

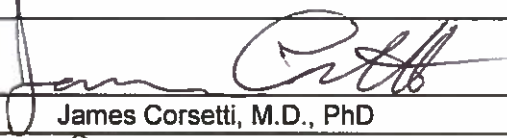



Document Title: Standard Reference Ranges and Alert Values

Author:	Effective Date:	Supersedes Procedure #
Jessica Wahl	2/15/2016	UR.CP.CS.pti.0004.0001

Revised By:	Date Revised	Effective (adopted) Date:
Jessica Wahl	12/22/17	3/1/2018

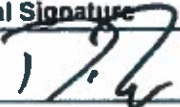
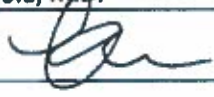

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REVISION HISTORY

Procedure #	Revision Date	Reason for Revision
UR.CP.CS.pti.0004.0002	12-8-17	Removed Clinical Trials information. Updated Reference Range for: PT,INR, Protein C, Protein S, Antithrombin III, D-Dimer, Urinalysis with Microscopic for Bacteria, Squamous Epith and Trans Epith, VB12, Progesterone, Homocysteine. Updated test performed locations for Red Creek Lab tests, Indirect Bilirubin and Transferrin Saturation.



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- (R) Ridgeland Rd - 77 Ridgeland Rd. Rochester, NY 14623
- (H) Highland Hospital - 990 South Ave. Rochester, NY 14620
- (B) Strong West - 156 West Ave. Brockport, NY 14420
- (P) Red Creek Lab - 400 Red Creek Dr, Rochester, NY 14623

Hematology Reference Ranges

CBC Test

Test	Age from → up to but NOT including	Female Range	Male Range	Units	Panic LO	Panic HI	Testing Location
WBC	0-4D	9.0 - 38.0	9.0 - 38.0	THOU/ μ L		150X10 ³ / μ L	S,R,H,B, P
	4D - 15D	5.0 - 21.0	5.0 - 21.0	THOU/ μ L		150X10 ³ / μ L	
	15D - 29D	5.0 - 20.0	5.0 - 20.0	THOU/ μ L		150X10 ³ / μ L	
	29D - 2 M	5.0 - 19.5	5.0 - 19.5	THOU/ μ L		150X10 ³ / μ L	
	2M - 6M	6.0 - 17.5	6.0 - 17.5	THOU/ μ L		150X10 ³ / μ L	
	6M - 2Y	6.0 - 17.0	6.0 - 17.0	THOU/ μ L		150X10 ³ / μ L	
	2Y - 6Y	5.0 - 17.0	5.0 - 17.0	THOU/ μ L		150X10 ³ / μ L	
	6Y - 12Y	4.8 - 14.5	4.8 - 14.5	THOU/ μ L		150X10 ³ / μ L	
≥ 12Y	4.0 - 10.0	4.2 - 9.1	THOU/ μ L		150X10 ³ / μ L		
RBC	0-4D	4.0 - 6.6	4.0 - 6.6	MIL/ μ L			S,R,H,B, P
	4D - 8D	3.9 - 6.3	3.9 - 6.3	MIL/ μ L			
	8D - 15D	3.9 - 5.9	3.9 - 5.9	MIL/ μ L			
	15D - 29D	3.3 - 5.3	3.3 - 5.3	MIL/ μ L			
	29D - 4 M	3.1 - 4.3	3.1 - 4.3	MIL/ μ L			
	4M - 6M	3.9 - 5.5	3.9 - 5.5	MIL/ μ L			
	6M - 2Y	3.7 - 5.3	3.7 - 5.3	MIL/ μ L			
	2Y - 6Y	3.9 - 5.3	3.9 - 5.3	MIL/ μ L			
6Y - 12Y	4.0 - 5.2	4.0 - 5.2	MIL/ μ L				
≥ 12Y	3.9 - 5.2	4.6 - 6.1	MIL/ μ L				
Hemoglobin	0-3D	14.5 - 22.5	14.5 - 22.5	g/dL			S,R,H,B, P
	3D - 7D	13.5 - 21.5	13.5 - 21.5	g/dL			
	7D - 14D	13.4 - 19.8	13.4 - 19.8	g/dL			
	14D - 1M	10.7 - 17.1	10.7 - 17.1	g/dL			
	1M-2M	9.4 - 13.0	9.4 - 13.0	g/dL			
	2M - 4M	10.3 - 14.1	10.3 - 14.1	g/dL			
	4M - 2Y	11.0 - 14.0	11.0 - 14.0	g/dL			
	2Y - 6Y	11.5 - 14.0	11.5 - 14.0	g/dL			
6Y - 12Y	11.5 - 15.5	11.5 - 15.5	g/dL				
≥ 12Y	11.2 - 15.7	13.7 - 17.5	g/dL				
Hematocrit (includes spun HCT)	0 - 4D	45 - 67	45 - 67	%	19		S,R,H,B, P
	4D - 8D	42 - 66	42 - 66	%	19		
	8D - 15D	41 - 65	41 - 65	%	19		
	15D - 29D	33 - 55	33 - 55	%	19		
	29D - 2M	28 - 42	28 - 42	%	19		
	2M - 4M	29 - 44	29 - 44	%	19		
	4M - 6M	30 - 40	30 - 40	%	19		
	6M - 2Y	33 - 40	33 - 40	%	19		
	2Y - 6Y	34 - 40	34 - 40	%	19		
	6Y - 12Y	35 - 45	35 - 45	%	19		
≥ 12Y	34 - 45	40 - 51	%	19			

