

King Hussein Cancer Center

Department of Pathology & Laboratory Medicine (DPLM)

DPLM Test Catalogue: Turnaround Times (TAT) & Collection Requirements

(IPPLAB-GEN.02-Attach I/R6)

Issue Date June 25th, 2025

Written & Reviewed By: Tamara Dabbagh QMO Supervisor Approved by: Dr. Maher Sughayer DPLM Chairman

Document Contents

Chapter One: DPLM Directory

<u>Chapter Two: Alphabetical Tests List & Collection</u>
<u>Requirements</u>

Chapter Three: Immunochemistry Profiles (Seven)

Chapter Four: List of Age / Gender/ Circalunar Rhythm

Dependent Reference Ranges

<u>Chapter Five: Transfusion Services (Blood Bank</u> <u>Products)</u>

Chapter Six: Point Of Care Testing

Chapter One: DPLM Directory

Office/Section	Phone Number				
DPLM Chairman- Dr. Maher Sughayer	1551				
Chairman Administrative Assistant	1432				
Department Coordinators	1548-1250				
DPLM Manager- Abeer Nuirat	3272				
Quality Management Office- Supervisor	1191				
Quality Management Office	1194				
Microbiology	1547- 1706 Mobile: 077849 9816				
Microbiology Supervisor	1127				
Anatomic Pathology	1153-7464				
Anatomic Pathology Supervisor	1157				
Immunochemistry	1345-1022-7443-7724-6220-6281 Mobile: 077766135				
Immunology	1744				
Immunology Supervisor	7707				
Hematology	1743 Mobile: 0778499793				
Hematology Supervisor	1705				

Chapter One: Cont. DPLM Directory

Office/Section	Phone Number			
Blood Bank	1710 0778449276 :Mobile			
Blood Bank Supervisor	1102			
Blood Bank Donation Area	1738			
Hematopathology Flow Cytometry	6260			
Phlebotomy Senior	1535			
DPLM Phlebotomy Services – Nizar Al- Naqeeb	1732 – 5063			
DPLM Phlebotomy Services – SKB (5 th Floor)	5215			
DPLM Phlebotomy Services – SKB (8 th Floor)	6484			

Chapter Two: Test Catalogue

<u>#</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	E	<u>F</u>
<u>G</u>	<u>H</u>	Ī	<u>J</u>	<u>K</u>	L	<u>M</u>
<u>N</u>	<u>O</u>	<u>P</u>	Q	<u>R</u>	<u>S</u>	<u>T</u>
<u>U</u>	$\underline{\mathbf{V}}$	$\underline{\mathbf{W}}$	$\underline{\mathbf{Y}}$	<u>Z</u>		

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
		The specimens in flow include the				
7-amino-actinomycin D (Cell viability Solution)	7-AAD	below:• Peripheral blood (PB): EDTA, lithium heparin, and acid citrate dextrose (ACD). • Bone marrow (BM): EDTA, lithium heparin, and acid citrate dextrose (ACD). • Body fluids (pleural fluid, ascitic fluid, pericardial fluid vitreous fluid and cerebrospinal fluid): Fluids shall be collected as per standard medical practice. For CSF, special precautions should be taken, it should be processed within an hour or two. If delay in the processing is anticipated, CSF should be collected in RPMI media with bovine serum (contact lab). • Fine needle aspirates (FNA) from lymph nodes (LN) and other lesions: Transported in RPMI media). • Fresh tissue samples: Transported in RPMI media). • Fresh tissue samples: Transported in RPMI media or sterile saline-soaked gauze at removal, and kept moist throughout transport to the laboratory (contact lab for the RPMI media).	Hematopathology – Flow cytometry Sunday to Thursday: 8:00 am-4:00 pm Otherwise: Contact the Lab.	1 working day	Viability should be at least 80%.	-Fresh blood and bone marrow up to 48 hrs. at room temperatureCollect tissue / FNA in RPMI media and send immediately.
17-Beta-Estradiol	E2	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	State day of menstrual cycle. Steroid therapy may influence result.

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
25 Hydroxy Vitamin D3	VIT D	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	deficiency ≤ 20 ng/mL Insufficient < 30 ng/mL Normal ≥ 30 ng/mL	Room Temperature
17-Hydroxyprogesterone	17-ОНР	Minimum 2-3 ml Blood "Plain Red Top Tube"	ImmunologySend out test /contact the laboratory	3-5Working Days	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room temperatureDue to diurnal variation, sample collection time should be noted and standardized.
5-Hydroxyindole Acetic Acid	5-HIAA	24hr urine collection	Immunology Send out test /contact the laboratory	3-5 Working Days	<15.0 mg/24hrs	On day 1, urinate into the toilet when you wake up in the morning. Collect all of your urine in a special container for the next 24 hours. On day 2, urinate into the container in the morning when you wake up Cap the container. Keep it in the refrigerator or a cool place during the collection period Label the container with your name, the date, and the time you complete the sample, and return it as instructed. Deliver the urine sample to the laboratory before 10am.
5-Nucleotidase,Serum Level	-	Minimum 2-3 ml Blood "Plain Red Top Tube"	Immunology Send out test /contact the laboratory	1-3 Working Days	< 10 IU/L	Glass tube



Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Acetaminophen (Paracetamol)	-	Minimum 2-3 ml Blood" Plain Red Top Tube"	Immunology Send out test /contact the laboratory	2 Days	Therapeutic Level: less than 50.0mcg/ml, Toxic Conc.: 4hr after dose More Than 200mcg/mL 12hrs after dosage > 50.0 mcg/mL	RT
Acetone, Screen	Ace	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	Negative	Room Temperature
Adjusted calcium	Adj Ca	Calculated Test combined with Calcium & Albumin tests	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Not orderable as a standalone test. It is listed in calcium panel, chem-14 & Chem-20 profiles.
Acetylcholine Receptor (MUSCL ACHR) Binding Ab	AChR	2 ml Serum	Immunology Send out test /contact the laboratory	3-5 Working Days	Not Applicable	Room temperature.
Acid Fast Bacillus Culture + AFB Stain	AFB	 Tissue, skin, Tissue should be submitted in 2 to 3 mL sterile saline Blood: 3-5 Heparin tubes (green tip) Sterile Body fluids except CSF: ≥ 15 mL as much fluid as possible; Bone marrow: ≥ 10 mL sterile screw cap container Or 5 Heparin tubes (green tip) Lower respiratory tract (TRAP/Sputum/BAL): ≥ 3 mL Urine: ≥ 40 ml CSF: 2-3 mL >2ml first morning sputum, not saliva in sterile container 	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	AFB Stain: 24 hours AFB Culture: 6-8 Weeks If Negative	AFB stain: No acid- fast bacilli, observed. AFB Culture negative after 6 weeks of Incubation	Room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Acid Fast Bacillus Stain	AFB	See Acid Bacilli culture+ AFB stain	Microbiology 24 hours, Recommended time: 8:00AM – 4:00 PM	24 hours	AFB stain: No acid- fast bacilli, observed.	Room temperature
Activated Partial Thromboplastin Time	PTT	Citrated blood "Blue Top"" fill to mark	Hematology 24 hours/day	4-8 Hours	27.1-41.8 sec Therapeutic range (72-103)	Room temperature
Adenovirus, IgG	AdV	2 ml Serum	Immunology Send out test /contact the laboratory	3-5 Working Days	Negative	Room Temperature
Adenovirus, IgM	AdV	2 ml Serum	Immunology Send out test /contact the laboratory	3-5 Working Days	Negative	Room Temperature
Adenovirus, Stool	AdV	Fresh stool specimen in a clean container. Follow up on a previously positive antigen detection tests should be done not less than every 48 hours.	Microbiology 24 hours/day	2-4 Hours	Negative	Room temperature
Adrenocorticotropic Hormone (ACTH)	АСТН	EDTA "Fill to Mark" (Lavender)- Under ICE	Immunochemistry 8am-10 am	2-8 Hours	7.2 63.3 pg/mL	Patient Fasting at least 8 hrs, Collect Venous Blood In EDTA Tube, Sample Must Be Kept Cold And Transported On Ice Immediately To The Lab, Sample Must Arrive At Laboratory Before 10 am.
Anti-Diuretic Hormone	ADH	Minimum 2-3 ml Blood " Plain Red Top Tube" Minimum 2 ml EDTA blood tube "Lavender Top" fill to mark	Immunology Send out test /contact the laboratory	1-2 Weeks	1.1 - 4.5 pg./ml	Under ice
Albumin, Level	Alb	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Albumin, Body Fluids	Alb	1-3 ml Body Fluid in clean Falcone tube/ Urine cup	Immunochemistry 24 hours/day	2-8 Hours	Not Established Refer to: Immunochemistry Reference Range Interpretation	Room Temperature
Aldolase Level	ALDOA	Minimum 3 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 8 am-10 am	One Week	Adult: <7.6 U/L children: <16.3 U/L	Under ice Sample must be obtained at 8 am, it must be delivered to the Immunochemistry section before 10 am
Alkaline Phosphatase	ALP	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	130 – 335 U/L(1 - 15) years 47 – 230 U/L(16- 21) years 37 - 130 U/L (22- 64) years	Room Temperature
Alkaline Phosphatase Isoenzymes	ALP-ISO	3-5 ml Blood plain / Tube Red Top	Immunochemistry 8 am-10 am	One Week	Bone fraction :<15 U/L Liver fraction:<12.3 U/L	Patient should be fasting Room temperature
Alanine Aminotransferase	ALT	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunochemistry 24 hours/day	2-8 Hours	Not Applicable	Room temperature
Aldolase , Serum Level	ALDOA	3-5 ml Blood plain / Tube Red Top	Immunochemistry 8 am-9 am	One Week	Not Applicable	Under ice Sample must be obtained at 8 am, it must be delivered to the Immunochemistry section before 10 am
Aldosterone	ALD	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	1-2 Weeks	Standing: 40-310 , Recumbent: 10- 160pg/mL	Under ice Sample must be obtained at 8 am, it must be delivered to the immunology Laboratory before 10 am, the patient must to be upright or lying down for a period of time 15-30 minutes, prior to sample collection.
ALK (Immunohistochemistry)	ALK -IHC	Paraffin Block	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Alpha-1-Antitrypsin	AAT	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Adult: 90-200 mg/dl Child: Less than month: 124- 348 1-6 months:111 -297 7-24months:95- 251 More than months:110 -280 mg/dl	Room temperature
Alpha-Feto Protein , Serum Level	AFP	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	≤ 7.0 ng/mL	Room Temperature
Alanine Aminotransferase	ALT	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	7.2 - 21.2 U/L (0 - 18) years 7.0 - 47 U/L (18 -99) Year	Room Temperature
AMIKACIN Peak		Minimum 1 ml Blood Lithium Heparin (LightGreen) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	Therapeutic range: 20 - 35 mcg/ml Toxic Level: >40 mcg/ml	Room Temperature
AMIKACIN Trough		Minimum 1 ml Blood Lithium Heparin (LightGreen) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	Therapeutic range less than 8.0 mcg/ml Toxic Level : >10 mcg/ml	Room Temperature
Ammonia ,Plasma	NH3	EDTA blood tube "Lavender Top" fill to mark/ Under ice	Immunochemistry 24 hours/day	One Hours	< or =30 mcmol/L	Keep on ice
Amylase In 24HR Urine Collection	AMY urine	24 hours Urine collection container kept cool	Immunochemistry 24 hours/day	2-8 Hours	3-26 U/24hr	Keep the container in a cool place (Refrigerator)
Amylase Level	AMY	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	28-100 U/L	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Amylase (Urine)	AMY	5-10 ml Midstream Random urine	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature
Amylase ,Body Fluid	AMY BF	1-3 ml Body Fluid in clean Falcone tube/ Urine cup	Immunochemistry 24 hours/day	2-8 Hours	Drainage fluid:175- 450 U/L Peritoneal fluid: <1100 U/L Refer to: Immunochemist ry Reference Range Interpretation	Room Temperature
Anti-Insulin Antibody	AIA	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunolog y Send out test /contact the laboratory	3-5 Working Days	Negative	Under ice 12 Hrs. fasting required. Sample must be collected at 8 am and sent to the Immunology Laboratory before 10 am.
Anti-Hepatitis-A Total Ab Quantitative	HAV	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	≥1.20 COI Negative for HAV-specific antibodies ≥ 0.8 to < 1.2 COI Gray zone < 0.80 COI Positive for HAV-specific antibodies	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Anaerobic Swab Culture	-	Aspirating abscess fluid with sterile syringe and needle and then injecting the aspirated material into anaerobic transport swab.	Microbiology 8 am- 5 pm	5-7 Days If Negative	- No growth after seven days incubation	Room temperature, send immediately
Anal Biopsy / Polyp	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room temperature
Anal Fissure / Fistula	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room temperature
Androstenedione, Serum Level	ASD	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Male:0.7-3.6 ,Female:0.3-3.5 ng/ml	Under ice Sample must be obtained at 8 am; it must be delivered to the Immunology Laboratory before 10 am.
Angiotensin Converting Enzyme	ACE	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	8-52 U/L	Room temperature
Antibody Elution	-	EDTA blood tube "Lavender Top " fill to mark	Blood Bank 8 am- 5 pm	24 Hours	Not Applicable	Room temperature
Antibody Identification	-	Call Blood Bank Extension. 1710	Blood Bank 24 hours/day	8-24 Hours	Not Applicable	Room temperature
Antibodies Titer	-	EDTA blood tube "Lavender Top " fill to mark	Blood Bank 8 am- 5 pm	24 Hours	Not Applicable	Room temperature
Antiacetyle Choline Receptor Antibody	AChR AB	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Titer: less than 1:10	Room temperature
Anti-Cardiolipin AB, IgG	ACA IgG	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8 AM- 3 PM	3-5 Working Days	Negative: less than or equal 15 Positive: more than 15.0 GPL/mL	Room temperature
Anti-Cardiolipin Ab, IgM	ACA IgM	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8 AM- 3 PM	3-5 Working Days	Negative: less than or equal 15 Positive: more than 15.0 MPL/mL	Room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Anti-Cyclic Citrullinated Peptide	ССР	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8 AM- 3 PM	3-5 Working Days	Negative: less than 1.8 IU/L Borderline: more than or equal 1.8 Positive: more than or equal 2.0	Room temperature
Anti-Deoxyribonuclear Antibodies	Anti-DNA Ab	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8 AM- 3 PM	3-5 Working Days	Titer:Less than 1:10	Room temperature
Anti Endomysial Antibody IgA	EMA IgA	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Titer: less than 1:10	Room temperature
Anti Endomysial Antil	oody Ig&MA IgG	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Titer: less than 1:10	Room temperature
Anti Entamoeba Histolytica Ab	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Negative	Room temperature
Anti-GAD Antibody	GAD	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Negative	Room Temperature
Anti Gliadin Antibody IgG	AGA Igg	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8 AM- 3 PM	3-5 Working Days	Normal: less than 12 U/ml Elevated: more than 12	Room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Anti Gliadin Antibody, IgA	AGA IgA	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8 AM- 3 PM	3-5 Working Days	Normal: less than 12 U/ml Elevated: equal or more than 12	Room temperature
Anti-Glomerular Basement Membrane Anti Body	anti-GBM	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Negative	Room Temperature
Anti-Intrinsic FACTOR Antibodies	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Negative: less than 6 Positive: more than or equal 6	Room temperature
Anti-Islet Cells Antibody	ICA	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Negative	Room Temperature
Anti-Liver Kidney Microsomal-1 Antibody	LKM-1	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8 AM- 3 PM	3-5 Working Days	Not Applicable	Room temperature
Anti-Mitochondrial Antibodies	AMA	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8 AM- 3 PM	3-5 Working Days	Negative	Room temperature
Anti-Neuronal Nuclear Antibodies, Serum	ANNA	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Negative	Room temperature
Anti Neutrophelic Cytoplasmic Antibody	ANCA	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8 AM- 3 PM	3-5 Working Days	Negative	Room temperature
Anti-Nuclear Antibodys	ANA	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8 AM- 3 PM	3-5 Working Days	Titer: less than 1:80	Room temperature
Anti-Ovarian Antibodies, Serum	AOA	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Titer: less than 1:20	Room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Anti-Parietal Cell Antibodies	APCA	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Titer: less than 1:20	Room temperature
Anti-Phospholipid Antibodies, IgM	APLAs IgM	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8 AM- 3 PM	3-5 Working Days	Negative: less than or equal 15 Positive: more than 15.0 UL/mL	Room temperature
Anti-Phospholipid Antibodies, IgG	APLAs IgG	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8 AM- 3 PM	3-5 Working Days	Negative: less than or equal 15 Positive: more than 15.0 UL/mL	Room temperature
Anti-Saccharomyces Ab	ASCA	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test/contact the laboratory	3-5 Working Days	Titer: less than 1:20	Room temperature
Anti-Skin Antibodies Indirect	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Negative	Room temperature
Anti-Smooth Muscle Antibodies	ASMA	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Titer: less than 1:20	Room temperature
Anti Streptolysin O Titer	ASO	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Negative	Room temperature
Anti-Thyroglobulin Antibodies	TgAb	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	≤ 115 IU/mL	Room Temperature
Anti-SARS-Cov-2 Spike	SARS-CoV-2	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	< 0.80 U/mL Negative for anti SARS CoV 2 S ≥ 0.80 U/mL Positive for anti SARS CoV 2 S	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Anti-Thrombin Iii Activ	ATIII	SODIUM CITRATE TUBE "Blue Top" fill to mark	Immunochemistry 24 hours/day	2-8 Hours	80-120 %	Room Temperature
Anti-Thyroid Microsomal Antibodies		Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Titer: less than 1:100	Room temperature
Anti-Thyroid Peroxidase Antibodies	TPO	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8 AM- 3 PM	3-5 Working Days	0-5.61 IU/ml	Room temperature
Anti-Tissue Transglutaminase IGG &IGA	anti-tTG	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8 AM- 3 PM	3-5 Working Days	Negative	Room temperature
Appendix	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room temperature
Arterial blood gas plus extended critical care profile	ABG	Minimum 0.5 ml HEPARINIZED SYRINGE – under ice	Immunochemistry 24 hours/day	One Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Should arrive the lab ASAP No more than 30 mint
Aspartate Aminotransferase	AST	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	8-48 U/L	Room Temperature
Aspirate Fluid Culture (Aerobic +Anaerobic+ Gram Stain)	-	- Volume: > 3 mL in sterile container - Or Volume: 8-10 mL in Blood culture Aerobic bottles + 8-10 mL in Anaerobic bottle.	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	Preliminary Gram stain: 2-4 Hours Culture: 5-7 Days If Negative	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	Room temperature
		B				
Bacterial Isolate For ID And Sensitivity	-	Isolated organism on culture media- sealed and BIOHAZARD labeled	Microbiology 8 am- 4 pm	3-5 Days	Not Applicable	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Beta-2-Microglobulin	B2M	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature
Beta Human Chorionic Gonadotropin	Beta-HCG	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature
Bicarbonate	нсоз	Minimum 1 ml Blood Lithium Heparin (LightGreen) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	21-28 mmol/L	Room Temperature
Bile Secretion Culture + Gram Stain	-	- Volume: > 3 mL in sterile container	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	Preliminary Gram stain: 2-4 Hours Culture: 5-7 Days If Negative.	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	Room temperature. Transport immediately
Bilirubin Direct	DBIL	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	0.01 - 0.3 mg/dl	Room Temperature
Bilirubin Total Level	TBL	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature
Bilirubin Total, Body Fluid	BIL BF	1-3 ml Body Fluid in clean Falcone tube/ Urine cup	Immunochemistry 24 hours/day	2-8 Hours	Not Established Refer to: Immunochemistry Reference Range Interpretation	Room Temperature
Bladder Biopsy	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room temperature
Bladder: Radical Cystectomy	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Bladder Tumor Tur	TURBT	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room temperature
Blood Culture-Hickman- White Lumen (Aerobic + Anaerobic)	-	Volume: Blood fill volumes in each bottle: Optimal: 8-10 mL Minimum blood volumes in each bottle: Versa TREK: 1 - 5 ml BACTEC: 3 - 8 ml Container: blood culture bottles: For BACTEC system: one aerobic (Blue top) blood culture bottle and one anaerobic (orange top) blood culture bottle. For Versa TREK system: Adult and pediatric patients: one aerobic (purple top) blood culture bottle and one anaerobic (red top)blood culture bottle	Microbiology 24 hours	5-7 Days If Negative Preliminary Result, Gram Stain When Positive (Within 1 Hr. Of Detection)	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	- Send to Microbiology lab after collection immediately - Keep at room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Blood Culture-Hickman- Red/Brown Lumen (Aerobic + Anaerobic)	-	Volume: Blood fill volumes in each bottle: Optimal: 8-10 mL Minimum blood volumes in each bottle: Versa TREK: 1 - 5 ml BACTEC: 3 - 8 ml Container: blood culture bottles: For BACTEC system: one aerobic (Blue top) blood culture bottle and one anaerobic (orange top) blood culture bottle. For Versa TREK system: Adult and pediatric patients: one aerobic (purple top) blood culture bottle and one anaerobic (red top)blood culture bottle	Microbiology 24 hours	5-7 Days If Negative Preliminary Result, Gram Stain When Positive (Within I Hr. Of Detection)	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	- Send to Microbiology lab after collection immediately - Keep at room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Blood Culture-Hickman- Blue Lumen (Aerobic + Anaerobic)	-	Volume: Blood fill volumes in each bottle: Optimal: 8-10 mL Minimum blood volumes in each bottle: Versa TREK: 1 - 5 ml BACTEC: 3 - 8 ml Container: blood culture bottles: For BACTEC system: one aerobic (Blue top) blood culture bottle and one anaerobic (orange top) blood culture bottle. For Versa TREK system: Adult and pediatric patients: one aerobic (purple top) blood culture bottle and one anaerobic (red top)blood culture bottle	Microbiology 24 hours	5-7 Days If Negative Preliminary Result, Gram Stain When Positive (Within 1 Hr. Of Detection)	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	- Send to Microbiology lab after collection immediately - Keep at room temperature,

