

Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Immunology	Anti H.I.V (Type 1&2 and P24 Ag)	Elisa	S ,PE	0.5	odd day	next day	Less than 5 days at 2-8°c for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	Anti Microsomal Ab	Elisa	S	0.5	6day	6day	1 day at 2-8°c for longer time at -20°c	at 2-8°c, at -20°c		
Immunology	Anti DNA (double-stranded)	Elisa	s	0.5	Sun	next day	7days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Biochemistry	Acid Phosphatase (Total)	Colorimetry	S (Added 30 Ul acetic acid 1.5 mol/L to 1 ml ofSerum and mix)	0.5	8day	8day	Immediately (up to 1hour)	up to 0.5 hrs at RT	Hemolysis, Icteric, Lipemic	Fasting is recommended
Immunology	Anti SS-A (Ro) Ab Anti SS-B (La) Ab	Elisa	s	0.5	5day	50day	5 days at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis	
Immunology	Anti TTG Ab (IgA)	Elisa	S	0.5	Mon,Sat	next day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Hemolysis	Avoid repeated freeze / thaw cycles



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Metabolic disorders	Amino Acid	HPLC TLC	U PE	U:10 PE:1	10day 7day	10day 7day	U: 1 day at 2-8°c, PE: 2 weeks at -20°	U: at 2-8°c, PE: at -20°c	Hemolysis, Icteric, Lipemic	Fasting is recommended. Urine must be fresh. Avoid freez/ thaw cycles Be separated quickl
Immunology	Anti Gliadin Ab (IgG)	Elisa	S	0.5	9day	9day	5 days at 2-8°c, longer time at -20°c	at 2-8°c, at -20°c	Hemolysis	Fasting is recommended
Biochemistry	Acid Phosphatase Prostat	Colorimetry	S (Add 30 µl acetic acid 1.5 mol/L to 1 ml of and mix)	0.5	Daily	2day	Immediately (up to 1hour)	up to 0.5 hrs at RT	Clotting sample, Hemolysis, Lipemic	Fasting is recommended
Tumor Markers	ALpha Feto Protein	CLIA	S,PC, PE,Heparin	0.5	Mon,Sat, Thu	next day	3 days at 2-8°c or longer time at -20°c	at 2-8°c, at -20°c		
Immunology	Anti Neutralizing	Elisa	S	1	17day	17day	2days at 2-8°c, >2Days: -20 °c Avoid Freeze thaw	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Specific Biochemistry	A.C.E	Kineti	S,BF	0.5	7day	7day	Immediately at -20 °c (up to Analyse)	at -20°c	Hemolysis	Serum or plasma must be seperated as soon as possible Avoid using medicatio
Immunology	A.S.C.A (IgG) A.S.C.A (IgA)	Elisa	S	0.3	10day	10day	3 days at 2-8°c for longer time at -20°	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Not recommended



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Hormone	A.C.T.H	ECL	PE	0.5	Thu	1day	6 hrs at 2-8 °c for longer time at -20°	2 hrs at 2-8°c, -20°c	Hemolysis	Fasting ,Avoid stres Rapidly seperated (at 2-8 °c), Refrigerated centrifuge must be used Fasting ,Avoid stres
Body Fluid Examination	A.D.A	Enzymatic	S,PE,CSF,BF	0.5	Daily	2day	5 days at 2-8 °c 1 month at -20 °c	at 2-8°c, at -20°c		
Microbiology	Abscess Culture		Secretions		8day	8day	24 hrs at RT	24 hrs at RT		
Microbiology	Abscess Direct Smear		Secretions		2day	2day	24 hrs at RT	24 hrs at RT		
Hormone	Acyl Carnetine Prophail		PE	1.5 CC حداقل	35day	35day	at -20°c	at -20°c		
Hormone	Acetaminophen	HPLC	S	1	9day	9day	7 days at 2-8°c, 2 months at-20°c	at 2-8°c at-20°c	Hemolysis	
Hormone	Adiponectin	Elisa	S	1	21day	21day	5 days at 2-8°c, 1month at -20°c	at 2-8°c, at -20°c	Gross Hemolysis	



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Hormone	Adrenalin	Urine:HPLC S:Elisa	PH,PE,S,U	1,10	21day	21day	pelasma: 1month at -20°c u:7day at2-8°c 1month at-20°c plasma freeze	plasma: at -20°c, urine: at 2- 8°c, -20°c	Hemolysis, Icteric, Lipemic	
Hormone	AFP	ECL,CLIA	S ,PE, PH,PC	0.5	Mon,Sat, Thu	next day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Hemolysis	
Biochemistry	AlbuminSerum	Photometric	S, PE, PH	0.5	Daily	next day	7 days at 15-25°c, 1month at2-8°c 3months at -20°c	at 2-8°c, at -20°c	Hemolysis mild & gross, Icteric gross, lipemic gross	
Biochemistry	AldolaseSerum	Enzymatic	S	0.5	7day	7day	Rapidly at -20°	at -20°c	Hemolysis, Icteric, Lipemic	Serum or plasma must be seperated as soon as possible.
Hormone	Aldosterone	Elisa	S,U	0.5	7day	7day	Rapidly at -20°c	at -20°c	Clotting sample, Hemolysis	Avoid using medication (Anti Blood pressure, Diuretic,) 2 weeks prior to samplin Transport on ice. Avoid repeated freeze/thaw vcycles وضعیت نشسته و خوابیده بیمار گزارش شود
Biochemistry	Alk.ph	Photometric	S,PH	0.5	Daily	next day	7days at 2-8°c, 2months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Immunology	Alpha 1 Anti Trypsin	Enzymatic	S, PE	0.5	13day	13day	1 week at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	



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Hormone	Ammonia	Enzymatic	PE	0.5	4day	4day	20 min at 4 °c, 1 day at -20 °c, for longer time at -70 °c	at -20°c		Refrigerated Centrifuge
Serology	Amoebiasis Ab	Elisa	S	0.5	7day	7day	2 days at 2-8°c	at 2-8°c	Hemolysis, Icteric, Lipemic	
Biochemistry	Amylase	Enzymatic, Colorimetry	S	0.5	1day	1day	1 week at 25°c 6 month at 4°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles Fasting is recommended
Hormone	Androstendione	Elisa	S	0.5	8day	8day	Rapidly at -20°c	at -20°c	Gross Hemolysis	Fasting is recommended
Hormone	Anti ADH Ab	RIA	S	5	30day	30day	1 month at -20°c CRITICAL FROZEN	at -20°c		Avoid repeated freeze/thaw cycles
Hormone	Anti Beta 2 Glycoprotein I(IgM)	CLIA	S	0.5	10day	10day	1 day at 2-8°c for longer time at -20°	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze/thaw vcycles
Hormone	Anti Beta 2 Glycoprotein I(IgG)	CLIA	S	0.5	10day	10day	1 day at 2-8°c for longer time at -20°	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze/thaw vcycles
Hormone	Anti Beta 2 Glycoprotein(IgA)	Elisa	S,PE	0.5	7day	7day	1 day at 2-8°c for longer time at -20°	at 2-8°c, at -20°c		Avoid repeated freeze/thaw vcycles
Immunology	Anti Borrelia Ab(IgM)	CLIA	S,PE,PC,C	0.5	10day	10day	1 week at 2-8°c for longer time at -20°	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	



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Immunology	Anti Borrelia Ab (IgG)	CLIA	S,PE,PC,C	0.5	10day	10day	1 week at 2-8°c for longer time at -20°	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	Anti Brucella Ab (IgM)	Elisa	PE,S	0.5	10day	10day	2 days at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles protect the light
Immunology	Anti Brucella Ab (IgG)	Elisa	PE,S	0.5	10day	10day	2 days at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c		Avoid repeated freeze / thaw cycles protect the light
Immunology	Anti C.C.P	Elisa	PE,PC, S, PH	0.5	Wed	next day	14 days at 2-8°c	at 2-8°c	Hemolysis, Lipemic	
Immunology	Anti Cardiolipin Ab (IgG) (IgM)	Elisa	S	0.5	7day	7day	5 days at 2-8°c, longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Immunology	Anti Centromer Ab	Elisa	S	0.5	10day	10day	5 days at 2-8 °c for longer time at -20 °c	at 2-8°c, at -20°c		
Immunology	Anti Chlamydia Ab (IgA)	Elisa	s	1	8day	8day	1 day at RT, 7 days at 2-8°c 3 months at -20°c	at 2-8°c, at -20°c		
Immunology	Anti Chlamydia Ab (IgG)	Elisa	s	0.5	8day	8day	5 days at 2-8°c for longer time at -20°c	at 2-8°c, at -20°c		



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Immunology	Anti Chlamydia Ab (IgM)	Elisa	s	0.5	Mon,Thu	7day	5 days at 2-8°c for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Lipemic	
Immunology	Anti Diphteria Ab	Elisa	S	0.5	13day	13day	7 days at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Hormone	Anti Desmoglein-1	Elisa	s	0.5	14day	14day	5 days at 2-8°c, 14 days at -20°c	at 2-8°c, at -20°c	Hemolysis, Lipemic	
Hormone	Anti Desmoglein-3	Elisa	S	0.5	14day	14day	5 days at 2-8°c, 14 days at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	Anti Endomysial Ab (IgA)	IF	PE,S	0.5	10day	10day	5 days at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Fasting is recommended
Immunology	Anti Endomysial Ab (IgG)	IF	PE ,S	0.5	9day	9day	5 days at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Fasting is recommended
Immunology	Anti Fasciola Ab (IgG)	Elisa	S	0.5	7day	7day	1 day at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Immunology	Anti Ganglioside (GM1)	Immunoblot	S	1	14day	14day	at -20°c	at -20°c	Gross: Hemolysis, Lipemic	Not recommended



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Hormone	Anti GAD	Elisa	s	0.5	17day	17day	5 days at 2-8°c, longer time at -20°c	at 2-8°c, at -20°c	1	
Immunology	Anti GBM Ab	IFA	S	0.5	10day	10day	1 week at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	Anti Gliadin Ab(IgA)	Elisa	S	0.5	9day	9day	5 days at 2-8°c, longer time at -20°c	at 2-8°c, at -20°c		Fasting is recommended
Immunology	Anti HTLV-(1+2) Ab	Elisa	S ,PE	0.5	8day	8day	5 days at 2-8°c for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Biochemistry	Anti Insulin Ab	Elisa	S	0.5	17day	17day	7 days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c		
Immunology	Anti Jo-1 Ab	Elisa	S	0.5	13day	13day	should be stored at 2-8°c for up to 14 day	at 2-8°c	Hemolysis, Icteric, Lipemic	
Immunology	Anti MCV	Elisa	S	1	13day	13day	4 hrs at RT 24hrs at 2-8°c	at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Immunology	Anti Measles Ab (IgG)	Elisa	S,CSF,BF	0.5	10day	10day	4 days at 4°c for longer time at -20°c	at 4°c, at-20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Immunology	Anti Measles Ab (IgM)	Elisa	S,CSF,BF	0.5	Thu	2day	4 days at 4°c for longer time at -20°c	at 4°c, at-20°c		Avoid repeated freeze / thaw cycles



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Immunology	Anti Mitochondrial Ab (AMA)	CLIA	S	0.5	7day	7day	1 day at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c	Gross: Hemolysis, Lipemic	
Immunology	Anti MOG	IFA	S	0.5	10day	10day	5 days at 2-8°c, 1 month at -20°c	at 2-8°c, at -20°c		
Immunology	Anti MPO	Elisa	S	0.5	6day	6day	14 days at 2-8 °c	at 2-8°c	Hemolysis, Icteric, Lipemic	
Immunology	Anti Mullerian hormone	Elisa	S, PE, PH	0.5	7day	7day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Hemolysis	Avoid repeated freeze / thaw cycles
Immunology	Anti mumps Ab (IgG)	Elisa	S,CSF	0.5	10day	10day	Analyse up to 48 hours,for longer time at -70°c	at RT	Hemolysis	Avoid repeated freeze / thaw cycles
Immunology	Anti mumps Ab (IgM)	Elisa	S,CSF	0.5	10day	10day	Analyse up to 48 hours,for longer time at -70°c	at RT	Gross Hemolysis	Avoid repeated freeze / thaw cycles
Immunology	Anti MUSK Ab	Elisa	S	0.5	13day	13day	7 days at 2-8°c, 1 month at -20°c	at 2-8°c, at -20°c	Lipemic	
Immunology	Anti Nuclear Antibody	Elisa	S	0.5	6day	6day	2days at 2-8°c, > at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	