Test	Age from ---> up to but NOT including	Female Range	Male Range	Units	Panic LO	Panic HI	Testing Location
MCH	4D-7D	31-37	31-37	pg			S,R,H,B,P
	8D-14D	28-40	28-40	pg			
	15D-28D	30-37	30-37	pg			
	29D-2M	29-36	29-36	pg			
	2M-4M	27-34	27-34	pg			
	4M-6M	24-30	24-30	pg			
	6M - 2Y	23-31	23-31	pg			
	2Y - 6Y	24-30	24-30	pg			
6Y - 12Y	25-33	25-33	pg				
≥ 12Y	26-32	26-32	pg				
MCHC	4D-7D	29-37	29-37	g/dL			S,R,H,B,P
	8D-2M	28-38	28-38	g/dL			
	2M-4M	28-36	28-36	g/dL			
	4M-6M	29-37	29-37	g/dL			
	6M - 2Y	30-36	30-36	g/dL			
	≥ 2Y	32-36	32-37	g/dL			
MCV	0 - 4D	95 - 121	95 - 121	fL			S,R,H,B,P
	4D - 8D	88 - 126	88 - 126	fL			
	8D - 15D	88 - 122	88 - 122	fL			
	15D - 29D	91 - 111	91 - 111	fL			
	29D - 2M	84 - 106	84 - 106	fL			
	2M - 4M	76 - 96	76 - 96	fL			
	4M - 6M	68 - 85	68 - 85	fL			
	6M - 2Y	71 - 84	71 - 84	fL			
	2Y - 6Y	76 - 87	76 - 87	fL			
	6Y - 12Y	77 - 95	77 - 95	fL			
≥ 12Y	79 - 95	79 - 92	fL				
RDW	ALL	11.7-14.4	11.6-14.4	%			S,R,H,B,P
Platelet	ALL	160 - 370	150 - 330	THOU/ μ L	19		S,R,H,B,P

