



# **Massoud Medical Laboratory**

**1401 Test Catalog**

**Laboratory Reference Edition**  
**Sorted By Laboratory Departments**

# **Biochemistry Department**

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Apo Lipoprotein-A1</b>	Serum Plasma	0.4	Immunoturbidimetry	7 days at 2-8 °c, 1 month at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles	Sunday Wednesday	1 Day
<b>Apo Lipoprotein-B</b>	Serum Plasma	0.4	Immunoturbidimetry	7 days at 2-8 °c, 1 month at -20°c	Hemolysis, Icteric, Limbic	Avoid repeated freeze / thaw cycles	Sunday Wednesday	1 Day
<b>ALT(SGPT)</b>	Serum	0.5	Photometric	7 days at 2-8°c, 1 month at -20°c	-	-	Daily	Daily
<b>AST(SGOT)</b>	Serum	0.5	Photometric	7 days at 2-8°c, 1 month at -20°c	Hemolysis	-	Daily	Daily

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Alkaline Phosphatase</b>	Serum	0.5	Photometric	7 days at 2-8°C, 1 month at -20°C	-	-	Daily	Daily
<b>Alkaline Phosphatase-Heat Stable</b>	Serum	0.5	Photometric	7 days at 2-8°C, 1 month at -20°C	-	-	Daily	Daily
<b>Aldolase</b>	Serum	0.5	Enzymatic	5 days at 2-8°C, 1 months at -20°C	Hemolysis mild & gross,	Be separated quickly	Sunday	1 Day
<b>Amylase</b>	Serum Body fluid Urine	0.5	Photometric	5 days at 2-8°C, 1 months at -20°C	-	-	Daily	Daily

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Acid Phosphatase</b>	Serum	1	Photometric	7 day at 2-8°C, 1 month at -20°C	Hemolysis	Add 30µl acetic acid 0.8 ml/L to 1 ml of sample. For 12 hours before specimen collection, do not take multivitamins or dietary supplements containing biotin	Daily	Daily
<b>Acid Phosphatase - Prostatic</b>	Serum	1	Photometric	7 day at 2-8°C, 1 month at -20°C	Hemolysis	-	Saturday	1 Day
<b>Adenosine deaminizes</b>	Serum Body fluid	0.5	Photometric	7 day at 2-8°C, 1 month at -20°C	-	-	Sunday Thursday	1 Day

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Acid Phosphatase – Non Prostatic</b>	Serum	1.0	Photometric	7 day at 2-8°C, 1 month at -20°C	Hemolysis	Add 30µl acetic acid 0.8 ml/L to 1 ml of sample. For 12 hours before specimen collection, do not take multivitamins or dietary supplements containing biotin	Saturday	1 Day
<b>Albumin</b>	Serum Body fluid Urine	0.5	Photometric	7 day at 2-8°C, 1 month at -20°C	-	-	Daily	Daily
<b>ACE</b>	Serum Body fluid	0.5	Enzymatic	5 days at 2-8°C, 2 months at -20°C	Hemolysis, Icteric, Lipemic	Be separated quickly	Sunday Thursday	1 Day

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Ammonia</b>	Plasma	0.5	Photometric	2 hours at 2-8°C, 7 Days at -20°C	Icteric	-	Daily	Daily
<b>Alkaline phosphatase-Iso-enzymes</b>	Serum	0.5	IEF	7 Days at 2-8°C, 14 Days at -20°C	-	-	Saturday	1 Day
<b>Alpha1 Antitrypsin</b>	Serum	0.5	Immunoturbidimetry	14 Days at -20°C	-	-	Sunday Wednesday	1 Day
<b>Bilirubin (Total)</b>	Serum	0.5	Photometric	7 days at 2-8°C, 1 months at -20°C	-	-	Daily	Daily

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Bilirubin(Direct)</b>	Serum	0.5	Photometric	7 days at 2-8°C, 1 month at -20°C	-	-	Daily	Daily
<b>Beta2 Transferrin</b>	Nasal	0.5	IFE	7 Days at 2-8°C, 14 Days at -20°C	-	-	Saturday	1 Day
<b>Blood Gas</b>	Whole blood	0.5	Biosensor	1 hour at 2-8°C	Hemolysis	-	Daily	Daily
<b>Creatinine</b>	Serum Urine	0.5	Enzymatic	5 days at 2-8°C, 1 month at -20°C	-	-	Daily	Daily
<b>Creatine Phosphokinase</b>	Serum	0.5	Photometric	7 days at 2-8°C, 1 month at -20°C	-	-	Daily	Daily



Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
CK-MB	Serum	0.2	Photometric	1 day at 2-8°C, 1 month at -20°C	Hemolysis	-	Daily	Daily
Calcium	Serum Body fluid Urine	0.5	photometric	7 day at 2-8°C, 1 month at -20°C	-	-	Daily	Daily
Chloride	Serum Body fluid Urine	0.5	Indirect-ISE	7 day at 2-8°C, 1 month at -20°C	-	-	Daily	Daily
Copper	Serum Urine	S: 0.5 U: 10	Photometric	7 days at 2-8°C 3 months at 20°C	Hemolysis, Icteric, Lipemic	-	Serum : Daily Urine: Wednesday	1 Day

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Ceruloplasmin</b>	Serum Plasma	0.5	Immunoturb	7 days at 2-8°C for longer time At -20°C.	Hemolysis, Icteric, Lipemic	Fasting is recommended	Sunday Wednesday	1 Day
<b>C-Reactive Protein</b>	Serum	0.5	Immunoturbidimetry	14 Days at -20°C	Hemolysis	-	Daily	Daily
<b>C3</b>	Serum	0.5	Immunoturbidimetry	14 Days at -20°C	-	-	Saturday Monday Wednesday	1 Day

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>C4</b>	Serum	0.5	Immunoturbidimetry	14 Days at -20°C	-	-	Saturday Monday Wednesday	1 Day
<b>C1 Inhibitor</b>	Serum	0.5	Immunoturbidimetry	14 Days at -20°C	-	-	Daily	Daily
<b>Calculi Analysis</b>	Calculi	-	Colorimetric	At RT	-	-	Saturday	1 Day
<b>Creatine Phosphokinase</b>	Serum	0.5	Enzymatic	7 days at 2-8°C, 1 month at -20°C	-	-	Daily	Daily

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Citrate</b>	Urine	10	Enzymatic	7 days at 2-8°C, 1 month at -20°C	-	-	Tuesday	1 Day
<b>Drugs of Abuse Screen Test</b>	Urine	1	Immunoturbidimetry	14 Days at -20°C	-	-	Daily	Daily
<b>eGFR(MDRD Formula)</b>	-	-	Formula	-	-	-	Daily	Daily
<b>Fasting Blood Glucose</b>	Serum Plasma Body fluid Urine	0.2	hexokinase	5 days at 2-8°C, 1 month at -20°C	-	Avoid repeated freeze / thaw cycles/ Fasting before test	Daily	Daily
<b>Free Lambda light chain</b>	Serum Urine	0.5	Immunoturbidimetry	14 Days at -20°C	-	-	Sunday Tuesday Thursday	1 Day

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
Free Kappa light chain	Serum Urine	0.5	Immunoturbidimetry	14 Days at -20°C	-	-	Saturday Monday Wednesday	1 Day
G6PD-Quantity	Whole blood	0.5	Enzymatic	20 Days at 2-8°C	Hemolysis	-	Saturday Monday Wednesday	1 Day
Gamma G.T	Serum	0.5	photometric	7 days at 2-8°C, 1 month at -20°C	-	-	Daily	Daily
HDL-Cholesterol	Serum	0.5	photometric	5 days at 2-8°C, 1 month at -20°C	-	-	Daily	Daily

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
High Sensitive CRP	Serum Plasma	0.2	immunoturbidimetry	7 days at 2-8°C, 1 months at -20°C	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles	Sunday Wednesday	1 Day
IgG	Serum CSF	0.5	Immunoturbidimetry	14 Days at -20°C	-	-	Sunday Tuesday Thursday	1 Day
IgM	Serum	0.5	Immunoturbidimetry	14 Days at -20°C	-	-	Daily	Daily

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
IgA	Serum	0.5	Immunoturbidimetry	14 Days at-20°C	-	-	Daily	Daily
IgG 1 Subclass	Serum	0.5	Immunoturbidimetry	14 Days at-20°C	-	-	Tuesday	1 Day
IgG 2 Subclass	Serum	0.5	Immunoturbidimetry	14 Days at-20°C	-	-	Tuesday	1 Day

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>IgG 3 Subclass</b>	Serum	0.5	Immunoturbidimetry	14 Days at -20°C	-	-	Tuesday	1 Day
<b>IgG 4 Subclass</b>	Serum	0.5	Immunoturbidimetry	14 Days at -20°C	-	-	Tuesday	1 Day
<b>Iron</b>	Serum	0.5	Photometric	7 days at 2-8°C for longer time at -20°C.	-	-	Daily	Daily
<b>Immuno Fixation Electrophoresis</b>	Serum Urine	0.5	IFE	7 Days at 2-8°C, 14 Days at -20°C	-	-	Serum: Saturday Monday Wednesday Urine: Daily	2 Days



Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Isoelectric Focusing(CSF)</b>	Serum Body fluid	0.5	IEF	7 Days at 2-8°C, 14 Days at -20°C	-	-	Thursday	1 Day
<b>LDL-Cholesterol</b>	Serum	0.5	Photometric	5 days at 2-8°C, 1 month at -20°C	-	-	Daily	Daily
<b>Lipoprotein a</b>	Serum Plasma	0.5	Immunoturbidimetry	7 days at 2-8 °C, 1 month at -20°C	-	-	Sunday Wednesday	1 Day
<b>Lactate dehydrogenase</b>	Serum Body fluid	0.5	Photometric	1 day at 2-8°C, 1 month at -20°C	Hemolysis	Blood sampling without tourniquet. Abstain using of cefotaxim.  Separated within 20 min.	Daily	Daily

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Lipase</b>	Serum Body fluid	0.5	Photometric	5 days at 2-8°C, 1 months at-20°C	-	-	Daily	Daily
<b>Lactate</b>	Plasma	0.5	Photometric	2 hours at 2-8°C, 7 Days at-20°C	-	-	Daily	Daily
<b>Lithium</b>	Serum	0.2	ISE	2 hours at 2-8°C, 7 Days at-20°C	Hemolysis	Specimens are commonly drawn approximately 12 hours after last dose of lithium taken. Notice using of diuretics, metronidazole, fluoxetine, drugs.	Daily	Daily

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Magnesium</b>	Serum Body fluid Urine	0.5	Photometric	7 day at 2-8°C, 1 month at -20°C	Hemolysis	-	Daily	Daily
<b>Oxalate</b>	Urine	10	Enzymatic	7 days at 2-8°C, 1 month at -20°C	-	Abstain ingestion of Vitamin C, Orange, Lemon, Grapefruit, Tomatoes, Spinach	Sunday Wednesday	1 Day
<b>Protein Electrophoresis</b>	Serum Urine	S: 0.5 U :10	Electrophoresis	7 Days at 2-8°C, 14 Days at -20°C	-	-	S: Monday Thursday Urine: Daily	1 Day
<b>Pyruvate</b>	Whole blood CSF	0.5	Photometric	7 Days at -20°C	-	-	Saturday Monday Wednesday	1 Day

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Potassium</b>	Serum	0.5	Indirect-ISE	7 day at 2-8°C, 1 month at -20°C	Hemolysis	-	Daily	Daily
	Body fluid							
	Urine							
<b>Phosphorus (inorganic)</b>	Serum	0.5	Photometric	7 day at 2-8°C, 1 month at -20°C	-	-	Daily	Daily
	Body fluid							
	Urine							
<b>Sodium</b>	Serum	0.5	Indirect-ISE	7 day at 2-8°C, 1 month at -20°C	-	-	Daily	Daily
	Body fluid							
	Urine							
<b>Total Cholesterol</b>	Serum	0.5	Photometric	5 days at 2-8°C, 1 month at -20°C	-	-	Daily	Daily

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Triglycerides</b>	Serum Body fluid	0.5	Photometric	5 days at 2-8°C, 1 month at -20°C	-	-	Daily	Daily
<b>Total Protein</b>	Serum Body fluid Urine	0.5	Photometric	7 day at 2-8°C, 1 month at -20°C	-	-	Daily	Daily
<b>Total Iron Binding Capacity</b>	Serum	0.5	photometric	7 days at 2-8°C for longer time at -20°C.	-	-	Daily	Daily
<b>Transferrin</b>	Serum Plasma	0.5	Immunoturbidimetry	7 days at 2-8°C, 3 months at -20°C	Hemolysis, Icteric, Lipemic	Avoid freeze / thaw cycle	Sunday Wednesday	1 Day

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Total Galactose Screening (spot test)</b>	Whole blood	0.5	Photometric	7 days at 2-8°C,	-	-	Monday	1 Day
<b>Urea</b>	Serum Urine	0.5	Enzymatic	5 days at 2-8°C, 1 month at -20°C	-	-	Daily	Daily
<b>Uric acid</b>	Serum Urine Body fluid	0.5	Photometric	7 day at 2-8°C, 1 month at -20°C	-	-	Daily	Daily
<b>UIBC</b>	Serum	0.5	photometric	7 day at 2-8°C, 1 month at -20°C	-	-	Daily	Daily
<b>Zinc</b>	Serum Urine	0.5	photometric	7 day at 2-8°C, 1 month at -20°C	Hemolysis	-	Daily	Daily