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Hormone	Anti phospholipase A2 receptor	IFA	S	0.5	13day	13day	6 days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c	Gross Hemolysis	Not recommended
Immunology	Anti phospholipid Ab (IgG),(IgM)	Elisa	S	0.5	10day	10day	3 days at 2-8°c, for longer time at -20°c	up to 0.5 hrs at Rt		Serum or plasma must be seperated as soon as possible
Metabolic disorders	Anti Pneumonia	Elisa	S	2 cc	14day	14day	at -20°c	at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Hormone	Anti Platelet Ab	IFA	S	0.5	13day	13day	1 week at 2-8 °c for longer time at -20 °c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	Anti -PR3	Elisa	S	0.5	7day	7day	should be stored at 2-8°c for up to 14 day	at 2-8°c,	Hemolysis	
Immunology	Anti RF IgG	Imm.Turb	S, PE, PH	0.5	9day	9day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	Anti RNP	Elisa	S	0.5	9day	9day	Should be stored at 2-8°c for up to 14day	at 2-8°c	Hemolysis, Icteric, Lipemic	
Immunology	Anti Rubella Ab (IgG)	ECL	S,PE	0.5	13day	13day	1 week at 2-8 °c for longer time at -20 °c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	Anti Rubella Ab (IgM)	Elisa	S	0.5	Thu,Sat	next day	2days at 2-8°c, > at -20°c	at 2-8°c, at -20°c		





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Immunology	Anti SCL-70 Ab Topoisomerase	Elisa	S	0.5	16day	16day	1week at 2-8°c, for longer time at -20°c	at 2-8°c	Gross Hemolysis	
Hormone	Anti SLA	Elisa	S	0.5	10day	10day	5 days at 2-8°c, 2months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	Anti Smith Ab (anti sm)	Elisa	S	0.5	17day	17day	5 days at 2-8°c for longer time at -20°c	at 2-8°c, at -20°c		
Immunology	Anti Smooth muscle Ab(ASMA)	IFA	S	0.5	10day	10day	5 days at 2-8 °c for longer time at -20 °c	at 2-8°c, at -20°c		
Immunology	Anti Sperm Ab	IF	S	0.5	Sun	2day	5 days at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c		
Biochemistry	Anti Streptolysin O titre	Imm.Turb	S	0.5	Even days	next day	2days at 2-8°c, 6months at -20°c	at 2-8°c at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	Anti tetanus Ab	Elisa	S	0.5	13day	13day	7 days at 2-8 °c 3 month at -20 °c	at 2-8°c, at -20°c	Hemolysis	Be separated quickly. Avoid freeze/ thaw cycle
Coagulation tests	Anti Thrombin III	Imm.Turb	PC	2	7day	7day	8 hrs at 0°c, or longer time at -20°	up to 1 hrs at 0°c,-20°c	Hemolysis, Icteric, Lipemic	Serum or plasma must be seperated as soon as possible. Two times centrifugation is recommended. Avoid repeated freeze/thaw cycle
Immunology	Anti Thyroglobulin Ab	Elisa	S, PE	0.5	7day	7day	1days at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c		



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Immunology	Anti Toxoplasma Ab. (IFA)	Elisa	S	0.5	Tue	next day	2days at 2-8°c, > at -20°c	at 2-8°c, at -20°c		
Immunology	Anti Toxoplasma Ab.(IgG)	Elisa	S	0.5	Tue	next day	2days at 2-8°c, > at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Immunology	Anti Toxoplasma Ab. (IgM)	Elisa	S	0.5	Tue	next day	2days at 2-8°c, > at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	Anti TPO Ab	ECL,CLIA	S, PE, BF	0.5	odd day	next day	3 days at 2-8°c, 1months at -20°c	at 2-8°c at -20°c	Hemolysis, Lipemic	Be separated until 20-30 min. Avoid freeze / thaw cycle
Hormone	Anti Znt8 Ab	Elisa	s	2	17 day	17 day	28 days at 2-8°c, 28 days at -20°c 72 days at 20-25°c	at 2-8°c, at -20°c at 20-25°c	Gross Hemolysis, Icteric, Lipemic	·
Immunology	Anti TTG Ab(IgG)	Elisa	S	0.5	8day	8day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Hemolysis	Avoid repeated freeze / thaw cycles
Coagulation tests	APCR (Leiden Factor)	Coagulation	PC	1	8day	8day	at -20°c	at -20°c	Hemolysis Incorrect anticoagulant	Avoid repeated freeze / thaw cycles Be separated quickly/Two times centrifugation is preferred.
Biochemistry	Apolipoprotein A1	Imm.Turb	S	0.5	10day	10day	7 days at 2-8°c, 1month at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles



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Biochemistry	Apolipoprotein B	Imm.Turb	S	0.5	13day	13day	7 days at 2-8°c, 1month at -20°c	at 2-8°c, at -20°c		Avoid repeated freeze / thaw cycles
Microbiology	Ascite culture	Aerobic & Ana	Ascitic fluid	10	8day	8day	in the fastest time possible	24 hrs at 4°c	Hemolysis	
Body Fluid Examination	Ascites ADA	Enzymatic	S,PE,CSF	0.5	6day	6day	5 days at 2-8°c 1 month at -20°	at 2-8°c, at -20°c	Gross Hemolysis	
Immunology	Aspergillus (IgG)(IgM)	Elisa	S	0.5	13day	13day	5 days at 2-8°c, 2 month at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Biochemistry	B2-Microglobulin	Elisa	S ,PE	0.5	10day	10day	1 week at 2-8 °c for longer time at -20 °c	at 2-8°c, at -20°c		Avoid repeated freeze/thaw cycle
Microbiology	Bal Culture & Sensitiv		Secretions		8day	8day	24 hrs at 4°c	24 hrs at RT	Less than 5cc	
Urine Analysis	Bence Jones Protein		U	5	2day	2day				
Hormone	Beta-Cross-Laps(B-CTX)	ECL	S	0.5	13day	13day	8 hrs at 2-8°c, 14 days at -20°c	at 2-8°c, at -20°c	Hemolysis	



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Hormone	Beta HCG-Serum	CLIA,ECL	S ,PE ,PC	0.5	Daily	next day	3 days at 2-8°c, 12months at -20°c	at 2-8°c, at -20°c		
Hormone	Beta titre	ECL,CLIA	S, PH ,PE	0.5	Daily	next day	3 days at 2-8°c, 12months at -20°c	at 2-8°c, at -20°c	exposure to light ,Hemolysis	
Biochemistry	Bilirubin	Photometric	S,PH	0.5	Daily	next day	1 day at RT. 7Days at 2-8°c, 3months at -20°c at dark place	at 2-8°c, at -20°c		Avoid repeated freeze / thaw cycles
Molecular diagnosis	BK virus PCR	PCR	Sputum	(2ويىڭ) 6	13day	13day	at 2-8°c	at 2-8°c		Fasting
Coagulation tests	Bleeding Time	Duce			Daily	next day			Hemolysis, Icteric, Lipemic	
Specific Biochemistry	Blood Ceruloplasmin	Imm.Turb	S ,PE	0.5	7day	7day	7 days at 2-8°c, or longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Metabolic disorders	Urine Sugar Chromatography	TLC	U	3	17day	17day	1 day at 2-8°c, 1 month at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Plasma sample be separated quickly
Metabolic disorders	Blood Amino Acid (HPLC) chromatography	HPLC	PE	1	10day	10day	1 day at 2-8°c, 1 month at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Plasma sample be separated quickly



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Specific Biochemistry	Blood Copper	Photometric	S ,PE ,PH ,U(R&24)	0.5,10	s: 4day u:7day	s: 4day u:7day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c		
Microbiology	Blood Culture & sensitivity	Aerobic	WB	%10کمتر از حجم کشت نرمال	21day	21day	The same time transported at 37°c	at RT< 1hrs	Hemolysis, Frozen, Clotting, Rouleaux formation	
Blood bank	Blood Group	cell type	WB,S	3	Daily	next day	7 days at 2-8°c, 1day at RT	at 2-8°c, at RT		
Genetics	Blood Karyotype	Gbanding	WB(H)	5	13day	13day	at 2-8°c, fast sending	at 2-8°c, fast sending		عدم مصرف دارو یک هفته قبل از انجام آزمایش
Microbiology	Body Fluid direct Smear		Body Fluid		2day	2day	at RT	at RT	اتوليز بودن	
Parasitology	Bone marow Aspiration	Direct smear	Smear	Several Slid	Daily	10day	at RT	at RT	اتوليز بودن	
Parasitology	Bone marow Biopsy	Sectioning and Staining	Tissue		Daily	10day	Unlimited after fixatio		Hemolysis, Icteric, Lipemic	The volume of the fixable should be least at 5 times tissue volum
parasitology	Borrelia	بررسی لام خون محیطی و لان نوک انگشت	WB,S	3	2day	2day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c		



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Microbiology	Breast Culture	Aerobic & Ana	Breast dis	5	8day	8day	the fastest time after receiving the sample	at RT		
Microbiology	Breast Direct Smear		Breast dis	-1-1	2day	2day	the fastest time after receiving the sample	at RT	Hemolysis, Icteric	
Biochemistry	BS	Photometric	S, PH ,PE	0.5	Daily	next day	1 day at 20-25°c 7day at 4-8°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Molecular diagnosis	BCR-ABL (p190-p210)Qualitative	PCR	WB (E), مايع مغز استخوان	7	10day	10day	2 days at 2-8°c	at 2-8°c	Hemolysis, Frozen, Clotting, Incorrect anticoagulant	همر اه فرم ارسال گردد.
Biochemistry	BUN	Turbidimetric	S	0.5	Daily	next day	3 months at -20°c 15 days at 20-25°c, 3months at 4-8°c,	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	C4	Imm.Turb	S, PE ,PH	0.5	Thu,Sat	next day	7 days at 2-8°c,1months at -20°c (Definitely in the freezer)	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Tumor Markers	CA 135	CLIA	S	0.5	5day	5day	7 days at 2-8°c 3 months at -20°c	at 2-8°c, at -20°c	Clot	
Tumor Markers	C.E.A	CLIA,ECL	S,PE	0.5	Tue	next day	5 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Microbiology	C.S.F Culture for B.K	Aerobic & Ana	CSF	1	60day	60day	The same time must be tested	at RT	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Immunology	C1 Inhibitor	Imm.Turb	S	0.5	10day	10day	Immediately for longer time at -70°c	up to 0.5 hrs at RT -70°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Immunology	C3	Imm.Turb	S, PE ,PH	0.5	Thu,Sat	next day	7 days at 2-8°c,1months at -20°c (Definitely in the freezer)	at 2-8°c, at -20°c		Avoid repeated freeze / thaw cycles
Biochemistry	Ca (Ionized)	ISE	S	0.5	Daily	1day	7 day at 20-25°c، 3week 4-8°c (8month at-20°c	at 20-25°c ' at 4-8°c ' at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Tumor Markers	CA 125	CLIA,ECL	S	0.5	Tue	next day	5 days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Tumor Markers	CA 15-3	ECL	S	0.5	Tue	next day	7 days at 2-8°c 3 months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Tumor Markers	CA 19-9	ECL,ECL	S, PE	0.5	Tue	next day	7 days at 2-8°c 3 months at -20°c		Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Tumor Markers	CA 242	Elisa	S,PE,B	0.5	Sat	2day	1 day at 2-8 °c, for longer time at -20 °c	at 2-8°c, at -20°c	Hemolysis, (Mild, Gross)	Avoid repeated freeze / thaw cycles