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Blood Culture-PICC- White Lumen (Aerobic + Anaerobic)	-	Volume: Blood fill volumes in each bottle: Optimal: 8-10 mL Minimum blood volumes in each bottle: Versa TREK: 1 - 5 ml BACTEC: 3 - 8 ml Container: blood culture bottles: For BACTEC system: one aerobic (Blue top) blood culture bottle and one anaerobic (orange top) blood culture bottle. For Versa TREK system: Adult and pediatric patients: one aerobic (purple top) blood culture bottle and one anaerobic (red top)blood culture bottle bottle	Microbiology 24 hours	5-7 Days If Negative Preliminary Result, Gram Stain When Positive (Within 1 Hr. Of Detection)	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	- Send to Microbiology lab after collection immediately - Keep at room temperature,

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Blood Culture-PICC- Red/Brown Lumen (Aerobic + Anaerobic)	-	Volume: Blood fill volumes in each bottle: Optimal: 8-10 mL Minimum blood volumes in each bottle: Versa TREK: 1 - 5 ml BACTEC: 3 - 8 ml Container: blood culture bottles: For BACTEC system: one aerobic (Blue top) blood culture bottle and one anaerobic (orange top) blood culture bottle. For Versa TREK system: Adult and pediatric patients: one aerobic (purple top) blood culture bottle and one anaerobic (red top)blood culture bottle	Microbiology 24 hours	5-7 Days If Negative Preliminary Result, Gram Stain When Positive (Within 1 Hr. Of Detection)	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	- Send to Microbiology lab after collection immediately - Keep at room temperature,

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Blood Culture-Cvp- Red/Brown Lumen (Aerobic + Anaerobic)	-	Volume: Blood fill volumes in each bottle: Optimal: 8-10 mL Minimum blood volumes in each bottle: Versa TREK: 1 - 5 ml BACTEC: 3 - 8 ml Container: blood culture bottles: For BACTEC system: one aerobic (Blue top) blood culture bottle and one anaerobic (orange top) blood culture bottle. For Versa TREK system: Adult and pediatric patients: one aerobic (purple top) blood culture bottle and one anaerobic (red top)blood culture bottle.	Microbiology 24 hours	5-7 Days If Negative Preliminary Result, Gram Stain When Positive (Within 1 Hr. Of Detection)	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	- Send to Microbiology lab after collection immediately - Keep at room temperature,

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Blood Culture-Cvp-White Lumen (Aerobic + Anaerobic)	-	Volume: Blood fill volumes in each bottle: Optimal: 8-10 mL Minimum blood volumes in each bottle: Versa TREK: 1 - 5 ml BACTEC: 3 - 8 ml Container: blood culture bottles: For BACTEC system: one aerobic (Blue top) blood culture bottle and one anaerobic (orange top) blood culture bottle. For Versa TREK system: Adult and pediatric patients: one aerobic (purple top) blood culture bottle and one anaerobic (red top)blood culture bottle bottle	Microbiology 24 hours	5-7 Days If Negative Preliminary Result, Gram Stain When Positive (Within 1 Hr. Of Detection)	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	- Send to Microbiology lab after collection immediately - Keep at room temperature,

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Blood Culture-Cvp-Blue Lumen (Aerobic + Anaerobic)	-	Volume: Blood fill volumes in each bottle: Optimal: 8-10 mL Minimum blood volumes in each bottle: Versa TREK: 1 - 5 ml BACTEC: 3 - 8 ml Container: blood culture bottles: For BACTEC system: one aerobic (Blue top) blood culture bottle and one anaerobic (orange top) blood culture bottle. For Versa TREK system: Adult and pediatric patients: one aerobic (purple top) blood culture bottle and one anaerobic (red top)blood culture bottle.	Microbiology 24 hours	5-7 Days If Negative Preliminary Result, Gram Stain When Positive (Within 1 Hr. Of Detection)	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	- Send to Microbiology lab after collection immediately - Keep at room temperature,

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Blood Culture-Dialysis CATH -Blue Lumen (Aerobic + Anaerobic)	-	Volume: Blood fill volumes in each bottle: Optimal: 8-10 mL Minimum blood volumes in each bottle: Versa TREK: 1 - 5 ml BACTEC: 3 - 8 ml Container: blood culture bottles: For BACTEC system: one aerobic (Blue top) blood culture bottle and one anaerobic (orange top) blood culture bottle. For Versa TREK system: Adult and pediatric patients: one aerobic (purple top) blood culture bottle and one anaerobic (red top)blood culture bottle.	Microbiology 24 hours	5-7 Days If Negative Preliminary Result, Gram Stain When Positive (Within 1 Hr. Of Detection)	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	- Send to Microbiology lab after collection immediately - Keep at room temperature,

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Blood Culture-Port-A- CATH (Aerobic + Anaerobic)	-	Volume: Blood fill volumes in each bottle: Optimal: 8-10 mL Minimum blood volumes in each bottle: Versa TREK: 1 - 5 ml BACTEC: 3 - 8 ml Container: blood culture bottles: For BACTEC system: one aerobic (Blue top) blood culture bottle and one anaerobic (orange top) blood culture bottle. For Versa TREK system: Adult and pediatric patients: one aerobic (purple top) blood culture bottle and one anaerobic (red top)blood culture bottle bottle	Microbiology 24 hours	5-7 Days If Negative Preliminary Result, Gram Stain When Positive (Within 1 Hr. Of Detection)	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	- Send to Microbiology lab after collection immediately - Keep at room temperature,

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Blood Peripheral Culture - Right(Aerobic + Anaerobic)	-	Volume: Blood fill volumes in each bottle: Optimal: 8-10 mL Minimum blood volumes in each bottle: Versa TREK: 1 - 5 ml BACTEC: 3 - 8 ml Container: blood culture bottles: For BACTEC system: one aerobic (Blue top) blood culture bottle and one anaerobic (orange top) blood culture bottle. For Versa TREK system: Adult and pediatric patients: one aerobic (purple top) blood culture bottle and one anaerobic (red top)blood culture bottle	Microbiology 24 hours	5-7 Days If Negative.	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	- Send to Microbiology lab after collection immediately - Keep at room temperature,

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Blood Peripheral Culture - Left (Aerobic + Anaerobic)	-	Volume: Blood fill volumes in each bottle: Optimal: 8-10 mL Minimum blood volumes in each bottle: Versa TREK: 1 - 5 ml BACTEC: 3 - 8 ml Container: blood culture bottles: For BACTEC system: one aerobic (Blue top) blood culture bottle and one anaerobic (orange top) blood culture bottle. For Versa TREK system: Adult and pediatric patients: one aerobic (purple top) blood culture bottle and one anaerobic (red top)blood culture bottle bottle	Microbiology 24 hours/day	5-7 Days If Negative Preliminary Result, Gram Stain When Positive (Within 1 Hr. Of Detection)	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	- Send to Microbiology lab after collection immediately - Keep at room temperature,
Blood Film	-	EDTA blood tube "Lavender Top" fill to mark	Hematology Working days only	8-24 Hours	Not Applicable	Room temperature
Blood Film For Parasites	-	EDTA blood tube "Lavender Top" fill to mark	Hematology 8 am- 3 pm	8-24 Hours	Not Applicable	Room temperature
Blood Group & Rh Type	ABO + Rh	2 ml or 4.5 ml EDTA blood tube "Lavender Top" fill to mark	Blood Bank 24 hours/day	2 - 24 Hours	Not Applicable	Room temperature
BMT-Blood Group And Rh Type	BMT- ABO + Rh	EDTA blood tube "lavender top" >2 ml	Blood Bank 24 hours/day	2 - 24 Hours	Not Applicable	Room temperature
BMT/DONOR RECIPIENT ABO And CROSS MATCH	-	EDTA blood tube "lavender top" >2 ml	Blood Bank 24 hours/day	2 - 24 Hours	Not Applicable	Room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Body Fluid / WBC/ RBC/ Diff	-	3 ml fluid	Hematology 24 hours/day	8-24 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges.	Room temperature
Body Fluid/ Secretion, Routine Cytology	-	Sterile Container	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room temperature
Bone Biopsy	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-5 Days	Not Applicable	Room temperature
Bone Marrow Aspiration	-	Collect in EDTA tube "Lavender Top Tube"	Pathology 8 am-4 pm	1-3 Working Days	Not Applicable	Room temperature
Bone Marrow Aspirate And Biopsy	-	Biopsy: Buffered Formalin Aspiration: EDTA Tube Peripheral Blood Sample	Pathology Sunday- Thursday 8:00am – 4:00pm	2-5 Days	Not Applicable	Room temperature
Bone Marrow Biopsy	ВМ	Bone marrow biopsy (in buffer formalin)	Pathology 8 am-4 pm	2-3 Days	Not Applicable	Room temperature
Bone Marrow Culture And Gram Stain (Aerobic + Anaerobic+ Gram Stain)	-	Bone marrow aspirate collected in blood culture bottles. For BACTEC system: one aerobic (blue top) blood culture bottle and one anaerobic (orange top) blood culture bottle. For Versa TREK system: Adult and pediatric patients: one aerobic (purple top) blood culture bottle and one anaerobic (red top) blood culture bottle. Send part of specimen in a sterile container for gram stain	Microbiology 24 hours	Preliminary Gram stain: 2-4 Hours Culture: 1-3 Weeks If Negative	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	Room temperature
Bone Marrow Needle Core Biopsy, Including Reticulin Stain	-	Biopsy: Buffered Formalin Peripheral Blood Sample	Pathology Sunday- Thursday 8:00am – 4:00pm	2-5 Days	Not Applicable	Room Temperature
BRAF (Immunohistochemistry)	-	Paraffin Block	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Brain Tumor	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-5 Days	Not Applicable	Room Temperature
Breast Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Breast With Axillary Clearance (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Breast, Reductive (Medium)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Breast, Simple Mastectomy (Medium)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Breast Mass With Axillary Tail	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Bronchial Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Broncho Alveolar Lavage Culture + Gram Stain	-	- Volume: > 2 mL in sterile container	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	Preliminary Gram stain: 2-4 Hours Culture: 2-3 Days If No Pathogens	No Growth Normal Flora	Room temperature
Brucella Antibodies	-	Minimum 2-3 ml Blood Plain " Red Top Tube"	Immunology 8 am- 3 pm	1-3 Working Days	Negative	Room temperature
Brucella Antibodies	2ME	Minimum 2-3 ml Blood Plain " Red Top Tube"	Immunolog y Send out test /contact the laboratory	1-3 Working Days	Negative	Room temperature
BRUCELLA Igg	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Days	Negative	Room temperature Draw sample during the first week of illness and then 3-4 weeks later.

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
BRUCELLA Igm	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Days	Negative	Room temperature Draw sample during the first week of illness and then 3-4 weeks later.
Buccal/Mouth Biopsy/Palate (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room temperature
Busulfan (BSF)	BSF	Minimum 1 ml Blood Lithium Heparin (LightGreen) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	600-1025 ng/ml. Critical High:1025 ng/ml Critical Low:600 ng/ml	Room Temperature
		C				
Calcium Adjusted Panel (Calcium, Albumin And Adjusted Calcium)	AdjCa	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	Not Applicable	Room Temperature
C-1 Esterase Inhibitor	C1-INH	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	1 week	19.5-34.5 mg/dl	Freeze immediately. Cyclosporin-A treatment may inhibit the enzyme.
Calcitonin Serum Level	Ctn	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Days	Male: less than 18.2 , Female: less than 11.5 pg/ml	Fasting sample. Draw into ice-cooled plain tube. Avoid grossly haemolysed or grossly lipemic samples. Sample must be obtained at 8 am, it must be delivered to the immunology Laboratory before 10 am.
Calcium, Level	CA	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	9 - 10.5 mg/dl (0 - 18) years 8.8 - 10.2 mg/dl (18 -99) Year	Not orderable as a standalone test. It is listed in calcium panel, chem-14 & Chem-20 profiles.
Calcium Spot Urine	-	5-10 ml Midstream Random urine	Immunochemistry 24 hours/day	2-8 Hours	Random Calcium/Creatinine Ratio: <0.20 mg/mg	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Calcium,24hr Urine	-	24 hours Urine collection container kept cool	Immunochemistry 24 hours/day	2-8 Hours	100-300 mg/24hr	Keep the container in a cool place (Refrigerator)
Cancer Antigen 15- 3,Serum Level	CA 15-3	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	≤34.5 U/mL	Room Temperature
Cancer Antigen 125	CA 125	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	≤ 35 U/mL	Room Temperature
Cancer Antigen 19-9 Serum Level	CA19-9	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	0-27.0 U/ml	Room Temperature
C- Anti Neotrophelic Cytoplasmic Ab	c-ANCA	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8 AM- 3 PM	3-5 Days	Ref. Range : Titer: less than 1:20	Room temperature
C-MYC (Immunohistochemistry)	С-МҮС	Paraffin Block	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room Temperature
Carbamazepine (Tegretol)	CBZ	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	Therapeutic: 4.0- 12.0 mcg/mL Toxic level: > 12.0 mcg/mL	Room Temperature
Carcinoembryonic Antigen	CEA	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	$\begin{array}{c} Smoker: \leq 5.5 \\ ng/mL \\ Non-Smoker: \leq 3.8 \\ ng/mL \end{array}$	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Catecholamine, Total, 24hr	-	24hr urine collection	Immunolog y Send out test /contact the laboratory	One week	10 – 270 μg/24hr collection	On day 1, urinate into the toilet when you wake up in the morning. Collect all of your urine in a special container for the next 24 hours. On day 2, urinate into the container in the morning when you wake up Cap the container. Keep it in the refrigerator or a cool place during the collection period Label the container with your name, the date, and the time you complete the sample, and return it as instructed. Deliver the urine sample to the laboratory before 10am.
Cbase(Ecf)/SBE	SBE	Measured test listed in Both Arterial & Venous Blood Gas + Extended Critical Care Profiles	Immunochemistry 24 hours/day	One Hours	-2 to +2 mmol/L	Not orderable test listed in Arterial blood gas plus extended critical care profile.
Chemistry Profile-14	Chem-14	Minimum 3 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	See each test individually	Room Temperature
Chemistry Profile-20	Chem-20	Minimum 3 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	See each test individually	Room Temperature
Catheter Tip Culture	-	Catheter tip, collect in sterile container	Microbiology 8 am- 5 pm	2-3 Days If Negative	Not Applicable	Room temperature
Ceruloplasmin Serum Level	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8 am- 3 pm	3-5 Working Days	Male: 15-30 Female: 16-45	Room temperature
Cervix, Cone (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Cervix, Punch, Polyp (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room temperature
Cervical Swab Culture+ Gram Stain	-	Cervical swab in transport media	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	2-3 Days If Negative	No Growth No Neisseria gonorrhea isolated	Room temperature - Two swabs should be sent to have sufficient specimen to perform both gram stain & culture
Ch50 (Complement Hemolytic Activity-50)	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8:00 AM- 3:00PM	1-2 Weeks	Titer: 1:40 -1:80	Under ice
CHLAMYDIA ANTIBODY IgG	CT- IgG	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8:00 AM- 3:00PM	3-5 Working Days	Negative	Room temperature
CHLAMYDIA ANTIBODY IgM	CT- IgM	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8:00 AM- 3:00PM	3-5 Working Days	Negative	Room temperature
Complement-3	C3	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunolog y Send out test /contact the laboratory	3-5 Working Days	Adult: 90- 180 Child: 90- 180 Less than 3 months: 60- 150 4-6 months: 70-180 mg/dl	Room temperature
Complement-4	C4	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunolog y Send out test /contact the laboratory	3-5 Working Days	Adult: 10- 40 mg/dl Child: 10- 40 Less than 3 months: 7 - 30 4-6 months: 8- 30 mg/dl	Room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Cortisol Free 24hr Urine Collection	CORT	24hr urine collection	Immunolog y Send out test /contact the laboratory	3-5 Working Days	7-10 a.m: 6.2-19.4 4-8 p.m: 2.3-12.3 µg/24hrs	Store in refrigerator .On day 1, urinate into the toilet when you get up in the morning. Afterwards, collect all urine in a special container for the next 24 hours. On day 2, urinate into the container when you get up in the morning. Cap the container. Keep it in the refrigerator or a cool place during the collection period. Label the container with your name, the date, the time of completion, and return it as instructed. Collection of the first morning urine, which is the most concentrated, may be advised. The health care provider may advise you to stop taking certain medicines that could interfere with the test. Sample must be delivered to the Immunology Laboratory before 10 am
Chloride Level	CL	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	98.6 - 111 mmol/L(0 - 18) years 97 - 110 mmol/L (18 -99) Year	Room Temperature
Chloride Spot Urine	-	5-10 ml Midstream Random urine	Immunochemistry 24 hours/day	2-8 Hours	32 – 290 mmol/L	Room Temperature
Chloride,24hr Urine	-	24 hours Urine collection container kept cool	Immunochemistry 24 hours/day	2-8 Hours	40-224 mmol/24 hours	Keep the container in a cool place (Refrigerator)

