Common Laboratory Tests

Lab Test	Test Description	Normal Value (*Values may differ based on the lab you use or your transplant team's recommendations)	Comments
Alanine Aminotransferase (ALT)	Monitors liver function	Male: 29-33 IU/L Female: 19-25 IU/L	
Alkaline phosphatase	Monitors liver function	44-`47 U/L	
Aspartate aminotransferase (AST)	Monitors liver function	5-40 units per liter serum	
Gamma glutamyl transpeptidase (GGTP)	Monitors liver function	9-48 U/L	
Blood urea nitrogen (BUN)	Monitors kidney function and hydration status	8-20 mg/dL	Increased: Indicates dehydration and/or sub-optimal kidney function
Creatinine	Monitors kidney function	0.7-1.5 mg/dL	Increased: indicates sub-optimal kidney function
Glucose (blood sugar)	Measures the amount of sugar in your blood, determines how well your pancreas is working (i.e. producing insulin)	70-110 mg/dL (fasting level)	Decreased: known as hypoglycemia, may be shaky or sweaty Increased: multiple readings suggests diabetes
Tacrolimus (Prograf)	Monitors the amount of the immunosuppression medication in the blood	Varies	Do not take medication the morning you get labs drawn
Carbon dioxide (CO2)	Measures respiratory and kidney function	24-30 mEq/L	

Bicarbonate	Monitors acid/base balance in the blood	23-30 mEq/L	
Magnesium	Monitors electrolyte important for heart and nervous system function; Also helps to monitor kidney function	1.5-2.5 mEq/L	
Phosphorous	Helps to monitor function of kidney	2.5-4.5 mg/dL	
Sodium	Important electrolyte, helps to monitor kidney function and fluid balance	135-145 mEq/L	
Potassium	Monitor kidney function	3.5-5.0 mEq/L	Increased or decreased levels can cause very serious heart arrythmias
Chloride	Monitors fluid and electrolyte status	96-106 mEq/L	
Serum amylase	Monitors pancreas function	0-137 U/L	Increased levels can indicate pancreatitis
Serum lipase	Monitors pancreas function	12-70 U/L	
Complete blood count (CBC)	Monitors all the cell counts in your body	Numerous	Includes: • RBC • Hemoglobin • Hematocrit • MCH • MCV • MCHC • RDW • Platelets
Red Blood Cells (RBC)	Actual count of red blood cells in body	Male = 4.6-6.2 x 10^6 cells/mm^3	

		Female = 4.2-5.2 x 10^6 cells /mm^3	
Hemoglobin	Measures the oxygen carrying capacity of the blood	Male: 14-18 g/dL Female: 12-16 g/dL	Decreased: suggests anemia
Hematocrit (Hct)	Percentage of blood that is composed of red blood cells (erythrocytes) "packed cell volume"	Male: 39-49% Female: 35-45%	Helps to determine if you are anemic (bleeding)
Mean Cell Hemoglobin (MCH)	% volume of hemoglobin per RBC	Normal: 27-33 pg/cell	Increase: indicates folate deficiency Decrease: indicates iron deficiency
Mean Cell Volume (MCV)	Hematocrit/RBC Average volume of a RBC	Male = 80-96 Female = 82-98	Large cells = macrocytic: due to B-12 or folate deficiency Small cells = microcytic: due to iron deficiency
Mean Corpuscular Hemoglobin Concentration (MCHC)	Average concentration of hemoglobin in your RBCs	32-36 g/dL	
Red Cell Distribution Width (RDW)	Measurement of the variation in the size of your red blood cells.	11.6-14.6%	
Platelet Count	Monitors bleeding tendencies	140,000-440,000/uL	Too low = bleed easily
White Blood Cells (WBC)	Monitors infection and immunosuppression	3.4 – 10 x 10^3 cells/mm^3	WBC increase during infection Transplant patients have low WBC due to immunosuppression meds

Prothrombin time (PT)	Monitors blood clotting	11.0-12.5 seconds	Level will vary based on if you are on anti-coagulation therapy
Albumin	Helps to monitor kidney and liver as well as nutritional status	3.4-5.4 g/dL	

Sources:

1. Health Resources and Services Administration. *Partnering With Your Transplant Team*. Rockville, MD: Healthcare Systems Bureau; 2008.
2. Aspartate Aminotransferase: Reference Range, Interpretation, Collection and Panels. (2020, April 08). Retrieved June 06, 2020, from https://emedicine.medscape.com/article/2087224-overview

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