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Tumor Markers	CA 72-4	ECL	S,PE	0.5	Tue	11day	1 day at 2-8 °c, for longer time at -20 °c	at 2-8°c, at -20°c		
Serology	CH50	Elisa	S	0.5	5day	5day	Rapidly at -20 °c	at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Genetics	CALR	PCR	WB(EDTA)	5	13day	13day	at 2-8°c	at 2-8°c	Hemolysis, Icteric, Lipemic	فرم های مولکولی و نتایج نست CBC همراه مدارک شرح حال بیمار ارسال گردد
Hormone	Calcitonin	CLIA	S	0.5	10day	10day	4 days at 2-8°c Ur.:1month at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Serum or plasma must be seperated as soon as possible. Rapidly seperated (at 2-8°) Fasting
Biochemistry	Calcium	Colorimetry	S,U 24,U	0.5	Daily	1day	7 days at 20-25°c, 3 week 4-8°c, 8 month at -20°c	at 20-25°, at 4-8°c, at -20°c,		Avoid repeated freeze/thaw cycles Fasting is recommended
Immunology	Calprotectine	Imm.Chrom	Stool	0.5	7day	7day	7 days at 2-8°c	at 2-8°c at -20°c	Hemolysis, Gross: Icteric, Lipemic	
Immunology	C-ANCA	Elisa	S	0.5	10day	10day	2 days at 2-8°c for longer time at -20°c	at 2-8°c, at -20°c		



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Therapeutic drug monitoring	Carbamazepine	Fluorescence polarization	S	0.5	Daily	2day	2 days at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c		
Microbiology	Catheter Culture		U	20	4day	4day	24 hrs at 4°c	2 hrs at 4°c	Hemolysis, Frozen, Clotting, Incorrect anticoagulant	
Hematology	СВС	اتوماتیک دستگاهی	WB	3	Daily	next day	4 hrs at RT, 1days at 2-8°c	at RT, at 2-8°c	Hemolysis, Frozen, Clotting, Incorrect anticoagulant	
Hematology	CD11abc	Flow cytometry	WB(EDTA)	2	7day	7day	1 day at 2-8°c	at 2-8°c	Hemolysis, clotting, frozen, incorrect, anticoagulant	
Immunology	CD2-CD3-CD4-CD5- CD7-CD8-CD10-CD14- CD16-CD18-CD19- CD20CD21-CD22- CD23-CD25-CD27- CD38-CD56-CD59-CD55	Flow cytometry	WB(EDTA)	2	10day	10day	1 day at 2-8°c	at 2-8°c	Hemolysis	
Hormone	Cell Free DNA(N.I.P.T)	NGS	WB	10	30day	30day	2 days at 2-8°c	at' 2-8°c	Hemolysis, Icteric, Lipemic	
Electrolytes	Chloride	ISE	S,U 24,U,PH	0.5	5day	5day	7 days at 2-8°c	at 2-8°c	Hemolysis, Lipemic	Avoid repeated freeze / thaw cycles



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Biochemistry	Cholinesterase	Photometric	S	0.5	10day	10day	serom: 7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Gross Hemolysis	
Hormone	Choromogranin A	Elisa	S	1	10day	10day	3 months at -20°c CRITICAL FROZEN	at -20°c		
Immunology	CIC	Imm.Turb	S	0.5	7day	7day	2 days at 2-8°c, 1months at -20°c	at 2-8°c, at -20°c		
Hormone	Clonazpam	HPLC	S	2	odd day	2day	2 days at 2-8°c for longer time at -20°	at 2-8°c at-20°c		
Immunology	Clostridium Toxin A & B	Elisa	Stool	1gr	5day	5day			Clot	
Coagulation tests	Clotting Time	Tube method	U,PE	0.5	Daily	next day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	CMV Ab (IgG)-avidity	Elisa	S	0.5	10day	10day	7 days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Hormone	CMV Ab(IgM)-capture	CLIA	S, PE, PH, PC, BF,CSF	0.5	1day	1day	7 days at 2-8°c, 3 months at -20°c	at 2-8°c at -20°c	Hemolysis, Frozen, Clotting, Incorrect anticoagulant	Avoid repeated freeze / thaw cycles
Immunology	CMV antigenemia (pp-65)	IFA	WB(EDTA)	3	13day	13day	6 hrs at RT	4 hrs at RT		
PCR	CMV PCR	Real time	CSF,Serum, Whole blood,Tissue ,Re spiratory sample,Plasma Serum, Ammnion ,Urine,Dermal & genital lesion	2	8day	8day	week at 2-8°c for longer time at -20°			Not recommended
Immunology	Cold Agglutinine	Agglutination	S	0.5	10day	10day	1 day at 2-8°c	at 2-8°c	اتوليز بودن	
Pathology	Consult Block pathology	Sectioning and Staining	Paraffin Block		Daily	5day	Unlimited after fixation.			



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Pathology	Consultation Slide	Direct smear	Stain Slide		7day	7day	at RT	at RT	Hemolysis	
Serology	Coombs Wright	Agglutination	S,CSF,BF	1	3day	3day	2 days at 2-8°c, 7 days at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Hormone	Cortisol	ECL	S U 24	0.5	Thu 10day	1day 10day	7 days at 4-25 °c	at 4-25 °c	Hemolysis, Icteric, Lipemic	Sampling time between 6-8 am. Avoid stress ,using medication
Immunology	Covid Anti RBD-Total	Elisa	s	1	6day	6day	2 days at 2-8°c, >2Days: -20 °c Avoid Freeze thaw	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	Covid Anti spike-G	Elisa	S	1	6day	6day	2 days at 2-8°c, >2Days: -20 °c Avoid Freeze-thaw	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Hormone	C-Peptide	ECL	S	0.5	6day	6day	Immediately at -20 °c (up to Analyse)	at -20°c	Hemolysis, Lipemic	Fasting is recommended Rapidly seperated (at 2-8 °c)
Biochemistry	СРК	photometric	S ,PE	0.5	Daily	next day	1 day at RT 7 days at 2-8°c, 1 month at -20°c	at 2-8°c, at -20°c	Hemolysis	Avoid repeated freeze / thaw cycles



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Biochemistry	СРК-МВ	DGKC	S,PH	0.5	Daily	next day	7 days at 2-8°c, (dark place)	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Biochemistry	Creatinine	Colorimetry	S	0.5	Daily	next day	7 days at RT. 4-25°c 3months < -20°c at RT	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Biochemistry	CRP	Turbidimetric	S	0.5	Daily	next day	3 months at -20°c 15 days at 20-25°c, 3months at 4-8°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Serology	CRP High Sensitive	Imm.Turb	S,PH,BF	0.5	13day	13day	1 week at 2-8 °c for longer time at -20°	at 2-8°c, at -20°c	Hemolyse, Ictreic, Lipemic. Whole blood drawn in a prewarmed (37 C) syringe. Frozen, Storage at 2-8 C	Avoid repeated freeze / thaw cycles
Immunology	Cryoglubulin	Percipitation	S	1	13day	13day	2 days at RT	at RT	Hemolysis	Fasting is recommended ارسال در دمای محیط
Body Fluid Examination	CSF ADA	Enzymatic	CSF ,PE,S,BF	0.5	7day	7day	5 days at 2-8°c, 1 month at -20°c	at 2-8°c, at -20°c		
Microbiology	CSF Direct Smear		CSF		2day	2day	at RT fast sending	at RT fast sending		
Body Fluid Examination	CSF Gram Stain		CSF		3day	3day	at RT fast sending	at RT fast sending	Hemolysis, Icteric, Lipemic	



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Biochemistry	CSF(O.C.B)	IEF & Immunofixation	S & CSF	1	10day	10day	7 days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c		Not recommended
Body Fluid Examination	CSF LDH	photometric	CSF	0.5	Daily	next day	6 week at-20°c	at 2-8°c		
Hormone	CYFRA 21	ECL	S,PE,PH	1	9day	9day	4 weeks at 2-8°c, 6months at -20°c	at 2-8°c, at -20°c		
Immunology	Cystatin C	Colorimetry	S, PE	0.5	13day	13day	2 days at 2-8°c, for longer time at -20°c	at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Immunology	Cytomegalovirus (CMV) IgG	Elisa	S	0.5	Tue	next day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Immunology	Cytomegalovirus (CMV) IgM	ELFA	S	0.5	Tue	next day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Hemolysis, Lipemic	Avoid repeated freeze / thaw cycles
Hormone	DihydroTestostrone (DHT)	Elisa	S	0.5	10day	10day	3 days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c	Hemolysis, Lipemic	
Coagulation tests	D-dimer (Quantitative)	Coagulation	PC	3	Daily	Same day	8 hrs at RT 1months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Hormone	DHEA-SO4	CLIA	S, PH	0.5	Sat,Tue	next day	7 days at 2-8°c, 2months at -20°c	at 2-8°c, at -20°c		Avoid repeated freeze / thaw cycles



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Immunology	Diazepam	Imm.Chrom	U	5	Daily	1day	4 days at 2-8°c Ur.: 1month at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Therapeutic drug monitoring	Digoxin	CLIA	S	0.5	10day	10day	2 days at 2-8°c ,for longer time at -20°c	at 2-8°c, at -20°c		Avoid repeated freez/ thaw cycles
Serology	Direct Coombs test	Agglutination	WB	2	Daily	next day	1 week at 2-8°c	at 2-8°c	Clot ,Hemolys	
Hematology	E.S.R	Westergren	PC	2	Daily	next day	12 hrs at 2-8°c, 2hr at RT	at 2-8°c,at RT		
Microbiology	Ear Direct Smear		Ear Swabs		2day	2day	24 hrs at RT	24 hrs at RT		
Microbiology	Ear Discharge (C&S)		Ear Swabs		4day	4day	24 hrs at RT	24 hrs at RT	Hemolysis, Icteric, Lipemic	
Immunology	EBV Ab (VCA)IgG	Elisa	S	0.5	8day	8day	1 week at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Immunology	EBV Ab (VCA)IgM	ELFA	S	0.5	8day	8day	1 week at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c	incorrect	Avoid repeated freeze / thaw cycles



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Molecular diagnosis	EBV PCR(Quantitative)	Qualitave pcr	S ,PE	TIssue 5mm Other 1ml	10day	10day	WB: 8 hrs RT, 3 days 2-8 °c Others: 24 hrs RT, 5 days 2-8 °c 1 yr -20 °c Tissue Fresh Freeze 1 yr. Paraffin block at RT (unlimited)	at 2-8°c		
Toxicology	Ecstasy (MDMA)	Imm.Chrom	WB	10,50	Daily	next day	7 days at 2-8°c, 2months at -20°c	at 2-8°c, at -20°c		
Microbiology	Endocervix culture		Vaginal/prosta tic/Urethra/dis charge		8day	8day	24 hrs at RT	24 hrs at RT		
Microbiology	Endocervix direct smear		Vaginal/prosta tic/Urethra/dis charge		2day	2day	24 hrs at RT	24 hrs at RT		
Microbiology	Endocervix direct smear For BK		Vaginal/prosta tic/Urethra/dis charge		8day	8day	24 hrs at 2-8°c	at 2-8°c		
Microbiology	Endometrial Culture for BK		Endometrial		60day	60day	24 hrs at 2-8°c	at 2-8°c		
Microbiology	Endometrial Smear for BK		Endometrial		8day	8day	24 hrs at 2-8°c	at 2-8°c	Hemolysis, Icteric, Lipemic	
Immunology	Entamoeba Histolytica Ab (IgG)	Elisa	S	0.5	7day	7day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c		Avoid repeated freeze / thaw cycles



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Cytology	E-Prep	direct Smear	E Prep		6day	6day			Hemolysis, Icteric, Lipemic	
Hormone	Erythro poeitin(E.P.O)	Elisa	S(After sampling and befor separating, sample must stored at 2-8°c, then seperated at refrigeerated centrifuge	0.5	10day	10day	4 days at 2-8°c Ur.: 1month at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	void repeated freeze/thaw cycles separated at refrigerated centrifug
Hormone	Estradiol	CLIA	S,P	0.5	Sat	next day	5 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c		Avoid repeated freeze / thaw cycles
Therapeutic drug monitoring	Ethosuximide	HPLC	S	0.5	Daily	2day	2 days at 2-8 °c ,for longer time at -20 °c	at 2-8°c, at -20°c		
Microbiology	Eye Culture & Sensitivity		eyes Swap		8day	8day	24 hrs at RT	24 hrs at RT		
Microbiology	Eye dis. Culture		eyes Swap		Daily	2day	24 hrs at RT	24 hrs at RT		
Immunofluore scent	F.A.N.A	IFA	S	0.5	Tue	2next day	2 days at 2-8°c for longer time at -20°c			