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Chloride, Body Fluid	-	1-3 ml Body Fluid in clean Falcone tube/ Urine cup	Immunochemistry 24 hours/day	2-8 Hours	Not Established Refer to: Immunochemistry Reference Range Interpretation	Room Temperature
Cholesterol ,Body Fluid	-	1-3 ml Body Fluid in clean Falcone tube/ Urine cup	Immunochemistry 24 hours/day	2-8 Hours	Not Established Refer to: Immunochemistry Reference Range Interpretation	Room Temperature
Cholesterol Level	-	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Children: Refer to: Immunochemistry Reference Range Interpretation Adult: Desirable: <200 mg/dL Borderline high: 200-239 mg/dL High: > or =240 mg/dL	Patient should be fasting for 12 hrs. at least. Room temperature.
C-Kit (Cd117)	CD117	Block or 10% neutral buffered formalin	Pathology 8 am-4 pm	1-2 Days	Not Applicable	Room temperature
CLOSTRIDIUM DIFFICILE TOXIN A/B	CDT	Fresh stool specimen in a clean container. Follow up on a previously positive antigen detection tests should be done not less than every 48 hours.	Microbiology 24 hours	2-4 Hours	Negative	Room temperature
Colon + Lymph Node Dissection (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Colon, Mucosal Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Colon, Right Hemicoloctomy (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Colon, Segment (Medium)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Cold Agglutinins Titer	-	3-5 ml Blood Plain " Red Top Tube"	Blood Bank 8 am- 5 pm	24 Hours	Not Applicable	Room temperature
Complete Blood Count With Differential	-	EDTA blood tube "Lavender Top" fill to mark	Hematology 24 hours/day	2 – 4 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room temperature
Concentration Prorocedur-Stool Analysi	-	Stool sample in a clean container	Microbiology 24 hours	12-24 Hours	No ova or parasite seen	Room temperature
Conjunctival Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Consultation Bone Marrow Aspiration	-	Aspiration Slides, Peripheral Blood Sample & Report	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Consultation Bone Marrow Aspiration & Biopsy	-	Aspiration Slides , Peripheral Blood Sample Paraffin Block & Report	Pathology Sunday- Thursday 8:00am – 4:00pm	2-5 Days	Not Applicable	Room Temperature
Consultation Bone Marrow Biopsy	-	PARAFFIN BLOCK, SLIDES &REPORT	Pathology Sunday- Thursday 8:00am – 4:00pm	2-5 Days	Not Applicable	Room Temperature
Consultation Fine Needle Aspiration, Deep Mass, Routine	-	1-Slides 2-Blocks 3-Report	Pathology Sunday- Thursday 8:00am – 4:00pm	2-5 Days	Not Applicable	Room Temperature
Consultation Fine Needle Aspiration, Superficial Mass, Routine	-	1-Slides 2-Blocks 3-Report	Pathology Sunday- Thursday 8:00am – 4:00pm	2-5 Days	Not Applicable	Room Temperature
Consultation Pathology Consultation, Second Opinion (Without Markers)	-	Buffered formalin or blocks + slides+ report	Pathology 8 am-4 pm	2-5 Days	Not Applicable	Send physician order

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Consultation(Pathology Review)	-	1-Slides 2-Blocks 3-Report	Pathology Sunday- Thursday 8:00am – 4:00pm	2-5 Days	Not Applicable	Room Temperature
Copper Level	CU	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Week	27-170 ug/dl	Room Temperature
Copper Test 24hr Ur	-	24 hours Urine collection container kept cool	Immunochemistry 24 hours/day	One Week	0 – 60 mcg/24hr	Keep the container in a cool place (Refrigerator). It must be delivered to the section before 10 am
Coproporphyrin,24hr	-	24 hours Urine collection container kept cool	Immunochemistry 24 hours/day	One Week	Not Established •	Keep the container in a cool place (Refrigerator). • It must be delivered to the section before 10 am
Cortisol Total Study-T- 120	CORT	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 8 am-11 am	2-8 Hours	Study test - Not Established mcg/dL	Room Temperature
Cortisol Total Study-T-30	-	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 8 am-11 am	2-8 Hours	Study test - Not Established mcg/dL	Room Temperature
Cortisol Total Study-T-90	-	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 8 am-11 am	2-8 Hours	Study test - Not Established mcg/dL	Room Temperature
Cortisol Total Study-T- Zero	-	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 8 am-11 am	2-8 Hours	Study test - Not Established mcg/dL	Room Temperature
Cortisol(AM)	CORT AM	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 8 am-11 am	2-8 Hours	Morning hours 6-10 a.m.: 6.02-18.4 mcg/dL	Room Temperature
Cortisol(PM)	CORT PM	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 8 am-11 am	2-8 Hours	Afternoon hours 4-8 p.m.: 2.68-10.5 mcg/dL	Room Temperature
Cortisol total Study-T-60	-	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 8 am-11 am	2-8 Hours	Study test - Not Established mcg/dL	Room Temperature
C-Reactive Protein	CRP	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	< or =8.0 mg/L	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Creatine Kinase Total	CK	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	Males :39-308 U/L Females: 26-192 U/L	Keep the container in a cool place (Refrigerator)
Cortisol Tot Insulin Ind Hypogly Study ,T 90	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunochemistry 8 am- 3 pm	1-3 Working Days	Not Applicable	Immediate delivery
Cortisol Tot Insulin Ind Hypogly Study ,T 120	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunochemistry 8 am- 3 pm	1-3 Working Days	Not Applicable	Immediate delivery
Coxsackie A Igg Serum Level	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Days	Negative	Room temperature Serum should be collected at onset of disease and then 2-4 wks later to determine acute and convalescent titres.
C-Peptide , Serum Level	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	1.1-4.40	Under ice Patient should be fasting. Sample must be obtained at 8 am, it must be delivered to the Immunology Laboratory before 10 am
Creatinine 24hr Ur	Cr	24 hours Urine collection container kept cool	Immunochemistry 24 hours/day	2-8 Hours	Males: 955-2936 mg/24 hours Females: 601-1689 mg/24 hours	Room Temperature
Creatinine Body Fluid	-	1-3 ml Body Fluid in clean Falcone tube/ Urine cup	Immunochemistry 24 hours/day	2-8 Hours	80 - 150 mg/dl Refer to: Immunochemistry Reference Range Interpretation	Room Temperature
Creatinine Clearance Urine	-	24 hours Urine collection container kept cool	Immunochemistry 24 hours/day	2-8 Hours	77-160 mL/min	Keep the container in a cool place (Refrigerator)
Creatinine Level	-	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	0.22 - 0.9 mg/dL (0 - 18) years 0.5 - 1.12 mg/dL (18 -99) Year	Room Temperature
Creatinine Spot Urine	-	5-10 ml Midstream Random urine	Immunochemistry 24 hours/day	2-8 Hours	Male: 20-320 mg/dL Female: 20-275 mg/dL	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Cross Match Blood	-	Two blood group EDTA tubes if no blood group result on LIS EDTA blood tube "lavender top" >2 ml	Blood Bank 24 hours/day	2 Hour	Not Applicable	Room temperature
Cryptococcus Antigen , CSF/Serum	CRAG	1ml CSF or 5 ml whole blood "plain tube" without gel.	Microbiology 24 hours/day	4-8 Hours	Negative	- Keep CSF specimen at Room temperature - Request Fungal culture - CSF if Cryptococcus Antigen test is positive
Cryptosporidium Parvum, Stool	C. parvum	Fresh stool specimen in a clean container. Follow up on a previously positive antigen detection tests should be done not less than every 48 hours.	Microbiology 24 hours/day	2-4 Hours	Negative	Room temperature
CSF Analysis, Chemistry	-	Minimum 0.5 ml CSF in Falcon tube	Immunochemistry 24 hours/day	One Hours	See each test individually	Room Temperature
CSF Analysis, Hematology	-	1-2 ml CSF in Falcon tube	Hematology 24hr/7 Days	Up To 2hrs	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room temperature
Cto2	-	Measured test listed in Arterial Blood Gas + Extended Critical Care Profile	Immunochemistry 24 hours/day	One Hours	NA	Not orderable test listed in Arterial blood gas plus extended critical care profile.
CSF Culture + Gram Stain	-	CSF collected in a sterile container If only one tube of fluid is available, it should be given to the microbiology laboratory. If more than one tube (1-ml each) is available, the second or third tube should go to the microbiology laboratory. Or use blood culture bottles (BACTEC or Versa TREK), send part of specimen in a sterile container for gram stain.	Microbiology 24 hours/day	Preliminary Gram stain: 1-2 Hours Culture: 3-5 Days If Negative	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	Room temperature. Transport immediately - Tube# 2 for Microbiology

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
CSF Latex Agglutination	-	1 ml CSF in a sterile container	Microbiology 24 hours/day	2-4 Hours	- H. influenzae: Negative - STRP. B: Negative - S. pneumonia: Negative - N. meningitidis: Negative - E.coli: Negative	Room temperature - CSF culture must be requested with this test, because our Policy state that CSF culture performed in conjunction with bacterial antigen tests.
Culture For Brucella	-	Blood / Bone Marrow. For BACTEC system: one aerobic (Blue top) blood culture bottle and one anaerobic (orange top) blood culture bottle. For Versa TREK system: Adult and pediatric patients: one aerobic (purple top) blood culture bottle and one anaerobic (red top) blood culture bottle.	Microbiology 24 hours	21 Days If Negative Preliminary Result, Gram Stain When Positive (Within 1 Hr. Of Detection)	- Negative culture for Brucella, or - No growth after 21 days incubation	Use blood culture bottles. Room temperature
Cyclosporine Level	-	Whole Blood EDTA tube "Lavender Top" fill to mark	Immunochemistry 24 hours/day	1-3 Hours	Therapeutic range 12hrs after dose: 100.0 - 400.0 ng/mL , Toxic value: > 400.0 ng/mL, Critical value: less than 85.0 ng/mL , High: ≥375.0 ng/mL	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Cyclosporine Peak Level	-	Whole Blood EDTA tube "Lavender Top" fill to mark	Immunochemistry 24 hours/day	1-3 Hours	2-hour post dose cyclosporine ranges are only suggested guidelines: Renal transplant: 800-1700 ng/mL Liver transplant: 600-1000 ng/mL	Room Temperature
Cyfra 21-1 (Cytokeratin 19 Fragment)	-	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Less than 2.37 ng/mL	Room Temperature
Cystine Qualitative Urine	-	5-10 ml Midstream Random urine	Immunochemistry 8 am-10 am	One Week	Not Established	Keep the container in a cool place (Refrigerator). It must be delivered to the section before 10 am
Cytomegalovirus Ab IgG	CMV, IgG	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	<0.50 U/mL Negative for CMV IgG-specific antibodies ≥ 0.5 to < 1.0 U/mL Gray zone ≥ 1.0 U/mL Positive for CMV IgG- specific antibodies	Room Temperature
Cytomegalovirus Ab IgM	CMV, IgM	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	<0.7 COI Negative for CMV IgM ≥ 0.7 to < 1.0 Gray zone ≥ 1.0 COI Positive for CMV IgM	Room Temperature
Cytology - PAP Smear	PAP	Cervical / Vaginal	Pathology 8 am-4 pm	1-3 Working Days	Not Applicable	Room temperature. Circular scrap of cervical or is placed on a glass slide & immediately fixed in 96% Ethanol. Smear should be collected near the middle of the menstrual cycle
Cyst Aspirate, Routine	-	Sterile Container	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Cytology Specimen	-	Sterile Container	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Cytology-PAP Smear	PAP	1-Slide 2-Surpath Container	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
		D				
D-Dimer Level ,Plasma	D-DIM	2.7 ml citrate blood "Blue Top" fill to mark	Hematology 24 hours/day	2-4 Hours	-Less than 0.5 ug/ml-FEU -Cutoff 0.5 <0.50	Room temperature
Dehydroepiandrosterone Sulphate Serum (DHEA- S)	DHEA-S	Minimum 2 ml Any sample type	Immunology Send out test /contact the laboratory	3-5 Working Days	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Under ice Sample must be obtained at 8 am, it must be delivered to the Immunology Laboratory before 10 am
Digoxin	DGX	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	Therapeutic range: 0.6 – 1.2 ng/mL Toxic Level: >2.0 ng/mL	Room Temperature
Disc Material,Intervetebral (Small)	-	Buffered Formalin B	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Duodenal Biopsy Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Drug Screening in Urine	-	Spot Urine	Immunolog y Send out test /contact the laboratory	3-5 Working Days	Negative	Room temperature



Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Ear Swab/Discharge Culture	-	Sterile tube with screw-cap; Or Swab with transport media x2 (one for Culture the other for Gram stain) Ear Swab specimen in a transport media for diagnosis of otitis external or tympanocentesis fluid (middle ear fluid) specimen for the diagnosis of otitis media	Microbiology 24 hours	Swab: 2-3 Days If Negative Discharge: 5 days	- No growth - Skin Normal Flora	Room temperature
Ear/ Aural Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Echinococcus Antibodies	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Negative	Room temperature
E.Coli 0157:H7, Stool Culture	E.COLI	Fresh stool sample, collect in sterile container	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	3-5 Days If No Pathogens	Negative Culture for E.COLI 0157	Room temperature
Estimating Glomerular Filtration Rate	eGFR	Calculated Test combined with Creatinine test	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Range	Not Orderable, listed in Chem-14 and chem-20. Valid for >18 years old.
Electrolytes Serum Level	-	3-5 ml Blood plain / Tube Red Top	Immunochemistry 24 hours/day	2-8 Hours	Not Applicable	Room temperature
Endo Predict	-	Paraffin Block	Pathology Sunday- Thursday 8:00am – 4:00pm	14 Days	Not Applicable	Room Temperature
Endometrial Ablation (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Endometrial Biopsy/Polyp (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Endotrachealtube (ETT) Culture	-	Endotracheal tube, collect in sterile container	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	2-3 Days If Negative	No growth	Room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Eosinophil Count, Sputum	-	sputum	Hematology 8 am- 3 pm	24hr/7day	Not Applicable	Room temperature
Epididymal Cyst/<5cm Mass (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Epiglottis Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Epstein-Barr Virus Igg	EBV IgG	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Only Tuesdays	One Week	Immune: Positive	Room temperature
EBER Probe (Epstein- Barr Virus Early RNA) , By In Situ Hybridization (ISH)	ISH	Paraffin Block	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Epstein-Barr Virus IgM	EBV IgM	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Only Tuesdays	One Week	Negative	Room temperature
Erythrocyte Sedimentation Rate	ESR	EDTA blood tube "Lavender Top" fill to mark	Hematology 24 hours/day	2 – 4 Hours	Male: 0-15 mm/1hr Female :0-20 mm/1hr	Room temperature
Erythropoietin	EPO	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Days	2.59-18.50 MIU/ml	Room temperature
Esophageal Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Estrogen Receptor	E	Block or in 10% neutral buffered formalin	Pathology 8 am-4 pm	2-3 Days	Not Applicable	Room temperature
Extractable Nuclear Antigen	ENA	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8:00 AM- 3:00PM	3-5 Working Days	Negative	Room temperature
Extremity, Amputation (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Eye Swab/Discharge Culture + Gram Stain	-	Sterile tube with screw-cap; Or Swab with transport media x2 (one for Culture the other for Gram stain) Conjunctival scraping / corneal scraping, Conjunctival Swab, eye swab in transport medina. small ocular tissue placed in sterile container with sterile saline	Microbiology Swabs :2-3 Days If Negative	Swabs :2-3 Days If Negative10 Days For Scrapping	No growth	Room temperature - Two swabs should be sent to have sufficient Specimen to perform both gram stain & culture.
Eyeball Enucleation (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Eyelid Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
		F	1			
Factor II Assay	F-II	Citrated blood "Blue Top"" fill to mark	Hematology Send out test 8 am- 3 pm	7 Days	70-120%	Call laboratory Extension 1743 before blood withdrawal. Patients with indwelling lines, proper flushing of the line must be done before specimen collection.
Factor IX Assay	F- IX	Citrated blood "Blue Top"" fill to mark	Hematology Send out test 8 am- 3 pm	7 Days	60-50%	Call laboratory Extension 1743 before blood withdrawal. Patients with indwelling lines, proper flushing of the line must be done before specimen collection

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Factor V Assay	F- V	Citrated blood "Blue Top"" fill to mark	Hematology Send out test 8 am- 3 pm	7 Days	70-120%	Call laboratory Extension 1743 before blood withdrawal. Patients with indwelling lines, proper flushing of the line must be done before specimen collection
Factor VIII Assay	F-VIII	Citrated blood "Blue Top"" fill to mark	Hematology Send out test 8 am- 3 pm	7 Days	60-150%	Call laboratory Extension 1743 before blood withdrawal. Patients with indwelling lines, proper flushing of the line must be done before specimen collection
Fallopian Tube, Contraceptive (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Fallopian Tube, Ectopic (Medium)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Ferric Chloride ,Urine	FeCl3	5-10 ml Midstream Random urine	Immunochemistry 24 hours/day	One Hours	Not Established	Room Temperature
Ferritin Level	FER	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature
Fecal Calprotectin (FCAL)	FCAL	Fresh stool sample in a clean container	Immunochemistry 24 hours/day	2-8 Hours	Normal : < 80 μg/g Gray-zone follow- up within 4-6 weeks: 80-160 μg/g Elevated: > 160 μg/g	Room Temperature
Fecal Immunochemical Test	FIT	Fresh stool sample in a clean container	Immunochemistry 24 hours/day	2-8 Hours	<100 ng/mL	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Fibrinogen, Plasma Level	Fgn	Citrated blood "Blue Top"" fill to mark	Hematology 24 hours/day	4-8 Hours	187 – 394 mg /dl	Room temperature. Patients with indwelling lines, proper flushing of the line must be done before specimen collection"
Flc Kappa	FLC (κ)	Minimum 1 ml Blood Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	2.37-20.73 mg/L	Not orderable test listed in FREE LIGHT CHAIN KAPPA, LAMBDA & RATIO.
Flc Lambda	FLC \lambda	Minimum 1 ml Blood Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	4.23-27.69 mg/L	Not orderable test listed in FREE LIGHT CHAIN KAPPA, LAMBDA & RATIO.