DIFF Test

Test	Age from ---> up to but NOT including	Female Range	Male Range	Units	Panic LO	Panic HI	Testing Location
% BAND NEUTROPHILS	0 - 1 D	0 - 15.0	0 - 15	%			S,R,H,B
	≥ 1 D	0 - 10.0	0 - 10.0	%			
NEUTROPHIL #	0 - 4D	6.0 - 26.0	6.0 - 26.0	THOU/ μ L			S,R,H,B
	4D - 15D	1.5 - 10.0	1.5 - 10.0	THOU/ μ L			
	15D - 29D	1.0 - 9.0	1.0 - 9.0	THOU/ μ L			
	29D - 6M	1.0 - 8.5	1.0 - 8.5	THOU/ μ L			
	6M - 2Y	1.5 - 8.5	1.5 - 8.5	THOU/ μ L			
	2Y - 12Y	1.5 - 8.0	1.5 - 8.0	THOU/ μ L			
	≥ 12Y	1.6 - 6.1	1.8 - 5.4	THOU/ μ L			
LYMPHOCYTE #	0-4D	2.0 - 11.0	2.0 - 11.0	THOU/ μ L			S,R,H,B
	4D - 15D	2.0 - 17.0	2.0 - 17.0	THOU/ μ L			
	15D - 29D	2.5 - 16.5	2.5 - 16.5	THOU/ μ L			
	29D - 6M	4.0 - 13.5	4.0 - 13.5	THOU/ μ L			
	6M - 2Y	3.0 - 9.5	3.0 - 9.5	THOU/ μ L			
	2Y - 6Y	2.0 - 8.0	2.0 - 8.0	THOU/ μ L			
	6Y - 12Y	1.5 - 7.0	1.5 - 7.0	THOU/ μ L			
	≥ 12Y	1.2 - 3.7	1.3 - 3.6	THOU/ μ L			
MONOCYTE #	0-4D	0.4 - 3.0	0.4 - 3.0	THOU/ μ L			S,R,H,B
	4D - 15D	0.3 - 2.7	0.3 - 2.7	THOU/ μ L			
	15D - 29D	0.2 - 2.5	0.2 - 2.5	THOU/ μ L			
	29D - 6M	0.2 - 2.4	0.2 - 2.4	THOU/ μ L			
	6M - 2Y	0 - 1.1	0 - 1.1	THOU/ μ L			
	≥ 2Y	0.2 - 0.9	0.3 - 0.8	THOU/ μ L			
EOSINOPHIL #	ALL	0.0 - 0.4	0.0 - 0.5	THOU/ μ L			S,R,H,B,P
BASOPHIL #	ALL	0.0 - 0.1	0.0 - 0.1	THOU/ μ L			S,R,H,B,P
% METAMYELOCYTES	ALL	0 - 1.0	0 - 1.0	%			S,R,H,B,P
% MYELOCYTES	ALL	0 - 0	0 - 0	%			S,R,H,B,P
% PROMYELOCYTES	ALL	0 - 0	0 - 0	%			S,R,H,B,P
% REACTIVE LYMPHS	ALL	0 - 6.0	0 - 6.0	%			S,R,H,B,P
NUCLEATED RBC	0 - 3D	0 - 5.0	0 - 5.0	per 100 WBC			S,R,H,B,P
	4D - 7D	0 - 1.0	0 - 1.0	per 100 WBC			S,R,H,B,P
	> 7D	0.0 - 0.2	0.0 - 0.2	per 100 WBC			S,R,H,B,P
NUCLEATED RBC #	ALL	0.0 - 0.0	0.0 - 0.0	THOU/ μ L			S,R,H,B,P

Test	Age from → up to but NOT including	Female Range	Male Range	Units	Panic LO	Panic HI	Testing Location
% RETICULOCYTE	0-3D	3.5-5.4	3.5-5.4	%			S,R, H
	4-30D	1.1-2.4	1.1-2.4	%			
	31-60D	2.1-3.5	2.1-3.5				
	61D-6M	1.6-2.7	1.6-2.7				
	7M-3Y	1.0-1.8	1.0-1.8				
	4Y-7Y	0.8-1.5	0.8-1.5				
	8Y-13Y	1.0-1.9	1.0-1.9				
	14Y-19Y	0.9-1.5	0.9-1.5				
>19Y	0.7-2.1	0.7-2.3					
RETICULOCYTE#	0-3D	147.5-216.4	147.5-216.4	THOU/mL			S,R, H
	4-30D	51.3-110.4	51.3-110.4				
	31-60D	51.8-77.9	51.8-77.9				
	61D-6M	48.2-88.2	48.2-88.2				
	7M-3Y	43.5-111.1	43.5-111.1				
	4Y-7Y	36.4-68.0	36.4-68.0				
	8Y-13Y	42.4-70.2	42.4-70.2				
	14Y-19Y	41.6-65.1	41.6-65.1				
>19	29.9-90.9	33.8-124.0					
ERYTHROCYTE SEDIMENTATION RATE	0-50	0 - 20	0 - 15	mm/hr			S,R, H
	>50	0-30	0-20				

Urinalysis

Test	Age from → up to but NOT including	Female Range	Male Range	Units	Panic LO	Panic HI	Testing Location
COLOR	ALL	Yellow	Yellow	-			S,H, B R(CT Only)
APPEARANCE	ALL	Clear	Clear	-			
GLUCOSE	ALL	Negative	Negative	mg/dL			
KETONES	ALL	Negative	Negative	-			
SPECIFIC GRAVITY	ALL	1.002 - 1.030	1.002 - 1.030	-			
BLOOD	ALL	Negative	Negative	-			
pH	ALL	5.0 - 8.0	5.0 - 8.0	-			
PROTEIN	ALL	Negative	Negative	mg/dL			
NITRITES	ALL	Negative	Negative	-			
LEUKOCYTE ESTERASE	ALL	Negative	Negative	-			
RBC	ALL	0 - 2	0 - 2	/hpf			
WBC	ALL	0 - 5	0 - 5	/hpf			