# **Immuno assay Department**

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Anti-Streptolysin O Titer</b>	Serum	0.5	Immunoturb	5 days at 2-8°C, 2 month at -20°C	Gross hemolysis, Icteric, Lipemic	-	Daily	1 day
<b>Anti-Listeria Ab (IFA)</b>	Serum	0.2	IFA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric,	-	Saturday Tuesday	1 day
<b>Anti-Nuclear Ab (ANA)</b>	Serum Plasma Body Fluids	0.5	IFA	7 days at 2-8°C, 3 months at -20°C	Gross Hemolysis, Icteric, Lipemic	-	Daily	1 day



Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
Anti-Mitochondrial Ab	Serum	0.5	IFA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Daily	1 day
Anti-DNA Ab	Serum	0.5	ELISA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles	Sunday Tuesday Thursday	1 day
Anti Cardiolipin IgG	Serum	0.5	ELISA	5 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Lipemic	Avoid repeated freeze / thaw cycles	Saturday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
Anti Cardiolipin IgM	Serum	0.5	ELISA	5 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Lipemic	Avoid repeated freeze / thaw cycles	Saturday	1 day
Anti Phospholipid IgG	Serum	0.5	ELISA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Thursday	1 day
Anti-Phospholipid IgM	Serum PH	0.5	ELISA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Thursday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Anti GBM Ab</b>	Serum	0.5	ELISA	5 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Sunday	1 day
<b>Anti-Smooth Muscle Ab</b>	Serum	0.5	IFA	7 days at 2-8°C, 3 months at -20°C.	Gross hemolysis	-	Monday	1 day
<b>Anti Jo.1</b>	Serum	0.5	ELISA	7 days at 2-8°C for longer time at -20°C	-	-	Tuesday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Anti-Thyroglobulin Ab</b>	Serum Plasma	0.5	CLIA	7 days at 2-8°C, 1 month at -20°C	Gross hemolysis, Icteric, Lipemic	-	Saturday Tuesday	1 day
<b>Anti-Thyroid Peroxidase Ab</b>	Serum Plasma	0.5	CLIA	4 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	Be separated until 20-30 min. Avoid freeze / thaw cycle	Daily	1 day
<b>Anti-Gliadin IgG/ A</b>	Serum Plasma	0.5	ELISA	4 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	Be separated until 20-30 min. Avoid freeze / thaw cycle	Saturday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Anti-tissue Transglutaminase IgG</b>	Serum Plasma	0.5	ELISA	4 days at 2-8°C , 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	Be separated until 20-30 min. Avoid freeze / thaw cycle	Monday	1 day
<b>Anti-tissue Transglutaminase IgA</b>	Serum Plasma	0.5	ELISA	4 days at 2-8°C , 3 months at -20°C	Hemolysis, Icteric, Lipemic	Be separated until 20-30 min. Avoid freeze / thaw cycle	Monday	1 day
<b>Anti-Endomysium IgA (AEA)</b>	Serum Plasma	0.5	IFA	5 days at 2-8°C, 3 months at -20°C	-	-	Thursday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>ANCA/IFA</b>	Serum Plasma Body Fluids	0.5	IFA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Sunday Wednesday	1 day
<b>Anti MPO Ab</b>	Serum Plasma	0.5	ELISA	4 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Thursday	1 day
<b>Anti PR3 Ab</b>	Serum Plasma	0.5	ELISA	4 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Thursday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
Anti CCP Ab	Serum Plasma	0.5	ELISA	4 days at 2-8°C , 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Monday Thursday	1 day
Anti-Centromere Ab	Serum	0.5	ELISA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Daily	1 day
Anti-Smith Ab (Sm)	Serum	0.5	ELISA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Wednesday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Anti-Beta-2 Glycoprotein-IgG</b>	Serum Plasma	0.5	ELISA	4 days at 2-8°C , 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Wednesday	1 day
<b>Anti-Beta-2 Glycoprotein IgM</b>	Serum Plasma	0.5	ELISA	4 days at 2-8°C , 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Wednesday	1 day
<b>Anti-Acetylcholine receptor Ab</b>	Serum	0.5	ELISA	7 days at 2-8°C, for longer time at-20°C	Gross hemolysis, Icteric, Lipemic	Be separated quickly. Avoid repeated freeze/thaw cycles	Monday	1 day



Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
ASCA (IgG) Ab	Serum	0.5	ELISA	7 days at 2-8°C, for longer time at -20°C	Gross hemolysis, Icteric, Lipemic	-	Wednesday	1 days
ASCA (IgA) Ab	Serum	0.5	ELISA	7 days at 2-8°C, for longer time at -20°C	Gross hemolysis, Icteric, Lipemic	-	Wednesday	1 days
ACTH	Plasma	1	CLIA	14 days at -20°C CRITICAL FROZEN	Gross hemolysis	Fasting. Avoid using of tourniquet.  Be separated quickly and transport on ice. Refrigerated centrifuge must be used.	Sunday Wednesday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
Anti-TSHR Ab	Serum	0.5	ECL	5 days at 2-8°C, 1 month at -20°C	Gross hemolysis, Icteric, Lipemic	-	Monday	1 days
Androstenedione	Serum	0.5	ELISA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	Fasting. Sample collection 7 days before or after menstruation.	Sunday Wednesday	1 day
AFP	Serum Plasma Body Fluid	0.5	CLIA/ECL	7 days at 2-8°C, for longer time at -20°C	Gross hemolysis, Icteric, Lipemic	-	Saturday Monday Wednesday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Aldosterone (Upright, Supine)</b>	Serum	0.5	CLIA/ECL	3 days at 2-8°C, 1 month at -20°C	Gross hemolysis, Icteric, Lipemic	Abstain using of anti-blood pressure, prior to collection.  Avoid repeated freeze / thaw cycles	Monday Thursday	1 day
<b>Anti Mullerian Hormone (AMH)</b>	Serum	0.5	ELISA	7 days at 2-8°C, 3 month at -20°C	Gross hemolysis , Icteric, Lipemic	Avoid repeated freeze / thaw cycles	Sunday Wednesday	1 day
<b>Brucella IgG</b>	Serum	0.5	ELISA	7 days at 2-8°C, 3 month at -20°C	Gross hemolysis , Icteric, Lipemic	-	Saturday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Brucella IgM</b>	Serum	0.5	ELISA	7 days at 2-8°C, 3 month at -20°C	Gross hemolysis , Icteric, Lipemic	-	Saturday	1 day
<b>Beta 2 microglobulin</b>	Serum	0.5	ELISA	7 days at 2-8°C, 3 month at -20°C	Gross hemolysis , Icteric, Lipemic	-	Wednesday	1 day
<b>BETA-HCG (Titration)</b>	Serum Plasma	0.5	CLIA, ECLIA	5 days at 2-8°C, 3 month at -20°C	Gross hemolysis , Icteric, Lipemic	Abstain using of chlorpromazine few days prior test (False positive)  Avoid repeated freeze / thaw cycles	Daily	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Coombs Wright</b>	Serum Body fluid CSF	0.5	Agglutination	2 day at 2-8°C, 7 days at -20°C	Gross hemolysis	-	Daily	2 days
<b>CMV IgG</b>	Serum Plasma Body fluid	0.5	CLIA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis , Icteric, Lipemic	Avoid repeated freeze / thaw cycles	Sunday Tuesday	1 day
<b>CMV IgM</b>	Serum Plasma Body fluid	0.5	CLIA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis , Icteric, Lipemic	Avoid repeated freeze / thaw cycles	Sunday Tuesday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>CH50</b>	Serum	1	Hemolysin/ immunoturbidimetric	2 hours at RT, 14 days at -20°C  CRITICAL FROZEN	Gross hemolysis	Avoid repeated freeze / thaw cycles	Wednesday	3 days
<b>Circulating Immune Complex</b>	Serum	0.5	ELISA	2 day at 2-8°C, 1 month at 20°C	Gross hemolysis , Icteric, Lipemic	Fasting is recommended	Sunday	1 day
<b>Cortisol serum</b>	Serum	S: 0.5 U: 5	CLIA/ECL	7 days at 2-8°C, 3 months at - 20°C	Gross hemolysis , Icteric, Lipemic	Avoid using of spironolactone, quinacrine, stress,  Sampling time between 6-8 am.	Daily	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>C3</b>	Serum Plasma	0.5	Immunoturb	7 days at 2-8°C, 1 month at -20°C	Gross hemolysis , Icteric, Lipemic	Avoid repeated freeze / thaw cycles	Saturday Monday Wednesday	1 day
<b>C4</b>	Serum Plasma	0.5	Immunoturb	7 days at 2-8°C, 1 month at -20°C	Gross hemolysis , Icteric, Lipemic	Avoid repeated freeze / thaw cycles	Saturday Monday Wednesday	1 day
<b>CEA</b>	Serum Plasma Body fluid	0.5ml	CLIA/ECL	5 days at 2-8°C, 3 month at -20°C,	Gross hemolysis , Icteric, Lipemic	-	Sunday Tuesday Thursday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Cortisol Urine (24 h, R)</b>	Urine	1	ELISA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	Avoid using of spironolactone, quinacrine, stress, Sampling time between 6-8 am.	Monday	2 days
<b>C-Peptide</b>	Serum	0.5	CLIA or ELISA	7 days at 2-8°C, 1 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Tuesday	1 day
<b>Calcitonin</b>	Serum	0.5	CLIA or ELISA	5 days at 2-8°C, for longer time at -20°C	-	Fasting is recommended	Monday	1 day



Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
CA-15-3	Serum Plasma Body fluid	0.5	CLIA/ECL	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis , Icteric, Lipemic	Avoid repeated freeze / thaw cycles	Sunday Tuesday Thursday	1 day
CA-19-9	Serum Plasma Body fluid	0.5	CLIA/ECL	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis , Icteric, Lipemic	Avoid repeated freeze / thaw cycles	Sunday Tuesday Thursday	1 day
CA-125	Serum Plasma Body fluid	0.5	CLIA/ECL	5 days at 2-8°C , 3 months at -20°C	Gross hemolysis , Icteric, Lipemic	Avoid repeated freeze / thaw cycles	Sunday Tuesday Thursday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>CA-242</b>	Serum Plasma Body fluid	0.5	ELISA	3 days at 2-8°C, for longer time at -20°C	Gross hemolysis , Icteric, Lipemic	Avoid repeated freeze / thaw cycles	Sunday	1 day
<b>Ctx Telo peptide</b>	Serum Plasma	0.5	CLIA/ECL	8 hours at 2- 8°C, 14 days at -20°C	Gross hemolysis	-	Tuesday	1 day
<b>Cyclosporine</b>	Whole blood (EDTA)	1	CLIA/ECL	5 days at 2-8°C, 1 month at - 20°C	Gross hemolysis , Icteric, Lipemic	-	Sunday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>COVID-19 panel</b>								
<b>Anti SARS-CoV-19 IgM</b>	Serum	0.5	ELISA	7 days at 2-8°C, Indefinitely at -20°C	Gross hemolysis, Icteric, Lipemic	-	Saturday to Thursday	1 day
<b>Anti SARS-CoV-19 IgG</b>	Serum	0.5	ELISA	7 days at 2-8°C, Indefinitely at -20°C	Gross hemolysis, Icteric, Lipemic	-	Saturday to Thursday	1 day
<b>Anti-Spike IgG Ab (Covid-19)</b>	Serum	0.5	ELISA	7 days at 2-8°C, Indefinitely at -20°C	Gross hemolysis, Icteric, Lipemic	-	Sunday Tuesday Thursday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Anti RBD IgG Ab (Covid-19)</b>	Serum	0.5	ELISA	7 days at 2-8°C, Indefinitely at -20°C	Gross hemolysis Icteric, Lipemic	-	Saturday Wednesday	1 day
<b>Neutralizing Ab(Covid-19)</b>	Serum	0.5	ELISA	7 days at 2-8°C, Indefinitely at -20°C	Gross hemolysis , Icteric, Lipemic	-	Saturday Wednesday	1 day
<b>Direct Coombs</b>	Whole blood (EDTA)	0.5	Hemagglutination	1 day at RT, 5 days at 2-8°C	Gross hemolysis, Clotting, Frozen	-	Daily	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Dihydrotestosterone (DHEA-SO4)</b>	Serum Plasma	0.5	CLIA/ECL	7 days at 2-8°C, 2 month at -20°C	Gross hemolysis , Icteric, Lipemic	Avoid repeated freeze / thaw cycles	Daily	1 day
<b>Digoxin</b>	Serum	0.5	ECL	7 days at 2-8°C, 3 month at -20°C	Gross hemolysis , Icteric, Lipemic	Abstain using of neomycin, spironolactone, 7 days prior to collection.  Avoid repeated freeze / thaw cycles	Saturday Monday Wednesday	1 day
<b>EBV-VCA IgG</b>	Serum Plasma Body fluid CSF	0.5	CLIA	7 days at 2-8°C, 3 months at -20°C,	Gross hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles	Monday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>EBV-VCA IgM</b>	Serum Plasma Body fluid CSF	0.5	CLIA	7 days at 2-8°C, 3 months at -20°C,	Gross hemolysis , Icteric, Lipemic	Avoid repeated freeze / thaw cycles	Monday	1 day
<b>Echinococcus (IgG)</b>	Serum Body Fluid	0.5	ELISA	7 days at 2-8°C, 3 months at -20°C,	Gross hemolysis , Icteric, Lipemic	-	Sunday Wednesday	1 day
<b>Estradiol</b>	Serum Plasma	0.5	CLIA	5 days at 2-8°C, 3 months at -20°C	Gross hemolysis Icteric, Lipemic	Fasting Avoid repeated freeze / thaw cycles	Saturday Monday Wednesday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
Erythropoietin	Serum	0.5	ELISA/CLIA	1 day at 2-8°C, 3 months at -20°C	Gross hemolysis , Icteric, Lipemic	After sampling and before separating, sample must store at 2- 8°C, then separated at refrigerated centrifuge  Avoid repeated freeze / thaw cycles. Separated at refrigerated centrifuge	Sunday	1 day
Free T3	Serum Plasma	0.5	CLIA/ECL	7 days at 2-8°C , 1 month at -20°C	Gross hemolysis , Icteric, Lipemic	Notice to drug interference such as Salicylates,  Avoid repeated freeze/thaw cycles	Daily	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
Free T4	Serum Plasma	0.5	CLIA/ECL	7 days at 2-8°C, 1 month at -20°C	Gross hemolysis, Icteric, Lipemic	Notice to drug interference such as Salicylates, Avoid repeated freeze / thaw cycles	Daily	1 day
FSH	Serum	0.5	CLIA/ECL	3 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Daily	1 day
Free Testosterone	Serum	0.5	ELISA	8 hours at RT, 7 days at 2-8°C, 3 months at -20°C	Gross Hemolysis, Icteric, Lipemic	-	Saturday Tuesday	1 day



Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Fasting Insulin</b>	Serum	0.5	CLIA/ECL	7 days at 2-8°C, 1 months at -20	Gross Hemolysis, Icteric, Lipemic	-	Daily	1 day
<b>Free Beta HCG</b>	Serum	1	CLIA/ECL	8 hours at RT, 7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	Cold chain compliance during transport.  Avoid repeated freeze / thaw cycles	Saturday Monday Wednesday	1 day
<b>Free PSA</b>	Serum	0.5	CLIA/ECL	1 day at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Daily	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Folic Acid</b>	Serum Whole blood (EDTA)	S: 0.5 WB: 1	CLIA/ECL	7 hours at 2-8°C , 3 month at -20°C	S: Gross hemolysis, Icteric, Lipemic WB: Frozen, Clotting, Incorrect anticoagulant	Fasting Avoid repeated freeze / thaw cycles	Daily	1 day
<b>Ferritin</b>	Serum Plasma	1	CLIA/ECL	1 day at RT, 2 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	Avoid using of iron 7 days prior to collection Avoid repeated freeze / thaw cycles	Daily	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Glutamic Acid Decarboxylase (GAD) Ab</b>	Serum Plasma	1	ELISA	1 day at RT, 2 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	Avoid using of iron 7 days prior to collection  Avoid repeated freeze / thaw cycles	Sunday	14 days
<b>GH Stimulation Test</b>	Serum	0.5	CLIA	7 days at 2-8°C, 3 months at -20	Gross hemolysis, Icteric, Lipemic	Avoid using of iron 7 days prior to collection  Avoid repeated freeze / thaw cycles	Saturday Monday Wednesday	1 day
<b>GH Suppression Test</b>	Serum	0.5	CLIA	7 days at 2-8°C, 3 months at -20	Gross hemolysis, Icteric, Lipemic	Avoid using of iron 7 days prior to collection  Avoid repeated freeze / thaw cycles	Saturday Monday Wednesday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>GH</b>	Serum	0.5	CLIA	7 days at 2-8°C, 3 months at -20	Gross hemolysis, Icteric, Lipemic	Avoid using of iron 7 days prior to collection  Avoid repeated freeze / thaw cycles	Daily	1 day
<b>HSV1_2 IgG</b>	Serum Plasma Body fluid CSF	1.5	CLIA	25 hours at RT, 7 days at 2-8°C, 3 months at - 20°C	Gross hemolysis, Icteric	Avoid repeated freeze / thaw cycles	Sunday Tuesday	1 day CSF 8 days
<b>HSV1_2 IgM</b>	Serum Plasma Body fluid CSF	2.5	CLIA	25 hrs. at RT, 7 days at 2-8°C, 3 months at - 20°C	Gross hemolysis, Icteric	Avoid repeated freeze / thaw cycles	Sunday Tuesday	1 day CSF 8 days

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>H.Pylori IgG</b>	Serum Plasma	0.5	ELISA	25 hours at RT, 7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric	-	Sunday Tuesday Thursday	1 day
<b>H.Pylori IgA</b>	Serum Plasma	0.5	ELISA	25 hours at RT, 7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric	-	Sunday Tuesday Thursday	1 day
<b>HBsAg</b>	Serum Plasma,	0.5	CLIA/ECL	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric	-	Daily	1 day
<b>HBsAb</b>	Serum Plasma,	0.5	CLIA/ECL	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Lipemic	-	Daily	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>HBeAg</b>	Serum Plasma,	0.5	CLIA/ECL	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Lipemic	-	Sunday Tuesday Thursday	1 day
<b>HBeAb</b>	Serum Plasma,	0.5	CLIA/ECL	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Lipemic	-	Sunday Tuesday Thursday	1 day
<b>HBcAb (total)</b>	Serum Plasma,	0.5	CLIA/ECL	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Sunday Tuesday	1 day
<b>HBcAb IgM</b>	Serum Plasma,	0.5	CLIA/ECL	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Sunday Tuesday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>HAV Ab IgM</b>	Serum	0.5	CLIA/ECL	7 days at 2-8°C	Gross hemolysis, Icteric, Lipemic	-	Monday	1 day
<b>HCV Ab</b>	Serum	0.5	CLIA/ECL	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Sunday Tuesday Thursday	1 day
<b>HDV Ab</b>	Serum Plasma Body fluid	0.5	ELISA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles	Tuesday	1 day
<b>HAV Ab IgM</b>	Serum	0.5	CLIA/ECL	7 days at 2-8°C	Gross hemolysis, Icteric, Lipemic	-	Monday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>HTLV (1-2) Ab</b>	Serum Plasma	0.5	ELISA	Less than 5 days at 2-8°C  for a longer time at -20°C	Gross hemolysis, Icteric, Lipemic	-	Tuesday	1 day
<b>HIV (1-2)Ab/Ag</b>	Serum Plasma Body fluids	0.5	ECLIA	5 days at 2-8°C, 2 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Daily	1 day
<b>HE4 and ROMA Index</b>	Serum Plasma	0.5	ECLIA	2 days at 2-8°C, 3 months at -20	Gross hemolysis, Icteric, Lipemic	-	Saturday Tuesday	1 day
<b>Insulin Auto Ab</b>	Serum	0.5ml	ELISA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Sunday	15 days



Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
Islet Cell Ab	Serum	0.5ml	IFA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Sunday	15 days
Islet Cell Ag512-Ab / IA2	Serum	0.5ml	ELISA	5 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Sunday	15 days
Immunoglobulin E (IgE)	Serum Plasma	0.5	ECLIA/CLIA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles	Saturday Tuesday	1 day
IGF-1	Serum	0.5	CLIA	Frozen (preferred), 14 days	Gross hemolysis	-	Sunday Wednesday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Inhibin A</b>	Serum	1	ELISA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Sunday Wednesday	1 day
<b>Intact Parathyroid Hormone (iPTH)</b>	Serum	0.3	CLIA/ECL	3 days at 2-8°C, 6months at -20°C (preferred)	Gross hemolysis	-	Daily	1 day
<b>Interleukin-6 (IL6)</b>	Serum Plasma	0.5	CLIA	1 day at 2-8°C, 21 days at -20°C	Gross hemolysis, Icteric, Heat-treated specimen	-	Daily	1 day
<b>Indirect Coombs</b>	Serum	0.5	Hemagglutination	5 days at 2-8°C, 1 month at -20°C	Hemolysis	-	Daily	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>LKM Ab</b>	Serum Plasma	0.5	ELISA/CLIA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Tuesday	1 day
<b>LH</b>	Serum	0.5	CLIA/ECL	3 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles	Daily	1 day
<b>Metanephrine</b>	Urine (24h & R) (see table 1)	5	ELISA	28 days at 2-8°C, or -20°C (dark place)	-	Abstain from emotional and mental stress, and medications for 3 days prior to collection.  Avoid repeat freeze/thaw cycles	Monday	1 day
<b>Mono Test</b>	Serum	0.5	Agglutination	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis	-	Daily	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Normetanephrine</b>	Urine pH: 2-3 (See table 1)	5	ELISA	28 days at 2-8°C or 1 month at -20°C (dark place)	,	Abstain from emotional and mental stress, medications for 3 days prior to collection.	Monday	1 day
<b>NMO (AQP4)</b>	Serum	0.5	IFA	7 days at 2-8°C, 1 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	-	4 days
<b>Osteocalcin</b>	Serum Plasma	0.5	CLIA/ECL	3 days at 2-8°C, 2 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Tuesday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>proBNP-NT</b>	Serum Plasma	1	CLIA/ECL	6 days at 2-8°C, 3 months at -20°C	Gross Hemolysis, Icteric, Lipemic	-	Saturday Monday Wednesday	1 day
<b>Rapid Plasma Reagin (RPR)</b>	Serum	0.3	Agglutination	14 days at 2-8°C (preferred), 14 days at -20°C	Gross hemolysis, Lipemic	-	Daily	1 day
<b>Paul Bunell Test</b>	Serum	0.5	Agglutination	5 days at 2-8°C, 2 months at -20°C	-	-	Daily	2 days

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Prolactin</b>	Serum Plasma	0.5	CLIA/ECL	4 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	Sample collecting 3 hours after awake. Abstain sexual activity and stress 2 days before test. Avoid using estrogen, Insulin, before test.	Daily	1 day
<b>Progesterone</b>	Serum Plasma	0.5	CLIA/ECL	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	Avoid freeze / thaw cycle	Daily	1 day
<b>PAPP -A</b>	Serum	0.5	CLIA/ECL	5 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Saturday Monday Wednesday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
Plasma Renin (Direct)	Plasma	1	CLIA	1 month at -20°C CRITICAL FROZEN	Gross hemolysis, Icteric, Lipemic, Incorrect anti-coagulant	Fasting recommended, Notice use blood pressure drugs, diuretics and collecting sample position (upright & supine) .Normal sodium diet (100-200 mEq / day) for at least three days. Take no medications known to affect renin-aldosterone system. avoid freeze / thaw cycle, samples must be treated at the usual temperature (15-25 °c), and centrifuged at room temperature and must be frozen immediately	Monday Thursday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Procalcitonin</b>	Serum Plasma	1	CLIA/ECL	4 days at 2-8°C, 3 month at -20°C	Gross hemolysis Icteric	Avoid freeze/thaw cycle	Saturday Monday Wednesday	1 day
<b>PSA</b>	Serum	0.5	CLIA	2 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	Fasting is recommended. Abstain prostate exam, heavy exercise & ejaculation 2 days before test  avoid freeze / thaw cycle	Daily	1 day
<b>Plasma Renin Activity(Upright And Supine)</b>	Plasma	1	ELISA	14 days at -20°C CRITICAL FROZEN	Gross hemolysis	-	Sunday	2 days



Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Rheumatoid Factor (RF)</b>	Serum	0.5	Agglutination	5 days at 2-8°C, 6 months Indefinitely at -20°C	Gross hemolysis, Icteric, Lipemic	-	Daily	1 day
<b>Rubella IgG</b>	Serum Plasma Body fluid	0.5	CLIA/ECL	14 days at 2-8°C, 14 days at -20°C	Gross hemolysis, Icteric, Lipemic	Heat-inactivated specimen (reject)	Daily	1 day
<b>Rubella IgM</b>	Serum Plasma Body fluid	0.5	CLIA/ECL	14 days at 2-8°C, 14 days at -20°C	Gross hemolysis, Icteric, Lipemic	Heat-inactivated specimen (reject)	Daily	1 day
<b>RNP/Sm IgG</b>	Serum	0.5	ELISA	21 days at 2-8°C, 21 days at -20°C	Gross hemolysis, lipemic	-	Daily	2 days