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
FLOW CYTOMETRY/MARKER -HEMEPATH (Leukemia/Lymphoma /MRD Immunophenotyping)	-	The specimens in flow include the below: • Peripheral blood (PB): EDTA, lithium heparin, and acid citrate dextrose (ACD). • Bone marrow (BM): EDTA, lithium heparin, and acid citrate dextrose (ACD). • Body fluids (pleural fluid, ascitic fluid, pericardial fluid vitreous fluid and cerebrospinal fluid): Fluids shall be collected as per standard medical practice. For CSF, special precautions should be taken, it should be processed within an hour or two. If delay in the processing is anticipated, CSF should be collected in RPMI media with bovine serum (contact lab). • Fine needle aspirates (FNA) from lymph nodes (LN) and other lesions: Transported in RPMI media to the laboratory (contact lab for the RPMI media). • Fresh tissue samples: Transported in RPMI media or sterile saline-soaked gauze at removal, and kept moist throughout transport to the laboratory (contact lab for the RPMI media).	Hematopathology– Flow cytometry Sunday to Thursday: 8:00 am-4:00 pm Otherwise: Contact the Lab.	2 working days Note: New leukemia cases are reported verbally within 2-4 hours.	Not applicable – Hematopathologists interpret the results based on the case and sample type.	-Fresh blood and bone marrow up to 48 hrs. at room temperature. -Collect tissue / FNA in RPMI media and send immediately
Fibroid <5cm (Medium)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Fibroid >10cm (Medium)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Fibroid 5-10 Cm (Medium)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Fistula Swab Culture	-	Fistula swab in transport media	Microbiology 8 am- 5 pm	2-3 Days If Negative	Not Applicable	Room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Folate Level	FolA	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	3.89-26.8 ng/ml	Room Temperature
Follicle Stimulating Hormone	FSH	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	State day of menstrual cycle. Steroid therapy may influence result.
Food Allergy Screen	sIgE	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Negative	Room temperature
Foundation One	-	Paraffin Block	Pathology Sunday- Thursday 8:00am – 4:00pm	14 Days	Not Applicable	Room Temperature
Fraction Of Fetal Hemoglobin	HbF	Minimum 0.5 ml HEPARINIZED SYRINGE	Immunochemistry 24 hours/day	2-8 Hours	Adult:Less Than 1.0%	Room Temperature
Free Light Chain Kappa, Lambda & Ratio	-	Minimum 1 ml Blood Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	See each test individually	Room Temperature
Free Prostatic Specific Antigen	PSA	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Free PSA: 0.008 – 0.72 ng/mL; Free/Total Ratio: > 0.18 ng/mL	Room Temperature
Free T3, Level	Т3	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	2.0-4.4 pg/mL	Room Temperature
Free T4 , Level	T4	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	0.93-1.7 ng/dL	Room Temperature
Free Testosterone , Serum Level	FRTST	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Male:15.0-50.0 pg/ml Female :<9 pg/ml	Room temperature
Froom Temperature Cytology	-	1-Sterile Container 2-SLIDE 3-SURPATH CONTAINER	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Froom Temperature, Deep Mass, Routine	-	1-Sterile Container 2-SLIDE 3-SURPATH CONTAINER	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Frozen Section - Additional Blocks (Test 316)	-	Fresh Sample	Pathology Sunday- Thursday 8:00am – 4:00pm	20-30 Minutes	Not Applicable	Room Temperature
Frozen Section For First Block (Test 315)	-	Fresh Sample	Pathology Sunday- Thursday 8:00am – 4:00pm	20-30 Minutes	Not Applicable	Room Temperature
Froom Temperature ,Superficial Mass, Routine	-	1-Sterile Container 2-SLIDE 3-SURPATH CONTAINER	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Full RBCs Phenotype	-	EDTA blood tube "lavender top" >2 ml	Blood Bank 8 am – 5 pm	24 – 72 Hours	Not Applicable	Room temperature
Fungal Culture+KOH	-	Tissue, biopsy, skin, Tissue should be submitted in 2 to 3 mL sterile saline Hair: 10-12 hair at attached bases without normal saline. Skin scraping: very little amount in the bottom of the sterile cup without saline.	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	Preliminary KOH: 2-4 Hours Culture: 3-5 Weeks If Negative	 KOH: No Fungal element Seen Fungal Culture: Negative Culture For Fungus. Or No growth after four weeks of incubation 	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Fungal Culture+KOH	-	Blood Volume: 5-10 ml each Container: Blood culture bottles: For BACTEC system: one aerobic (Blue top) blood culture bottle and one anaerobic (orange top) blood culture bottle. For Versa TREK system: Adult and pediatric patients: one aerobic (purple top) blood culture bottle and one anaerobic (red top)blood culture bottle	Microbiology 24 hours, Recommended time; 8:00AM – 4:00 PM	Preliminary KOH: 2-4 Hours Fungal Culture- Blood: 14 day in BCS, If Negative	- KOH: No Fungal element Seen - Fungal Culture- Blood: Negative Culture For Fungus. Or No growth after 14 days of incubation	Room Temperature
Fungal Culture+KOH	-	Sterile Body fluids except CSF: 5-10 mL as much fluid as possible CSF: > 2 mL in sterile screw cap container	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	Preliminary KOH: 2-4 Hours Culture: 3-5 Weeks If Negative	 KOH: No Fungal element Seen Fungal Culture: Negative Culture For Fungus. Or No growth after four weeks of incubation 	Room Temperature
Fungal Culture+KOH	-	Bone marrow: 5- 10 mL sterile screw cap container or in Blood culture bottles BACTEC system Or 5 Heparin tubes (green tip)	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	Preliminary KOH: 2-4 Hours Culture: 3-5 Weeks I Negative	- KOH: No Fungal element Seen - Fungal Culture: Negative Culture For Fungus. Or No growth after four weeks of incubation	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Fungal Culture+KOH	-	Lower respiratory tract (TRAP/Sputum/BAL): ≥ 3 mL 5-10 mL is recommended	Microbiology 8 am- 5 pm	Preliminary KOH: 2-4 Hours Culture: 3-5 Weeks If Negative	 KOH: No Fungal element Seen Fungal Culture: Negative Culture For Fungus. Or No growth after four weeks of incubation 	Room Temperature
Fungal Culture+KOH	-	Urine: 5-10 mL in sterile container ≥ 15 ml is recommended	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	Preliminary KOH: 2-4 Hours Culture: 3-5 Weeks If Negative	 KOH: No Fungal element Seen Fungal Culture: Negative Culture For Fungus. Or No growth after four weeks of incubation 	Room Temperature
Fungal Isolates For ID And Sensitivity	-	Isolated organism on culture media- sealed and BIOHAZARD labeled	Microbiology 8 am- 4 pm	4-6 Weeks: Filaments Fungi Isolates 5-7 Days Yeasts Isolates	No growth after four weeks of incubation	Room Temperature
Fungal Smear By KOH	-	(Refer to Fungal culture)	Microbiology 8 am- 5 pm	2-4 Hours	Not Applicable	Room temperature
		G				
Galactomannan	GM	 Minimum 2-3 ml Blood " Plain Red Top Tube" Minimum 3 ml BAL 	Immunology Monday	1 week	Negative	Freeze immediately upon arrival

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Gall Bladder (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room Temperature
Gamma-Glutamyl Transferase (GGT)	GGT	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature
Gastrectomy, Partial (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Gastrectomy, Total (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Gastric Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room Temperature
Gastrin Serum Level	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Days	13-115 pg/ml	Under ice Patient should be fasting 12hrs. Sample must be obtained at 8 am, it must be delivered to the Immunology Laboratory before 10 am
Genital Swab Culture	-	Genital swab in transport media	Microbiology 8 am- 5 pm	3 Days If No Pathogens	Not Applicable	Room temperature
Gentamicin Concentration Random	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 24 hours/day	1-2 Days	N/A	Room temperature
Gentamicin Concentration, Peak	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 24 hours/day	1-2 Days	Toxic level more than 12.0 mcg/ml Therapeutic range:3.0-12.0 mcg/ml	Room temperature
Gentamicin Concentration, Trough	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 24 hours/day	1-2 Days	Toxic Level: UP To 2 mcg/ml Therapeutic range: less than 2 mcg/ml	Room temperature
Glucose CSF	Glu- CSF	Measured test listed in CSF ANALYSIS, CHEMISTRY panel	Immunochemistry 24 hours/day	One Hours	Children: 60 - 80 mg/ dL Adults: 40 - 70 mg/ dL	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Glucose In Urine	U-Glu	5-10 ml Midstream Random urine	Immunochemistry 24 hours/day	2-8 Hours	<15.0 mg/ dL	Room Temperature
Glucose ,Body Fluids	Glu – BF	1-3 ml Body Fluid in clean Falcone tube/ Urine cup	Immunochemistry 24 hours/day	2-8 Hours	Refer to: Immunochemistry Reference Range Interpretation	Room Temperature
Glucose	Glu	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Fasting: <110, Random: > or =1 year: 70-140 mg/dL, Diabetic: > 200 critical value: low <40 high >400	Room Temperature
Glucose Tolerance Test 2 HR	GTT	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Impaired > or =200 mg/ dL critical value: low <40 high >400	Room Temperature
Glucose Tolerance Test Fasting	GTT	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Normal: Less than 110 mg/dL Impaired: > or =126 mg/dL after an 8-hour fast critical value: low <40 high >400	Room Temperature
Glucose-6-Phosphate Dehydrogenase	G6PD	Whole Blood EDTA blood tube "Lavender Top" fill to mark	Immunochemistry 24 hours/day	2-8 Hours	7.9 – 16.3 U/gm.Hb	Room Temperature
Glycohemoglobin (Hba1c)	НВА1С	2 ml or 4.5 ml EDTA blood tube "Lavender top" fill to mark	Hematology Working days only	8-24 Hours	Normal patient: (< 5.7 %) Pre-diabetic:5.7- 6.4)% Diabetic patient: (> 6.5%)	Room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
		H				
Haptoglobulin	Нр	Minimum 1 ml Blood Lithium Heparin (LightGreen) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	30.0-200.0 mg/dL	Room Temperature
Hb-Electrophoresis	-	1 ml Blood EDTA (purple tube)	Hematology 24 hours/day	7 Working Days	Not Applicable	Room temperature
HDL Cholesterol	HDL	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Children: Refer to: Immunochemistry Reference Range Interpretation Males: > or =40 mg/dL Females: > or =50 mg/dL	Not orderable test listed in Lipid profile should be fasting 12 hrs.at least.
Helicobacter Pylori Antibody IgA	H.pylori Ab- IgA	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8:00 AM- 3:00PM	3-5 Working Days	Negative	Room temperature
Helicobacter Pylori Antibody IgG	H.pylori Ab- IgG	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8:00 AM- 3:00PM	3-5 Working Days	Negative	Room temperature
Heparin anti-Xa	UFH Anti-Xa	Citrated blood "Blue Top"" fill to mark	Hematology 24 hours/days	4-8 Hour	UFH therapeutic range: 0.30-0.70 IU/mL	Room temperature. Patients with indwelling lines, proper flushing of the line must be done before specimen collection

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Hepatitis-A Virus Antibody, IgM	HAV	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	<0.80 COI Negative for HAV IgM specific antibodies ≥ 0.8 to < 1.2 COI Gray zone ≥ 1.20 COI Positive for HAV IgM specific antibodies	Room Temperature
Hepatitis-B Core Ab IgM	HbcAb	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	<0.80 COI Negative for anti-HBc IgM ≥ 0.8 to < 1.2 COI Gray zone ≥ 1.20 COI Positive for anti-HBc IgM	Room Temperature
Hepatitis-B Core Ab Total	HbcAb	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	≥1.20 COI Negative for anti-HBc ≥ 0.8 to < 1.2 COI Gray zone < 0.80 COI Positive for anti-HBc	Room Temperature
Hepatitis-B E Ab	HbeAb	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	≥1.20 COI Negative for anti-Hbe ≥ 0.8 to < 1.2 COI Gray zone < 0.80 COI Positive for anti-Hbe	Room Temperature
Hepatitis-B E Antigen	HbeAg	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	<0.80 COI Negative for HbeAg ≥ 0.8 to < 1.2 COI Gray zone ≥ 1.20 COI Positive for HbeAg	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Hepatitis-B Surface Ab	HbsAb	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	< 10 IU/L Negative for anti-HBs ≥ 10 IU/L Positive for anti-HBs	Room Temperature
Hepatitis-B Surface Antige	HbsAg	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	<0.80 COI Negative for HbsAg ≥ 0.8 to < 1.2 COI Gray zone ≥ 1.20 COI Positive for HbsAg	Room Temperature
Hepatitis B Core Antibody , Total	HbcAb	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunochemistry 8 am- 3 pm	1-3 Working Days	Not Applicable	Room temperature
Hepatitis-C Virus Ab	HCV	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	<0.80 COI Negative for anti-HCV ≥ 0.8 to < 1.2 COI Gray zone ≥ 1.20 COI Positive for anti-HCV	Room Temperature
Her-2/NEU	HER-2	Block or 10% neutral buffered formalin	Pathology 8 am-4 pm	1-3 Working Days	Not Applicable	Room temperature
Hernial Sac (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room Temperature
HERPES SIMPLEX VIRUS I ANTIBODY , IgM	HSV	Minimum 2-3 ml Blood "Plain Red Top Tube"	Immunology 8 am- 3 pm	One Week	Negative	Room temperature
HERPES SIMPLEX VIRUS 1 ANTIBODY , Igg	HSV	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8 am- 3 pm	One Week	Immune: Positive	Room temperature
Homocysteine , Cardiac Risk	Heys	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Male: 5.9-16 uMol/L Female: 3.4-20.4 uMol/L	Immediate on ice Fasting specimen.
HERPES SIMPLEX VIRUS II ANTIBODY , Igg	HSV	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunochemistry 8 am- 3 pm	One Week	Immune: Positive	Room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
HERPES SIMPLEX VIRUS II ANTIBODY , IgM	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunochemistry 8 am- 3 pm	One Week	Negative	Room temperature
Hickman Site Swab Culture	-	Hickman site swab in transport media	Microbiology 24 hours	2-3 Days If Negative	No growth	Room temperature
High Vaginal Swab (H.V.S) Culture+ Gram Stain	H.V.S	H.V.S swab in transport media	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	3 Days If No Pathogens	Normal Flora, Or No growth	Room temperature - Two swabs should be sent to have sufficient specimen to perform both gram stain & culture
Human Epididymis Protein 4	HE4	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	< or =140 pmol/L	Room Temperature
Human Growth Hormone Random	ндн	Minimum 1 ml Blood Lithium Heparin (LightGreen) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Girls 0-10 years: 0.120 - 7.79 Girls 11-17 years: 0.123 - 8.05 Women 21-77 years: 0.126 - 9.88 Boys 0-10 years: 0.094 - 6.29 Boys 11-17 years: 0.077 - 10.8 Men 20-79 years: <= 2.47	Room Temperature Patient should be fasting for 8 hrs. at least. Room temperature. It must be delivered to the section before 11 am.
Human Immunodeficiency Virus Antibody	HIV	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunochemistry 8am-3pm	1-3 Working Days	Negative	Room temperature
Human Immunodeficiency Virus Ag & Ab I/Ii	HIV	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	<0.80 COI Negative for HIV-1 Ag and negative for anti-HIV-1/2 antibodies. ≥ 0.8 to < 1.2 COI Gray zone ≥ 1.20 COI Positive for HIV-1 Ag and/or for anti-HIV-1/2 antibodies.	Room Temperature
	HPV	Pap smear	Pathology	2-4	Not Applicable	Keep at room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Human Papilloma Virus		Cervical brush in liquid	8 am-3 pm	Working Days	J	
(HPV)		Paraffin embedded cervical tissue		Days		
Hysterectomy Neoplastic(Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am — 4:00pm	3-5 Days	Not Applicable	Room Temperature
Hysterectomy Non- Neoplastic (Medium)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Hysterectomy(Uterus) Simple (Medium)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
		I				
IgG Sub Classes	-	Minimum 2-3 ml Blood "Plain Red Top Tube"	Immunochemistry 8 am- 9 am	3-5 Days	Not Applicable	Call laboratory ext. 1345 before blood withdrawal
Ileal Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Immunofixation Serum	-	Minimum 2-3 ml Blood "Plain Red Top Tube"	Immunology 8 am- 3 pm	1-2 Weeks	No Monoclonal Band Seen	Room temperature
Immunofixation 24hr Urine Collection	-	24 hours urine collection	Immunology 8 am- 3 pm	1-2 Weeks	Monoclonal Band Seen	Store in refrigerator Sample must be delivered to the Immunology Laboratory before 10 am.
Immunoglobulin A	IgA	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature
Immunoglobulin D	IgD	Minimum 2-3 ml Blood "Plain Red Top Tube"	Immunochemistry 8 am-9 am	3-5 Days	4-152.7 mg/ml	Call laboratory ext. 1345 before blood withdrawal
Immunoglobulin E	IgE	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Immunoglobulin G	IgG	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature
Immunoglobulin M	IgM	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature
Immunohistochemistry Special 1	-	Block or 10% neutral buffered formalin	Pathology 8 am-4 pm	1-3 Working Days	Not Applicable	Room temperature
Immunohistochemistry Special 2	-	Block or 10% neutral buffered formalin	Pathology 8 am-4 pm	1-3 Working Days	Not Applicable	Room temperature
Immunohistochemistry Routine For Each Ab	-	Paraffin Block	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room Temperature
India Ink (Cryptococcus)	-	CSF, tissue, body fluid, pus, sputum, Broncho alveolar lavage ,TRAP suspected to have Cryptococcus spp. Collect in sterile container	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	4-8 hours	No encapsulated yeast cells seen	Room temperature
Inhalant Allergy Panel-Ige	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Negative	Room temperature
Inhibin A & B	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Under ice. Sample must be collected on 3 rd day of cycle.
Insulin-Like Growth Factor 1(Igf-1)	IGF-1	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 8 am-11 am	2-8 Hours	Refer to: Immunochemistry Reference Range Interpretation	Patient should be fasting 8 hrs.at least. Keep on ice