Urinalysis with Microscopic

Test	Age from → up to but NOT including	Female Range	Male Range	Units	Panic LO	Panic HI	Testing Location
BACTERIA, UR	ALL	0-1+	0-1+				S,H R(CT Only)
MUCUS, UR	ALL	Present is Normal		/hpf			
RENAL EPITH, UR	ALL	None	None	/hpf			
SQUAMOUS EPITH, UR	ALL	0-1+	0-1+				
TRANS EPITH, UR	ALL	0-1+	0-1+				
TRICOMONAS, UR	ALL	None	None	/hpf			
RBC, UR	ALL	0-2	0-2	/hpf			
WBC CLUMPS, UR	ALL	None	None	/hpf			
WBC, UR	ALL	0-5	0-5	/hpf			
YEAST, UR	ALL	None	None	/hpf			
GRANULAR CASTS, UR	ALL	None	None	/hpf			
HYALINE CASTS, UR	ALL	0-2	0-2	/hpf			
MISC. CASTS, UR	ALL	None	None	/hpf			
WAXY CASTS, UR	ALL	None	None	/hpf			
AMORPHOUS CRYSTALS, UR	ALL	None	None	/hpf			
CA OXALATE CRYSTALS, UR	ALL	None	None	/hpf			
CYSTEINE CRYSTALS, UR	ALL	None	None	/hpf			
LEUCINE CRYSTALS, UR	ALL	None	None	/hpf			
TYROSINE CRYSTALS, UR	ALL	None	None	/hpf			

Coagulation

Test	Age from → up to but NOT including	Female Range	Male Range	Units	Panic LO	Panic HI	Testing Location
PT	ALL	10.0-12.9	10.0-12.9	seconds			S,R, H, B
INR**	ALL	0.1-1.1	0.9-1.1	-		5.0	S,R, H, B
PTT	ALL	25.8 - 37.9	25.8 - 37.9	seconds			S,R, H, B,
FACTOR II	ALL	89 -136	89 -136	% activity			S
FACTOR V	ALL	67 - 139	67 - 139	% activity			S
FACTOR VII	ALL	66 - 159	66 - 159	% activity			S
FACTOR VIII	ALL	68 - 156	68 - 156	% activity			S
FACTOR VIII INHIBITOR	ALL	0 - 0.50	0 - 0.50	BU			S
FACTOR VIII VONWILLEBRAND ANTIGEN	ALL	44 - 166	44 - 166	% normal			S
FACTOR IX	ALL	92 -161	92 -161	% activity			S
FACTOR X	ALL	78 - 147	78 - 147	% activity			S
FACTOR XI	ALL	69 - 154	69 - 154	% activity			S
FACTOR XII	ALL	57 - 163	57 - 163	% activity			S
FIBRINOGEN	ALL	172 - 409	172 - 409	mg/dL			S,H
PROTEIN C	ALL	77-147	77-147	%			S
PROTEIN S	ALL	51-140	51-140	%			S
ANTITHROMBIN III	ALL	81-125	81-125	%			S
D-DIMER	ALL	0-0.5	0-0.5	microgram/mL			S,H,B,
ACTIVATED PROTEIN C RESISTANCE	ALL	>2.5	>2.5	-			S
CLOSURE TIME (EPINEPHRINE)	ALL	0 - 181	0 - 181	seconds			S
CLOSURE TIME (ADP)	ALL	0 - 112	0 - 112	seconds			S
FIBRIN SPLIT PRODUCTS	ALL	< 5	< 5	microgram/mL			S,H
LOW MOLECULAR WT. HEPARIN (ANTI-Xa)	ALL	0.4 - 0.8	0.4 - 0.8	units/mL			S
UNFRACTIONATED HEPARIN (ANTI-Xa)	ALL	0.3 - 0.7	0.3 - 0.7	units/mL			S
LUPUS ANTICOAGULANT (screen)	ALL	NEG	NEG	-			S
THROMBIN TIME	ALL	11.7 -15.0	11.7 -15.0	seconds			S
EUGLOBULIN LYSIS	ALL	> 120	> 120	minutes			S