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Cytology	FNA (Fine Needle Asp)	Direct smear	BF		7day	7day	Unlimited time for prepared slides		Not a blood sample and diarrhea	
Parasitology	F.LO.B.T	Imm-chem	Stool	10	10day	10day	fast sending	fast sending	Hemolysis Incorrect anticoagulant	
Coagulation tests	Factor VII	Coagulation	PC	1	10day	10day	2 hrs at RT, 14 days at -20°c, 6months at -80°c	at -20°c	Hemolysis,incorrect, anticoagulant	
Coagulation tests	Factor II	Coagulation	PC	1	7day	7day	2 hrs at RT 14days at -20°c 6months at -80°c	at -20°c	Hemolysis, Frozen, Clotting, Incorrect anticoagulant	Avoid repeated freeze / thaw cycles Be separated quickly / Two times centrifugation is preferred.
Coagulation tests	Factor V	PCR	WB(EDTA)	1	13day	13day	1 week at 2-8°c for longer time at -20°	at RT, at 2-8 °c		Avoid repeated freeze/thaw cycles Be separated quickly/Two times centrifugation is prefered
Coagulation tests	Factor VIII	Coagulation	PC	1	13day	13day	1 week at 2-8°c for longer time at -20°	at 2-8°c	Hemolysis Incorrect anticoagulant	
Coagulation tests	Factor X	Coagulation	PC	1	10day	10day	2 hrs at RT, 14 days at -20°c, 6months at -80°c	at -20°c	Hemolysis, Incorrect, anticoagulant	
Immunology	Factor XI	Coagulation	PC	1	13day	13day	2 hrs at RT, 14 days at -20°c, 6months at -80°c	at -20°c		



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
PCR	Factor XIII	PCR	WB(EDTA)	1	17day	17day	1 week at 2-8°c for longer time at -20	at 2-8°c	Hemolysis	
Biochemistry	Fasting Blood Sugar	Photometric	S ,PE	0.5	Daily	next day	1 day at20-25°c 7 days at 4-8°c	at 2-8°c, at -20°c		
Parasitology	Fat Of Stool	sudan blachIII	Stool	0.5	6day	6day	1 hrs at RT 4day at 2-8°c, 14days at -20°c	at 2-8°c	Hemolysis	
Biochemistry	FBS	Photometric	S ,PE	0.5	Daily	next day	1 day at20-25°c 7 days at 4-8°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Coagulation tests	FDP	Agglutination	PC(platelet - poor plasma)	1	10day	10day	8 hrs at 20-25 °c ,one mounth at -20 °c	3 hrs at 20-25 °c, at- 20 °c	Hemolysis, Lipemic	Serum or plasma must be seperated as soon as possible
Hormone	Ferritin	ECL	s	0.5	Even days	next day	24 hrs at RT 7day at 2-8°c 1 year at -20 °c		Clot ,Hemolys	Avoid repeated freeze / thaw cycles
Coagulation tests	Fibrinogen	gravimetric	PC	3	Daily	next day	2 week at -20 °c 24 hrs at 2-8°c 6hrs at RT	at 2-8°c, at -20°c		Be separated quickly
Cytology	Fluid cytology	Direct smear	BF,U	-1-1	7day	7day	The same time must vbe analysis	at 2-8°c		
Hormone	Folat RBC	CLIA	C.B.C	1,2	7day	7day	fast sending	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	

Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Specific Biochemistry	Folic Acid	CLIA,ECL	S ,PH	0.5,1	5day	5day	2 hrs at 15-25°c 2day at 2-8°c 28day at 15-25°c	at 2-8°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Hormone	Free Beta	CLIA	S	0.5	Sun ,Wed	next day	7 days at 2-8°c, longer time at -20°c	at 2-8°c at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	Free Beta HCG	CLIA	S	0.5	Sun ,Wed	next day	7 days at 2-8°c, longer time at -20°c	at 2-8°c at -20°c		Cold chain compliance during transport. Avoid repeated freeze / thaw cycles
Hormone	Free cortisol	CLIA	U	5	8day	8day	7 days at 4-25°c	at 20-25°	Hemolysis, Icteric, Lipemic	
Hormone	Free estriol	CLIA	S, PH	0.5	Mon,Sat,Thu	next day	7 days at 2-8°c, 6months at -20°c	at 2-8°c, at -20°c		
Immunology	Free Kappa	Imm.Turb	U ,S	0.5,1	10day	10day	7 days at 2-8°c, 1months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Immunology	Free Lambda	Imm.Turb	U ,S	0.5,1	13day	13day	7 days at 2-8°c, 1months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Tumor Markers	Free PSA	CLIA	S	0.5	Even days	next day	1 day at 2-8°c, >1Days: -20 °c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Hormone	Free T3	Elisa	S	0.5	Sat	next day	2 days at 2-8°c, >2Days: -20 °c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze /thaw cycles
Hormone	Free T4	Elisa	S	0.5	Even days	next day	2 days at 2-8°c, >2Days: -20 °c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze /thaw cycles
Hormone	Free Testosterone	Elisa	S ,PH ,PE	0.5	10day	10day	5 days at 2-8°c, 1 yr -20°c	at 2-8°c, at -20°c	Gross Hemolysis	
Hormone	Fructosamine	Chemical	s	0.5	7day	7day	2 days at RT, 7 days at 2-8°c, 1 month at -20°c	at 2-8°c at -20°c	Hemolysis, Icteric, Lipemic	
Hormone	FSH	Elisa	S ,PH ,PE	0.5	Even days	next day	5 days at 2-8°c, 1 yr -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	FTA Ab	IF	S	0.5	17day	17day	2 weeks at -20°c ,	at -20°c	Hemolysis	Avoid repeated freeze/ thaw cycles Fasting 3-6 hours
Serology	FTA absorption	IF	S.CSF	0.5	Wed	2day	4 hrs at 4-25°c, 2 weeks at -20°c, 3 months at -70°c	at 2-8°c, at -20°c		Fasting is recommended



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Microbiology	Fungi Culture		Skin, Scalp, nail, hair, BF,	-	Daily	next day	BF: The same day must be tested Others: 5 days at RT	at RT		
Microbiology	Fungi Direct Smear	Direct smear	Skin,scalp,BF		Daily	21day	The same day must be analysis			Avoid using antibiotic, washing
Biochemistry	G.C.T	Photometric	PH ,PE, S	0.5	Daily	next day	5 days at 2-8°c, 6months at -20°c	at 2-8°c, at -20°c	Hemolysis	1 fasting blood sample and 1
Biochemistry	G6PD	Photometric	C.B.C	1	Sat,Tue	next day	7 days at 2-8°c	at 2-8°c		ingestion 50 gr.Oral glucose
Therapeutic drug monitoring	Gabapentin	HPLC	S	1	Every 4 days one	2day	2 days at 2-8 °c for longer time at -20°	at 2-8°c, at -20°c		
Hormone	MS/MS (Galactosemia)	Elisa	S	0.5	17day	17day	at 2-8°c	at 2-8°c	Hemolysis, Icteric, Lipemic	
Biochemistry	Gamma Glutamyl transferase	Photometric	PE, S	0.5	Daily	next day	7 days at20-25°c	at 2-8°c, at -20°c		Avoid repeated freeze / thaw cycles



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Microbiology	Gastric Lavaage For Bk		Gastric Lavaage		8day	8day	24 hrs at 2-8°c,	24 hrs at 2-8°c	Hemolysis, Icteric, Lipemic	
Hormone	Gastrin	CLIA	S,PE,PH	0.5	13day	13day	5 hrs at 4°c ,30 days at -20°c ,for longer tme at -70°	0.5 hrs at 4-25c°, -20°c,-70°c	Hemolysis	Rapidly seperated (at 2- 8°c).Avoid repeated freez/thaw cycles.Refrigerated Centrifuge Fasting The frozen sample
Hormone	GH	ECL	S	0.5	10day	10day	1 week at 25 °c, 3weeks at 4 °c	at 2-8°c, at -20°c		Fasting is recommended
Microbiology	Giardia Antigen Stool	EliSa	S	2	10day	10day	2 days at 2-8°c, 1months Freeze	at 2-8°c	Hemolysis, Icteric, Lipemic	
Biochemistry	Glucose	photometric	S.PH.PE	0.5	Daily	next day	5 days at 2-8°c, 6months at -20°c	at 2-8°c, at -20°c	Hemolysis	1 fasting blood sample and 4-5 blood sample after ingestion oral glucose (adults: 75 gr., children 1.75 gr. Per kg body weight, maximum 75 gr.) at 30, 60, 90, 120, 180 min.



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Hormone	Growth Hormone	ECL	S	0.5	7day	7day	1 week at 25°c, 3weeks at 4°c	at 2-8°c, at -20°c		Fasting is recommended
Biochemistry	GTT	Photometric	PE, PH,S	0.5	Mon,Sat	next day	5 days at 2-8°c, 6months at -20°c	at 2-8°c, at -20°c	Hemolysis	1 fasting blood sample and 4-5 blood sample after ingestion oral glucose (adults: 75 gr., children 1.75 gr. Per kg body weight, maximum 75 gr.) at 30, 60, 90, 120, 180 min.
Biochemistry	H.D.L-c	Photometric	PE, PH,S	0.5	Daily	next day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c		
Hormone	Haptoglobolin	Immunoassay	S,PE,PH	0.5	Thu	2day	1 week at 2-8°c for longer time at -20°	at 2-8°c, at -20°c	Hemolysis	
Immunology	HAV Ab (IgM)	Elisa	S	0.5	7day	7day	1 week at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis	
Immunology	HAV Ab (Total)	ELFA	S,PE	0.5	Sun ,Wed	2day	1 week at 2-8°c for longer time at -20°c	at 2-8°c, at -20°c		



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Specific biochemistry	Нь А1С	H.P.L.C	WB	3	Daily	6day	7days at 2-8 °c		Clotting	
Electrophoresis	Hb Electrophoresis	Electrophoresis	PE	3	7day	7day	7 days at 2-8°c	at 2-8°c	Hemolysis, Icteric, Lipemic	
Immunology	HBc Ab (IgM)	Elisa	S, PE	0.5	8day	8day	1 week at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	HBc Ab (Total)	Elisa	S, PE	0.5	5day	5day	1 week at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	HBe Ag HBe Ab	ELFA	S,PE	0.5	10day	10day	1 week at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Lipemic	
Immunology	HBs Ab	Elisa	S,PH,PE	0.5	Sat,Tue	next day	7 days at 2-8°c for longer time at -20°c	at 2-8°c, at -20°c		
Immunology	HBs Ag	Elisa	S,PH,PE	0.5	Daily	2day	7 days at 2-8°c for longer time at -20°c		incorrect, anticoagulant, (heparin) Hemolysis	
Molecular diagnosis	HBV viral load	Real time pcr	S ,PE	1	8day	8day	3 days at RT 7 days at 2-8°c, 6 week at < -20°c	at 2-8°c, at or < -20°c	Hemolysis, Icteric, Lipemic	



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Immunology	HCV Ab	ECL	S,PH,PE	0.5	Even days	next day	7 days at 2-8°c for longer time at -20°c	at 2-8°c, at -20°c		
Molecular diagnosis	HCV genotyping	PCR	PE	1	8day	8day	1 day at 2-8°c for longer time at -20°c		incorrect	
Molecular diagnosis	HCV PCR	Real time pcr	S, PE	0.5	8day	8day	at -20°c	at -20°c	incorrect	
Molecular diagnosis	HCV viral load (Quantitative)	Real time	S, PE	0.5	8day	8day	at -20°c	at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	HDV Ab	Elisa	S, PE, PH, BF	0.5	10day	10day	5 days at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c		Avoid repeated freeze / thaw cycles
Molecular diagnosis	HDV PCR	Qualitave pcr	PE,S	1	8day	8day	at -20°c	at -20°c		
Immunology	Helicobacter pylori (IgA)	Elisa	S,PH,PE	0.5	Sat,Tue	next day	2 days at 2-8°c >2 days: -20 °c			
Immunology	Helicobacter pylori (IgG)	Elisa	S,PH,PE	0.5	Even days	next day	2 days at 2-8°c >2 days: -20 °c			
Immunology	Helicobacter pylori (IgM)	Elisa	S,PH,PE	0.5	Sun ,Wed	next day	2 days at 2-8°c >2Days: -20 °c		Hemolysis, clotting, frozen, incorrect, anticoagulant	