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Insulin-Like Growth Factor Binding Protein 3 (IGFBP-3)	IGFBP-3	Minimum 1 ml Blood Lithium Heparin (LightGreen) or Plain (Tube Red Top)	Immunochemistry 8am-11 am	2-8 Hours	Refer to: Immunochemistry Reference Range Interpretation	Patient should be fasting 8 hrs. at least. Keep on ice
Insulin Assay. Serum	INSL	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	8-24 Hours	random: 2.6-24.9 * u/ml , Fasting : 2.6-10.0 *u/ml	Under ice 12 Hrs. fasting required. Sample must be collected at 8 am and sent to the Immunology Laboratory before 10 am.
Interleukin-6 (IL-6)	IL-6	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	< or =7.0 pg/mL	Room Temperature
Intestine, Small, Segment (Medium)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-5 Days	Not Applicable	Room Temperature
Iron Level	Fe	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature
Iron Study (Total Iron-Binding Capacity (TIBC), Iron, & Transferrin Saturation (TSAT))	TIBC TSAT	3-5 ml Blood plain / Tube Red Top	Immunochemistry 24 hours/day	8-24 Hours	Not Applicable	Room temperature
Iron Study Contains (Total Iron- Binding Capacity (TIBC), Iron, UIBC & Transferrin Saturation (TSAT))	TIBC UIBC TSAT	Minimum 3 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	See each test individually	Room Temperature
Iron, Urine	-	Random urine sample	Immunochemistry 8 am-4 pm	1-3 Working Days	Not Applicable	Store in refrigerator or send immediately
Iso-Hemagglutinin	-	EDTA or Plain Tube	Blood Bank 8:00am – 5:00pm	One Day	Not Applicable	Room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
		J				
Joint Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
		K				
Kappa/Lambda Surface Antigens	-	2-4.5 ml Marrow in Lavender top tube or EDTA blood tube "Lavender top" fill to mark	Pathology 8 am- 3 pm	8-24 Hours	Not Applicable	Fresh blood or marrow aspirate or maximum 48 hrs at room temperature
Kappa/Lambda Ratio	-	Measured test listed in FREE LIGHT CHAIN KAPPA,LAMBDA & RATIO panel	Immunochemistry 24 hours/day	2-8 Hours	0.22 – 1.74	Room Temperature
Kidney Biopsy Routine (Medium)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Ketone In Urine	-	Urine: ≥ 10 mL in sterile container	Microbiology 24 hours/day	2-4 Hours	Negative	Room temperature, send within one hour of collection
Kidney Function Test Contains (Creatinine, Urea, Uric Acid, K, Na, & Cl)	KFT	Minimum 3 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	See each test individually	Room Temperature
Kidney, Nephrectomy Neoplastic (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Kidney, Nephrectomy Non-Neoplastic (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
KI67 (Immunohistochemistry)	-	Paraffin Block	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
		L	1			
Lactate Dehydrogenase	LDH	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Children: Refer to: Immunochemistry Reference Range Interpretation Adult: 122-222 U/L	Room Temperature
Lactic Acid	LA	Collect blood in sodium fluoride and Potassium oxalate one tube "Fill to mark"	Immunochemistry 24 hours/day	One Hour	Not Applicable	Keep under Ice Must be delivered/ received byhand.
Lamotrogine (Lamictal)	-	2-3 ml Serum Room Temperature	Immunology Send out test /contact the laboratory	2 Days	Normal: 3-14 mcg/ml Toxic:>15 mcg/ml	Room Temperature
Laryngeal Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Ldh In Body Fluid	-	1-3 ml Body Fluid in clean Falcone tube/ Urine cup	Immunochemistry 24 hours/day	2-8 Hours	• Pleural: - Transudate: <200 U/L - Exudate: >200 U/L • Synovial: <240 U/L Refer to: Immunochemistry Reference Range Interpretation	Room Temperature
Ldh Isoenzyme	-	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 8 am-10 am	One Week	Not Established	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
LDL Cholesterol	LDL	Calculated test listed in lipid profile panel	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Not orderable test listed in Lipid profile should be fasting 12 hrs.at least.
Lead Poisoning	LP	Whole Blood EDTA blood tube "Lavender Top" fill to mark	Immunochemistry 24 hours/day	One Week	0 – 70 mcg/L	Room Temperature
Left Nephrestomy Culture	-	Urine collected from nephrostomy tube through a syringe. Volume: ≥ 5 mL in sterile container	Microbiology 24 hours/day	2-3 Days If Negative	No growth	Room temperature, send within one hour of collection
LEGIONELLA PNEUMOPHILA ANTIBODY, IgG	-	Minimum 2-3 ml Blood "Plain Red Top Tube"	Immunology 8 am- 3 pm	3-5 Working Days	Negative	Room temperature
LEGIONELLA PNEUMOPHILA ANTIBODY, IgM	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Negative	Room temperature
Leishmania Antibody , Serum	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Negative	Room temperature
Lingual (Tongue) Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Lingula Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Lip Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Lipase In Body Fluid	-	1-3 ml Body Fluid in clean Falcone tube/ Urine cup	Immunochemistry 24 hours/day	2-8 Hours	Drainage fluid: 175 - 450 U/L Refer to: Immunochemistry Reference Range Interpretation	Room Temperature
Lipase Level	-	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	12-61 U/L	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Lipid Profile-1 Contains(Triglyceride, Cholesterol, HDDL & LDL)	-	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	See each test individually	Patient should be fasting for 12 hrs.at least.
Lithium Level	Li	Minimum 1 ml Blood Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	0.6-1.2 Toxic level:> 2.0 mmol/L	Room Temperature
Liver Function Test Contains (ALT, AST, ALP, Albumin, Total Protein, Bilirubin Direct, & Bilirubin Total)	LFT	Minimum 3 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	See each test individually	Room Temperature
Liver, Needle Or Wedge Biopsy (Medium)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Lump (Soft Tissue Mass) 5-10cm (Medium)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Lump (Soft Tissue Mass)<5cm (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Lump (Soft Tissue Mass)>10cm (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Lung Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Lung, Lobectomy (Medium)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Lung, Total Resection (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Lupus Anticoagulant	LAC	Citrate blood "Blue Top" fill to mark	Hematology Send out test 8 am- 3 pm	3-5 Days	24.1-31.7 sec	Call laboratory Extension 1743 before blood withdrawal
Luteinizing Hormone	LH	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	State day of menstrual cycle. Steroid therapy may influence result.

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling		
Lymph Node Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature		
Lymph Node, Sentinel (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature		
\mathbf{M}								
Magnesium	MG	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature		
Magnesium,24h Urine	MG	24 hours Urine collection container kept cool	Immunochemistry 24 hours/day	2-8 Hours	51-269 mg/24 hr	Room Temperature		
Magnesium ,Spot Urine	MG	5-10 ml Midstream Random urine	Immunochemistry 24 hours/day	2-8 Hours	Magnesium/Creatini ne Ratio: > or =0.035 mg/mg	Room Temperature		
Mandible/ Maxilla Dissection (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature		
Measles IgG	-	Minimum 2-3 ml Blood "Plain Red Top Tube"	Immunology Only Thursdays	One week	Immune: Positive	Room temperature		
Measles IgM	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8:00 AM- 3:00 PM	3-5 Working Days	Negative	Room temperature		

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Metanephrines 24hr Urine Collection	-	24 hours urine collection	Immunology Send out test /contact the laboratory	3-5 Working Days	Up to 1000 ug/24hrs	Store in refrigerator.to the special container every time you use the bathroom for the next 24 hours On day 2, urinate into the container in the morning again when you wake up. – Label the container with your name, the date, the time of completion, and return it as instructed. Acute stress and vigorous exercise may affect the test results. Foods that can increase urinary catecholamine's include coffee, tea, bananas, chocolate, cocoa, citrus fruits, and vanilla. Avoid these for several days prior to the test. Certain drugs can also affect test results. Your health care provider may tell you to stop taking certain medicines before the test. Never stop taking medicine without first talking to your doctor. Sample must delivered to the Immunology Laboratory before 10 am
Methotrexate Level	-	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	24 hours after dose: <10 mcmol/L 48 hours after dose: <1 mcmol/L 72 hours after dose: <0.2 mcmol/L	Room Temperature
Microalbumin ,Urine	-	5-10 ml Midstream Random urine	Immunochemistry 8 am-10 am	One Week	Less than 20 mg/L	Room Temperature
Microalbuminuria ,Spot Urine	-	5-10 ml Random urine sample	Immunochemistry 24 hours/day	One Week	Not Applicable	Room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Microalbuminuria,24hrs Urine Level	ACR	24 hours Urine collection container kept cool	Immunochemistry 8 am-10 am	One Week	0 – 30 mg/24hrs	Keep the container in a cool place (Refrigerator). It must be delivered to the section before 10 am
Mycophenolic acid (MPA)	МРА	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	Therapeutic range:1.0-3.5 mcg/mL Critical High: >4.0 mcg/mL	Room Temperature
MLH1 (IMMUNOHISTOCHEMI STRY)	-	Paraffin Block	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room Temperature
MONOSPECIFIC COOMBS TEST	-	2 ml or 4.5 ml EDTA blood tube "Lavender Top " fill to mark	Blood Bank 24 hours/day	1 Hour	Not Applicable	Room temperature
MSH2 (IMMUNOHISTOCHEMI STRY)	MSH2	Paraffin Block	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room Temperature
MSH6 (Immunohistochemistry)	-	Paraffin Block	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room Temperature
Mucosal Biopsy, Any Site (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Mumps IgG	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Only Thursdays	One week	Immune: Positive	Room temperature
Mumps IgM	-	Minimum 2-3 ml Blood "Plain Red Top Tube"	Immunology 8:00 AM- 3:00PM	3-5 Working Days	Negative	Room temperature
Muscle Biopsy, Routine (Medium)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
MYCOPLASMA ANTIBODY IgG, SERUM	-	Minimum 2-3 ml Blood "Plain Red Top Tube"	Immunology 8:00 AM- 3:00PM	3-5 Working Days	Negative	Room temperature
MYCOPLASMA ANTIBODY IgM, SERUM	-	Minimum 2-3 ml Blood "Plain Red Top Tube"	Immunology 8:00 AM- 3:00PM	3-5 Working Days	Negative	Room temperature
Myoglobin ,Spot Urine	MB	5-10 ml Midstream Random urine	Immunochemistry 8 am-10 am	One Week	Negative	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
		N				
Nasal Mucosal Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Nasal Swab Culture (Screening Test)	-	Nasal swab in transport media Insert a sterile swab into the nose until resistance is met at the level of the turbinate's (approximately 2-3 cm into the nose). Rotate the swab against the nasal mucosa and leave in place for 10-15 seconds, and then place it in transport medium.	Microbiology 24 hours/day	2-3 Days If No Pathogens	Normal Flora, Or No growth	Room temperature
Nasal Tumor, Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Nasal Wash Culture	-	Nasal wash, collect in sterile container	Microbiology 24 hours/day	2-3 Days If No Pathogens	Not Applicable	Room temperature
Nasopharyngeal Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Nerve Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Neonatal Screening	-	Blood Drops 4 on Card	Immunochemistry 8 am-10 am	One Week	Negative	Room temperature Call laboratory Extension 1345/3272 before blood withdrawal
Nitrite ,Urine	-	Urine sample in sterile container	Microbiology 24 hours/day	1-2 Hours	Not Applicable	Room temperature, send within one hour of collection
Nitroblue Tetrazolium Test	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Hematology Send out test /contact the laboratory	3-5 Days	Not Applicable	Room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Neuron Specific Enolase	NSE	Minimum 1 ml Blood Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Up To 16.30 ng/ml	Room Temperature
		O				
Omental Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Omentectomy	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Oncotype DX	-	Paraffin Block	Pathology Sunday- Thursday 8:00am – 4:00pm	14 working Days	Not Applicable	Room Temperature
Osmolality	Osmo	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	275-295 mOsm/kg	Room Temperature
Osmolality Urine	-	5-10 ml Midstream Random urine	Immunochemistry 24 hours/day	2-8 Hours	150-1150 mOsm/kg	Room Temperature
Ovarian Biopsy, Small Wedge (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Osteocalcin Serum Level	OC	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	3.1 13.7 ng/ml	Room temperature
Ovarian Mass/ Cyst 5- 10cm (Medium)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Ovarian Mass/Cyst <5cm (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Ovarian Mass/Cyst >10cm (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Oxalate 24hr Urine	-	24 hours Urine collection container kept cool	Immunochemistry 8 am-10 am	One Week	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Keep the container in a cool place (Refrigerator). It must be delivered to the section before 10 am
Oxalate,Spot Urine	-	5-10 ml Midstream Random urine	Immunochemistry 8 am-10 am	One Week	Not Established	Room Temperature
		P	Potheless			
Pancreas, Whipple's (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Pancreatic Fluid Culture (Aerobic+Anaerobic+Gra m Culture)	-	Aseptically aspirated Pancreatic fluid, collected in sterile container ≥ 3 ml Or use blood culture bottles (BACTEC or Versa TREK) (at least 5-10ml) each, send part of specimen in a sterile container for gram stain (> 5 ml)	Microbiology 24 hours, Recommended time: 8:00AM – 4:00 PM	Preliminary Gram stain: 2-4 Hours Culture: 5-7 Days If Negative	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	Room Temperature. Transport Immediately
Parathyroid Hormone	РТН	Minimum 1 ml Blood Lithium Heparin (Light Green) or EDTA "Fill to Mark" (Lavender)- Under ICE	Immunochemistry 8 am-10 am	2-8 Hours	15-65 pg/mL	Patient Fasting at least 8 hrs, Collect Venous Blood in EDTA Tube, Sample Must Be Kept Cold And Transported On Ice Immediately To The Lab, Sample Must Arrive At Laboratory Before 10 am, Patient Must Not Be Taken Medication Or Diet Rich In Calcium Or Phosphorous. Must Patient should be fasting for 8 hrs.at least and be delivered/received by hand.
PARVOVIRUS, IgG	-	Minimum 2-3 ml Blood "Plain Red Top Tube"	Immunology 8 AM- 3 PM	3-5 Working Days	Less than 1:40	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
PARVOVIRUS, IgM	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8 AM- 3 PM	3-5 Working Days	Negative less than 9.0 Borderline 9.0-12.0 Positive more than 12.0	Room Temperature
Pathology-Under Ice Section	-	Fresh sample/tissue	Pathology 8 am-4 pm	Immediatel y	Not Applicable	Room Temperature
Platelet-derived growth factor receptors PDGFR	PDGFR	Paraffin Block	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room Temperature
PDL-1 (Immunohistochemistry)	PDL-1	Paraffin Block	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room Temperature
Perianal Swab culture For ESBL (Screening)	-	Perianal swab in transport media Gently insert the swab beyond the anal sphincter, rotate it, remove it, and place it in transport media.	Microbiology 24 hours/day	2-3 Days If No Pathogens	Negative for ESBL producing organism	Room Temperature. If A Delay In Transport Or Processing Is Anticipated (Beyond One Hour), The Swab Should Be Kept At 4c.
Perianal Swab Culture (Screening Test)	-	Perianal swab in transport media Gently insert the swab beyond the anal sphincter, rotate it, remove it, and place it in transport media.	Microbiology 24 hours/day	2-3 Days If No Pathogens	Negative for multidrug resistant nonfermentative gram negative pathogens.	Room Temperature. If A Delay In Transport Or Processing Is Anticipated (Beyond One Hour), The Swab Should Be Kept At 4c.
Pericardial Fluid Culture (Aerobic+ Anaerobic+Gram Stain)	-	Aseptically aspirated Pancreatic fluid, collected in sterile container ≥ 3 ml Or use blood culture bottles (BACTEC or Versa TREK) (at least 5-10ml) each, send part of specimen in a sterile container for gram stain (> 5 ml)	Microbiology 24 hours, Recommended time: 8:00AM - 4:00 PM	Preliminary Gram stain: 2-4 Hours Culture: 5-7 Days If Negative	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	Room Temperature. Transport Immediately
Peritonial Fluid (Aerobic+Anaerobic Culture+ Gram Stain	-	Aseptically aspirated Pancreatic fluid, collected in sterile container ≥ 3 ml Or use blood culture bottles (BACTEC or Versa TREK) (at least 5-10ml) each, send part of specimen in a sterile container for gram stain (> 5 ml)	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	Preliminary Gram stain: 2-4 Hours Culture: 5-7 Days If Negative	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	Room Temperature. Transport Immediately

