented in HUSM/MICRO/STM-01(02)
	Culture and Identification of Enteropathogenic Escherichia coli (EPEC)	Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Serotyping / Manual Method as documented in HUSM/MICRO/STM-01(02)

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	Culture and Identification of Campylobacter species	Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Vitek Automated ID Machine / Manual Method as documented in HUSM/MICRO/STM-01(02)
	Culture and Identification of Aeromonas hydrophila	Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Vitek Automated ID Machine / Manual Method as documented in HUSM/MICRO/STM-01(02)
	Clostridium difficile Toxin	Immuno Chromatography Method as documented in HUSM/MICRO/STM-01(02)
<b>Bacteriology</b> - Blood - Csf - Urine - Stool - Sputum - Endotracheal / Tracheal Fluid - Bronchoalveolar Lavage - Bronchial Washing - Eye Swab - Corneal Scraping - Ear Swab - Abscess / Aspirates - Skin & Wound Swab - Throat Swab - Antral Washout Fluid - Tissue / Biopsy - Genital Specimens - Pleural Fluid - Synovial Fluid - Peritoneal Dialysis Fluid - Sterile Body Fluid - Bone Marrow Aspirate - Other Sterile Body Fluids - Peritoneal Dialysis - Fluid/dialysate Fluid	Antimicrobial Susceptibility Testing for Bacterial Pathogens	Disk Diffusion and MIC Method using SemiAutomated Biomic® AST Reader as documented in HUSM/MICRO/STM-01(01)
Csf	Direct Microscopic Examination	Manual Method as documented in HUSM/MICRO/STM-01(01)

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	Antigen Detection for Primary Pathogens of Bacterial Meningitis: Hemophilus influenzae Type b Group B Streptococcus Streptococcus pneumoniae Neisseria meningitidis CYW135 Escherichia coli K1	Latex Agglutination Kit/Manual Method as documented in HUSM/MICRO/STM-01(02)
Nasal Swab	MRSA Screening	Culture: Manual Method as documented in HUSM/MICRO/STM-01(01) Identification: Vitek Automated ID Machine / Manual method as documented in HUSM/MICRO/STM-01(02)
Urine	Group B Streptococcus Antigen	Latex Agglutination Kit/Manual Method as documented in HUSM/MICRO/STM-01(02)
<b>Mycology</b> Serum, Csf	Detection of Cryptococcal Antigen	Latex Agglutination Kit / Lateral flow (strip) / Manual Method as documented in HUSM/MICRO/STM-02
Sterile Body Samples	Fungal Culture and Identification for Yeast	Culture: Manual Method as documented in HUSM/MICRO/STM-02 Identification: Vitek Automated ID Machine / Manual Method as documented in HUSM/MICRO/STM-02

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<b>Clinical Specimens:</b> <ul style="list-style-type: none"> <li>- Blood</li> <li>- Csf</li> <li>- Urine</li> <li>- Sputum</li> <li>- Endotracheal / Tracheal Fluid</li> <li>- Bronchoalveolar Lavage</li> <li>- Bronchial Washing</li> <li>- Eye Swab</li> <li>- Corneal Scraping</li> <li>- Ear Swab</li> <li>- Abscess / Aspirates</li> <li>- Wound Swab</li> <li>- Throat Swab</li> <li>- Antral Washout Fluid</li> <li>- Tissue / Biopsy</li> <li>- Genital Specimens</li> <li>- Pleural Fluid</li> <li>- Synovial Fluid</li> <li>- Peritoneal Dialysis Fluid</li> <li>- Sterile Body Fluid</li> <li>- Bone Marrow Aspirate</li> <li>- Hair</li> <li>- Nail</li> <li>- Skin</li> </ul>	Microscopic examination, culture, identification of fungal isolates from clinical specimens	Culture: Manual Method as documented in HUSM/MICRO/STM-02 Identification: Vitek Automated ID Machine / Manual Method as documented in HUSM/MICRO/STM-02
<b>Mycobacteriology</b> <ul style="list-style-type: none"> <li>- Sputum</li> <li>- Tissue &amp; Biopsy</li> <li>- Csf</li> <li>- Urine</li> <li>- Abscess / Aspirates</li> <li>- Gastric Lavage</li> <li>- Endotracheal / Tracheal Fluid</li> <li>- Pleural Fluid</li> <li>- Peritoneal Fluid</li> <li>- Ascites Fluid</li> <li>- Synovial Fluid</li> <li>- Bone Marrow Aspirate</li> </ul>	Direct Microscopic Examination for Acid-Fast Bacilli (AFB)	Manual / Ziehl Neelsen / Fluorescence Stain as documented in HUSM/MICRO/STM-06