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Sirolimus</b>	Whole blood (EDTA)	3	CLIA	14 days at 2-8°C (preferred), 14 days at -20°C	,	-	Tuesday	1 day
<b>SSA/Ro IgG</b>	Serum	0.5	ELISA	21 days at 2-8°C, 21 days at -20°C	Gross hemolysis, lipemic	-	Sunday	1 day
<b>SSB/La IgG</b>	Serum	0.5	ELISA	21 days at 2-8°C, 21 days at -20°C	Gross hemolysis, lipemic	-	Sunday	1 day
<b>ScL-70</b>	Serum Plasma	0.5	ELISA/CLIA	21 days at 2-8°C, 21 days at -20°C	Gross hemolysis, lipemic	-	Tuesday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>SHBG</b>	Serum Plasma	0.5	CLIA/ECL	5 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	Avoid freeze / thaw cycle	Sunday	1 day
<b>Testosterone</b>	Serum Plasma	0.5	CLIA/ECL	5 days at 2-8°C, 3 months at -20°C	Hemolysis, Icteric, Lipemic	The best time for sampling is 6-10 am. Fasting is recommended.	Daily	1 day
<b>Troponin T</b>	Serum	0.5	ECL	7 days at 2-8°C, Indefinitely at -20°C	Gross hemolysis, Icteric, Lipemic	-	Daily	1 day
<b>Troponin I</b>	Serum Plasma	0.5	ECL	7 days at 2-8°C, Indefinitely at -20°C	Gross hemolysis, Icteric, Lipemic	-	Daily	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Tacrolimus</b>	Whole blood (EDTA)	3	CLIA	14 days at 2-8°C (preferred), 14 days at -20°C	-	-	Tuesday	1 day
<b>Toxoplasma Gondii IgM</b>	Serum Plasma Body fluid CSF	0.5	CLIA/ECL	7 days at 2-8°C, 3 months at -20°C,	Hemolysis, Icteric, Lipemic	-	Saturday Monday Wednesday	1 day
<b>Toxoplasma Gondii IgG</b>	Serum Plasma Body fluid CSF	0.5	CLIA/ECL	7 days at 2-8°C, 3 months at -20°C,	Hemolysis, Icteric, Lipemic	-	Saturday Monday Wednesday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
Thyroglobulin	Serum	0.5	CLIA/ECL	2 days at 2-8°C, 3 months at -20°C	Hemolysis, Icteric, Lipemic	Abstain from doing this test after FNA form thyroid, thyroid surgery and treatment with radioactive substance.  avoid freeze / thaw cycle	Saturday Tuesday	1 day
T4	Serum Plasma	0.5	CLIA/ECL	1 day at RT, 7 days at 2-8°C, 1 month at -20°C	Hemolysis, Icteric, Lipemic	Notice to hormonal treatment & gestation  avoid freeze / thaw cycle	Daily	1 day
T-Uptake	Serum Plasma	0.5	CLIA/ECL	1 day at RT, 7 days at 2-8°C, 1 month at -20°C	Hemolysis, Icteric, Lipemic	Fasting	Daily	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>T3</b>	Serum Plasma	0.5	CLIA/ECL	1 day at RT, 7 days at 2-8°C, 1 month at -20 °C	Hemolysis, Icteric, Lipemic	Notice to hormonal treatment & gestation avoid freeze / thaw cycle	Daily	1 day
<b>TSH</b>	Serum Plasma	0.5	CLIA/ECL	1 day at RT, 7 days at 2-8°C, 1 month at -20 °C	Hemolysis, Icteric, Lipemic	Notice to hormonal treatment & gestation	Daily	1 day
<b>Urinary Free Cortisol</b>	Urine (R & 24hours)	2	ELISA	14 days at -20°C	-	Container with Boric Acid	Monday	1 day
<b>Unconjugated Estriol (uE3)</b>	Serum	0.5	ELISA	14 days at 2-8°C, 3 months at -20°C	Gross hemolysis	-	Sunday Wednesday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>VZV - IgG</b>	Serum Body fluid CSF	0.5	CLIA/ELISA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Wednesday	1 day
<b>VZV - IgM</b>	Serum Body fluid CSF	0.5	ELISA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Wednesday	1 day
<b>Vitamin B12</b>	Serum	0.5	CLIA/ECL	2 days at 2-8°C, 1 month at -20°C (dark place)	Gross hemolysis, Icteric	Fasting, avoid freeze/thaw cycle	Daily	1 day
<b>Wright agglutination test</b>	Serum Plasma	1	Agglutination	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Daily	2 days

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Widal agglutination Test</b>	Serum Body fluid	1	Agglutination	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	-	Daily	2 days
<b>17 OH Progesterone</b>	Serum	0.5	Elisa	7 days at 2-8°C, 3 months at -20°C	Hemolysis, Icteric, Lipemic	Avoid using medication	Saturday Monday Wednesday	1 day
<b>2ME</b>	Serum Body Fluid	0.4	Agglutination	7 days at 2-8°C, for longer time at-20°C	Gross Hemolysis, Icteric, Lipemic	-	Daily	2 days



# **Molecular Department**

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Aspergillus (PCR)</b>	BAL , pleural fluid, tissue, blood in EDTA, plasma, serum CSF, tissue, biopsy, Body Fluids	CSF;1-2 Body Fluids; 2-5	Nested PCR	Centrifuge blood within 24 hours of collection.  Blood : refrigerated  Other: frozen	-	-	Daily	3 days
<b>BK virus DNA (PCR)</b>	Urine, plasma ,whole blood(EDTA)	Urine & whole blood Plasma: 1	Real time PCR	Centrifuge blood within 24 hours of collection.  Blood : refrigerated  Other: frozen	-	-	daily	24-48 hours

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>BK virus Qualitative PCR</b>	Urine, plasma, whole blood (EDTA)	-	Real time PCR	Centrifuge blood within 24 hours of collection.  Blood : refrigerated  Other: frozen	-	-	Saturday, Wednesday	72hours
<b>Brucella (PCR)</b>	Blood in EDTA, BAL , Sputum, Pleural Fluid, CSF, tissue, bone marrow, genital exudates, synovial fluid aspirates, Body Fluids	CSF;1-2  Body Fluids; 2-5	Conventional PCR	frozen	-	-	Sunday	24-48hours

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Beta Fibrinogen PCR</b>	Blood in EDTA	3-5	Conventional PCR	Refrigerated Temperature	Incorrect anticoagulation	-	Tuesday	17 days
<b>Covid 19 , Influenza ,RSV Panel</b>	Nasopharyngeal swab, Pharyngeal swab, BAL , Sputum,	3 ml	Real time PCR	frozen	Swabs not in media. Wood swabs, calcium alginate swabs.	-	daily	24hours
<b>CMV-DNA (PCR)</b>	CSF, whole blood, plasma, Respiratory, Bone marrow, Urine, Amniotic fluid, tissue, stool, Ocular swap	CSF;1-2, urine; 5-10, Amniotic fluid; 2-5, CSF;1-2	Real time PCR	Centrifuge blood within 24 hours of collection and Frozen.  Blood : refrigerated	-	-	Daily	24-48hours

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>CMV viral load</b>	Blood in EDTA, plasma, serum, CSF		Real time PCR	Centrifuge blood within 24 hours of collection and Frozen.  Blood : refrigerated	-	-	Saturday Wednesday	72hours
<b>CMV Viral Load</b>	CSF, whole blood, plasma, Respiratory, Bone marrow, Urine, Amniotic fluid, tissue, stool, Ocular swap	CSF;1-2, urine; 5-10,  Body Fluids; 2-5,	Real time PCR	Centrifuge blood within 24 h of collection.  Blood : refrigerated  Other: frozen	-	-	Saturday Wednesday	72hours
<b>Covid-19</b>	Nasopharyngeal swab, Pharyngeal swab, BAL , Sputum,	3	Real time PCR	frozen	Swabs not in media. Wood swabs, calcium alginate swabs.	-	daily	24hours

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Dermatophyte</b>	Cutaneous lesions sample	-	Conventional PCR	Ambient	-	-	Monday	weekly
<b>EBV Viral Load</b>	Blood in EDTA, plasma, serum	3-5	Real time PCR	Centrifuge blood within 24 hours of collection. Blood : refrigerated Other: frozen	-	-	Saturday Wednesday	3 days

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>EBV Qualitative PCR</b>	Blood in EDTA, Bone Marrow, plasma, serum, CSF, BAL, amniotic, pericardial, pleural, vitreous , tissue, urine, Swab conjunctival, lesion, mouth, nasal, nasopharyngeal and skin	CSF;1-2, urine; 5-10, Body Fluids; 2-5	Real time PCR	Centrifuge blood within 24 hours of collection.  Blood : refrigerated  Other: frozen	-	-	Saturday  Wednesday	24-48hours
<b>Factor VIII assay</b>	P (Citrate)							

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Factor XIII</b>	Blood in EDTA	3-5	Conventional PCR	Refrigerated Temperature	Incorrect anticoagulation	-	Tuesday	17 days
<b>HLA B5</b>	Blood in EDTA	3-5	Conventional PCR	Refrigerated Temperature	Incorrect anticoagulation	-	Saturday To Wednesday	4 days
<b>HLA B8</b>	Blood in EDTA	3-5	Conventional PCR	Refrigerated Temperature	Incorrect anticoagulation	-	Saturday To Wednesday	4 days
<b>HLA B27</b>	Blood in EDTA	3-5	Conventional PCR	Refrigerated Temperature	Incorrect anticoagulation	-	Saturday To Wednesday	4 days



Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>HLA B51</b>	Blood in EDTA	3-5	Conventional PCR	Refrigerated Temperature	Incorrect anticoagulation	-	Saturday To Wednesday	4 days
<b>HBV-DNA</b>	Blood in EDTA, plasma, serum	3-5	Real time PCR	Centrifuge blood within 24 hours of collection and Frozen  Blood : refrigerated	Incorrect anticoagulation	-	Sunday	1 day
<b>HCV-RNA</b>	Blood in EDTA, plasma serum	3-5	Real time PCR	Centrifuge blood within 24 hours of collection and Frozen.  Blood : refrigerated	Incorrect anticoagulation	-	Tuesday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>HSV DNA</b>	CSF, Blood, plasma, serum, tissue, Vesicle fluid	3-5	Real time PCR	Centrifuge blood within 24 hours of collection.  Blood : refrigerated  Other: frozen	-	-	Daily	24-48h
<b>HIV RNA</b>	Blood in EDTA, plasma, serum	3-5	Real time PCR	Centrifuge blood within 24 hours of collection.  Blood : refrigerated  Other: frozen	-	-	Tuesday	Weakly

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>HBV Viral Load</b>	Blood in EDTA, plasma, serum	3-5	Real time PCR	Centrifuge blood within 24 hours of collection.  Blood : refrigerated  Other: frozen	-	-	Sunday	Weakly
<b>HPV DNA Genotyping</b>	Vaginal discharge, Tissue, Penil Brushing(PB) and Urthral Brushing(UB), urine, semen	-	Reverse blot technique	Refrigerated	-	-	Sunday Tuesday Thursday	7 days
<b>Hyper homocystei-nemia MTHFR C677T</b>	Blood in EDTA	3-5	Conventional PCR	Refrigerated Temperature	Incorrect anticoagulation	-	Tuesday	17 days

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Hyper Homocysteinemia MTHFR A1298C</b>	Blood in EDTA	3-5		Refrigerated Temperature	Incorrect anticoagulation	-	Tuesday	17 days
<b>HIV Viral load</b>	Blood in EDTA, plasma, serum	3-5	Real time PCR	Centrifuge blood within 24 h of collection.  Blood : refrigerated  Other: frozen	-	-	Tuesday	Weakly
<b>Influenza</b>	Nasopharyngeal swab, Pharyngeal swab, BAL , Sputum,	3	Real time PCR	Frozen	Swabs not in media. Wood swabs, calcium alginate swabs.	-	daily	24h

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>JAK2 V617F</b>	blood in EDTA	3-5	Conventional PCR	Refrigerated Temperature	Incorrect anticoagulation	-	Tuesday	17 days
<b>jak2-exon12</b>	Blood in EDTA	3-5	Conventional PCR	Refrigerated Temperature	Incorrect anticoagulation	-	Tuesday	17 days
<b>Leiden Factor V R560Q</b>	Blood in EDTA	3-5	Conventional PCR	Refrigerated Temperature	Incorrect anticoagulation	-	Tuesday	17 days
<b>Mucor Rhizopus</b>	BAL , pleural fluid ,tissue, blood in EDTA, plasma, serum CSF, tissue, biopsy, Body Fluids	CSF;1-2 Body Fluids; 2-5	Conventional PCR	Centrifuge blood within 24 hours of collection.  Blood : refrigerated  Other: frozen	-	-	Daily	3 days

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>MTB DNA (PCR)</b>	Sputum, BAL, pleural fluid , tissue, nasopharyngeal aspirates, gastric aspiration, CSF, bone marrow, Body Fluids	Pleural fluid and BAL; 4 -5	Conventional PCR	Frozen	-	-	Daily	24-48hours
<b>Non-tuberculosis Mycobacteria</b>	Sputum, BAL, pleural fluid , tissue, nasopharyngeal aspirates, gastric aspiration, CSF, bone marrow, Body Fluids	-	Conventional PCR	Centrifuge blood within 24 hours of collection.  Blood : refrigerated  Other: frozen	-	-	Daily	48hours

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>PAI-1</b>	Blood in EDTA	3-5	Conventional PCR	Refrigerated Temperature	Incorrect anticoagulation	-	Tuesday	17 days
<b>Prothrombin Gene 20210 mutation- Factor II mutation</b>	blood in EDTA	3-5	Conventional PCR	Refrigerated Temperature	Incorrect anticoagulation	-	Tuesday	17 days
<b>Typing of NTM</b>	Sputum, BAL, pleural fluid , tissue, nasopharyngeal aspirates, gastric aspiration, CSF, bone marrow, Body Fluids	-	Conventional PCR	Centrifuge blood within 24 hours of collection.  Blood : refrigerated  Other: frozen	-	-	Sunday	Weakly