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Hematology	Hemoglobin	cell counter	Wb	0.5	Daily	next day	4 hrs at RT, 1 days at 2-8°c	at 2-8°c	Lipemic	
Pathology	Her2(fish)	Sectioning and Staining	Block		17day	17day	at RT	at RT		همراه داشتن تمامی فرم های مولکولی و پاتولوژی و جواب آن الزامی میباشد
Immunology	Heterophile Ab (Paul Bunnell)	Hemaglutination	S	1	14day	14day	1 week at 2-8°c,	at 2-8°c	Hemolysis, Icteric	
Immunology	HEV.Ab	Elisa	S	0.5	10day	10day	1 week at 2-8°c, longer time at -20,	at 2-8°c at -20°c		
Immunology	HIV P 24 Ag	Elisa	S	0.5	Mon,Sat,Thu	next day	7 days at 2-8°c for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, clotting, frozen, incorrect, anticoagulant	



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Biochemistry	5HIAA	Chemical	U(24h&R)	10	13day	13day	6 months -20 °c, protect from sunlight	at -20°c	Hemolysis, Icteric, Lipemic	Avoid using coffe, tea, chcolate, Cacao, banana, Patient Prep: Patients should abstain, if possible, from medications, over-the-counter drugs, and herbal remedies for at least 72 hours prior to the test.Foods rich in serotonin (avocados,bananas, eggplant, pineapple, walnuts), choclate, mango, date, grapfruit, melon, watwrmelon, kiwi, nuts, plantain and medications that may affect metabolism of serotonin. limipramine, isoniazid, methyldopa, must be avoided at least 72 hours befor and during collectionn of urine.
Molecular diagnosis	PCR for HLA ABC	PCR	WB(EDTA)	10	17day	17day	1 week at 2-8°c for longer time at -20°		Hemolysis, Frozen, Clotting, Incorrect anticoagulant (Heparine)	Not recommended
Molecular diagnosis	HLA ABDR	PCR/SSO	WB(ACD)	6	17day	17day	12 hours at 2-8°c	2-8°c	Hemolysis, Frozen, Clotting, Incorrect anticoagulant	



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Molecular diagnosis	HLA-B27	PCR	WB	3	17day	17day	12 hrs at 2-8°c	at 2-8°c	Hemolysis, clotting, frozen, incorrect, anticoagulant	
Immunology	HLA-B5	PCR	WB(EDTA)	3	17day	17day	12 hrs at 2-8°c,	at 2-8°c	Hemolysis, Clotting, Frozen, Incorrect, anticoagulant	
Immunology	HLA-B51	PCR	WB(EDTA)	3	13day	13day	12 hrs at 2-8°c,	at 2-8°c	Hemolysis, clotting, frozen, incorrect, anticoagulant	
Immunology	HLA-B8	PCR	WB(EDTA)	3	9day	9day	12 hrs at 2-8°c	at 2-8°c	Hemolysis, Lipemic	
Hormone	HLA DQ2 HLA DQ8	PCR	WB	10cc	13day	13day	7 days at 2-8°c	at 2-8°c	Icteric	
Immunology	HLA-DR4 HLA-DR3	PCR	WB(E or H)	3	13day	13day	12 hrs at 2-8°c	at 2-8°c	Hemolysis, Icteric, Lipemi	
Biochemistry	Homocysteine	Colorimetry	S	0.5	9day	9day	1 hrs at 0°c	0.5 hrs at 0°c		



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Urine Hormone	Homovanillic acid (Urine.24h)	HPLC	U	20	30day	30day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c		
Molecular diagnosis	HPV Aptima	Aptima	L.B.C	0.5	10day	10day	at 2-8°c	at 2-8°c	incorrect	
Molecular diagnosis	HPV genotyping	Real time pcr- blottiry	L.B.C	0.5	8day	8day	at 2-8°c			
Molecular diagnosis	HSV 1 PCR	Qualitave pcr	CSF, S, WB (EDTA), Tissue, Respiratory Sample, PC (E), Dermal & Genital (vaginal & cervix) Lesion or Swab, Amniotic fluid, Thin prep, Occular diS.		8day	8day			Hemolysis, Icteric	



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Immunology	HSV Ab 1+2 (IgG) HSV Ab 1+2 (IgM)	Elisa CLIA	S,PH,PE	0.5	10day	10day	1week at 2-8°c for longer time at -20°c	at 2-8°c, at -20°c	incorrect, anticoagulant, (heparin) Hemolysis, FROZEN SAMPLE CLOTTING	Avoid repeated freeze / thaw cycles
Molecular diagnosis	HTLV PCR	Qualitave pcr	WB (EDTA),CSF	1	8day	8day	2 days at RT, 2week at 2-8°c	at 2-8°c	Hemolysis, Icteric, Lipemic	
Tumor Markers	Human epididymis protein 4	ECL	S	0.5	Thu	1day	1 day at 2-8 °c, for longer time at -20 °c	at 2-8°c, at -20°c		
Immunology	Hydatid Ab (IgG)	Elisa	S,PE	0.5	6day	6day	1 week at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunoglobulins	IgASerum	Imm.Turb	S,PH,PE	0.5	Thu,Sat	next day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Immunoglobulins	IgESerum	CLIA	S,PH,PE	0.5	7day	7day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Hormone	Islet cell Ab	ELISA	S	2 cc	10day	10day	at -20°c	at -20°c	Hemolysis, Icteric, Lipemic	



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Hormone	Iso hemeagglutiniue (Anti A)	Agglutination	S	0.5	10day	10day	7 days at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c		
Hormone	Iso hemeagglutiniue (Anti B)	Agglutination	S	0.5	10day	10day	7 days at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Hormone	IGF-1	Elisa	S	0.5	10day	10day	6 hrs at 2-8 °c for longer time at -20 °c	at 2-8°c at -20°c		Fasting is recommended Rapidly seperated (at 2-8 °c)
Hormone	IGFBP-3	CLIA	S	0.5	8day	8day	6 hrs at 2-8 °c for longer time at -20 °c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Rapidly seperated (at 2-8 °c) Fasting is recommended
Immunology	IgG Subclass 1	Immunoturb	S	1	13day	13day	2 week at 2-8°c for longer time at -20°	2-8°c, -20°c		
Immunology	IgG Subclass 2	Immunoturb	S	1	13day	13day	3 week at 2-8°c for longer time at -20°	2-8°c, -20°c		
Immunology	IgG Subclass 3	Immunoturb	S	1	13day	13day	7 days at 2-8°c, 3 months at -20°C		·	
Immunology	IgG Subclass 4	Nephelometry	S	1	14day	14day	1 week at 2-8°c for longer time at -20°	2-8°c, -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freez/ thaw cycles Fasting is recommended
Immunoglobulins	IgGSerum	Imm.Turb	S,PH,PE	0.5	Thu,Sat	next day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Immunoglobulins	IgMSerum	Imm.Turb	S,PH,PE	0.5	Thu,Sat	next day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Hemolysis, gross	Avoid repeated freeze / thaw cycles
Immunology	Igra(Quanty Fron)	Elisa	Special tube	5	7day	7day	After sample treatment 28 days at 2-8°c or 3 months at -20°c	at 2-8°c		
Parasitology	ІНС		Biopsy, block		15day	15day	Minimum 1 year after fixation (tissue) or block preparation.	at RT	Hemolysis, Icteric, Lipemic	
Hormone	IL-6	ECL	S ,PE, CSF	0.5	10day	10day	2 months at -20°c CRITICAL FROZEN	at -20°c		Be separated quickly
Immunology	Immuno Electrophoresis	Electrophoresis	S	0.5	10day	10day	2 days at 2-8°c ,for longer time at -20°c	at 2-8°c, at -20°c		
Immunology	Immuno Electrophoresis	Electrophoresis	U	10	10day	10day	2 days at 2-8°c, for longer time at-20°c	at 2-8°c, at -20°c		
Serology	Indirect Coombs	Agglutination	S	0.5	Daily	next day	7 days at 2-8°c 1months at -20°c 1days at RT	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	Inhibin-A	Elisa	S, PH	0.5	17day	17day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Hormone	Insulin	ECL	PH ,PE, S	0.5	7day	7day	5 days at 2-8°c, 1months at -20°c	at 2-8°c, at -20°c		Be separated quickly



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Hormone	intrinsic factor	Elisa	S	0.5	8day	8day	at 2-8°c, at -20°c	at 2-8°c, at -20°c		
Molecular diagnosis	Jak-2(V617F) mutation	PCR	WB(EDTA)	5	14day	14day	2 days at RT, 5 days at 2-8°c	at 2-8°c		
Molecular diagnosis	JC virus PCR	PCR	WB	6 (ويال 2)	13day	13day	at 2-8°c	at 2-8°c		Fasting
Therapeutic drug monitoring	Keppra (levetiracetam)	Elisa	S,U	1	5day	5day	1week at 25°c, 3 weeks at 4°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Specific Biochemistry	k-stool	ISE	Stool	0.5	Daily	Same day	7days at 2-8°c, 3month -20°c	at 2-8°c at -20°c	Hemolysis, Icteric, Lipemic	
Biochemistry	L.D.L-c	photometric	PH ,PE, S	0.5	Daily	next day	7 days at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Hormone	LH	Elisa	PH ,PE, S	0.5	Even days	next day	3 days at 2-8°c, 1months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Body Fluid Examination	Lactat Dehydrogenase (body fluid)	Photometric	pH, BF, CSF	1	Daily	next day	1 day at 2-8°c, 1months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	separated with in 20 min.
Biochemistry	Lactat Dehydrogenase (LDH)	photometric	PH ,PE, S	0.5	Daily	next day	6 week at-20°c	at-20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Biochemistry	Lactate	Chemical	РН	1	4day	4day	at -20°c	at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Microbiology	Lactoferrin	Elisa	Stool	2	9day	9day	5 days at 2-8°c, 14 day sat -20°c	at 2-8°c, at -20°c		Avoid repeated freeze / thaw cycles
Therapeutic drug monitoring	Lamotrigine	HPLC	S	0.5	8day	8day	2 days at 2-8°c ,for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis	
Biochemistry	Latex(Quantitative)RF	Turbidimetric	S	0.5	Daily	next day	7 days at 2-8°c, 3months at -20°c	-		
Hematology	LE. Cell	بررسی اسمیر	WB	10	2day	2day	The same time must be tested			
parasitology	Leishman Body	Slide	Skin wound dis,BMA BMA	2slide	2day	2day	Unlimited after fixation at RT	at RT		
Hormone	Anti Leptospira Ab(IgG,IgM)	IFA	S	0.5	8day	8day	7 day at 2-8°c 2 month at -20°c	at 2-8°c, at -20°c		Not recommended



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Hormone	Leptin	Elisa	S	0.5	13day	13day	4 days at 4°c for longer time at -20°c	at 2-8°c, at -20°c		Fasting is recommended
Biochemistry	Lipase	Photometric	S	0.5	7day	7day	1 week at 25°c, 3 weeks at 4°c	at 2-8°c, at -20°c		Fasting is recommended
Specific Biochemistry	Lipoprotein a	Imm.Turb	S,PH ,PE	0.5	10day	10day	mmediately at 2-8°c, at -20°c (up to Analyse)	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic Frozen	Serum or plasma must be seperated as soon as possible.Fasting is recommended
Biochemistry	Lipoprotein Electrophoresis	Electrophoresis	S	0.5	Every10 days one	2day	1 week at 4 °c for longer time at -20 °c	at 2-8°c, at -20°c		
Immunology	Listeria Ab (IgG) Listeria Ab (IgM)	IFA	S	0.5	10day	10day	1week at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis	
Electrolytes	Lithium	ISE	S	0.5	Daily	next day	1 day at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c		
Immunology	LKM Ab	IFA	S	0.5	10day	10day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Clot, Incorrect, anticoagulant, Icteric for non-coagulation method.	