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
РН	-	Measured test listed in Arterial Blood Gas + Extended Critical Care Profile	Immunochemistry 24 hours/day	One Hours	7.35-7.45	Not orderable test listed in Arterial blood gas plus extended critical care profile.
PH, Body Fluid	-	1-3 ml Body Fluid in clean Falcone tube/ Urine cup	Immunochemistry 24 hours/day	2-8 Hours	Not Established Refer to: Immunochemistry Reference Range Interpretation	Room Temperature
Phenobarbital, Serum	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	2 Days	15-40 mcg/ml ,Toxic Level >50 mcg/ml	Room Temperature
Phenytoin(Epanotin)	РНТ	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	Therapeutic: 10.0- 20.0 mcg/mL Critical value: > 20.0 mcg/mL	Room Temperature
Phosphorus Level	P	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature
Phosphorus 24h Urine	-	24 hours Urine collection container kept cool	Immunochemistry 24 hours/day	2-8 Hours	<1100 mg/24 hours	Keep the container in a cool place (Refrigerator)
Phosphorus Test Spot Urine	-	5-10 ml Midstream Random urine – 1st morning urine	Immunochemistry 24 hours/day	2-8 Hours	1 st morning urine : 40-136 mg/dL	Room Temperature
Platelet Count, Blood	PLT	EDTA blood tube "Lavender Top" fill to mark	Hematology 24 hours/day	2 – 4 Hours	150 – 400 x 10 ³ / ul	Room Temperature
Pleural Biopsy	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Pleural, Fluid (Aerobic+Anaerobic) Culture+Gram Stain	-	Aseptically aspirated Pleural fluid, collected in sterile container ≥ 3 ml Or use blood culture bottles (BACTEC or Versa TREK) (at least 5-10ml) each, send part of specimen in a sterile container for gram stain (> 5 ml)	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	Preliminary Gram stain: 2-4 Hours Culture: 5-7 Days If Negative	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	Room Temperature. Transport Immediately

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
PMS2 (Immunohistochemistry)	-	Paraffin Block	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room Temperature
Polyp <5cm, Any Site (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Porta Cath Site Swab Culture	-	Swab in transport media	Microbiology 8 am- 5 pm	2-3 Days If Negative	Not Applicable	Room Temperature
Potassium	-	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	3.6 – 5.2 mmol/L Critical :<3.0, >6.0	Room Temperature
Potassium Spot Urine Level	K	5-10 ml Midstream Random urine	Immunochemistry 24 hours/day	2-8 Hours	12-129 mmol/L	Room Temperature
Potassium,24hr Urine		24 hours Urine collection container kept cool	Immunochemistry 24 hours/day	2-8 Hours	17-77 mmol/24 hours	Keep the container in a cool place (Refrigerator)
Prealbumin	PAB	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	19-38 mg/dL	Room Temperature
Procalcitonin	PCT	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	Healthy: <0.12 ng/mL Local Infection, sepsis not likely: <0.5 High risk of severe sepsis and/or septic shock: >2.0 Critical High: >2.0 ng/mL	Room temperature Sample should be arrive to lab ASAP-Fresh sample no more 2hrs
Product Of Conception (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Progastrin-Releasing Peptide (Progrp)	ProGRP	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	< 50 pg/ml	Room Temperature
Progesterone Receptor	PR	Paraffin Block	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Prograf (Tacrolimus II)	TAC	Whole Blood EDTA tube "Lavender Top" fill to mark	Immunochemistry 24 hours/day	1-3 Hours	Therapeutic range: 5.0-15.0 ng/mL Toxic Level: > 25.0 ng/mL Critical: <1.5 ng/mL	Room Temperature
Pro Human B-Type Natriuretic Peptide (Probnp)	ProBNP	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	≤ 125 pg/mL	Room Temperature
Prolactin	PRL	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature
Prolactin Time 120	-	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 8 am-11 am	2-8 Hours	Study test – Not Established	Room Temperature
Prolactin Time 30	-	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 8 am-11 am	2-8 Hours	Study test – Not Established	Room Temperature
Prolactin Time 60	-	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 8 am-11 am	2-8 Hours	Study test – Not Established	Room Temperature
Prolactin Time 90	-	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 8 am-11 am	2-8 Hours	Study test – Not Established	Room Temperature
Prolactin Zero Time	-	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 8 am-11 am	2-8 Hours	Study test – Not Established	Room Temperature
Prostate, Biopsy Tur (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Prostate, Sextant (Medium)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Prostatectomy, Radical (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Prostatectomy, Simple (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Prostatic Secretions Culture	-	Prostatic secretion, collected in sterile container	Microbiology 8 am- 5 pm	3-5 Days If Negative	Not Applicable	Room Temperature, Send Immediately
Prostatic Specific Antigen	PSA	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature
Protein CSF	PRT	Measured test Listed in CSF ANALYSIS, CHEMISTRY panel	Immunochemistry 24 hours/day	One Hours	15.0 - 45.0 mg/dL	Not orderable test listed in CSF chemistry analysis.
Protein (Serum)	-	3-5 ml Blood plain / Tube Red Top	Immunochemistry 24 hours/day	2-8 Hours	Not Applicable	Room Temperature
Protein In Body Fluids	-	1-3 ml fluid	Immunochemistry 24 hours/day	8-24 Hours	Transudate<2.0 g/dl. Refer to: Immunochemistry Reference Range Interpretation	Room Temperature
Protein Spot Urine	-	5-10 ml Random urine sample	Immunochemistry 24 hours/day	2-8 Hours	<15 mg/dl	Room Temperature
Proteinase 3 Antibodies	-	2-3 ml Blood "Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Negative	Room Temperature
Progesterone Serum Level	P P4	2-3 ml Blood " Plain Red Top Tube"	Immunolog y Send out test /contact the laboratory	3-5 Working Days	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature
Prothrombin Time	PT	Citrate blood "Blue Top" fill to mark	Hematology 24 hours/day	4-8 Hours	12.4 -15.1 sec	Room Temperature. Patients With Indwelling Lines, Proper Flushing Of The Line Must Be Done Before Specimen Collection

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Pus Culture + Gram Stain	-	Pus aspirate in sterile container or 2 swabs in transport media should be sent to cover CS&GS	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	Preliminary Gram stain: 2-4 Hours Culture: 2-3 Days If Negative	No growth	Room Temperature
		Q				
Quantiferon-TB Gold Plus	-	Minimum 3 ml in four different tubes (Available in kit)	Immunology Send out test /contact the laboratory	2-3 Weeks	Negative	Room temperature
		R				
RBC Folate	-	Minimum 2 ml EDTA blood tube "Lavender Top" fill to mark	Immunolog y Send out test /contact the laboratory	One week	Normal: 192.1 – 577.1 Deficient: Less than 150	Room temperature
Renin, Plasma Level	-	Minimum 2 ml EDTA blood tube "Lavender Top" fill to mark	Immunolog y Send out test /contact the laboratory	1-2 Weeks	Low:Supine : 4.70, UPRIGHT: 7.5" High: Supine:31.9 , UPRIGHT: 42.3pg/mL	Under ice 12 Hrs. fasting required. Sample must be collected at 8 am and sent to the Immunology Laboratory before 10 am.

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Rheumatoid Factor	RF	Minimum 2-3 ml Blood "Plain Red Top Tube"	Immunolog y 8 am- 3 pm	1-3 Working Days	Negative	Room temperature
Rectal Biopsy, Mucosal (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Rectal Biopsy, For Ganglion Cells(Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Renin , Plasma Level	-	EDTA blood tube "Lavender Top" fill to mark	Immunology Send out test /contact the laboratory	1 Week	Not Applicable	Immediate on ice, Sample must be obtained at 8 am, it must be delivered to the Immunochemistry Laboratory before 10 am, the patient must to be upright or lying down for a period of time 15-30 minutes ,prior to sample collection.
Reticulin Stain On Tissue	-	Paraffin Block	Pathology Sunday- Thursday 8:00am – 4:00pm	1-2 Days	Not Applicable	Room Temperature
Reticulocyte Count, Blood	-	EDTA blood tube "Lavender Top" fill to mark	Hematology 24 hours/day	4-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room temperature
Rh-Phenotyping	-	EDTA blood tube "Lavender Top " fill to mark	Blood Bank 24 hours/day	2 Hours	Not Applicable	Room temperature
Right Nephrostomy Urine Culture	-	Urine collected from nephrostomy tube through a syringe. Volume: ≥ 5 mL in sterile container	Microbiology 24 hours/day	2-3 Days If Negative	No growth	Room temperature, send within one hour of collection
Roma Score (Ovarian Malignancy Risk Algorithm)	-	Calculated Test combined with CA 125 & HE4 tests	Immunochemistry 24 hours/day	2-8 Hours	Premenopausal: <1.14 (low risk) Postmenopausal: <2.99 (low risk)	Not orderable test should order with HE4 and CA125

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Rotavirus, Stool	-	Fresh stool specimen in a clean container. Follow up on a previously positive antigen detection tests should be done not less than every 48 hours.	Microbiology 24 hours/day	2-4 Hours	Negative	Room temperature
Rubella Ab IgG	-	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	< 10 IU/L Negative for anti-Rubella IgG ≥ 10 IU/L Positive for anti-Rubella IgG	Room Temperature
RUBELLA IgM, SERUM	-	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Negative	Room temperature
		Section Calletian by PT				
SARS-CoV-2 Rapid Antigen Test	-	Specimen Collection by RT nurse or physician: -Insert a sterile swab into the patient's nostril; swab the surface of the posterior nasopharynx. Withdraw the swab from the nasal cavity (nasopharyngeal swab) - Insert the swab into an extraction buffer fluid tube, close tightly -Sent to Microbiology section ASAP	Microbiology 24 hours,	1 hour	Negative	-Sent to Microbiology section ASAP
Salivary Gland (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Scalp Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-5 Days	Not Applicable	Room Temperature
Sclp.Bx	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-5 Days	Not Applicable	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Scrotal Mass (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Seroma Culture And Gram Stain	-	Aspirating the fluid with sterile syringe and needle and then injecting the aspirated material into sterile container.	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	Preliminary Gram stain: 2-4 Hours Culture: 5-7 Days If Negative)	No growth	Room temperature
Serum Protein Electrophoresis	SPEP	Minimum 2-3 ml Blood "Plain Red Top Tube"	Immunology 8 am- 3 pm	1-2 Weeks	No Monoclonal Seen	Room temperature
Sex Hormone Binding Globulin	SHBG	2-3 ml Blood "Plain Red Top Tube"	Immunology Send out test /contact the laboratory	3-5 Working Days	Male:13-71 Female:18-114 nmol/L	Room Temperature
sO2	-	Measured test listed in Arterial Blood Gas + Extended Critical Care Profile	Immunochemistry 24 hours/day	One Hours	>95 %	Not orderable test listed in Venous and Arterial blood gas plus extended critical care profile.
Sodium Level	NA	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	135-145 mmol/L Critical-Low: ≤120 Critical-High:≥160	Room Temperature
Sodium(Urine)		5-10 ml Midstream Random urine	Immunochemistry 24 hours/day	2-8 Hours	> 20 mmol/L	Room Temperature
Sodium,24hr Urine	-	24 hours Urine collection container kept cool	Immunochemistry 24 hours/day	2-8 Hours	41-227 mmol/24 hours	Keep the container in a cool place (Refrigerator)
Special Stain	-	10% buffered formalin or fresh cytology or block.	Pathology 8 am-4 pm	1-2 Days	Not Applicable	Room temperature
Splenectomy (Medium)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Specific Gravity, Urine	SG	Urine: ≥ 10 mL in sterile container	Microbiology 24 hours	1-2 Hours	1.002 – 1.035	Room temperature, send within one hour of collection

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Sputum Culture + Gram Stain	-	>2ml first morning sputum, not saliva, collected in a sterile container1. Expectorated sputum: Have patient rinse MOUTH or gurgle with water and then to cough deeply to produce lower respiratory tract specimen (not postnasal fluid or saliva). Collect sputum in a sterile container. 2. Induced specimen: Have patient rinse mouth with water after brushing gums and tongue. With aid of nebulizer, have patient inhale about 25 ml of 3-10% normal saline. Collect sputum in sterile container. Collect via suction for pediatric patient unable to produce specimen.	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	Preliminary Gram stain: 2-4 Hours Culture: 2-3 Days If Negative 2- 3 Days If No Pathogens	Normal Flora, Or No growth	Room temperature
Squamous Cell Carcinoma Antigen (SCC)	SCC	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	0.0 – 2.2 ng/mL	Room Temperature
Stool Analysis (Wet Preparation + Concentration +Permanent Stain)	-	Fresh stool sample in a clean container	Microbiology 24 hours/day	24 hours	Wet preparation: No ova or parasite seen Concentration: No ova or parasite seen Permanent stain: No ova or parasite seen	Room temperature
Stool Analysis For Employees	-	Fresh stool sample in a clean container	Microbiology 8 am- 5 pm	24 hours	No ova or parasite seen	Room temperature
Stool Culture For Campylobacter	-	Fresh stool sample, collect in sterile container	Microbiology 8 am- 5 pm	3-5 Days If No Pathogens	Negative for Campylobacter spp	Room temperature
Stool Culture For Vibrio Cholerae	-	Fresh stool sample, collect in sterile container	Microbiology 8 am- 5 pm	2-3 Days If No Pathogens	Negative culture for vibrio cholerae	Transport to the lab. As soon as possible not longer than 2 hours of passage.

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Stool Culture For Salmonella And Shigella	-	Stool sample, collect in a sterile container Fresh, random diarrheal or soft sample	Microbiology 24 hours/day	2-3 Days If No Pathogens	Negative for Salmonella and Shigella	Room temperature. Transported immediately to the laboratory (within 30 minutes for Shigella, and within 1hour for Salmonella)
Stool For Occult Blood	-	Fresh stool sample in a clean container	Microbiology 24 hours/day	2-4 Hours	Negative	Room temperature. Food Guidelines: Patient should avoid eating Liver, beef or lamb. Melons, cantaloupe, turnips, cauliflower, radishes, broccoli, cucumbers, horseradish
Stool Permanent Stain Smear	-	Stool sample in clean container	Microbiology 24 hours/day	24 Hours	No ova or parasite seen	Room temperature
Stone Analysis Urine	-	Urinary calculi in Urine cup	Immunochemistry 8 am-10 am	One Week	NA	Room Temperature
Subungual Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Supra Pubic Urine Culture	-	Urine sample aspirated through the bladder, collect in sterile container	Microbiology 24 hours	3-4 Days If Negative	No growth	Room temperature
Synovial Fluid Culture (Aerobic+Anaerobic+Gra m Stain)	-	Aseptically aspirated synovial fluid, collected in sterile container ≥ 3 ml Or use blood culture bottles (BACTEC or Versa TREK) (at least 5-10ml) each, send part of specimen in a sterile container for gram stain (> 5 ml	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	Preliminary Gram stain: 2-4 Hours Culture: 5-7 Days If Negative	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	Room temperature. Transport immediately
Synovial Membrane, Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature

T

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
TDT Nuclear Staining Antigen	-	2-4.5 ml blood or Marrow EDTA tube "Lavender top" fill to mark	Pathology 8 am- 3 pm	8-24 Hours	Not Applicable	Fresh blood or marrow aspirate or maximum 48 hrs. at room temperature
Testis, Biopsy Both (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Testis, Biopsy One (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Testis, Orchidectomy (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Testosterone Total, Level	TTST	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top) Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature
Theophylin Serum Level	ТН	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 24 hours/day send out	2 Days	(8-20)mcg/ml Critical high 19.99 mcg/ml	Room temperature
Throat Swab Culture	-	1. Depress tongue with a tonguedepressor.2. Sample the posterior pharynx, tonsils, and inflamed areas with sterile culture swab; take care not to contaminate the swab with saliva.3. Insert the swab back into its packet and crush the transport medium vial in the transport container.	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	3-5 Days If No Pathogens	"Noβ-hemolytic Streptococcus isolated"	Room temperature, Transport to the laboratory as soon as possible.
Throat Swab Culture For Screening	-	1. Depress tongue with a tonguedepressor.2. Sample the posterior pharynx, tonsils, and inflamed areas with sterile culture swab; take care not to contaminate the swab with saliva.3. Insert the swab back into its packet and crush the transport medium	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	2-3 Days If No Pathogens	-No growth or -Normal flora	Room temperature, Transport to the laboratory as soon as possible.

