

Johns Hopkins Department of Pathology Core Laboratory Reference Ranges

April, 2020

Hematology	Reference Values	Units
WBC	4.50-11.00	K/cu mm
Band neutrophils	2-6	%
Lymphocytes	24-44	%
Monocytes	2-11	%
Eosinophils	1-4	%
Basophils	0-2	%
RBC	M: 4.5-5.9; F 4.0-5.2	M/CU MM
Hemoglobin	M: 13.9-16.3; F: 12.0-15.0	G/DL
Hemoglobin A1C	<5.7	%
Hematocrit	M: 41.0-53.0; F: 36.0-46.0	%
Polys (Segmented Neutrophils)	31-76	%
Neutrophils	40.0-70.0	%
Mean Corpuscular Vol (MCV)	80.0-100.0	fL
Mean platelet volume (MPV)	9.2-12.7	fL
Absolute Neutrophils	1.50-7.80	K/cu mm
Absolute Lymphocytes	1.1-4.8	K/cu mm
Absolute Eosinophils	0.12-0.3	K/cu mm
Absolute Monocytes	0.1-1.2	K/cu mm
Platelet Count	150-350	K/cu mm
Morphology	normocytic normochromic	
Immature Gran Number	0.0-0.05	K/cu mm
Nucleated RBC Number	0.0-0.01	K/cu mm
INR	0.9-1.1	
PT	9.3- 11.7	seconds
PTT	23.1-30.9	seconds
Fibrinogen	170.0-422.0	mg/dL

Urinalysis	Reference Values	
Color	**	
Specific Gravity	**	1.003-1.030
pH	**	4.6-8.0
Glucose	**	negative
Protein	**	negative
Bilirubin	**	negative
Ketones	**	negative; trace
Occult Blood	**	negative
Urobilinogen	**	negative
Microscopic		-
RBC	*	0-5 #/HPF
WBC	*	0-5 #/HPF
Casts	*	0-1 hyaline #/LPF
Crystals	*	few #/HPF

*all tests performed by urinalysis microscopic

**all tests performed by urinalysis dipstick

Chemistry (serum)	Reference Values	Units
Sodium	135-148	mmol/L
Potassium	3.5-5.1	mmol/L
Chloride	96-109	mmol/L
CO2	21-31	mmol/L
Glucose	71-99	mg/dL
BUN	7.0-22.0	mg/dL
Creatinine	M: 0.6-1.3; F: 0.5-1.2	mg/dL
Calcium	8.4-10.5	mg/dL
Total Protein	6.0-8.2	g/dL
Albumin	3.5-5.3	g/dL
Bilirubin, Total	0.0-1.2	mg/dL
AST	M: 0-37; F: 0-31	U/L
ALT	M: 0-40; F: 0-31	U/L
Alkaline Phosphatase	30-120	U/L
Amylase	28-100	U/L
Bilirubin, Direct	0.0- 0.4	mg/dL
C-Reactive Protein	0 - 0.5	mg/dL
Creatine Kinase	M: 24-195; F:24-170	U/L
Gamma Glutamyl Transferase	M: 12-55; F: 8 -51	U/L
LDH	M: 118-273; F: 122-220	U/L
Lipase	16-63	U/L
Magnesium	1.6-2.4	mg/dL
Phosphorus	2.7-4.5	mg/dL
Uric Acid	M: 3.5-7.2; F: 2.4-6.4	mg/dL
Cholesterol	0-200	mg/dL
Triglycerides	0-150	mg/dL
LDL	0-130	mg/dL
HDL	>40	mg/dL
Non-HDL Cholesterol	30 mg/dL higher than target LDL-Cholesterol	mg/dL
Beta-Hydroxybutyrate (BHB)	0.00-0.27	mmol/L
TSH	0.5-4.5	mIU/mL
FT4	0.8-1.8	ng/dL
T4	4.5-11.5	mcg/dL
FT3	2.0-4.9	pg/mL
T3	0.80-2.00	ng/mL
Cortisol	7am - 9am: 4.6 - 23.4 4pm - 6pm: 2.7 - 15.9	mcg/dL
PSA	0.0-4.0	ng/ml
Troponin I	<0.04	ng/mL
CK-MB	0.0-7.0	ug/L
NT-ProBNP	<75 years: <5-125 ≥75 years: <5-450	pg/ml

Reviewed and Approved :

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Date