# **Chromatography Department**



Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
Acylcarnitine	DBS	5 spots on paper	LCMSMS	DBS: with cover 7 days at RT, 1 month at 2-8°C 3 months at -20°C	-	-	Tuesday	8 days
Blood Amino Acid	Plasma	1	HPLC	1 day at 2-8°C 14 day at -20°C	-	Fasting(2hours) Be separated quickly	Daily	4 days
Blood Sugar	Serum	1	HPLC	7 days at -20°C	-	Fasting(2hours)	Sunday Tuesday Thursday	2 days
Cysteine	Urine (24hours)	5	Chemical	1 month at -20°C CRITICAL FROZEN	-	Avoid using of penicilliamine few days prior to collection	Saturday Monday Wednesday	1day

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Cysteine (Urine-Random)</b>	Urine (R )	5	Chemical	1 month at -20°C CRITICAL FROZEN	-	Avoid using of penicilliamine few days prior to collection	Saturday Monday Thursday	1 day
<b>Carbamazepine</b>	Serum	1	HPLC	7 days at 2-8°C, 1 month at -20°C	-	Avoid using of gel tube	Saturday Monday Wednesday	1 day
<b>DNPH</b>	Urine (R)	5	Chemical	1 day at 2-8°C 1 month at -20°C	-	-	Saturday Monday Wednesday	2 days
<b>Ethosuximide</b>	Serum	1	HPLC	7 days at 2-8°C, 1 month at -20°C	-	Avoid using of gel tube	Sunday Tuesday Thursday	1 day

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Gabapentin</b>	Serum	1	HPLC	7 days at 2-8°C, 1 month at -20°C	-	-	Monday	1 day
<b>Glycine</b>	CSF	0.5	HPLC	1 day at 2-8°C 1 month at -20°C	-	-	Daily	4 days
<b>Glutamine</b>	CSF	0.5	HPLC	1 day at 2-8°C 14 day at -20°C	-	-	Daily	4 days
<b>Homocysteine</b>	Plasma	0.5	HPLC	1 day at 2-8°C 1 month at -20°C	-	Be separated quickly	Sunday Wednesday	2 days

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Hemoglobin Variants</b>	Whole blood (EDTA/Heparin)	1	HPLC	3 days at 2-8°C	-	-	Monday Thursday	2 days
<b>Hb A1C</b>	Whole blood (EDTA/Heparin)	1	HPLC	3 days at 2-8°C	-	-	Daily	2 days
<b>Levetiracetam</b>	Serum	0.5	HPLC	7 days at 2-8°C 1 month at -20°C	-	Avoid using of gel tube	Saturday Tuesday	2 days
<b>Lamotrigine</b>	Serum	1	HPLC	7 days at 2-8°C, 1 month at -20°C	-	Avoid using of gel tube	Saturday Monday Wednesday	1 day

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Mucopolysacaride</b>	Urine (R)	5	Chemical	1 month at -20°C CRITICAL FROZEN	-	-	Sunday Tuesday Thursday	2 days
<b>Phenylalanine (Blood Spot Test)</b>	DBS	5 spots on paper	HPLC	DBS: with cover 7 days at RT, 1 month at 2-8°C, 3 months at -20°C	-	Fasting(2hours)	Monday Thursday	1 Day
<b>Phenylalanine + Tyrosin</b>	Plasma	0.5	HPLC	1 day at 2-8°C 1 month at -20°C	-	Fasting(2hours) Be separated quickly	Daily	1 day

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>PKU (Urine)</b>	Urine (R)	5	HPLC	7 days at -20°C	-	-	Saturday Monday Thursday	2 days
<b>Phenobarbital</b>	Serum	1	HPLC	7 days at 2-8°C, 1 month at -20°C	-	Avoid using of gel tube	Saturday Monday Wednesday	1 day
<b>Phenytoin</b>	Serum	1	HPLC	7 days at 2-8°C, 1 month at -20°C	-	Avoid using of gel tube	Saturday Monday Wednesday	1 day

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Primidone</b>	Serum	1	HPLC	7 days at 2-8°C, 1 month at -20°C	-	Avoid using of gel tube	Saturday Monday Wednesday	1 day
<b>Proline</b>	Plasma	0.5	LC MS MS	1 day at 2-8°C 1 month at -20°C	-	Be separated quickly	Sunday	14 days
<b>Phenylalanine</b>	Plasma	0.5	HPLC	1 day at 2-8°C 1 month at -20°C	-	Fasting(2hrs) Be separated quickly	Daily	1 Day
<b>Reducing Substance(Urine)</b>	Urine	5	Chemical	2 days at 2-8°C, 14 days at -20°C	-	-	Sunday Tuesday Thursday	2 days

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
Serine(CSF)	CSF	0.5	HPLC	1 day at 2-8°C 1 month at -20°C	-	-	Daily	4 days
Topiramate	Serum	1	HPLC	7 days at 2-8°C, 1 month at -20°C	-	-	Saturday Tuesday	1 day
Tyrosin	Plasma	1	HPLC	1 day at 2-8°C 1 month at -20°C	-	Fasting(2hrs) Be separated quickly	Daily	1 day
Teriflunomide	Serum	1	LCMSMS	28 days at 2-8°C 28 days at -20°C	-	-	Sunday	7 days



Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
Urine Amino acid	Urine ( R)	5	HPLC	7 days at -20°C	-	-	Saturday Monday Wednesday	2 days
Urine Sugar	Urine ( R)	5	HPLC	7 days at -20°C	-	-	Sunday Tuesday Thursday	2 days
VMA (Urine 24h)	Urine(24hours)	5	LC MS MS	28 days at 2-8°C with pH: 2-4 3 month at -20°C	-	Abstain using coffee, cocoa, chocolate	Monday	2 days
VMA (Urine - Random)	Urine ( R)	5	LC MS MS	28 days at 2-8°C with pH: 2-4 3 month at -20°C	-	Abstain using coffee, cocoa, chocolate	Monday	2 days

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Valporic Acid</b>	Serum	1	GC	7 days at 2-8°C, 1 month at -20°C	-	Avoid using of gel tube	Sunday Tuesday Thursday	1 day
<b>Vitamin E</b>	Serum	1	HPLC	7 days at 2-8°C, 1 months at -20°C (amber vial)	-	Fasting overnight, Avoid using of gel tube , gross lipemia	Tuesday	1 day
<b>Vitamin A</b>	Serum	1	HPLC	7 days at 2-8°C, 1 months at -20°C (amber vial)	-	Fasting overnight. Abstain using alcohol 24 hrs. Before sampling. Avoid using of gel tube , gross lipemia	Tuesday	1 day
<b>25 (OH) Vitamin "D3"</b>	Serum	0.5	HPLC	7 days at 2-8°C 21 days at -20°C	-	Avoid using of gel tube , gross lipemia	Daily	2 days

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>10-Hydroxycarbazepine</b>	Serum	1	HPLC	7 days at 2-8°C, 1 month at -20°C	-	Avoid using of gel tube	Saturday Monday Wednesday	1 day

**Microbiology & Fluids analysis  
Department**

Test name	Specimen type	Storage & Transport	Reject criteria	Important Point	Day(s) Performed	Report available
<b>Abscess/Culture</b>	Abscess (also-lesion, wound ,pustule, ulcer) superficial	24 hours/Room Temp (RT)	-	-	Daily	3 days
<b>Anti-fungal Drug Susceptibility</b>	Hair/Skin/Nail/ Sputum.../	Indefinitely/RT کلنی از محیط کشت	-	-	Daily	تا ۲ هفته بر اساس گونه بیماریزا
<b>Acid fast bacilli culture (BACTec) Mycobacterium Species diagnosis</b>	Sputum/Golavage/ NTM BAL/ wound/ <b>Abscess</b> / TP Fluids/...	Sterile Sample	-	-	Saturday Monday Wednesday	با دستگاه اتومات کشت مایکوباکتریوم ۴۲ روز
<b>Anaerobic Culture</b>	Biopsy/ Vaginal.../ Wound	sterile anaerobic در محیط انتقالی	-	-	Daily	10 days

Test name	Specimen type	Storage & Transport	Reject criteria	Important Point	Day(s) Performed	Report available
<b>Addis count</b>	urine	Fresh urine At 2-8 °C	-	-	Daily	1 day
<b>Blood Culture</b>	Blood or bone marrow aspirate	Must be incubated at 37°C in Castaneda's biphasic medium on Receiving laboratory	-	-	Daily	Primary report : 48 hour Final report : in 3 weeks
<b>Body Fluid/ Culture</b>	Abdominal ascites (peritoneal) Bile, joint (synovial) pericardial, pleural	As soon as received در لوله ها استریل درب پیچ دار یا سرنگ ارسال شود	-	-	Daily	72 hours
<b>Bence jones protein random urine</b>	urine	Fresh urine At 2-8 °C	-	-	Daily	1 day
<b>Bence jones protein within 24 hours urine</b>	urine	Fresh urine At 2-8 °C	-	-	Daily	1 day
<b>cerebrospinal fluid (CSF)/ Culture</b>	CSF	<24 hours routine در لوله ها استریل درب پیچ دار یا سرنگ ارسال شود	-	-	Daily	72 hours

Test name	Specimen type	Storage & Transport	Reject criteria	Important Point	Day(s) Performed	Report available
<b>Clostridium difficile Ag</b>	Stool	Fresh Stool/24 hours-RT	-	-	Daily	1 day
<b>Clostridium difficile Culture</b>	Biopsy	Sterile Sample/in Normal slain	-	-	Daily	10 days
<b>calprotectin test</b>	Stool	Fresh Stool/24 hours-RT	-	-	Sunday Wednesday	1 days
<b>Candida spp. Diagnosis / Drug susceptibility</b>	Urine/ Skin/ ...	Fresh sample در ظروف استریل درب پیچ دار	-	-	Daily	2 days
<b>Direct smear for BK (TB) AFB stain</b>	Sputum/...	24 hours 2-8 °C استریل شفاف در ظروف درب پیچ دار	-	-	Sunday Tuesday Thursday	2 days
<b>Diphtheria Culture</b>	Respiratory	در ظروف استریل نمونه گیری در آزمایشگاه	-	-	Daily	3 days
<b>Demodex</b>	Facial /Sebum	Indefinitely/RT	-	-	Daily	30 min after sampling

Test name	Specimen type	Storage & Transport	Reject criteria	Important Point	Day(s) Performed	Report available
DFA	Semen		-	-	Daily	2-3 days
Dysmorphic urinary RBCs	Fresh urine	Fresh urine At 2-8 °C	-	-	Daily	1 day
Ear / Culture	Inner & Outer	24 hours/Room Temp (RT)	-	-	Daily	72 hours
	Conjunctiva	24 hours/Room Temp (RT)				
	Aqueous fluid	Set up immediately on reception				
Eye / Culture	Corneal scarping	در لوله ها استریل درب پیچ دار یا سرنگ ارسال شود	-	-	Daily	72 hours
Eye / Culture	Corneal scarping	در لوله ها استریل درب پیچ دار یا سرنگ ارسال شود	-	-	Daily	72 hours



Test name	Specimen type	Storage & Transport	Reject criteria	Important Point	Day(s) Performed	Report available
<b>E-coli Serotyping</b>	Stool	محیط کشت مدفوع عامل عفونت باکتریایی و یا نمونه مدفوع	-	-	Daily	2-3 days
<b>Foreign bodies/ Culture lower</b>	IUD/Iv catheter / pins	Plateosaurus received if possible-store< 2 hours 4 ° C	-	-	Daily	72 hours
<b>Female genital tract culture</b>	Cervix	24 hours/RT	-	-	Daily	روز <sup>۵</sup>
	Urethra/ vagina	نمونه گیری در آزمایشگاه				
<b>Fecal fat</b>	Stool	Fresh Stool/24 hours-RT	-	-	Daily	1 day
<b>GI tract / Culture</b>	Gastric aspirate	Must be neutralized with sodium bicarbonate within 1 hour of collection	-	-	Daily	72 hours
<b>Hair, Nails or skin for fungal / Culture</b>	Hair & nail cutting skin scraping	Indefinitely/RT	-	-	Daily	جواب مستقیم ۲۴ تا ۴۸ ساعت کشت تا ۱ ماه
<b>Hemo Hepatoglobolin</b>	Stool	Fresh Stool/24 hours-RT	-	-	Daily	1 day

Test name	Specimen type	Storage & Transport	Reject criteria	Important Point	Day(s) Performed	Report available
<b>H.pylori Ag</b>	Stool	Fresh Stool/24 hours-RT	-	-	Monday Thursday	1 day
<b>H.pylori Culture</b>	Biopsy	در لوله و ظروف استریل درب پیچ دار حاوی نرمال سالین	-	-	Daily	10 days
<b>Leishmania</b>	Skin	نمونه گیری در آزمایشگاه	-	-	Daily	1-2 days
Listeria	Vaginal discharge	نمونه گیری در آزمایشگاه	-	-	Daily	5 days
<b>Lower respiratory tract culture</b>	BAL, BB	24 hours/ 4°C در ظروف استریل درب پیچ دار شفاف نمونه گیری	-	-	Daily	48-72 hours
	BW					
	Speculum					
	Tracheal aspirate (Suction)					
<b>Male genital tract culture</b>	Prostatic	Tube/plate secretion immediately	-	-	Daily	48-72 hours
	Urethra	Swab : 24 hours/RT نمونه گیری در آزمایشگاه				