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<b>Mycobacteriology</b> - Sputum - Tissue & Biopsy - Blood - Csf - Urine - Abscess / Aspirates - Gastric Lavage - Endotracheal / Tracheal Fluid - Pleural Fluid - Peritoneal Fluid - Ascites Fluid - Synovial Fluid - Bone Marrow Aspirate	Culture for Mycobacterium Species	Manual / Solid Medium Culture as documented in HUSM/MICRO/STM-06
<b>Parasitology</b> Whole Blood	Detection of Malaria Parasite / Microfilaria	Blood Film Malarial-Parasite Method as documented in HUSM/MICRO/STM-05
Stool	Detection of Ova & Cyst in Stool	Manual Method as documented in HUSM/MICRO/STM-05
<b>Serology</b> Serum, Plasma	Hepatitis B Surface Antigen (HBsAg)	Roche-Cobas HBsAg based on ECLIA Technology as documented in HUSM/MICRO/STM-03 (B)
	Hepatitis B Surface Antibodies (anti-HBs)	Roche-Cobas Anti-HBs based on ECLIA Technology as documented in HUSM/MICRO/STM-03 (B)
	Hepatitis B e Antigen (HBeAg)	Roche-Cobas HBeAg based on ECLIA Technology as documented in HUSM/MICRO/STM-03 (B)
	Hepatitis B e Antibodies (anti-HBe)	Roche-Cobas Anti-HBe based on ECLIA Technology as documented in HUSM/MICRO/STM-03 (B)
	Anti-HCV Screening	Roche-Cobas Anti-HCV based on ECLIA Technology as documented in HUSM/MICRO/STM-03 (B)
	Anti-HCV Confirmation	Inno-LIA HCV Method based on Tendigo Automated Instrument as documented in HUSM/MICRO/STM-03 (B)
	HIV Ab/Ag Combo Screening	Roche-Cobas HIV Ab/Ag combo based on ECLIA Technology as documented in HUSM/MICRO/STM03 (B)
	Anti-HIV Confirmation	Inno-LIA HIV Method based on Tendigo Automated Instrument as documented in HUSM/MICRO/STM03(B)

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Dengue Specific Antigen NS1/IgM/IgG Antibodies	Manual Immunochromatography test method (ICT) Dengue NS1/IgM/IgG as documented in HUSM/MICRO/STM-03(B)
Treponemal test	Roche-Cobas Syphilis based on ECLIA Technology as documented in HUSM/MICRO/STM-03 (B)
Non-treponemal test (If ECLIA is Positive)	Manual/Flocculation Method as documented in HUSM/MICRO/STM-03(B)
2 nd Treponemal test (If 1st confirmation with RPR is Negative)	Manual/Treponema pallidum Particle Agglutination Method as documented in HUSM/MICRO/STM-03(B)
HSV 1 & 2 Specific IgG Antibodies	Roche-Cobas HSV 1 & 2 Specific IgG ECLIA Technology as documented in HUSM/MICRO/STM-03(B)
CMV Specific IgM Antibodies	Roche-Cobas CMV Specific IgM ECLIA Technology as documented in HUSM/MICRO/STM-03(B)
CMV Specific IgG Antibodies	Roche-Cobas CMV Specific IgG ECLIA Technology as documented in HUSM/MICRO/STM-03(B)
Anti-streptolysin O Titer (ASOT)	Manual/Latex Agglutination Method as documented in HUSM/MICRO/STM-03(B)
Mycoplasma pneumoniae Specific IgM Antibodies	
EBV-VCA Specific IgM Antibodies	EBV-VCA Specific IgM based on Personal Lab ELISA Automated Instruments as documented in HUSM/MICRO/STM-03(B)
Toxoplasma Specific IgM Antibodies	Roche-Cobas Toxoplasma Specific IgM ECLIA Technology as documented in HUSM/MICRO/STM-03(B)
Toxoplasma Specific IgG Antibodies	Roche-Cobas Toxoplasma Specific IgG ECLIA Technology as documented in HUSM/MICRO/STM-03(B)
Leptospira Specific IgM Antibodies	Leptospira Specific IgM Antibodies based on Personal Lab ELISA Automated Instruments as documented in HUSM/MICRO/STM-03(B)

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**SCOPE OF MEDICAL TESTING : MEDICAL MICROBIOLOGY**

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
<b>Virology</b> Respiratory Specimen	Direct Antigen Detection of Adenovirus, Influenza A + B Viruses, Parainfluenza Virus Type 1, 2, 3 and RSV	Manual/Immunofluorescence Method as documented in HUSM/MICRO/STM-04
Stool	Direct Antigen Detection of Rotavirus / Adenovirus	Manual Immunochromatography test method (ICT) Method as documented in HUSM/MICRO/STM-04