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Throat Swab culture For Neisseria	-	1. Depress tongue with a tonguedepressor.2. Sample the posterior pharynx, tonsils, and inflamed areas with sterile culture swab; take care not to contaminate the swab with saliva.3. Insert the swab back into its packet and crush the transport medium vial in the transport container.	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	3-5 Days If No Pathogens	"No N. gonorrhoeae isolated" if requested	Room temperature, Transport to the laboratory as soon as possible.
Thrombin Time Plasma Level	TT	Citrate blood "blue Top" fill to mark	Hematology 8 am- 3 pm Send out test /contact the laboratory	3 – 5 days	11-14 sec	Call laboratory Extension 1743 before blood withdrawal. Patients with indwelling lines, proper flushing of the line must be done before specimen collection.
Thyroglobulin	TG	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	3.5-77 ng/mL	Positive Anti-TG shows low to negative result of TG. Room Temperature
Thyroid Stimulating Hormone(TSH)	TSH	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	0.270-4.20 mcIU/mL	Room Temperature
Thyroid, Lobe/Nodule (Medium)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Thyroid, Total Thyroidectomy (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
Tip Of Hickman Culture	-	Tip of Hickman catheter, collect in sterile container	Microbiology 24 hours/day	2-3 Days If No Pathogens	Not Applicable	Room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Tip Of Central Line Culture	-	CATHETER – INTRAVENOUS: Distal 1.5- 2 inches of intravascular catheter, e.g. Hickman catheter, PICC line, Central Venous Pressure (CVP) catheters, etc., submitted in a Sterile screw-cap cup container without saline sterile as soon as possible. Transport the specimen to the laboratory immediately.	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	3 Days If Negative	No growth	Do not accept Foley catheter tip. Do not accept catheter tips which arrive in saline or transport media. For ventricular-peritoneal shunts, peritoneal or spinal fluid is preferred to the catheter tip. If tip is submitted, culture it, but request submission of fluid
Tissue/Surgical/Biopsy (Aerobic+Anaerobic Culture+ Gram Stain)	-	Surgical tissue, bone, biopsy, and other specimens from areas which are sterile under normal conditions collected in a sterile container with 2-3 normal saline	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	Preliminary Gram stain: 2-4 Hours Culture: 5-7 days If Negative	Aerobic: No Growth after 5 days incubation Anaerobic: No growth after 5 days incubation	Room temperature. Transport immediately
Tonsils (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Tobramycin	-	2-3 ml Blood "Plain Red Top Tube"	Immunolog y Send out test /contact the laboratory	3-5 Working Days	Peak level: 5-10 µg/L Trough: 0.5-2 Toxic: peak > 10 Trough: >2	Room Temperature
Total Catecholamine,24hr Urine	-	24 hours urine collection	Immunology Send out test /contact the laboratory	3-5 Days	Not Applicable	Store in refrigerator
Total Iron Binding Capacity (TIBC)	TIBC	Calculated Test combined in Iron Study	Immunochemistry 24 hours/day	2-8 Hours	250-400 mcg/dL	Not orderable test listed in Iron study profile
Total Protein	ТР	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	6.2 – 8.2 g/dL	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Total Protein,24hr UR	-	24 hours Urine collection container kept cool	Immunochemistry 24 hours/day	2-8 Hours	<229 mg/24 hours	Keep the container in a cool place (Refrigerator)
Toxoplasma Ab IgG	-	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	< 1 IU/mL Negative for IgG antibodies to T. gondii ≥ 1 to < 3 IU/mL Grayzone ≥ 3 IU/mL Positive for IgG antibodies to T. gondii	Room Temperature
Toxoplasma Ab IgM	тохо	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	<0.80 COI Negative for IgM antibodies to T. gondii. ≥ 0.8 to < 1.0 COI Grayzone ≥ 1.00 COI Positive for IgM antibodies to T. gondii.	Room Temperature
Transferrin Saturation (TSAT)	TSAT	Calculated Test combined in Iron Study	Immunochemistry 24 hours/day	2-8 Hours	20-50%	Not orderable test listed in Iron study profile.
Transferrin,Serum Level	TF	2-3 ml Blood "Plain Red Top Tube"	y Send out test /contact the laboratory	One Week	Not Applicable	Room Temperature
Trap Content Culture + Gram Stain	-	Trap content collected in sterile container	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	Preliminary Gram stain: 2-4 Hours Culture: 2-3 Days If Negative	-No growth or -Normal flora	Room temperature
Treponema Pallidum Hemagglutination	-	2-3 ml Blood "Plain Red Top Tube"	y Send out test /contact the laboratory	One Week	Negative	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Triglyceride Level	TG	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Children: Refer to: Immunochemistry Reference Range Interpretation Adult: Normal: <150 mg/dL Borderline high: 150-199 mg/dL High: 200-499 mg/dL Very high: > or =500 mg/dL	Patient should be fasting for 12 hrs. at least. Room temperature.
Triglycerides,Body Fluids	TG	1-3 ml Body Fluid in clean Falcone tube/ Urine cup	Immunochemistry 24 hours/day	2-8 Hours	Not Established Refer to: Immunochemistry Reference Range Interpretation	Room Temperature
Troponin I	TnI	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	Healthy: <0.16 ng/ml Critical High: >=0.3 ng/ml	Room Temperature
Tubo-Ovarian Mass (Medium)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
TSH Receptor Auto- Antibodies	TSH-R	2-3 ml Blood " Plain Red Top Tube"	Immunolog y Send out test /contact the laboratory	3-5 Working Days	Negative: less than 1.8 Grey zone: 1.8 – 2.0 Positive: more than 2.0	Room Temperature



Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Ulcer Culture And Gram Stain	-	Ulcer, collected in a sterile container	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	2-3 Days If Negative Preliminary Result, Gram Stain (Within 1-2 Hours)	-No growth	Room temperature. Transport immediately
Under Ice Section For First Under Ice Section Block	-	Fresh Sample	Pathology Sunday- Thursday 8:00am – 4:00pm	20-30 Minutes	Not Applicable	Room Temperature
Under Ice Section For First Subsequent Blocks Additional	-	Fresh Sample	Pathology Sunday- Thursday 8:00am – 4:00pm	20-30 Minutes	Not Applicable	Room Temperature
Unsaturated Iron Binding Capacity (UIBC)	UIBC	Measured Test combined in Iron Study	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Not orderable test listed in Iron study profile.
Urea 24hr Urine	-	24 hours Urine collection container kept cool	Immunochemistry 24 hours/day	2-8 Hours	10000-35000 mg/24 hours	Keep the container in a cool place (Refrigerator)
Urea Body Fluid	-	1-3 ml Body Fluid in clean Falcone tube/ Urine cup	Immunochemistry 24 hours/day	2-8 Hours	Not Established Refer to: Immunochemistry Reference Range Interpretation	Room Temperature
Urea (Urine)	-	5-10 ml Midstream Random urine	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature
Urea Level	-	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Ureter (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Ureteric Biopsy (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Urethral Biopsy/Polyp (Small)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Urethral Discharge Culture+ Gram Stain	-	Urethral discharge, collected in sterile container	Microbiology 24 hours, Recommended time: 8:00AM – 4:00 PM	2-3 Days If No Pathogens	-No growth - No N. gonorrhoeae	Room temperature
Uric Acid	UA	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room Temperature
Uric Acid 24hr Urine Collection	U-UA	24 hours Urine collection container kept cool	Immunochemistry 24 hours/day	2-8 Hours	<750 mg/24 hours	Keep the container in a cool place (Refrigerator)
Uric Acid(Urine)	U-UA	5-10 ml Midstream Random urine	Immunochemistry 24 hours/day	2-8 Hours	Uric acid/ creatinine ratio <0.75 mg/mg	Room Temperature

Urine Analysis -	Urine: ≥ 10 mL in sterile container - midstream urine sample	Microbiology 24 hours/day	2-4 Hours STAT: 1 hour	Color: Pale yellow/ Yellow/Dark Yellow Appearance: Clear Specific gravity: 1.003-1.035 pH: 5/6/7/8 Leukocyte esterase: Negative Nitrite: Negative Protein: Negative Glucose: Normal Ketones: Negative Bilirubin: Negative Urobilonogen: Norma Hemoglobin/Blood: Negative RBCs: 0-1/1-2/2-3 /HPF WBCs: 0-1/1-2/2-3 /HPF Epith.Cwll: Rare/ few/moderate Crystal: Not seen Casts: 0-2 /LPF	Room temperature, send within one hour of collection
------------------	--	------------------------------	------------------------------	---	--

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
					Others: Not seen	
Urine Culture	U-CUL	Urine: ≥ 10 mL in sterile container - midstream urine sample	Microbiology 24 hours/day	2-3 days if negative	-No growth -Non significant growth	Room temperature, send within one hour of collection
Urine PH	U-PH	Urine: ≥ 10 mL in sterile container - midstream urine sample	Microbiology 24 hours/day	2-4 Hours STAT: 1 hour	Not Applicable	Room temperature, send within one hour of collection
Urine Protien Electropherisis	U-PRO	24 hours urine collection	Immunology 8 am- 10 am	1-2 Weeks	No Monoclonal Seen	I, urinate into the toilet when you get up in the morning. Afterwards, collect all urine in a special container for the next 24 hours. On day 2, urinate into the container when you get up in the morning. Cap the container. Keep it in the refrigerator or a cool place during the collection period. Label the container with your name, the date, the time of completion, and return it as instructed. Collection of the first morning urine, which is the most concentrated, may be advised. The health care provider may advise you to stop taking certain medicines that could interfere with the test. Sample must be delivered to the Immunology Laboratory before 10 am
Urine, Sputum, Gastric Wash-Out etc.	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	1-2 Days	Not application	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
		V				
Vaginal Discharge Culture For Screening	-	Vaginal swab in transport media	Microbiology 24 hours/day	2-3 Days If No Pathogens	Negative for multidrug resistant non-fermentative gram negative pathogens.	Room temperature.
Valproic Acid	VPA	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	Therapeutic range : 50-100 Toxic Level: >100 mcg/mL	Room Temperature
Vancomycin Concentration, Random	S- VAN	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	TROUGH: 10.0- 20.0 mcg/mL PEAK: 20.0-45.0 mcg/mL	Room Temperature
Vancomycin Concentration, Trough	S- VAN	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	Therapeutic range :10.0-20.0 mcg/mL Toxic Level:>20 mcg/mL	Room Temperature
Vancomycin Concentration, Peak	S- VAN	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	Therapeutic range :20.0-45.0 mcg/mL Toxic Level:>80 mcg/mL	Room Temperature
Vanilymandelic Acid 24hr Urine	U-VA	24 hours Urine collection container kept cool	Immunochemistry 8 am-10 am	One Week	0 - 13.6 mg/24hrs	Keep the container in a cool place (Refrigerator). It must be delivered to the section before 10 am
Vanilymandelic Acid Spot Urine	VMA	5-10 ml Midstream Random urine	Immunochemistry 8 am-10 am	One Week	Not Established	Keep the container in a cool place (Refrigerator).
Varicella Zoster Virus IgG, Serum	VZV	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8 am- 3 pm	One Week	Positive	Room temperature
Varicella Zoster Virus IgM, Serum	VZV	Minimum 2-3 ml Blood " Plain Red Top Tube"	Immunology 8 am- 3 pm	One Week	Negative	Room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
V-ctO2	-	Measured test listed in Venous Blood Gas + Extended Critical Care Profile	Immunochemistry 24 hours/day	One Hours	NA	Not orderable test listed in Venous blood gas plus extendedcritical care profile. Should arrive the lab ASAP No more than 30 mint.
Venous Blood Gas Plus Extended Critical Care Profile	VBG	Minimum 0.5 ml HEPARINIZED SYRINGE – under ice	Immunochemistry 24 hours/day	One Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Should arrive the lab ASAP No more than 30 mint
Vibrio Cholerae, Stool Culture	-	Stool: 1-2 g, or 5 ml in clean container; 1)Do not collect from bedpan containing urine 2) Must be transported ASAP, not longer than 2 hours of passage 2- Rectal swabs It must show stool. It is less satisfactory than raw stool sample. Transport to the lab. ASAP.	Microbiology 8 am- 5 pm (Arrange with microbiology lab)	3-5 Days	Negative culture for Vibrio cholerae	Must be transported ASAP, not longer than 2 hours of passage
Viscosity	VISC	Minimum 5 ml Blood Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Week	1 - 1.24 cP	Room temperature Fill 5ml Blood
Vitamin B12 Level	VIT B12	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	2-8 Hours	197-771 pg/mL	Room Temperature
Voriconazole Level	VCZ	Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	Immunochemistry 24 hours/day	One Hours	Therapeutic range :1.0-5.5 mcg/mL Trough level (ie, immediately before next dose) monitoring is recommended. Critical High:> 10.0 mcg/mL	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Vulval Biopsy (Small) -		Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	2-4 Days	Not Applicable	Room Temperature
Vulvar Swab Culture For Screening		Swab collected from vulva (including labia, Bartholin glands) in transport media	Microbiology 24 hour\day	3-5 Days	Negative for multidrug resistant non-fermentative gram negative pathogens.	Clean the surface of the lesion with a sterile normal saline. Sample exudates or area of erythema with a swab Transport to the lab ASAP
Vulvectomy (Large)	-	Buffered Formalin	Pathology Sunday- Thursday 8:00am – 4:00pm	3-5 Days	Not Applicable	Room Temperature
		V	J			
Wash/Lavage, Routine Cytology For Malignant Cells	-	Sterile Container	Pathology Sunday- Thursday 8:00am – 4:00pm	2-3 Days	Not Applicable	Room Temperature
WBC Differential Count	-	EDTA WHOLE BLOOD LAVENDOR TOP TUBE	Hematology 24hr/7 Days	4-8 Hours	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Room temperature
Widal Test	-	2-3 ml Blood " Plain Red Top Tube"	Immunolog y Send out test /contact the laboratory	3-5 Working Days	Negative	Room Temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Wound Culture + Gram Stain	-	Deep closed wounds: a. Decontaminate the site with saline and 70% alcohol b. Aspirate the loculated fluid or pus from the depth of postulator vesicular wounds and abscess with a sterile needle and syringe. c. If a material cannot be obtained with a needle and syringes, a swab must be used, either separate the wound margins with the thumb and forefinger of one hand (wearing sterile gloves) or make a small opening in a closed abscess with a scalpel blade before extending the tip of the swab deeply into the depth of the lesion with the other hand. Do not to touch the adjacent skin margins d. Transport in anaerobic transport media ASAP if anaerobes are suspected. Superficial open wounds: a. Clean open lesions thoroughly using sterile normal saline 0.9%.b. Aspirate the purulent fluid or pus from the depth of wound with a sterile needle and syringe. c. Open superficial wounds are not suitable for anaerobic culturing. d. Transport in aerobic transport media ASAP.	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	Preliminary Gram stain: 2-3 Hours Culture: 2-3 Days If Negative	-No growth	Room temperature

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Yersinia, Stool Culture	-	Stool: 1-2 g, or 5 ml in clean container 1)Do not collect from bedpan containing urine 2) Must be transported ASAP, not longer than 2 hours of passage 2- Rectal swabs It must show stool. It is less satisfactory than raw stool sample. Transport to the lab. ASAP.	Microbiology 24 hours, Recommended time : 8:00AM – 4:00 PM	3-5 Days	Negative culture for Yersinia spp.	Must be transported ASAP, not longer than 2 hours of passage
Yeast Susceptibility Testing	-	Yeast Isolate on solid media	Microbiology 8 am- 5 pm	3-5 Days	Not Applicable	Reflect test
Ziehl- Neelsen On Tissue	Ziehl- Neelsen On Tissue - Paraffin Block Sunday- Thursday 1-2 Days Not Applicable Room Temperature					
Zinc Level S-Zn Heparin (Ligh		Minimum 1 ml Blood Lithium Heparin (Light Green) or Plain (Tube Red Top)	8:00am – 4:00pm Immunochemistry 24 hours/day	One Week	70 – 120 mcg/dL	Room Temperature
Zinc Level 24hr Urine Collection	U-Zn	24 hours Urine collection container kept cool	Immunochemistry 24 hours/day	One Week	300 – 800 mcg/24hrs	Keep the container in a cool place (Refrigerator). It must be delivered to the section before 10 am

Chapter Three: Immunochemistry Profiles (Seven)

1. Kidney Function Tests	2. Chemistry Profile 14	3. Chemistry Profile 20	4. Liver Function Test
Sodium (Na)	Sodium (Na)	Sodium (Na)	
Potassium (K)	Potassium (K)	Potassium (K)	
Chloride (Cl)	Chloride (Cl)	Chloride (Cl)	
Urea	Urea	Urea	
Creatinine	Creatinine	Creatinine	
Uric Acid	Uric Acid	Uric Acid	
	Calcium	Calcium	
7. Calcium Panel	Magnesium	Magnesium	
Albumin, Serum Level	Phosphorus	Phosphorus	
Adjusted Calcium	Glucose	Glucose	
Calcium, Serum Level	Albumin	Albumin	
		Adjusted Calcium	
5. Lipid Profile	6. Iron Study	eGFR	
Cholesterol	Iron Serum Level	Bicarbonate	Albumin
Triglyceride		Total Protein	Total Protein
	Total Iron Binding Capacity	Bilirubin Total	Bilirubin Total
HDL	Transferrin Saturation Test	Bilirubin Direct	Bilirubin Direct
LDL	Unsaturated Iron Binding Capacity	Alkaline Phosphatase	Alkaline Phosphatase
	Ι ν	ALT	ALT
		AST	AST

Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges

Complete Blood Count

	Male& Female 4 - 11x 10 ³ cells/μL
WBC Count	Children Age 8-13 years: 4.5 - 13.5x 10 ³ cells/μL
	Children Age 4-7 years: 5- 17x 10³ cells/μL
	Children Age 1-3 years: 5.5 - 17.5x 10 ³ cells/μL
	Male 4.35 – 6.5 10 ⁶ cells/μL
	Female 3.90 - 5.50 10 ⁶ cells/μL
RBC Count	Children Age 8-13 years: 4 - 5.4x 10 ⁶ cells/μL
	Children Age 4-7 years: 4 - 5.2x 10 ⁶ cells/μL
	Children Age 1-3 years: 3.4 - 5.2x 10 ⁶ cells/μL
	Male 13.0 – 18.0 g/dl
	Female 12.0 – 16.0 g/dl
Hemoglobin	Children Age 8-13 years: 12 - 15 g/dl
	Children Age 4-7 years:10 -15 g/dl
	Children Age 1-3 years: 10-16 g/dl
Hematocrit (PCV)	Male 40-54 %
110111111111111111111111111111111111111	Female 37-46 %

	Children Age 8-13 years: 35 – 49 %
	Children Age 4-7 years: 34 – 48 %
	Children Age 1-3 years: 34 – 48 %
	Adult 80-94 fl
MCV	Children Age 8-13 years: 80 - 94fl
	Children Age 4-7 years: 78 - 94fl
	Children Age 1-3 years: 76 - 92fl
	Adult 27 - 31 pg
МСН	Children Age 8-13 years: 26 - 32pg
MCH	Children Age 4-7 years: 23 - 31pg
	Children Age 1-3 years: 23 - 31pg
МСНС	Adult 30 - 35 g/dl
Mone	Children (1-13 years) 32 - 36g/dl
	0-14 days: 14.8-17.0%
	15 days-4 weeks: 14.3-16.8%
	5 weeks-7 weeks: 13.8-16.1%
RDW	8 weeks-5 months: 12.4-15.3%
	6 months-23 months: 12.9-15.6%
	24 months-35 months: 12.5-14.9%
	3-5 years: 11.3-13.4%
	6-17 years: 11.4-13.5%
Neutrophils (PMN)	Adult 40 - 65 %