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Chemistry Reference Ranges

Test	Age	Female Range	Male Range	Units	Panic LO	Panic HI	Testing Location
Albumin	Up to 200Y	3.5-5.2	3.5-5.2	g/dL			S,R,H,B
Alk Phos	0-5D	110-300	110-300	U/L			S,R,H,B
	5D-4Y	145-320	145-320	U/L			
	4Y-7Y	150-380	150-380	U/L			
	7Y-10Y	175-420	175-420	U/L			
	10Y-12Y	130-560	135-530	U/L			
	12Y-14Y	105-420	200-495	U/L			
	14Y-16Y	70-230	130-525	U/L			
	16Y-20Y	50-130	65-260	U/L			
	≥20Y	35-105	40-130	U/L			
Alpha 1 Antitrypsin	Up to 200Y	90-200	90-200	mg/dL			R
ALT (SGPT)	Up to 200Y	0-35	0-50	U/L			S,R,H,B
Ammonia	Up to 200Y	10-47	10-47	mmol/L			S,H,B
Amylase	Up to 200Y	28-100	28-100	U/L			S,R,H,B
Anion Gap	Up to 200Y	7-16	7-16				S, R
AST(SGOT)	Up to 200Y	0-35	0-50	u/L			S,R,H,B
C3	Up to 200Y	90-180	90-180	mg/dL			R
C4	Up to 200Y	10-40	10-40	mg/dL			R
Calcium	0-11Y	9.0-10.8	9.0-10.8	mg/dL	6.5	13.0	S,R,H,B
	11Y-25Y	9.0-10.4	9.3-10.5	mg/dL	6.5	13.0	
	25Y-45Y	8.8-10.2	9.0-10.3	mg/dL	6.5	13.0	
	≥45Y	8.6-10.2	8.6-10.2	mg/dL	6.5	13.0	
Chloride	Up to 200Y	96-108	96-108	mmol/L	80	120	S,R,H,B
Cholesterol	Desirable	<200	<200	mg/dL			S,R,H,B
	Borderline High	200-239	200-239	mg/dL			
	High	>240	>240	mg/dL			
CO2	Up to 200Y	20-28	20-28	mmol/L	10	40	S,R,H,B
Creatine Kinase	Up to 200Y	34-145	46-171	U/L			S,R, H,B
Creatine Kinase-MB	Up to 200Y	0-5.3	0-10.4	ng/mL			S,H,B
Creatine Kinase-MB, %	Up to 200Y	0-5	0-5	%			S,H,B
Creatinine	0D-4D	0.30-1.00	0.30-1.00	mg/dL			S,R,H,B
	4D-2Y	0.20-0.40	0.20-0.40	mg/dL			
	2Y-12Y	0.30-0.70	0.30-0.70	mg/dL			
	12Y-21Y	0.50-1.00	0.50-1.00	mg/dL			
	≥21Y	0.51-0.95	0.67-1.17	mg/dL			

Test	Age	Female Range	Male Range	Units	Panic LO	Panic HI	Testing Location
Creatinine Clearance	Up to 200Y	87-107	107-139	mL/min			S,R, H
CRP, High Sensitivity	Up to 200Y	0-3	0-3	mg/L			S,R,B
Direct Bilirubin	0D-6D	0-0.6	0-0.6	mg/dL			S,R,H, B
	≥6D	0-0.3	0-0.3	mg/dL			
Ferritin	Up to 200Y	10-120	20-250	ng/mL			S,R, H
Folate	Up to 200Y	≥4.5	≥4.5	ng/mL			R, H
GGT	Up to 200Y	5-36	8-61	U/L			S,R,H,B
Glucose (Serum or Plasma)	0D	36-110	36-110	mg/dL	25	200	S,R,H,B
	1D-7D	47-117	47-117	mg/dL	40	200	
	≥7D	60-99	60-99	mg/dL	40	500	
HDL	Low	<40	<40	mg/dL			S, R, H
	High	>60	>60	mg/dL			
HGB A1C	Up to 200Y	4.0-6.0	4.0-6.0	%			R
Homocysteine	Up to 200Y	0-15	0-15	umol/L			R
Indirect Bilirubin	Up to 200Y	0.1-1.0	0.1-1.0	mg/dL			S,R,H,B
Insulin	Up to 200Y	3-25	3-25	uIU/mL			R
Iron	Up to 200Y	34-165	45-170	ug/dL			S,R,H,B
LDH	Up to 200Y	118-225	118-225	U/L			S,R,H
LDL (Calculated and Direct)	Optimal	<100	<100	mg/dL			S,R,H
	Near or above optimal	100-129	100-129	mg/dL			
	Borderline High	130-159	130-159	mg/dL			
	High	160-189	160-189	mg/dL			
	Very High	>189	>189	mg/dL			
Lipase	Up to 200Y	13-60	13-60	U/L			S,R,H,B
Magnesium	Up to 200Y	1.3-2.1	1.3-2.1	mEq/L	0.8	4.0	S,R,H,B
NT-Pro BNP	0-49Y	0-450	0-450	pg/mL			S,R,H,B
	50-75Y	0-900	0-900	pg/mL			
	75-200Y	0-1800	0-1800	pg/mL			
Phosphorus	0D-1D	4.2-8.5	4.2-8.5	mg/dL	1.1	9	S,R,H,B
	1D-13Y	4.0-6.5	4.0-6.5	mg/dL	1.1	9	
	≥13Y	2.7-4.5	2.7-4.5	mg/dL	1.1	9	