**SCOPE OF MEDICAL TESTING : MEDICAL MICROBIOLOGY (VIROLOGY)**

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
<b>Virology</b> Respiratory Specimen	Direct Antigen Detection of Adenovirus, Influenza A + B Viruses, Parainfluenza Virus Type 1, 2, 3 and RSV	Manual/Immunofluorescence Method as documented in HUSM/MICRO/STM-04
Stool	Direct Antigen Detection of Rotavirus / Adenovirus	Manual Immunochromatography test method (ICT) Method as documented in HUSM/MICRO/STM-04

**SCOPE OF MEDICAL TESTING : MEDICAL MICROBIOLOGY (IMMUNOLOGY)**

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
<b>Virology</b> Respiratory Specimen	Direct Antigen Detection of Adenovirus, Influenza A + B Viruses, Parainfluenza Virus Type 1, 2, 3 and RSV	Manual/Immunofluorescence Method as documented in HUSM/MICRO/STM-04
Stool	Direct Antigen Detection of Rotavirus / Adenovirus	Manual Immunochromatography test method (ICT) Method as documented in HUSM/MICRO/STM-04

**SCOPE OF MEDICAL TESTING : MEDICAL MICROBIOLOGY**

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Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
Immunology Serum	C-Reactive Protein (CRP)	Qualitative: latex agglutination as documented in HUSM/IMMUNO/STM/01-2008 Semi quantitative: turbidometry as documented in HUSM/IMMUNO/STM/01-2008
	Anti-Nuclear Antibody (ANA)	Indirect Immunofluorescence: Fluorescence Microscope as documented in HUSM/IMMUNO/STM/01-2008
	Anti-double Stranded Antibody (dsDNA)	ELISA: ELISA reader as documented in HUSM/IMMUNO/STM/01-2008
	Extractable Nuclear Antigen Antibody (ENA)	Enzyme Immunoassay: Line immunoassay as documented in HUSM/IMMUNO/STM/01-2008
	Allergen Specific IgE	Fluorescence enzyme immunoassay (FEIA): Immunocap as documented in HUSM/IMMUNO/STM/01-2008
Whole Blood	Enumeration of Lymphocytes Subsets (TBNK)	Immunophenotyping direct immunofluorescence technique: flowcytometer as documented in HUSM/IMMUNO/STM/01-2008

**SCOPE OF MEDICAL TESTING : MEDICAL MICROBIOLOGY (VIROLOGY)**

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
Immunology Serum	C-Reactive Protein (CRP)	Qualitative: latex agglutination as documented in HUSM/IMMUNO/STM/01-2008 Semi quantitative: turbidometry as documented in HUSM/IMMUNO/STM/01-2008
	Anti-Nuclear Antibody (ANA)	Indirect Immunofluorescence: Fluorescence Microscope as documented in HUSM/IMMUNO/STM/01-2008
	Anti-double Stranded Antibody (dsDNA)	ELISA: ELISA reader as documented in HUSM/IMMUNO/STM/01-2008
	Extractable Nuclear Antigen Antibody (ENA)	Enzyme Immunoassay: Line immunoassay as documented in HUSM/IMMUNO/STM/01-2008

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	Allergen Specific IgE	Fluorescence enzyme immunoassay (FEIA): Immunocap as documented in HUSM/IMMUNO/STM/01-2008
Whole Blood	Enumeration of Lymphocytes Subsets (TBNK)	Immunophenotyping direct immunofluorescence technique: flowcytometer as documented in HUSM/IMMUNO/STM/01-2008

**SCOPE OF MEDICAL TESTING : MEDICAL MICROBIOLOGY (IMMUNOLOGY)**

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
Immunology Serum	C-Reactive Protein (CRP)	Qualitative: latex agglutination as documented in HUSM/IMMUNO/STM/01-2008 Semi quantitative: turbidometry as documented in HUSM/IMMUNO/STM/01-2008
	Anti-Nuclear Antibody (ANA)	Indirect Immunofluorescence: Fluorescence Microscope as documented in HUSM/IMMUNO/STM/01-2008
	Anti-double Stranded Antibody (dsDNA)	ELISA: ELISA reader as documented in HUSM/IMMUNO/STM/01-2008
	Extractable Nuclear Antigen Antibody (ENA)	Enzyme Immunoassay: Line immunoassay as documented in HUSM/IMMUNO/STM/01-2008
	Allergen Specific IgE	Fluorescence enzyme immunoassay (FEIA): Immunocap as documented in HUSM/IMMUNO/STM/01-2008
Whole Blood	Enumeration of Lymphocytes Subsets (TBNK)	Immunophenotyping direct immunofluorescence technique: flowcytometer as documented in HUSM/IMMUNO/STM/01-2008

**NOTE :**