	Children Age 8-13 years: 35 - 65 %		
	Children Age 4-7 years: 30 - 60 %		
	Children Age 1-3 years: 22 - 46%		
Bands	0-5 %		
	Adult 25- 40%		
Lymphocytes	Children Age 8-13 years: 23 - 53 %		
	Children Age 4-7 years: 29 - 65%		
	Children Age 1-3 years:37 - 73%		
Monocytes	Adult 2 - 8%		
·	Children (1-13 years) 2 - 11%		
Eosinophils	0-4%		
Basophils	0-1 %		
Blasts	0%		
Promyelocytes	0%		
Myelocytes	0%		
Metamyelocytes	0%		
Platelet count	150 – 400 x 10 ³ / ul		
MPV	7.5 – 9.3 fl		

Body Fluid Analysis

Body Fluids/total nucleated cells	Synovial Fluids: Both genders (0 – 200/μL
WBC	Peritoneal/pleural/pericardial: Both genders (0-500/μL)
Neutrophils (Body Fluids)	Synovial:<25%
Lymphocytes (Body Fluids)	Variable
Monocytes (Body Fluids)	70%
Body Fluids/RBC	Synovial Fluids: Both gender <1 *10^6/L

CSF Analysis

CSF/WBC	Adults 0-5 *10^6/L
CSF/ Neutrophils	Adults 0-6 %
CSF/ Lymphocytes	Adults 40-80 %
CSF/ Monocytes	Adults 15-45 %
CSF/ RBC	<1 *10^6/L

Other Age / Gender/ Circalunar Rhythm Dependent Reference Ranges

Test Name	Reference Range	
Prolactin	Males : 4.04-15.2 ng/mL	
Troucent	Females: 4.79-23.3 ng/mL	
Adjusted Calcium	9 - 10.5 mg/dl (0 - 18) years 8.8 - 10.2 mg/dl (18 -99) Years	
Follicle Stimulating Hormone	Male: ≤ 12.4 mIU/mL Normally Menstruating Females Follicular Phase: ≤ 12.5 mIU/mL Mid-Cycle Peak: ≤ 21.5 mIU/mL; Luteal Phase: ≤ 7.7 mIU/mL Post-menopausal Females: ≤ 134.8 mIU/mL	
Luteinizing Hormone	Normal Males: ≤ 8.6 mIU/mL Normally Menstruating Females: Follicular Phase: ≤ 12.6 mIU/mL Mid-Cycle Peak: ≤ 95.6 mIU/mL; Luteal Phase: ≤ 11.4 mIU/mL Postmenopausal Females: ≤ 58.5 mIU/mL	
Amylase(Urine)	α-amylase/creatinine ratio Men: 58-283 U/g Women: 75-390 U/g	
Albumin, Level	3.6 - 5.3 g/dl (0 - 18) Year 4 - 5.1 g/dl (18 -99) Year	
Beta-2-Microglobulin	$<$ 60 years 0.8-2.4 mg/L $>$ 60 years \le 3.0 mg/L	
Beta Human Chorionic Gonadotropin (Beta-HCG)	Non-pregnant, pre-menopausal at or below ≤ 5.3 mIU/mL Post-menopausal at or below ≤ 8.3 mIU/mL Men ≤ 2.6 mIU/mL	
Bilirubin Total Level	0.2 - 0.8 mg/dl (0 - 18) years 0.28 - 1.0 mg/dl (18 -99) Year	
17-Beta-Estradiol (E2)	Follicular Phase : 12.5-166 Ovulation: 85.8 - 498 Luteal phase : 43.8- 211 Postmenopause:<5.00-54.7 Males:7.63-42.6 Children(1-10)years boys:<5.00-20.0 Children(1-10)years girls:6.0-27.0	

Men, 2060 years: 30400 ng/mL Women, 17 60 years: 13 150 ng/mL Males: 18 years: 8-61 U/L Gamma-Glutamyl Transferase (GGT) Men, 2060 years: 30400 ng/mL Women, 17 60 years: 13 150 ng/mL Females: 18 years: 5-36 U/L Children:	
Males: 18 years: 8-61 U/L Gamma-Glutamyl Transferase (GGT) Women, 17 60 years: 13 150 ng/mL Males: 18 years: 8-61 U/L Females: 18 years: 5-36 U/L Children:	
Gamma-Glutamyl Transferase (GGT) Females: 18 years: 5-36 U/L Children:	
Gamma-Giutamyi Transferase (GGT) Children:	
Cnigren:	
Refer to: Immunochemistry Reference Range Interpretation	
Children:	
Refer to: Immunochemistry Reference Range Interpretation	
Immunoglobulin A	
Adult:	
61-356 mg/dL	
Neonates: <1.5	
Infants in 1st year of life: <15.0	
Children aged 1-5 years: <60	
Immunoglobulin E Children aged 6-9 years: <90	
Children aged 10-15 years: <200	
Adults: <100	
Children:	
Refer to: Immunochemistry Reference Range Interpretation	
Immunoglobulin G	
Adult:	
767-1590 mg/dL	
Children:	
Refer to: Immunochemistry Reference Range Interpretation	
Immunoglobulin M	
Adult: Adult: 37-286 mg/dL	
Malas: 50, 150 mgg/dI	
Iron Level Females: 35-145 mcg/dL	
Children:	
Refer to: Immunochemistry Reference Range Interpretation	
TOTAL OF IMMINISTRATION AND A PROPERTY AND A PROPER	
Adult:	
LDL Cholesterol Desirable: <100 mg/dL	
Above Desirable: 100-129 mg/dL	
Borderline high: 130-159 mg/dL	
High: 160-189 mg/dL	
Very high: $> or =190 \text{ mg/dL}$	

	Age ((years)		
	< 40 years : 1.4 ng/mL			
	40-49 years: 2.0 ng/mL			
Prostatic Specific Antigen	50-59 years: 3.1 ng/mL			
	60-69 years: 4.1 ng/mL			
	≥ 70 years: 4.4 ng/mL			
		0.20-1.40		
		ular :0.20-1.50		
Progesterone Serum Level	Female Ovulation: 0.80-3.00			
		al: 1.70-27.00		
		0.10-0.80" ng/ml 0.2-2%		
Reticulocyte Count, Blood		0.2-270		
Renembey to Count, Dioou		orn 2- 6%		
		y Males:		
		s: 2.49-8.36		
Testosterone Total, Level	\geq 50 years: 1.93-7.40 ng/mL			
Testosterone Total, Level	Healthy premenopausal Females:			
	20-49 years: 0.084-0.481 ng/mL			
	≥ 50 years: 0.029-0.408 ng/mL			
	pCO2	Male: 35-48 mmHg		
		Female: 32-45 mmHg		
	Total Hb	Male: 13.5-17.5 g/dL		
		Female: 12.0-16.0 g/dL		
	pO2	83-108 mm Hg		
	sO2	>95 %		
	cK+	3.4-4.5 mmol/L		
	cNa+	136-146 mmol/L		
Arterial Blood Gas Plus Extended Critical Care Profile	Ionized Calcium (Ca2+)	4.61 - 5.17 mg/dL		
	cCl-	98-106 mmol/L		
	cGlucose	70-105 mg/dL		
	cLactate	0.5-1.6 mmol/L		
	FO2Hb	94-98 %		
	FСОНь	0.5-1.5 %		
	FMetHb	0.0-1.5 %		
	cBase(Ecf)/ SBE	-2 to +2 mmol/L		

	НСО3-	22 – 26 mmol/L		
Oxalate 24hr Urine	Male Adult: 7.2- 44.1 Female Adult: 3.6- 28.8 Children: 12.6- 37.8 mg/24hrs			
Magnesium	1.7 - 2.6 mg/dl (0 - 18) years 1.7 - 2.4 mg/dl (18 -99) Year			
Phosphorus Level	3.1 - 5.4 mg/dl (0 - 18) Years 2.5 - 4.5 mg/dl (18 -99) Year			
Unsaturated Iron Binding Capacity (UIBC)	Females: 135-392 mcg/dL Males: 125-345 mcg/dL			
Urea(Urine)	Female: 282 – 3486 mg/dl Male: 310 - 3300 mg/dl			
Urea Level	Children: 15 - 38 mg/dl Male: 17.0 - 45.0 mg/dl Female: 12.0 - 36.0 mg/dl			
Uric Acid	Children: 2.5 - 5.9 mg/dl Male: 2.6 - 8.0 mg/dl Female: 2.2 - 6.4 mg/dl			
Female: µg/L 10 -14 yrs: 33.9 - 280 15 - 19 yrs: 65.1 - 368 20 - 24 yrs: 148.0 - 407 25 - 34 yrs: 98.8 - 340 35 - 44 yrs: 60.9 - 337 45 - 54 yrs: 35.4 - 256 55 - 64 yrs:18.9 - 205 65 - 74 yrs: 9.4 - 246 More than 75 yrs: 12.0 - 154 Male:µg/L 10 -14 yrs: 24.4 - 247 15 - 19 yrs: 70.2 - 492 20 - 24 yrs: 11 - 492 25 - 34 yrs: 160 - 449 35 - 44 yrs: 88.9 - 427 45 - 54 yrs: 44.3 - 331				

	55 – 64 yrs:51.7 – 295 65 – 74 yrs: 33.6 – 249 More than 75 yrs: 16.2 – 123		
(0-4)days of LMP :5.46-28.16 , (5-10)days of LMP:7.87-34.5 (11-13)days of LMP :19.49-102.28 ,Day of ovulation:49.92-13.15-10.28 (18-25)days of LMP :13.15-10.28 (26-28)days of LMP :7.28-89.95 , IVF peak level:354.2-16.99 (26-28)days of LMP :7.28-89.95 (26-28)days of LMP :7.28			
	V-PH 7.35-7.45		
	V-pCO2 42 – 50 mm Hg		
	V-pO2 30 - 50 mm Hg		
	V-sO2 65 - 75%		
	V-HCO3- 23 – 27 mmol/L		
	cBase(Ecf)/ SBE -2 to +2 mmol/L		
	cK+ 3.4-4.5 mmol/L		
	cLactate 0.5-1.6 mmol/L		
Venous Blood Gas Plus Extended Critical Care Profile	cNa+ 136-146 mmol/L		
	FO2Hb 94-98 %		
	FCOHb 0.5-1.5 %		
	FMetHb 0.0-1.5 %		
	Ionized Calcium (Ca2) 4.61 - 5.17 mg/dL		
	cCl- 98-106 mmol/L		
	cGlucose 70-105 mg/dL		
	Total Hb Male: 13.5-17.5 g/dL		
	Female: 12.0-16.0 g/dL		
	<18 years old: not calculated >18 years:		
	Terms GFR mL/min/1.73 m		
eGFR	Normal or high 90		
	Mildly decreased 60 to 89		
	Mildly to moderately 45 to 59 decreased		

Moderately to severely decreased	30-44	
Severely decreased	15-29	
Kidney failure	<15	

Chapter Five: Transfusion Services (Blood Bank Products)

Product name	Requirements	TAT	Special Handling
Coomb's Test, Indirect	EDTA blood tube "Lavender Top " fill to mark or 3-5 ml Blood plain/ tube Red Top	24 Hours	Room temperature
Coomb's Test Direct	EDTA blood tube "Lavender Top " fill to mark	24 Hours	Room temperature
Cryoglobuline	• 5 ml plain blood tube	24 Hours	Room temperature
Daratumumab Neutralizing Test	2 ml or 4.5 ml EDTA blood tube "Lavender Top " fill to mark or 3-5 ml	24 Hours	Room temperature
Type and Screen	2 ml or 4.5 ml EDTA blood tube "Lavender Top " fill to mark or 3-5 ml 2 blood grouping EDTA tubes if first time recipient	8-24 Hours	Room temperature

Product name	Requirements	TAT	Special Handling	
Blood Unit, Cross match & Dispense	 First time transfusion (No blood Group on LIS): Two EDTA samples for Blood Group and Compatibility testing. Non- First-time transfusion (History of Blood Group is on LIS): One EDTA sample. 	2 Hours	<10 C°	
Cryoprecipitate unit	First time transfusion (No blood Group on LIS): Two EDTA samples for Blood Group and Compatibility testing.	2 Hours	Room temperature	
Filtered Blood Unit And Dispense	 First time transfusion (No blood Group on LIS): Two EDTA samples for Blood Group and Compatibility testing. Non- First-time transfusion (History of Blood Group is on LIS): One EDTA sample. 	2 Hours	<10 C°	
Filtered Irradiated Single Donor Platelets	First time transfusion (No blood Group on LIS): Two EDTA samples for Blood Group and Compatibility testing.	1 Hour	Room temperature	
Fresh Frozen Plasma/Unit	First time transfusion (No blood Group on LIS): Two EDTA samples for Blood Group and Compatibility testing.	2 Hours	Room temperature	

Product name	Requirements	TAT	Special Handling	
Leukocyte reduced irradiated blood unit	 First time transfusion (No blood Group on LIS): Two EDTA samples for Blood Group and Compatibility testing. Non- First-time transfusion (History of Blood Group is on LIS): One EDTA sample. 	2 – 3 Hours	<10 °C	
Therapeutic Plasma Exchange	First time Exchange (No blood Group on LIS): Two EDTA samples for Blood Group and Compatibility testing.	Call blood bank	Call blood bank	
Washed RBC/Unit	 First time transfusion (No blood Group on LIS): Two EDTA samples for Blood Group and Compatibility testing. Non- First-time transfusion (History of Blood Group is on LIS): One EDTA sample. 	24 hours	<10 C°	
Plasma Depleted	Two blood group EDTA tubes if no blood group result on LIS	24 hours	Room temperature	
Therapeutic phlebotomy	Call blood bank 1738	Call blood bank	Signed order from the patient physician along with blood bank medical director sign The patient come to blood bank with the assigned nurse	

Chapter Six: Point of Care

Test Name	Abbreviatio	n Collection Requirements	Performed	TAT	Reference Range	Special Handling
Glucose, Rapid Test	Glu	 Acceptable sample size is (1.2 μl) Capillary whole blood (Finger Stick), venous whole blood, arterial whole blood, neonate heel stick and neonate arterial whole blood specimens. Venous whole blood/Arterial whole blood for Critically ill patients Whole blood specimens collected with heparin or Plain (Red top tube). 	Bedside- POC / 24 hours/day	Immediately after collection	FBS: < 110 mg/dl Random: 70 – 140 mg/dl Diabetic: > 200 mg/dl Critical values: < 40 & > 400 mg/dl	Use a safety sterile lancet to puncture the finer (One for each patient) Critical/unusual results should be confirmed before reporting
Hemoglobin, Rapid Test	Hb	 Capillary (Obtained by finger stick), anticoagulated venous or arterial whole blood (EDTA or Heparin, no fluoride) may be used for testing. Volume of sample: 10 μl of whole blood. 	Bedside- POC / 24 hours/day	Immediately after collection	Adult female: 12-16 g/dl Adult male: 13-18 g/dl Children: 8-13 years: 12 - 15 g/dl 4-7 years: 10 - 15 g/dl 1-3 years: 10-16 g/dl Critical values: < 8.0 & > 18.5 g/g/dl	Use a safety sterile lancet to puncture the finer (One for each patient) Critical/unusual results should be confirmed before reporting
Point of Care, Respiratory Arterial Blood Gas+ Extended Critical Care Profile	POC, RT- ABG+ CCP	Minimum 65 μl dry, electrolyte balanced heparin syringe- under ice	Point of Care/ 24 hours/day	Immediately and within 15 minutes (with or without ice) and not more than 5 minutes for shunt study and elevated leukocyte or platelet count	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Care must be taken to avoid sample contamination by air Samples with more than 15 minutes at RT or under ice must be rejected Critical/unusual results should be confirmed before reporting

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Point of Care, Respiratory Venous Blood Gas+ Extended Critical Care Profile	POC, RT- VBG+ CCP	Minimum 65 μl dry, electrolyte balanced heparin syringe- under ice	Point of Care/ 24 hours/day	Immediately and within 15 minutes (with or without ice) and not more than 5 minutes for shunt study and elevated leukocyte or platelet count	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Care must be taken to avoid sample contamination by air Samples with more than 15 minutes at RT or under ice must be rejected Critical/unusual results should be confirmed before reporting
Point of Care , Anesthesia Arterial Blood Gas+ Extended Critical Care Profile	POC, Anes- ABG + CCP	Minimum 65 μl dry, electrolyte balanced heparin syringe- under ice	Point of Care/ 24 hours/day	Immediately and within 15 minutes (with or without ice) and not more than 5 minutes for shunt study and elevated leukocyte or platelet count	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Care must be taken to avoid sample contamination by air Samples with more than 15 minutes at RT or under ice must be rejected Critical/unusual results should be confirmed before reporting

Test Name	Abbreviation	Collection Requirements	Performed	TAT	Reference Range	Special Handling
Point of Care , Anesthesia Venous Blood Gas+ Extended Critical Care Profile	POC, Anes- VBG + CCP	Minimum 65 μl dry, electrolyte balanced heparin syringe- under ice	Point of Care/ 24 hours/day	Immediately and within 15 minutes (with or without ice) and not more than 5 minutes for shunt study and elevated leukocyte or platelet count	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Care must be taken to avoid sample contamination by air Samples with more than 15 minutes at RT or under ice must be rejected Critical/unusual results should be confirmed before reporting
RT, Arterial Blood Gas	RT- ABG	Minimum 160 μl, Sodium or Lithium heparinized syringe- under ice	Point of Care/ 24 hours/day	Immediately and within 15 minutes (with or without ice) and not more than 5 minutes for shunt study and elevated leukocyte or platelet count	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Care must be taken to avoid sample contamination by air Samples with more than 15 minutes at RT or under ice must be rejected Critical/unusual results should be confirmed before reporting
RT, Venous Blood Gas	RT- VBG	Minimum 160 μl, Sodium or Lithium heparinized syringe- under ice	Point of Care/ 24 hours/day	Immediately and within 15 minutes (with or without ice) and not more than 5 minutes for shunt study and elevated leukocyte or platelet count	Refer to Chapter Four: List of Age / Gender/ Circalunar Rhythm Dependent Reference Ranges	Care must be taken to avoid sample contamination by air Samples with more than 15 minutes at RT or under ice must be rejected Critical/unusual results should be confirmed before reporting