Test name	Specimen type	Storage & Transport	Reject criteria	Important Point	Day(s) Performed	Report available
<b>Mycobacterium Drug Susceptibility First line</b>	Positive culture	Colony on Löwenstein–Jensen medium	-	-	Daily	6 weeks
<b>Mycobacterium Drug Susceptibility Second</b>	Positive culture	Colony on Löwenstein–Jensen medium	-	-	Daily	6 weeks
<b>MIC ( Poly drug resistance)</b>	Urine/sputum/... محیط کشت عامل عفونت باکتریایی	Imipenem/colistin/penicillin/vancomycin	-	-	Daily	2-3 days
<b>Nocardia Smear/Culture</b>	Biopsy/...	sterile Fresh Sample در ظروف استریل درب پیچ دار	-	-	Daily	7-10 days
<b>Occult Blood</b>	Stool/ feces	24 hours 2-8 °C	-	-	Daily	1 day
<b>Oval parasite</b>	Stool	در ظروف حاوی مایع فرمالین	-	-	Daily	1 day

Test name	Specimen type	Storage & Transport	Reject criteria	Important Point	Day(s) Performed	Report available
QFTB	Heparinized whole blood	ارسال ۵ سی سی از نمونه خون تام در لوله هپارین	-	ELISA	Wed	7 days
Reducing substances	Urine	Fresh Stool/24 hours-RT	-	-	Daily	1 day
Rectal/ Culture	Rectal swab	Swab placed in enteric transport medium (carry Blair) < 48 hours/RT or 4° C	-	-	Daily	3 days
Stool Exam/SE	Ova & Parasite	Within in 24 hours/ RT in definitely/ RT if preserved (e.g 10% formalin and PVA) liquid specimen should be examined for the presence of motile organisms	-	-	Daily	1 day
Semen analysis	Semen	As soon as received	-	-	Daily	1 day
Semen/Culture	Semen	As soon as received نمونه گیری در آزمایشگاه	-	-	Daily	72 hours

Test name	Specimen type	Storage & Transport	Reject criteria	Important Point	Day(s) Performed	Report available
Semen fructose	Semen		-	-	Daily	1-2 days
Stool/ Culture	Stool/ feces	72 hours/4°C	-	-	Daily	3 days
Salmonella Serotyping	Stool	محیط کشت مدفوع عامل عفونت باکتریایی و یا نمونه مدفوع	-	-	Daily	2-3 days
Shigella Serotyping	Stool	محیط کشت مدفوع عامل عفونت باکتریایی و یا نمونه مدفوع	-	-	Daily	2-3 days
Urine analysis	Urine	Within 30 min/RT or 24 hours 2-8 °C	-	-	Daily	72 hours
Urine Culture Urine Culture	Clean voided midstream (CVS)	Fresh /4°C در لوله ها استریل کشت ادرار و حداکثر تا دو ساعت بعد از نمونه گیری	-	-	Daily	با دستگاه اتومات کشت ادرار و گزارش موارد منفی از لحاظ عفونت ادرار به صورت روزانه و موارد دارای عفونت طی ۴۸ تا ۷۲ ساعت
	Straight catheter (in & out)					
	Indwelling catheter (Foley)					
	suprapubic aspirate	Plateosaurus received				

Test name	Specimen type	Storage & Transport	Reject criteria	Important Point	Day(s) Performed	Report available
<b>Upper respiratory tract culture</b>	nasopharynx / Nose	24 hours/RT در آزمایشگاه	-	-	Daily	48-72 hours
	Pharynx (Throat)					
<b>Urine Hemosiderin/ myoglobin</b>	urine	Fresh urine At 2-8 °C	-	-	Daily	1 day
<b>Urine ketone</b>	Urine	Fresh urine at 2-8 °C	-	-	Daily	1 day
<b>urine PH</b>	Urine	Fresh urine At 2-8 °C	-	-	Daily	1 day
<b>Urine Glucose ( UGF)</b>	Urine	Fresh urine At 2-8 °C	-	-	Daily	1 day
<b>Urine S.PG</b>	Urine	Fresh urine At 2-8 °C	-	-	Daily	1 day

Test name	Specimen type	Storage & Transport	Reject criteria	Important Point	Day(s) Performed	Report available
UBC	Urine	Fresh urine At 2-8 °C	-	-	Daily	1 day

# **Genetic Department**



Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
<b>آزمایش‌های سیتوژنتیک</b>									
۳-۲ هفته	Daily	نمونه در سرنگ حاوی هپارین و کاملاً استریل	خون لخته و فریز شده	Refrigerator 48h	-	7	Whole blood (heparin)	کاریوتایپ خون محیطی	۱
۳-۲ هفته	Daily	نمونه در سرنگ کاملاً استریل	نمونه حاوی خون و مانده	Refrigerator 24h	-	-	مایع آمنیون	کاریوتایپ آمنیون (آمنیوسنتز)	۲
<b>بررسی عددی کروموزومی با روش MLPA یا QF-PCR</b>									
۵-۳ روز	Daily	مایع آمنیون استریل تازه CVS	نمونه مانده	Refrigerator 24h	QF-PCR	-	مایع آمنیون در CVS هفته ۱۰-۱۲ حاملگی کلیه نمونه هایی که بتوان از آن DNA جنینی استخراج کرد	آنیوپلوئیدی کروموزم‌های 21,13,18,X,Y در نمونه‌های جنینی	۴
۱۴-۱۰ روز	Daily	نمونه در لوله های مخصوص BCT Streck	لخته- منجمد در معرض نور	در محیط تاریک، به صورت ایستاده و بدون حرکت	NGS	10	Whole blood	NIPT/Cell-free DNA	۵

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
<b>تعیین جنسیت جنین (Sex determination)</b>									
۱ هفته	Daily	نمونه ها باید تازه باشند	نمونه مانده	Refrigerator 24h	PCR	-	مایه آمنیون CVS	تعیین جنسیت در هفته دهم حاملگی	۶
۲ هفته	Daily	نمونه ها باید تازه باشند	لخته و نمونه مانده	Refrigerator 24h	Real-time PCR	3	Whole blood (EDTA) خون مادر از هفته ۸ بارداری به بعد	تعیین جنسیت از خون مادر	۷
<b>ناباروری در مردان (Men Infertility)</b>									
۲-۴ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته و نمونه مانده	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	سندروم کالمن ( Kallmann syndrome, KS)	۸
۲-۳ هفته	Daily	-	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR	3-5	Whole blood (EDTA)	بررسی های حذف های AZF (Azoospermia)	۹

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
<b>سقط جنین (Recurrent Abortion)</b>									
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	پلی مورفیسم فاکتور V لیدن	۱۰
۱۴-۱۱ روز	Daily	-	لخته	Refrigerator: 2-8°C	PCR- Sequencing PCR-RFLP	3-5	Whole blood (EDTA)	پلی مورفیسم MTHFR	۱۱
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	پلی مورفیسم فاکتور II خونی	۱۲

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
<b>تعیین هویت (Identity)</b>									
۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	Short Tandem Repeat (STRs)	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	پروفایل DNA رابطه پدرفرزندی	۱۳
۵ روز	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	Short Tandem Repeat (STRs)	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	تعیین برادری (کروموزوم Y)	۱۴
۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	D-Loop	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	تعیین خواهری و خواهر برادری و مادر فرزندی (میتوکندری D-Loop)	۱۵

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
<b>بیماری هموگلوبینوپاتی خونی (Blood disease)</b>									
۶-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing Multiplex PCR (MLPA)	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	<b>تالاسمی آلفا (Alpha Thalassemia)</b>	۱۶
۶-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing RFLP-ARMS	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	<b>تالاسمی بتا (Beta Thalassemia)</b>	۱۷
۱۴-۱۱ روز	Daily	-	لخته	Refrigerator: 2-8°C	PCR- Sequencing	3-5	Whole blood (EDTA)	<b>Plasminogen Activator Inhibitor</b>	۱۸

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد تا ۱۰ هفته CVS ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR-Sequencing RFLP	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	هموفیلی A (Hemophilia)	۱۹
۱۴-۱۱ روز	Daily	-	لخته	Refrigerator: 2-8°C	PCR-Sequencing	3-5	Whole blood (EDTA)	FXIII Val34Leu	۲۰
۱۴-۱۱ روز	Daily	-	لخته	Refrigerator: 2-8°C	PCR-Sequencing PCR-RFLP	3-5	Whole blood (EDTA)	FGB G455A	۲۱
۱۴-۱۱ روز	Daily	-	لخته	Refrigerator: 2-8°C	PCR-Sequencing ARMS-PCR	3-5	Whole blood (EDTA)	PIIIa Leu33pro	۲۲
۱۴-۱۰ روز	Daily	-	لخته	Refrigerator: 2-8°C	PCR	3-5	Whole blood (EDTA) BM	CEBPA Mutation Analysis	۲۳

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد تا ۱۰ هفته ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR-Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	سندروم کریگر-نچار (Crigler-Najjar Syndrome)	۲۴
۱۴-۱۱ روز	Daily	-	لخته	Refrigerator: 2-8°C	PCR-Sequencing ARMS-PCR	3-5	Whole blood (EDTA)	GPIa C807T	۲۵
۱۴-۱۱ روز	Daily	-	لخته	Refrigerator: 2-8°C	PCR-Sequencing /PCR	3-5	Whole blood (EDTA)	Angiotension-1 Converting Enzyme (ACE)	۲۶
۳-۲ هفته	Daily	-	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR-Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	بررسی جهش های شایع مربوط به پائل انعقاد خون	۲۷

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۱۴-۱۰ روز	Daily	-	لخته	Refrigerator: 2-8°C	PCR	3-5	Whole blood (EDTA) BM	<b>MLP Mutation Analysis</b>	۲۸
۱۴-۱۰ روز	Daily	-	لخته نمونه داخل پارافین	Refrigerator: 2-8°C	PCR	3-5	Whole blood (EDTA) BM	<b>بررسی ژن Jak 2</b>	۲۹
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	<b>Common Variable Immune Deficiency (CVID)</b>	۳۰
۱۴-۱۰ روز	Daily	-	لخته نمونه داخل پارافین	Refrigerator: 2-8°C	PCR	3-5	Whole blood (EDTA) BM	<b>FLT3 ITD Mutation Analysis</b>	۳۱
۱۴-۱۰ روز	Daily	-	لخته نمونه داخل پارافین	Refrigerator: 2-8°C	PCR	3-5	Whole blood (EDTA) BM	<b>NPM1 Mutation Analysis</b>	۳۲



Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۱۴-۱۰ روز	Daily	-	لخته نمونه داخل پارافین	Refrigerator: 2-8°C	PCR	3-5	Whole blood (EDTA) BM بیوپسی تومور، بافت پارافینه شده (FEPE)	<b>IDH1 &amp; IDH2 Mutation Analysis</b>	۳۳
۱۴-۱۰ روز	Daily	-	رعایت نکردن شرایط زنجیره سرد و بیش از ۲۴ ساعت از نمونه گیری گذشته باشد	نمونه باید در شرایط خنک و روی یخ به آزمایشگاه منتقل شود. تا ۲۴ ساعت بعد از نمونه گیری	Reverse Transcription- PCR Multiplex PCR	3-5	Whole blood (EDTA) BM	<b>BCR-ABL Translocation (P210, P190) RNA</b>	۳۴
۱۴-۱۰ روز	Daily	-	رعایت نکردن شرایط زنجیره سرد و بیش از ۲۴ ساعت از نمونه گیری گذشته باشد	نمونه باید در شرایط خنک و روی یخ به آزمایشگاه منتقل شود. تا ۲۴ ساعت بعد از نمونه گیری	Reverse Transcription- PCR	3-5	Whole blood (EDTA) BM	<b>BCR-ABL Kinase Domain Mutation (RNA)</b>	۳۵

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
<b>بیماری‌های متابولیک</b>									
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	سندروم نونان (Noonan Syndrome)	۳۶
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	سندروم تی ساکس ( Tay Sachs Disease )	۳۷
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	لش نیهان (Lesch-Nyhan Syndrome )	۳۸

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	فنیل کتونوری (Phenylketonuria, PKU)	۳۹
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	سندھوف (Sandhoff Disease)	۴۰
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5ml	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	بیماری شربت افرا (Maple Syrup Urine Disease)	۴۱

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	نیمن پیک نوع A,B (Niemann pick )	۴۲
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	موکوپلی ساکاریدوز نوع اول و دوم ( Hurler and Hunter syndrome)	۴۳
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	فیبروز سیستیک (Cystic Fibrosis)	۴۴

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	تیروزینمیا (Tyrosinemia)	۴۵
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	ویلسون ( Wilson )	۴۶
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	تب مدیترانه ای ( Familiar Mediterranean Fever)	۴۷

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	آکندروپلازی ( achondroplasia)	۴۸
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	باردت بیدل (Bardet-Biedl)	۴۹
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	کادازیل ( Cadasil)	۵۰

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	پیکان (PKAN)	۵۱
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	بیوتینیداز (Biotinidase)	۵۲