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Immunology	Lupus Anti Coagulant	Coagulation	PC	2	9day	9day	up to 4 hrs at(20-5°c, 20+5°c) up to 1 month at -20°c,	1 hrs at RT, -20°c	insufficient	Avoid repeated freeze / thaw cycles. Be separated quickly / Two times centrifugation is prefered.
Microbiology	Lymth Lode Culture for BK		Lymth Lode		60day	60day	24 hrs at 2-8°c	24 hrs at 2-8°c	Hemolysis, Icteric, Lipemic	
Serology	2 Mercoptoethanol (2ME)	Agglutination	S	0.5	3day	3day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c		
Biochemistry	Magnesium (Mn)	Photometric	BF,PH,S ,U(R&24)	0.5,1	10day	10day	7days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Stone Analysis	Magnesium Hydrogen Phosphate	photometric	S,U	0.5,1	Daily	next day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c		Avoid repeated freeze / thaw cycles
parasitology	Malaria	بررسی اسمیر خون محیطی و نوک انگشت	PE	3	2day	2day	Unlimited after fixation at RT			
Metabolic disorders	Metabolic Screening	MS/MS	DBS (see sop1)	5 spots on paper	10day	10day	DBS: with cover 7 days at RT, 1 month at 2-8°c, 3 months at -20°c	at RT, at 2-8°c, at -20°c		Not recommended
Microbiology	Mens.Blood Culture For Bk		Blood		60day	60day	24 hrs at 2-8°c,	at 2-8°c		
Microbiology	Menstruation blood Culture & Sensitivit		Blood		8day	8day	at RT fast sending	at RT fast sending		



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Microbiology	Menstruation blood Direct Smear		Blood		2day	2day	at RT fast sending	at RT fast sending	Clotting, Incorrect, anticoagulant	
Hormone	Mercury (HG)	Atomic abs	WB (E), U (R), (24h)	2	10day	10day	5 days at RT, 7 days at 2-8°c, 1 month at -20°c	at RT, at 2-8°c		
Biochemistry	Mg	Colorimetry	PH ,PE, S	0.5	Daily	next day	7 days at 2-8°c, 1 year at -20°c	at 2-8°c, at -20°c	Clot	Avoid repeated freeze / thaw cycles
Genetics	MPL	PCR	WB(EDTA)	5	13day	13day	at 2-8°c	at 2-8°c	Hemolysis, Icteric, Lipemic	فرم های مولکولی و نتایج تست CBC همراه مدارک شرح حال بیمار ارسال گردد
Hematology	mixed PT 60 min	Coagulation	PC 3/2%	3	Daily	next day	12 hrs at RT 24 hrs at 2-8°c, 2week at -20°c	at 2-8°c, at -20°c		
Hematology	mixed PTT0	Coagulation	PC 3/2%	3	Daily	next day	2 hrs at RT, 24 hrs at 2-8°c 2 hrs at -20°c		Hemolysis	
Metabolic disorders	MSUD test (DNPH test)	TLC	Filter Pape	4 drop	19day	19day	4 days at 2-8 °c, 1 month at -20 °c	at 2-8°c, at -20°c	incorrect	
Molecular diagnosis	MTHFR (A1298C)Mutation(E)	Real Time PCR	WB	5	11day	11day	at 2-8°c	at 2-8°c	frozen,incorrect, anticoagulant,clotting, hemolysis	



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Molecular diagnosis	MTHFR (C677T)Mutation(E)	PCR	WB	5	11day	11day	3 days at RT 1 week at 2-8°c	at 2-8°c		
Metabolic disorders	Mucopolysaccharides (MPS) urine	Chemical	U	5	7day	7day	1 month at -20°c CRITICAL FROZEN	at -20°c	Incorrect	
Molecular diagnosis	MY. tuberculosis complex (MTC)PCR	Real time pcr	Urine,Sputum	0.5	8day	8day	at 2-8°c	at 2-8°c		
Immunology	Mycoplasma Ab	Elisa	Vaginal, Urethral, Urine, Semen		7day	7day	6 hrs. at RT, 1 day at 2-8°c in transport media	at 2-8°c in transport media	Hemolysis	
Immunology	Mycoplasma P.Ab (IgG)	Elisa	S,PH,PE	0.5	9day	9day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Hemolysis	
Immunology	Mycoplasma P.Ab (IgM)	Elisa	S,PH.PE	0.5	9day	9day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c		
Microbiology	Nasal Culture & Sensitivity		Wet Swap		8day	8day	24 hrs at RT	24 hrs at RT		
Microbiology	Nasal Direct Smear		Wet Swap		2day	2day	24 hrs at RT	24 hrs at RT	Hemolysis, Frozen, Clotting, Incorrect anticoagulant	



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Hematology	NBT	Staning.DS	WB(EDTA)	1	13day	13day	The same day at 2-8 °c	at 2-8°c		
Microbiology	Neck Aspiration Culture		Neck		8day	8day	at RT fast sending	at RT fast sending		
Microbiology	Neck Aspiration Culture For BK		Neck		60day	60day	24 hrs at 2-8°c	24 hrs at 2-8°c		
Microbiology	Neck Aspiration direct.S For BK		Neck		Daily	next day	24 hrs at 2-8°c	24 hrs at 2-8°c	Hemolysis, Lipemic, Icteric	
Immunology	Neuromyelitis Optica (NMO) antibody	IFA	S,PE,PC,CSF	1	10day	10day	7 days at 2-8°c, 1 month at-20°c	at 2-8°c, at -20°c	Gross: Hemolysis, Lipemic	
Immunoglobulins	Neuronal Ab(Paraneo)	Immunoblot	S	1	10day	10day	5 days at 2-8°c, 2months at -20°c	at 2-8°c, at -20°c		
Urine Analysis	NMP22	Imm.Chrom	U	5	5day	5day	2 hrs at RT	at RT		
Biochemistry	OsmolalitySerum/Urin	S:Calculation U:Refractometer	S,U	1	5day	5day	7 days at 2-8°c, 2months at -20°c	at 2-8°c, at -20°c	Hemolysis, Frozen, Clotting, Incorrect anticoagulan	



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Hematology	Osmotic Fragility test	Hemolysis- Photometric	WB(EDTA)	3	7day	7day	The same day at 2-8 °c	at 2-8°c		Fasting is recommended
Hormone	Osteocalcin	ECL	S.PH	0.5	24day	24day	2 days at 2-8 °c for longer time at -20°	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Protect the light
Hormone	17-OH Progestrone	Elisa	PH ,PE, S	0.5	10day	10day	5 days at 2-8°c, 1months at -20°c		Hemolysis	
Hormone	Prolactin(Macro)	Elisa	S	0.5	7day	7day	1 week at 2-8°c for longer time at -20°	at 2-8°c, at -20°c		Rapidly seperated (at 2-8°c)
Tumor Markers	P.S.A	CLIA	S,Ph	0.5	Even days	next day	2 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Hormone	Р.Т.Н	CLIA	S ,pH, PE	0.5	Sun	next day	2days at 2-8°c, 3months at -20 °c	at 2-8°c, at -20°c		
Molecular diagnosis	PAI-1 (844 A/G)E	PCR	WB(EDTA)		7day	7day	1 week at 2-8°c for longer time at -20			



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Molecular diagnosis	PAI-1(675 4G/5G)E	PCR	WB(EDTA)	-1	11day	11day	1 week at 2-8°c for longer time at -20		Hemolysis, Icteric, Lipemic	
Immunology	P-ANCA	Elisa	S	0.5	10day	10day	2 days at 2-8 °c for longer time at -20 °c	at 2-8°c, at -20°c	Hemolysis	
Blood bank	Panel reactive Ab		S	1	8day	8day	at 2-8°c	at 2-8°c		
Cytology	Pap Smear(slide)	direct Smear	Smear		6day	6day	at RT	at RT	Hemolysis, Icteric, Lipemic	
Immunology	PAPP-A	CLIA	S	0.5	Sun ,Wed	next day	5 days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c		
Immunology	Parietal cell	IFA	S	0.5	13day	13day	5 days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c		
Immunology	Parvovirus(B19) IgG Parvovirus(B19)IgM	Elisa	S,BF,CSF	0.5	13day	13day	2 days at 2-8 °c for longer time at -20	at 2-8°c, at -20°c	Incorrect, anticoagulant, Clotting	
Specific Biochemistry	Pb(Lead)	Atomic abs	C.B.C	2	7day	7day	5 days at RT, 7Days at 2-8°c, 1month at -20°c	at 2-8°c, at -20°c	Hemolysis, clotting, frozen, incorrect, anticoagulantI	



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Hormone	PBN2	ECL	PE, PH	1	9day	9day	6 days at 2-8°c 3 months at -20°c	at 2-8°c, at -20°c	Hemolysis	
Hematology	PBS requested	wrilght giesma stain	WB	1	Daily	next day	3 months at -20°c	at 2-8°c		
Hormone	Pemphigus Ab	IFA	S	0.5	10day	10day	5 days at 2-8°c, 3 months at -20°	at 2-8°c, at -20°c		
Microbiology	Perianal Direct Smear/CBC		Perianal		2day	2day	fast sending	in the fastest time possible		
Therapeutic drug monitoring	Phenobarbital	Fluorescence polarization	s	1	7day	7day	2 days at 2-8°c for longer time at -20°	at 2-8°c, at -20°c	Hemolysis	
Hormone	Phenylalanine	HPLC	P	1	7day	7day	2 weeks at -20°c	at -20°c	Hemolysis	Avoid freez/ thaw cycles Be separated quickly Fasting 3-6 hours
Metabolic disorders	Phenylketonurina		U	10	5day	5day	2days at 2-8°c, at -20°c	at 2-8°c, at -20°c		



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Therapeutic drug monitoring	Phenytoin	Fluorescence polarization	s	1	Daily	3day	2 days at 2-8 °c for longer time at -20 °c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Biochemistry	Phosphorus	photometric	S	0.5	Daily	next day	4 hrs at RT 4days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Urine Analysis	Phosphorus	photometric	U	0.5	Daily	next day	4 hrs at RT 4days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c		Avoid repeated freeze / thaw cycles
Microbiology	Pleural Culture For BK		Pleural		60day	60day	24 hrs at 2-8°c	24 hrs at 2-8°c		
Microbiology	Pleural Direct smear (BK)		Pleural		8day	8day	24 hrs at 2-8°c	24 hrs at 2-8°c		
Microbiology	Pleural Fluid D.Smear/CBC		Pleural		2day	2day	24 hrs at 4°c	in the fastest time possible	Hemolysis, Icteric, Lipemic	



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Electrolytes	Potassium	ISE	S,U	0.5	Daily	next day	7 days at 2-8°c, 3months at -20°c	at 2-8°c, at -20°c		
Hormone	Primidone	HPLC	S	0.5	Daily	2day	2 days at 2-8 °c for longer time at -20 °c	at 2-8°c, at -20°c	Hemolysis	
Specific Biochemistry	Pro BNP	ECL	S	1	8day	8day	6 days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c	Hemolysis	
Immunology	Procalcitonin	Elisa	S, PE, PH	1	13day	13day	5 days at 2-8°c, 1month at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Hormone	Progesterone	Elisa	S ,pH, PE	0.5	Thu,Sat	next day	5 days at 2-8°c, 1months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Hormone	Prolactin	Elisa	S ,pH, PE	0.5	1day	1day	4 days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c		
Microbiology	Prostate Massage Discharge/culture	Aerobic	Prostatic dis		2day	2day	swap: 24 hrs at RT Inside the tube: fast sending	swap: 24 hrs at RT ,Inside the tube: fast sending	Clot, Icteric, Incorrect anticoagulant Icteric & Lipemic for non coagulation method	