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	اگزوتوسیس (Exostosis)	۵۳
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	گوشه (Gaucher)	۵۴
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	گالاکتوزومی (Galactosemia)	۵۵



Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	لافورا (Lafora)	۵۶
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	متاکروماتیک لوکودیستروفي (MLD)	۵۷
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	آدرنولوکودیستروفي (ALD)	۵۹

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	متیل مالونیک اسیدمیا (MMA)	۶۰
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	هموکروماتوزیس (Hemochromatosis)	۶۱
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	Methylmalonic aciduria	۶۲

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	<b>Agammaglobulinemia (Bruton)</b>	۶۳
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	<b>Mevalonic aciduria</b>	۶۴
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	<b>Isovaleric Acidemia</b>	۶۵

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
<b>ناشنوایی</b>									
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	کانکسین 26,30 (Connexin 26,30) و پانل کامل ژن های ناشنوایی با روش NGS	۶۶
<b>بیماری های میتوکندریایی (Mitochondrial Diseases)</b>									
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	بیماری لی (Leigh)	۶۷
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5ml	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	ملاس (Melas)	۶۸

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	مرف (Merrf)	۶۹
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	نوروپاتی ارثی لبر (LHON)	۷۰
<b>( Skin and Eye Disease ) بیماری های پوستی و چشمی</b>									
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5ml	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	آلبینیسم (Albinism)	۷۱

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	اوگوشی	۷۲
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	Sjogren-Larsson Syndrome	۷۳
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	اکتیوزیس (Ichthyosis)	۷۴

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	دژنراتیو ماکولار وابسته به سن (AMD)	۷۵
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	اپیدرمولایزیس بولوزا (Epidermolysis Bullosa)	۷۶
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	گلوکوما (Glaucoma)	۷۷

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	بیماری نوری (Norric Disease,ND)	۷۸
<b>بیماری های ناشی از تکرارهای نوکلئوتیدی (Disease Made By Three Nucleotide Repeats)</b>									
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	سندروم ایکس شکننده (Fragile X-ایکس)	۷۹
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	آتاکسی تلانژکتازی (Ataxia Telangiectasia)	۸۰



Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد تا ۱۰ هفته ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR-Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	هانتینگتون (Huntington)	۹۰
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد تا ۱۰ هفته ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR-Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	آتاکسی مخچه ای نخاع تیپ ۱، ۷، ۲	۹۱
۲ هفته	Daily	مایع آمنیون و CVS تازه باشد تا ۱۰ هفته ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR-Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	آتاکسی فردریش (Friedreich ataxia)	۹۲

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
<b>بیماری های عصبی و عضلانی (Muscular ND Neural Disease)</b>									
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	سندروم کندی SBMA	۹۳
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	دیتونیا (Dystonia)	۹۵
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	Body Myopathy	۹۶

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	<b>Amyotrophic Lateral Sclerosis (ALS)</b>	۹۷
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	<b>Hereditary Spastic Paraplegia</b>	۹۸
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	<b>شارلوت ماری توتث انواع (4A ، 2A ، A1)</b>	۹۹

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴-۲ هفت	Daily	مایع آمنیون و CVS تازه باشد تا ۱۰ هفته ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR-Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	آتروفی عضلانی نخاعی (SMA)	۱۰۰
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد تا ۱۰ هفته ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR-Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	بیماری رت (Rett syndrome)	۱۰۱
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد تا ۱۰ هفته ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR-Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	Corneal Dystrophy	۱۰۲

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
<b>سرطان ها (Cancers)</b>									
۱۴-۱۰ روز	Daily	-	نمونه پارافینی قدیمی قابل قبول نیست	بیوپسی: تازه در سرم فیزیولوژی بافت پارافینه: در شرایط آزمایشگاهی تهیه و نگه داری شود.	PCR	-	بیوپسی تومور، بافت پارافینه شده (EFPE)	بررسی ژن Kras در سرطان کولورکتال	۱۰۳
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد تا ۱۰ هفته ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR-Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	سرطان مثانه (Bladder Cancer)	۱۰۴
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد تا ۱۰ هفته ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR-Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	سرطان بیضه ( Testicular Cancer)	۱۰۵

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	سرطان پروستات (Prostate Cancer)	۱۰۶
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	سرطان ریه (Lung Cancer)	۱۰۷
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	وان هیپل لیندو (Van-Hippel-Lindau Disease)	۱۰۸

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۲-۱ ماه	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	سرطان سینه و تخمدان (BRCA1,BRCA2)	۱۰۹
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	سندروم Li-Fraumeni	۱۱۰
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	Polyposis	۱۱۱

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
روز ۱۴-۱۰	Daily	-	نمونه پارافینی قدیمی قابل قبول نیست	بیوپسی: تازه در سرم فیزیولوژی بافت پارافینه: در شرایط آزمایشگاهی تهیه و نگه داری شود. WB: 2-8°C	PCR	WB:3-5	بیوپسی تومور، بافت پارافینه شده (EFPE) WB(E) BM	<b>C-KIT mutation analysis</b>	۱۱۲
روز ۱۴-۱۰	Daily	-	لخته	Refrigerator: 2-8°C	PCR	WB:3-5	Whole blood (EDTA) BM	<b>C-KIT For Mastocytosis and Mast Cell Leukemia</b>	۱۱۳
روز ۱۴-۱۰	Daily	-	نمونه پارافینی قدیمی قابل قبول نیست	بیوپسی: تازه در سرم فیزیولوژی بافت پارافینه: در شرایط آزمایشگاهی تهیه و نگه داری شود. WB: 2-8°C	PCR	WB:3-5	بیوپسی تومور، بافت پارافینه شده (EFPE) Whole blood (EDTA) BM	<b>PDGFRA mutation analysis</b>	۱۱۴
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد تا ۱۰ هفته ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	<b>Melanoma</b>	۱۱۵



Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
روز ۱۴-۱۰	Daily	-	نمونه پارافینی قدیمی قابل قبول نیست	بیوپسی: تازه در سرم فیزیولوژی بافت پارافینه: در شرایط آزمایشگاهی تهیه و نگه داری شود. WB: 2-8°C	PCR	WB:3-5	بیوپسی تومور، بافت پارافینه شده (EFPE) Whole blood (EDTA) BM	<b>NRAS mutation analysis</b>	۱۱۶
هفته ۴-۲	Daily	مایع آمنیون و CVS تازه باشد تا ۱۰ هفته ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	<b>Gorlin سندروم</b>	۱۱۷
روز ۱۴-۱۰	Daily	-	نمونه پارافینی قدیمی قابل قبول نیست	بیوپسی: تازه در سرم فیزیولوژی بافت پارافینه: در شرایط آزمایشگاهی تهیه و نگه داری شود. WB: 2-8°C	PCR	WB:3-5	بیوپسی تومور، بافت پارافینه شده (EFPE) Whole blood (EDTA) BM	<b>PIK3CA mutation analysis</b>	۱۱۸

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	رتینوبلاستوما (Retinoblastoma)	۱۱۹
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	سندروم Lynch	۱۲۰
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	نوروبلاستوماتوسیس NF1,NF2	۱۲۱

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد تا ۱۰ هفته تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR-Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	سرطان معده	۱۲۲
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد تا ۱۰ هفته تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR-Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	سرطان مری	۱۲۳
۱۴-۱۰ روز	Daily	-	نمونه پارافینی قدیمی قابل قبول نیست	بیوپسی: تازه در سرم فیزیولوژی بافت پارافینه: در شرایط آزمایشگاهی تهیه و نگه داری شود. WB: 2-8°C	PCR	WB:3-5	بیوپسی تومور، بافت پارافینه شده (EFPE) Whole blood (EDTA) BM	P53 mutation analysis	۱۲۴

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
بیماری های استخوانی									
۳-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد تا ۱۰ هفته CVS ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR-Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	(GDF5) Growyh Differentiation Factor 5	۱۲۵
۴-۲ هفته	Daily	مایع آمنیون و CVS تازه باشد تا ۱۰ هفته CVS ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR-Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	مالتیپل سینوستوزیس (Multiple Synostosis Syndrome)	۱۲۶

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
<b>تست های تشخیصی با روش Next-Generation Sequencing</b>									
۴ ماه	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	آزمایش های NGS برای تعیین توالی کل ژنوم، تعیین توالی اگزوم ها	۱۲۷
۴ ماه	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	پانل بیماری های نوروماسکولار ژن ۲۷۸	۱۲۸
۴ ماه	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	پانل بیماری های چشمی ۱۷۵ ژن	۱۲۹

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴ ماه	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	پانل بیماری ناشنوایی مادرزادی ژن ۱۲۷	۱۳۰
۴ ماه	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	پانل بیماری متابولیک ارثی ژن ۱۱۹	۱۳۱
۴ ماه	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	پانل ژن های میتوکندریایی ۳۷ ژن	۱۳۲

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴ماه	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	پانل بررسی ۶۲ ژن مرتبط با سرطان در خانم ها	۱۳۳
۴ماه	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	پانل بررسی ۶۲ ژن مرتبط با سرطان در آقایان	۱۳۴
۴ماه	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	پانل عقب ماندگی ذهنی ژن ۵۱۴	۱۳۵

Report available	Day(s) Performed	Sample requirements	Reject criteria	Storage & Transport	Method name	S.Volume (mL)	Specimen type	Test name	
۴ ماه	Daily	مایع آمنیون و CVS تازه باشد CVS هفته ۱۰ تا ۱۲ حاملگی	لخته	Refrigerator: WB:1 month CVS: 1 day Frozen	PCR- Sequencing	3-5	Whole blood (EDTA) CVS تمامی نمونه های که بتوان از آن DNA استخراج کرد	پانل آریتمی ژن Cardio Vascular 61	۱۳۶



# **Atomic Absorption Department**

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>cadmium</b>	Whole blood (EDTA)	5	Spectrophotometry	3 days 2-8°C More than 3 days -20°C	Clot	-	Sunday Tuesday Thursday	1 day
<b>Lead</b>	Whole blood (EDTA)	5	Spectrophotometry	3 days 2-8°C More than 3 days -20°C	Clot	-	Sunday Tuesday Thursday	1 day
<b>Manganese</b>	Whole blood (EDTA)	5	Spectrophotometry	3 days 2-8°C More than 3 days -20°C	Clot	-	Sunday Tuesday Thursday	1 day

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
selenium	Serum	3-5	Spectrophotometry	3 days 2-8°C More than 3 days -20°C	Clot	-	Sunday Tuesday Thursday	1 day

**Allergy &  
Immunodeficiency  
Department**

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
Allergy Macroarray (ALEX2)	Serum Plasma	100 µL	Streep Scan	-20°C	Fibrin Lipemic	-	Sunday Wednesday	1 Day
Immunoblotting (RIDA)	Serum Plasma	100 µL	Streep Scan	-20°C	Fibrin Lipemic	-	Sunday Wednesday	1 Day
IgG	Serum CSF	0.5ml	Immunoturbidimetry	14 Days at -20°C	-	-	Sunday Tuesday Thursday	1 Day
IgA	Serum	0.5ml	Immunoturbidimetry	14 Days at -20°C	-	-	Daily	Daily

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
IgM	Serum	0.5ml	Immunoturbidimetry	14 Days at -20°C	-	-	Daily	Daily
IgE	Serum Plasma	0.5ml	ECLIA/CLIA	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles	Saturday Tuesday	1 day
IgG Subclasses	Serum	0.5ml	Immunoturbidimetry	14 Days at -20°C T: at -20°C	-	-	Tuesday	1 Day
Isohemagglutinin	Serum	1	Hemagglutination	4days at RT, 10 days at -20°C 10 days at 2-8°C	Gross hemolysis	-	Sunday	5 days

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
NBT	Whole blood (EDTA)	50-100 µL	-	2-8 °C	Clot	-	Daily	1 Day
DHR	Whole blood (EDTA)	100 µL	Flowcytometry	2-8 °C	Clot	-	Daily	1 Day
C3	Serum	0.5ml	Immunoturbidimetry	14 Days at -20°C	-	-	Saturday Monday Wednesday	1 Day
C4	Serum	0.5ml	Immunoturbidimetry	14 Days at -20°C	-	-	Saturday Monday Wednesday	1 Day

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
CH50	Serum	1	Hemolysin/ immunoturbidimetric	2 hours at RT, 14 days at -20°c CRITICAL FROZEN	Gross hemolysis	Avoid repeated freeze / thaw cycles	Wednesday	3 days
Lymphocyte Transformation Test (LTT) with PHA, BCG, Candida	WB (H)	5ml	كشك سلول PBMC	2-8 °C	Clot	-	Daily	1 week
Anti Tetanus IgG	Serum	500µL	CLIA	24 hours 2-8°C Frozen -20°C	Gross hemolysis, Lipemic	-	Saturday	1 Day
Anti Diphtheria IgG	Serum	500µL	ELISA	24 hours 2-8°C Frozen -20°C	Gross hemolysis , Lipemic	-	Saturday	1 day
HBs Antibody	Serum Plasma	0.5	CLIA/ECL	7 days at 2-8°C, 3 months at -20°C	Gross hemolysis, Lipemic	-	Daily	1 day



Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
CD3	Whole blood (EDTA)	50-100 µL	Flowcytometry	2-8 °C	Clot	-	Daily	1 Day
CD4	Whole blood (EDTA)	50-100 µL	Flowcytometry	2-8 °C	Clot	-	Daily	1 Day
CD8	Whole blood (EDTA)	50-100 µL	Flowcytometry	2-8 °C	Clot	-	Daily	1 Day
CD19	Whole blood (EDTA)	50-100 µL	Flowcytometry	2-8 °C	Clot	-	Daily	1 Day

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
CD20	Whole blood (EDTA)	50-100 µL	Flowcytometry	2-8 °C	Clot	-	Daily	1 Day
CD27	Whole blood (EDTA)	50-100 µL	Flowcytometry	2-8 °C	Clot	-	Daily	1 Day
CD16	Whole blood (EDTA)	50-100 µL	Flowcytometry	2-8 °C	Clot	-	Daily	1 Day
CD56	Whole blood (EDTA)	50-100 µL	Flowcytometry	2-8 °C	Clot	-	Daily	1 Day

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
HLA-DR	Whole blood (EDTA)	50-100 µL	Flowcytometry	2-8 °C	Clot	-	Daily	1 Day
CD45RA	Whole blood (EDTA)	50-100 µL	Flowcytometry	2-8 °C	Clot	-	Daily	1 Day
CD11a,b,c	Whole blood (EDTA)	50-100 µL	Flowcytometry	2-8 °C	Clot	-	Daily	1 Day
CD15	Whole blood (EDTA)	50-100 µL	Flowcytometry	2-8 °C	Clot	-	Daily	1 Day

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
CD18	Whole blood (EDTA)	50-100 µL	Flowcytometry	2-8 °C	Clot	-	Daily	1 Day
TCR αβ	Whole blood (EDTA)	50-100 µL	Flowcytometry	2-8 °C	Clot	-	Daily	1 Day
TCR γδ	Whole blood (EDTA)	50-100 µL	Flowcytometry	2-8 °C	Clot	-	Daily	1 Day
Double negative Tcells	Whole blood (EDTA)	50-100 µL	Flowcytometry	2-8 °C	Clot	-	Daily	1 Day

# **Hematology Department**

Test name	Specimen type	Sample volume (mL)	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Antithrombin III Assay</b>	Plasma Na Cit, (platelet - poor plasma)	2	Cromogenic	8 hours at RT, 1 month at -20°C	Hemolysis, Incorrect anticoagulant(Icteric or Lipemic for non – coagulation method)	Platelet-free plasma Warfarin affects the test (decrease) Do not refreeze plasma	Tuesday	1 day
<b>Apcr</b>	Plasma Na Cit, (platelet - poor plasma)	2	Clotting	8 hours at RT, month at -80	Hemolysis, Incorrect anticoagulant(Icteric or Lipemic for non – coagulation method)	Platelet-free plasma Warfarin affects the test (decrease) Do not refreeze plasma	Tuesday	1 day
<b>Blood group/RH</b>	Whole blood (EDTA) Serum	3	Hemagglutination	1 day at RT, 7 days at 2-8°C.	Hemolysis, Frozen, Clotting, Rouleaux formation	-	Daily	Daily
<b>Borrelia Smear</b>	Whole blood (EDTA)	2	Giemsa	1 day at RT, 7 days at 2-8°C	-	Fever presence	Daily	Daily

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Complete Blood Count</b>	Whole blood (EDTA)	3	Flow cytometry	4 hours at RT, 1 day at 2-8°C	Hemolysis, Clotting, Frozen, Incorrect anticoagulant	-	Daily	Daily
<b>D-Dimer test</b>	Plasma Na Cit, (platelet - poor plasma)	2	Clotting	8 hours at RT, 1 month at -20	Hemolysis, Frozen, Clotting, Incorrect anticoagulant	Platelet-free plasma	Daily	1 day
<b>Despaching Slide</b>	Slide	3	Wright & Giemsa stain	*	*	-	Daily	Daily
<b>ESR</b>	Whole blood (Citrate)	2	Automation	4 hours at RT, 12 hrs. at 2-8°C	Hemolysis, Clotting	-	Daily	Daily
<b>FDP</b>	Plasma Na Cit, (platelet - poor plasma)	2	Latex Agglutination	8 hours at RT, 1 month at -20	Hemolysis, Increased RF titer, sample with fibrin	Platelet-free plasma	Daily	Daily

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Fibrinogen</b>	Plasma Na Cit, (platelet - poor plasma)	2	Clotting	8 hours at RT, 1 day at 2-8°C, 1 month at -20°C	Hemolysis, Frozen, Clotting, Incorrect anticoagulant	Platelet-free plasma	Daily	Daily
<b>F VIII</b>	Plasam (Citrate) (platelet -poor plasma)	1	Coagulation	2 hours in RT, 14 days in -20°C	Avoid repeated freeze / thaw cycles Be separated quickly / Two times centrifugation is preferred	Hemolysis Incorrect anticoagulant	Daily	5 days
<b>Hemoglobin H inclusion</b>	Whole blood (EDTA)	3	Supravital stain	6 hours at RT, 3 days at 2-8°C	Hemolysis, Clotting, Frozen, Incorrect anticoagulant	-	Daily	Daily
<b>Heinz body</b>	Whole blood (EDTA)	3	Supravital stain	6 hours at RT, 3 days at 2-8°C	Hemolysis, Clotting, Frozen, Incorrect anticoagulant	-	Daily	Daily



Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Isoagglutinin Titer, Anti-A</b>	Serum	1	Hemagglutination	4 days at RT, 10 days at -20°C 10 days at 2-8°	Gross hemolysis		Sunday	5 days
<b>Isoagglutinin Titer, Anti-B</b>	Serum	1	Hemagglutination	4 days at RT, 10 days at -20°C 10 days at 2-8°	Gross hemolysis		Sunday	5 days
<b>LE cell</b>	Whole blood (defibrinate) , Serum	10	Slide	*	Clotting	-	Daily	Daily
<b>Lupus anticoagulant</b>	Plasma Na Cit, (platelet-poor plasma)	2	Clotting	4 hours at RT, 1 month at -20°C	Hemolysis, Frozen, Clotting, Incorrect anticoagulant	Platelet-free plasma	Daily	Daily

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>Malaria Smear</b>	Whole blood (EDTA)	3	Slide staining (Geimsa)	Unlimited after fixation at RT	Hemolysis	Fever presence	Daily	Daily
<b>Osmotic fragility test</b>	Whole blood (Heparin & EDTA)	5	Hemolysis	1 day at RT	Hemolysis, Frozen, Clotting, Incorrect anticoagulant	-	Daily	3 days
<b>Prothrombin time (PT)</b>	Plasma Na Cit, (platelet - poor plasma)	2	Clotting	8 hours. at RT, 14 days at -20°C	Hemolysis, Frozen, Clotting, Incorrect anticoagulant	Platelet-free plasma	Daily	Daily
<b>PT MIX in Platelet poor plasma by Coagulation assay</b>	Plasma Na Cit, (platelet - poor plasma)	2	Clotting	8 hours at RT, 14 days at -20°C	Hemolysis, Frozen, Clotting, Incorrect anticoagulant	Platelet-free plasma	Daily	Daily
<b>Partial Thromboplastin Time (PTT)</b>	Plasma Na Cit, (platelet - poor plasma)	2	Clotting	4 hours at RT, 14 days at -20°C	Hemolysis, Frozen, Clotting, Incorrect anticoagulant	Platelet-free plasma	Daily	Daily

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
<b>PTT MIX in Platelet poor plasma by Coagulation assay</b>	Plasma Na Cit , (Platelet poor plasma)	2	Clotting	4 hours at RT, 14 days at -20°C	Hemolysis, Frozen, Clotting, Incorrect anticoagulant	Platelet-free plasma	Daily	Daily
<b>Protein C</b>	Plasma Na Cit, (Platelet Poor plasma)	2	Chromogenic	8 hours at RT, 1 month at -20°C	Hemolysis, Incorrect anticoagulant(Icteric or Lipemic for non – coagulation method)	*Platelet-free plasma * Warfarin affects the test (decrease) *Do not refreeze plasma	Tuesday	1 day
<b>Protein S activity</b>	Plasma Na Cit, (Platelet Poor plasma)	2	Clotting	4 hours at RT, 1 month at -20°C	Hemolysis, Incorrect anticoagulant(Icteric or Lipemic for non – coagulation method)	*Platelet-free plasma * Warfarin affects the test (decrease) *Do not refreeze plasma	Tuesday	1 day
<b>Peripheral Blood Smear</b>	Whole blood (EDTA)	3	Wright & Giemsa stain	4 hours at RT, 1 day at 2-8°C	Hemolysis, Clotting, Frozen, Incorrect anticoagulant	-	Daily	1 day

Test name	Specimen type	Sample volume	Method name	Storage & Transport	Reject criteria	Sample requirements	Day(s) Performed	Report available
Reticulocyte	Whole blood (EDTA)	3	Supravital stain.	6 hours at RT, 3 days at 2-8°C	Hemolysis, Icteric, Lipemic, Clotting, Frozen, Incorrect anticoagulant	-	Daily	Daily
Sickling test	Whole blood (EDTA)	3	Slide Metabisulfite	1day at RT	Hemolysis, Frozen, Clotting	-	Daily	2 days

# Pathology

## آزمایش های بخش پاتولوژی

تمامی نمونه های جنرال پاتولوژی ( به استثنای بیوپسی مدیکال عصب / عضله و بیوپسی سوزنی کلیه)

انجام IHC ( بیوست فهرست مارک های موجود)

انجام رنگ آمیزی های اختصاصی

بررسی نمونه های بیوپسی پوست توسط فوق تخصص درماتوپاتولوژی به همراه امکان انجام IHC، DIF و Hair Shaft Trichogram

## آزمایشات سیتولوژی

تمامی آزمایشات سیتولوژی ( از جمله پاپ اسمیر بروش های Conventional و LBC (E-Prep) ، سیتولوژی ادرار، سیتولوژی سایر مایعات بدن، FNA از ارگان های مختلف)

IHC markers	IHC markers	IHC markers	IHC markers
CK (AE1/AE3)	P16	CD3	
CK7	P53	CD4	
CK20	P63	CD5	
CK5/6	WT1	CD7	
CKHMMW	Calretinin	CD8	
EMA	$\beta$ Catenin	CD10	
Ki67	Caldesmon	CD15	
CEA	Ecadherin	CD20	
PSA	GATA3	CD21	
CDX2	GCDFP15	CD23	
CA19-9	ER	CD30	
GFAP	PR	CD31	
Arginase	HER2	CD34	
Pax5	Vimentin	CD43	
PAX8	$\alpha$ SMA	CD45	
TTF1	Desmin	CD56	
Napsin A	CD117	CD68	
Chromogranin	DOG1	CD99	
Synaptophysin	HHV8	CD138	
S100		BCL2	
HMB45		BCL6	
Melan A		MUM1	
SOX10		ALK	
		PD1	

**Table 1: Urine Preservative guideline**

Test Name	Temperature			Boric Acid	HCL 6N	Description
	15-25 °C	2-8 °C	≤-20 °C	< 15 y : 5 gr >15 y : 10 gr	< 15 y : 5 cc >15 y : 10 cc	
<b>Albumin</b>	OK	Preferred	OK	OK	-	-
<b>Bence Jones Protein</b>	-	Preferred	OK	-	-	-
<b>Protein electrophoresis</b>	-	Preferred	OK	-	-	-
<b>Calcium</b>	OK	Preferred	OK	-	OK	-
<b>Chloride</b>	OK	Preferred	OK	OK		-
<b>Citrate</b>	-	OK	OK	OK	OK	-
<b>Copper</b>	-	Preferred	-	-	OK	-
<b>Cysteine</b>	-	OK	OK	-	OK	-
<b>Creatinine</b>	OK	Preferred	OK	OK	OK	-
<b>Epinephrine / Norepinephrine</b>	-	OK	OK	-	OK	-
<b>Free Cortisol</b>	-	OK	OK	Preferred	-	-



Test Name	Temperature			Boric Acid	HCL 6N	Description
	15-25 °C	2-8 °C	≤-20 °C	< 15 y : 5 gr >15 y : 10 gr	< 15 y : 5 cc >15 y : 10 cc	
Glucose	-	OK	OK	Preferred	OK	-
Homovanilic Acid	-	-	-	-	OK	-
<b>5HIAA</b>	-	OK	OK	OK	OK	Protection from light
<b>Immunoelctrophoresis</b>	-	Preferred	OK	-	-	-
<b>Micro albumin</b>	OK	Preferred	OK	OK	-	-
<b>Metanephrine</b>	-	OK	OK	OK	OK	Protection from light
<b>Normetanephrine</b>	-	OK	OK	OK	OK	Protection from light
<b>Na / K</b>	-	Preferred	OK	OK	-	-
<b>Oxalate</b>	-	OK	OK	-	OK	-
<b>Phosphorus</b>	OK	-	OK	OK	OK	-
<b>Protein</b>	-	Preferred	OK	OK	-	-
<b>Urea</b>	-	OK	OK	Preferred	-	-
<b>Uric acid</b>	-	OK	OK	Preferred	-	-
<b>VMA</b>	-	-	-	OK	OK	-
<b>Zinc</b>	OK	Preferred	OK	-	OK	-