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Coagulation tests	Protein C	Clotting	PC	0.5	7day	7day	up to 4 hrs at 20±5°c up to 1 month at -20°c,6 m.at -70°	at -20°c at -70°c	Hemolysis	Serum or plasma must be seperated as soon as possible. Must be analysed until 4 hrs.,2 weeks -20 °c or 6 months -70 °c. avoid repeated freeze/thaw cycles Be separated quickly/Two times centrifugation is prefered
Biochemistry	Protein Electrophorsis	Electrophoresis	s	0.5	8day	8day	4 days at 2-8 °c for longer time at -20 °c		Clot, Icteric, Incorrect anticoagulant Icteric & Lipemic for non coagulation method	
Coagulation tests	Protein S	clotting	PC	2	7day	7day	up to 4 hrs at 18- 25°c up to 1month at - 20°c,,6 m.at -70°c	at -20°c at -70°c		Serum or plasma must be seperated as soon as possible. Must be analysed until 4 hrs.,2 weeks -20°c or 6 months -70°c.avoid repeated freeze/thaw cycles Be separated quickly/Two times centrifugation is prefered
Molecular diagnosis	Prothrombin G20210A or FII Mutation(E)	PCR	WB(EDTA)		13day	13day	1 week at 2-8°c for longer time at -20°		Clot severe ,Hemolysis	
Coagulation tests	PT mixing	Coagulation	PC 3/2%	3	2day	2day	12 hrs at RT 24 hrs at 2-8°c 2week at -20°c	at 2-8°c, at -20°c	Clot severe ,Hemolysis	Be separated quickly



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Coagulation tests	PT.Patient	Coagulation	PC	3	Daily	next day	12 hrs at RT 24 hrs at 2-8°c 2week at -20°c	at 2-8°c	Clot severe ,Hemolysis	Be separated quickly
Coagulation tests	PTT Patient	Coagulation	PC	3	Daily	next day	2 hrs at RT 24 hrs at 2-8°c 2week at -20°c	at 2-8°c	Hemolysis	
Immunology	Pyrovate	Chemical	WB on cold Perchloric acid (0.6 M)	1	7day	7day	After preparation: 7 days at 2-8°c 3 months at -20°c	at 2-8°c, at -20°c		Be separated quickly. Sample collecting with cold tube & syringe
Genetics	QF PCR(Aminosantez)	QF PCR	PE	20	5day	5day	Fast sending at 2-8 °c	at 2-8 °c		
Urine Biochemistry	Random Urine Phoshorus	photometric	U	10	Daily	next day	2days at RT, PH:5	at 2-8°c, at -20°c		
Parasitology	Reducing Substance (Stool)	Chemical	Stool	2	10day	10day	2 days at 2-8°c, 14 days at -20°c	at 2-8°c at -20°c	Hemolysis, Icteric, Lipemic Incorrect anticoagulan	
Immunology	Rast Test (Mix allergy panel)	Immunoblot	S	1	10day	10day				



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Hormone	Renin	Elisa	PE	1.5	10day	10day	4 hrs. at RT, for longer time Rapidly store at -20°c	at -20°c		Avoid freeze / thaw cycles samples must be done at the usual temperature (15-25 °c) , and centrifuged at room temperature and must be frozen immeidiatell
Molecular diagnosis	Rubella PCR	PCR	Sput.,tissue, BF		7day	7day	1 week at 2-8°c for longer time at -20°		Hemolysis, Icteric, Lipemic	
Hormone	Rubella Ab-IgM(Capture)	Elisa	S, PH	0.5	Daily	next day	7 days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Therapeutic drug monitoring	Sandimmun (Cyclosprine)	ECL	WB(EDTA)	1	9day	9day	at 2-8 °c	at 2-8°c	FALSE	
Hormone	S.H.B.G	ECL	s	0.5	10day	10day	2 days at 2-8 °c for longer time at -20 °c	at 2-8°c, at -20°c		Avoid repeated freeze / thaw cycles
Microbiology	Saliva Secretion Culture & Sensitivity		Saliva		8day	8day	at RT fast sending	at RT fast sending		
Microbiology	Saliva Secretion Direct Smear		Saliva	-1	2day	2day	at RT fast sending	at RT fast sending	Incorrect	



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Molecular diagnosis	SARS-CoV-2(COVID- 19)-PCR	Real time pcr	WB Throat, Nose Swap	0.5	Daily	next day	at 2-8°c	at 2-8°c		
parasitology	Scotch TEST	بررسی لام زیر میکروسکوپ			Daily	next day			Hemolysis, Icteric, Lipemic	
Biochemistry	Selenium	Atomic	S	0.5	13day	13day	1 week at 2-8°c for longer time at -20°	at 2-8°c at -20°c		
Microbiology	Semen Culture & Sensitivity	Aerobic	Sputum	1	8day	8day	2 hrs at RT 1days at 2-8°c,	at 2-8°c	Mixing sample with water, urine	
Microbiology	Seminal Direct Smear (BK)	Chemical	Seminal	0.5	8day	8day	The same time must be tested. Post vasectomy 1 day at RTor 2-8°c.		Hemolysis, Icteric, Lipemic	
Immunology	Serotonin	Hplc	S , U 24h (Hcl)	1	35day	35day	2 months at -20°c	at -20°c >-20°c		



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Biochemistry	Serum Iron	photometric	S,PH	0.5	Daily	next day	4days at RT 7 Days at 2-8° c	at 2-8°c, at -20°c	Hemolysis	Avoid repeated freeze / thaw cycles Patient's age and sex.
Genetics	Sex-determination	NGS	WB	10	10day	10day	2days at 2-8°c	at' 2-8°c	Hemolysis	
Biochemistry	SGOT(A.S.T) SGPT (A.L.T)	photometric	S	0.5	Daily	next day	3 months at -20°c	at 2-8°c, at -20°c	Hemolysis, Clotting, Frozen, Incorrect, anticoagulant	Avoid repeated freeze / thaw cycles
Hormone	Sirolimus	CLIA	WB	2	10day	10day	7 days at 2-8°c, 2 months at -20 °c	at 2-8°c, at -20°c	Hemolysis	
Electrolytes	Sodium	ISE	S,U	0.5	Daily	next day	7 days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	Specific IgE(Respiratory)	Immunoblot	S	1	7day	7day	7 days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c		Avoid repeated freeze / thaw cycles



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Microbiology	Sputum Culture & Sensitivity		Sputum		8day	8day	24 hrs at 4°c	24 hrs at RT		
Microbiology	Sputum Culture For BK	Aerobic	Sputum	1	60day	60day	2hrs at RT, 1 day at 2-8 °c	at 2-8°c		
Microbiology	Sputum Direct Smear (BK)		Sputum	-1-	8day	8day	7 days at 2-8°c	24 hrs at 2-8°c		
Microbiology	Sputum Direct Smear.		Sputum		3day	3day	24 hrs at 4°c	24 hrs at RT		
Stone Analysis	Stone Analysis		Urinary tract Stone		2day	2day	at RT	at RT	frozen sample	
Microbiology	Stool culture & Sensitivity	Aerobic	Stool	í	4day	4day	Unpreservative: 2 hrs. at RT preservative 2 days at RT or 2-8°c	With preservative (Carry blair media): 2 days at RT or at 2-8°c		



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Parasitology	Stool Examination	بررسی لام به صورت مستقیم	Stool	1	2day	2day		2-8°c hrs at RT	specimen scontaining barium	
Molecular diagnosis	STD				17day	17day				
Parasitology	Stool Trypsin Activity	Chemical	Stool	0.5	8day	8day	7 days at -20°c	at -20°c	Hemolysis	
Hormone	Strangilidous ab	Elisa	S	0.5	9day	9day	5 days at 2-8°c, 2months at -20°c	at 2-8°c, at -20°c	Hemolysis	
Hormone	Strongyloides ster.Ab	Elisa	S	0.5	8day	8day	5 days at 2-8°c, 2 months at -20°c	at 2-8°c at -20°c		
Metabolic disorders	Succinyl Acetone Urine	LC-MS/MS	PE	2	13day	13day	12 hours at 2-8°c 1month at -20°c	at 2-8°c, at -20°c		
Microbiology	Supra Pabic Urine culture & Sensitivity		U		3day	3day	fast sending	at RT fast sending		
Genetics	SMA	MLPA	C.B.C WB	2	30day	30day	2days at 2-8°c	at 2-8°c	Hemolysis, Icteric, Lipemic	<u></u>



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Microbiology	Synovial Culture & Sensitivity		Synovial		8day	8day	6hrs at 37°c 3days at 4°c	in the fastest time possible	-	
Body Fluid Examination	Synovial fluid	Aerobic & Ana	Synovial Fluid	2	2day	2day	The same time must be tested	at RT	Hemolysis, Icteric, Lipemic	
Microbiology	Throat Direct Smear For BK		Throat Swap		8day	8day	24 hrs at RT	24 hrs at RT		
Hormone	T3 Resin Uptake (T3 RU)	Elisa	PH,PE ,S	0.5	2day	2day	1 day at RT, 7 days at 2-8°c, 1month at -20°c	at 2-8°c, at -20°c	Hemolysis, Frozen, Clotting, Incorrect anticoagulant	Avoid freeze / thaw cycles
Therapeutic drug monitoring	Tacrolimus(prograf)	RIA	WB€	2	10day	10day	2 days at 2-8°c for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Not recommended
Hormone	Testosterone	CLIA	PH,PE ,S	0.5	Daily	next day	5 days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c		
Microbiology	Throat Culture & Sensitivity	Aerobic Culture	Throat Swab	3 Swabs	8day	8day	Must be tested the same time	at RT		
Microbiology	Throat Culture for BK	Microb Culture	S		Daily	3day	The same time must be analysis	at RT		Avoid using antibioti
Microbiology	Throat Direct Smear		Throat Swap		2day	2day	24 hrs at RT,	24 hrs at RT		



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Hematology	Thrombin time	clotting	PC	2	5day	5day	6 hrs (keep at 2-8°c until test it)	at -20°c, at -70°c	Hemolysis, Icteric, Lipemic	Serum or plasma must be seperated as soon as possible.
Hormone	Thyrogolobulin	Elisa	s	0.5	8day	8day	1 day at 2-8°c for longer time at -20°c	at 2-8°c, at -20°c		Fasting is recommended
Pathology	Tissue	process, sectioning and staining,slide preparation	Tissue		7day	7day	Unlimited after fixation,Formalin	Formalin, coatainer RT	Gross: Hemolysis , Icteric, Lipemic	
Hormone	TNF.Alpha	Elisa	S, PE, PH	1	12day	12day	6 months at -20°c CRITICAL FROZEN	at -20°c		Avoid freeze / thaw cycles
Therapeutic drug monitoring	Topiramate	HPLC	S	1	Every 4 days one	2day	2 days at 2-8°c for longer time at -20°	at 2-8°c, at -20°c	frozen sample	
Biochemistry	Total Lipid	Colorimetry	S	1	Daily	2day	5 days at 2-8 °c for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Fasting
Biochemistry	Total Protein	photometric	PH,PE ,S	0.5	Daily	next day	6 days at 15-25°c 4week at 2-8°c, 1year at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Hormone	Total Thyroxine (T4)	CLIA	PC,PH,PE ,S	0.5	2day	2day	1 day at RT, 7 days at 2-8°c , 1 month at -20°c	at 2-8°c, at -20°c		Avoid freeze / thaw cycles
Parasitology	Tourch	ECL	S	4	14day	14day	CRITICAL FROZEN	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	Toxo(IgG)Avidity	ECL	s	0.5	9day	9day	1 week at 2-8°c for longer time at -20°	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freez/ thaw cycles Avoid using iron supplement
Immunology	Toxocara Ab (IgG)	Elisa	PH,PE ,S,BF	0.5	10day	10day	1week at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c		Avoid freez/ thaw cycles
Microbiology	Tracheal Culture & Sensitivity		Tracheal		8day	8day	at RT fast sending	at RT fast sending		
Microbiology	Tracheal Direct Smear		Tracheal		2day	2day	at RT fast sending	at RT fast sending	Hemolysis, Icteric, Lipemic	
Biochemistry	Transferrin	Imm.Turb	PH,PE ,S	0.5	Daily	next day	8 days at 2-8°c, 6 months at -20°c	at 2-8°c, at -20°c	Hemolysis	Avoid repeated freeze / thaw cycles
Biochemistry	Triglyceride	photometric	PH,PE ,S	0.5	Daily	next day	2 days at 15-25°c, 7 days at 2-8°c, 1 year at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Hormone	Triiodothyronine (T3)	CLIA,ECL	PH,PE ,S,Pna	0.5	2day	2day	1 day at RT, 7 days at 2-8°c, 1 month at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	Avoid freeze / thaw cycles
Hormone	Troponine T	ECL	S.	0.5	8day	8day	2 days at 2-8 °c for longer time at -20 °c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Hormone	TSH	CLIA	PH,PE ,S	0.5	2day	2day	5 days at 2-8°c, 1 months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	TSH Receptor Ab	Elisa	S	0.5	8day	8day	5 days at 2-8°c, 1 month at -20°c	at 2-8°c, at -20°c		
Microbiology	Tuberculin Test(PPD)	Skin Test			4day	4day			Hemolysis	
Metabolic disorders	Tyrosine	HPLC	P	1	10day	10day	2 weeks at -20°c	at -20°c	Hemolysis, Icteric, Lipemic	Fasting 3-6 hours Avoid freez/ thaw cycles Be separated quickl
Biochemistry	Urea (BUN)	photometric	PH,PE ,S	0.5	Daily	next day	7 days at 2 -25°c 1 year at -20°c	at 2-8°c, at -20°c		Avoid repeated freeze / thaw cycles
Microbiology	Ureaplasma Culture	Microb Culture	BF,Urethral dis.,Vaginal dis.,U	0.5	Daily	8day	The same time must be analysis	at 2-8°c		Avoid using antibioti



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Microbiology	Urethral Discharge Direct	Aerobic	Vaginal dis		2day	2day	in the fastest time possible	24 hrs at RT		
Microbiology	Urethral Discharge (C&S)		Vaginal dis		8day	8day	24 hrs at RT	24 hrs at RT		
Urine Biochemistry	Urine Volume 24hrs	photometric	U	10	3day	3day	2 days at RT, 4Days 2-8°c 3 week at -20°c	at 2-8°c	Hemolysis, Icteric, Lipemic	
Urine Biochemistry	Urine Amylase	photometric	U	10	7day	7day	10 days at 2-8°c, 3 Weeks at -20°c, 2days at RT	at 2-8°c, at -20°c		
Urine Analysis	Urine analysis	Direct smear	U	10	Daily	1day	The same day must be analysis	at RT		
Molecular diagnosis	Urine B2-Microglobulin Random	CLIA	U	16cc	5day	5day	at 2-8°c, at -20°c	at 2-8°c, at -20°c		
Urine Biochemistry	Urine Citrate	Enzymatic	U	5	Sat,Tue	3day	1 week at 2-8°c for longer time at -20	at 2-8°c, at -20°c		
Urine Biochemistry	Urine Clearance 24hr		U	10	2day	2day	2 days at RT, 7 Days at 2-8°c, 1 month -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Urine Biochemistry	Urine Copper 24 hr	Colorimetry	U	1.5	10day	10day	1 week at 2-8°c for longer time at -20°	at 2-8°c, at -20°c		
Urine Biochemistry	Urine Creatinine (Random)	Photometric	U	3	Daily	next day	2 days at RT, 7 Days at 2-8°c, 1month -20°c	at 2-8°c		
Microbiology	Urine culture & Sensitivity		U	10	3day	3day	24 hrs at 4°c	2 hrs at 4°c		
Urine Biochemistry	Urine Cystine	TLC	U(R & 24)	5	10day	10day	4 days at 2-8 °c Ur.:1month at -20 °cc	at -20°c		The frozen sample
Urine Hormone	Urine Dopamine 24h	HPLC	U	5	17day	17day	7 days at 2-8°c , 1 month at -20°c	at 2-8°c, at -20°c	Patient prep: Abstain from medications for 72 hours before collection.	
Microbiology	Urine Direct for BK		U	10	8day	8day	24 hrs at 4°c	24 hrs at 4°c		



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Urine Biochemistry	Urine Epinephrin	HPLC	U	5	17day	17day	7 days at 2-8°c, 1mounth at -20°c	at 2-8°c, at -20°c		Abstain from emotional and mental stress, medication for 3 daya prior sampling 'Protect the light
Urine Biochemistry	Urine K	ISE	U	10	2day	2day	7 days at RT, 7 Days at 2-8°c, 1month -20°c	at 2-8°c		
Metabolic disorders	Methotrexate(MTX)	HPLC	S	2cc	7day	7day	at -20°c	at -20°c		Protect the light
Biochemistry	Metanephrine	Elisa	U S	5	10day <mark>17day</mark>	10day 17day	2 weeks at 2-8°c	at 2-8°c		Avoid repeated freeze / thaw cycles 'Protect the light
Urine Biochemistry	Urine Mg	AAS	U	0.5	5day	5day	7 days at 2-8°c, 2 months at -20°c	at 2-8°c, at -20°c		
Urine Biochemistry	Urine Micro Albumin	Imm.Turb	U	5	8day	8day	up to 4 hrs at 18- 25°c, up to 1 week at - 2-8°c, up to 3month at -20°c	at 2-8°c, at -20°c		
Urine Biochemistry	Urine Na	ISE	U	10	2day	2day	7days at RT, 7 Days at 2-8°c, 1 month -20°c	at 2-8°c		Avoid repeated freeze / thaw cycles
Urine Hormone	Urine Norepinephrine	HPLC	PE, U	1,10	17day	17day	7 days at 2-8°c, 1mounth at -20°c	at 2-8°c, at -20°c		Abstain from emotional and mental stress, medication for 3 daya prior sampling



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Hormone	Normetanephrine	Elisa	U S	5	7day <mark>17day</mark>	7day 17day	7 days at 2-8°c, 1mounth at -20°c	at 2-8°c, at -20°c		Abstain from emotional and mental stress, medication for 3 daya prior sampling
Urine Biochemistry	Urine Uric Acid	Photometric	U,S	10	2day	2day	2 days at RT, 7 Days at 2-8°c, 1 month -20°c	at 2-8°c	Hemolysis, Icteric, Lipemic	Avoid repeated freeze / thaw cycles
Hormone	Urine Organic Acid	G.C- MS	U	10	17day	17day	7 days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c		
Urine Biochemistry	Urine Oxalate	Enzymatic	U	10	Sat,Tue	3day	1 week at 2-8°c for longer time at -20°	at 2-8°c, at -20°c		
Biochemistry	Urine Protein	Photometric	U	10	Daily	next day	2 days at RT, 7 Days at 2-8°c, 1month -20°c			
Biochemistry	Urine Protein Electrophores	Electrophoresis	Urine(24h) بدون نگهدارنده	2لوله فالكن 15cc	13day	13day	7 days at 2-8℃	at -20°c		



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Metabolic disorders	Urine Reducing Substance	Chemical	U	10	15day	15day	1 day at 2-8°c, 1month at -20°c			
Microbiology	Urine Sediment		U	10	2day	2day	24 hrs at 4°c	2 hrs at 4°c		
Microbiology	Urine Sediment culture & Sensitivit		U	10	3day	3day	24 hrs at 4°c	2 hrs at 4°c		
Urine Biochemistry	Urine Urea	photometric	U	10	5day	5day	2 days at RT, 7 Days at 2-8°c, 1 month -20°c	at 2-8°c		
Urine Hormone	Urine V.M.A 24 hrs	Colorimetry	U	10	6day	6day	2 weeks at 2-8 °c with pH: 2-4	at 2-8°c	Hemolysis	Avoid using coffe,tea,chcolate,Caca o,banana,
Serology	V.D.R.L	Flocculation	S	0.5	5day	5day	7 days at 2-8°c, 1months < -20°c	at 2-8°c, at -20°c		



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Microbiology	Vaginal Culture & Sensitivity		Vaginal dis		8day	8day	24 hrs at RT	24 hrs at RT		
Microbiology	Vaginal Direct Smear		Vaginal dis		2day	2day	24 hrs at RT	24 hrs at RT		
Therapeutic drug monitoring	Valporate Na (Depakin)	Fluorescence polarization	s	2,10	8day	8day	2 days at 2-8°c for longer time at -20°	at 2-8°c at 20°c	Hemolysis, Icteric	
Specific Biochemistry	Vitamin A	HPLC	S	1	10day	10day	2 weeks at -20 °c	at -20°c	Hemolysis, Icteric	void freez/ thaw cycles protect the light Be separated in refrigerated centrifuge Fasting 3-6 hours
Specific Biochemistry	Vitamin B12	ECL,CLIA	pH, S	0.5	7day	7day	2days at 2-8°c, 1months at -20°c	at 2-8°c, at -20°c		Avoid repeated freeze / thaw cycles



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Hormone	Vitamin B1	HPLC	WB(E)	3	17day	17day	2 weeks at 2-8°c for longer time at -20°c (dark place)	at 2-8°c, at -20°c		
Hormone	Vitamin B2	ECL	WB(E)	0.5	14day	14day	2 weeks at 2-8°c for longer time at -20°c (dark place)	at 2-8°c, at -20°c	Hemolysis, Icteric	Avoid freez/ thaw cycles از نور محافظت شود Fasting is recommended
Hormone	Vitamin B6	Elisa	PE	3	10day	10day	3 weeks at 2-8°c for longer time at -20°c (dark place)	at 2-8°c, at -20°c	Hemolysis, Icteric	
Specific Biochemistry	Vitamin C	Chemical	S (Centrifuge immediately)	0.5	8day	8day	1 hrs at RT, 2 weeks at -20°c (dark place) with preservative(20 mg oxalic acid in 1 ml serum) 2 months at at -20°c.	at -20°c	Hemolysis, Icteric	Avoid freez/ thaw cycles.Fasting preferred. Abstain using contraceptive drugs. Protect the light Fasting preferred
H.P.L.C	Vitamin D (25 OH)	H.P.L.C	S	0.5	Daily	next day	1 day at RT 7 days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric	Avoid repeated freeze / thaw cycles



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Specific Biochemistry	Vitamin E	HPLC	S	1	7day	7day	2 weeks at -20°c	at -20°c		Avoid freez/ thaw cycles protect the light Be separated in refrigerated centrifuge Fasting 3-6 hours
Immunology	Von Willebrand Factor	Coagulation	PC	3	14day	14day	6 hrs at RT 14day at -20°c	at -20°c at RT	Hemolysis, Icteric, Lipemic	
Immunology	VZV Ab (IgG)	Elisa	S	0.5	10day	10day	2 days at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Immunology	VZV Ab (IgM)	Elisa	S	0.5	10day	10day	2 days at 2-8°c, for longer time at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Molecular diagnosis	Warfarin dose VKORC/CYP2C9	PCR	WB	5	8day	8day	2 days at 2-8°c, 2 months at -20°c	at -20°c	Hemolysis, clotting, frozen, incorrect, anticoagulantI	



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Molecular	Warfarin Genotyping/Sensitivity	PCR	WB	5	10day	10day	2 days at 2-8°c, 2 months at -20°c	at 2-8°c		
Immunology	WBC Panel	Cytotoxicity	WB(E or H)	10	Even days	2day	12 hrs at 2-8°c	at 2-8°c	Hemolysis, Icteric, Lipemic	
Serology	Widal Agglutination test	Agglutination	S	1	3day	3day	7 days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c		
Microbiology	Wound Culture (Mycobacteria BK)	Aerobic & Ana	Wound dis		80day	80day	The same time must be tested	24 hrs at RT		
Microbiology	Wound Direct Smear		Wet Swap		2day	2day	24 hrs at RT	24 hrs at RT		
Microbiology	Wound Discharge (D.S)		Wet Swap		Daily	next day	24 hrs at RT	24 hrs at RT		
Microbiology	Wound Discharge (C & S)		Wet Swap		7day	7day	24 hrs at RT	24 hrs at RT		
Serology	Wright Agglutination Test	Agglutination	S	0.5	3day	3day	7 days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c	ł	



Sector	Test	Assay method	Sample type	S .vol.(ml)	زمان انجام	مدت جوابدهی	Storage	Transport	Reject	Others
Serology	Wright Agglutination Test(C.F.S)	Agglutination	S, BF, CSF	0.5	3day	3day	7 days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c	Hemolysis, Icteric, Lipemic	
Biochemistry	ZINC	photometric, Atomic abs	S	0.5	7day	7day	7 days at 2-8°c, 3 months at -20°c	at 2-8°c, at -20°c		