Test	Age	Female Range	Male Range	Units	Panic LO	Panic HI	Testing Location
Potassium	0D-2D	4.5-7.7	4.5-7.7	mmol/L	2.8	8	S,R,H,B
	2D-4M	4.0-6.4	4.0-6.4	mmol/L	2.8	7	
	4M-2Y	3.7-5.6	3.7-5.6	mmol/L	2.8	6.2	
	2Y-17Y	3.6-5.2	3.6-5.2	mmol/L	2.8	6.2	
	≥17Y	3.3-5.1	3.3-5.1	mmol/L	2.8	6.2	
Prealbumin	Up to 200Y	20-40	20-40	mg/dL			S
Sodium	Up to 200Y	133-145	133-145	mmol/L	120	160	S,R,H,B
TIBC	Up to 200Y	250-450	250-450	ug/dL			S,R,H
Total Bilirubin	0D-1D	2.0-6.0	2.0-6.0	mg/dL		15	S,R,H,B
	1D-2D	6.0-7.0	6.0-7.0	mg/dL		15	
	2D-3D	4.0-12.0	4.0-12.0	mg/dL		15	
	3D-8D	0.0-1.4	0.0-1.4	mg/dL		15	
	≥8D	0.0-1.2	0.0-1.2	mg/dL		0	
Total Protein	Up to 200Y	6.3-7.7	6.3-7.7	g/dL			S,R,H,B
Transferrin	Up to 200Y	200-360	200-360	mg/dL			R
Transferrin Saturation	Up to 200Y	15-50	20-55	%			S, R
Triglycerides	Normal	<150	<150	mg/dL			S,R, H
	Borderline High	150-199	150-199	mg/dL			
	High	200-499	200-499	mg/dL			
	Very High	>500	>500	mg/dL			
Troponin	Up to 200Y	0-0.02	0-0.02	ng/mL		0.03-0.09 Consistent with myocardial injury; >0.09 - Indicative of myocardial injury	S,H,B
Urate	Up to 200Y	2.7-6.8	3.9-9.0	mg/dL			S,R,H,B
Urea Nitrogen	Up to 200Y	6-20	6-20	mg/dL			S,R,H,B
Vitamin B12	Up to 200Y	232-1245	232-1245	pg/mL			S,R

Endocrinology

Test	Age	Female Range	Male Range	Units	Panic LO	Panic HI	Testing Location
Estradiol	Tanner Stage 1	5-20		pg/mL			S, R
	Tanner Stage 2	10-24		pg/mL			
	Tanner Stage 3	7-60		pg/mL			
	Tanner Stage 4	21-85		pg/mL			
	Tanner Stage 5	34-170		pg/mL			
	Follicular Phase	13-166		pg/mL			
	Ovulation Phase	86-498		pg/mL			
	Luteal Phase	44-211		pg/mL			
	Post Menopausal	0-55		pg/mL			
	Pregnancy 1st trimester	>214		pg/mL			
	Children (1-10 years)	6-27	0-20	pg/mL			
	Up to 200Y		8-43	pg/mL			
T4	0-1Y	9.7-19.1	9.7-19.1	microg/dL			S,R,H,B
	1Y-7Y	9.2-15.1	9.2-15.1	microg/dL			
	7Y-13Y	7.6-13.7	7.6-13.7	microg/dL			
	13Y-18Y	6.4-13.4	6.4-13.4	microg/dL			
	≥18Y	4.6-12.0	4.6-12.0	microg/dL			
TSH	0-1Y	1.36-8.8	1.36-8.8	micro IU/mL			S,R,H,B
	1Y-7Y	0.85-6.5	0.85-6.5	micro IU/mL			
	7Y-13Y	0.28-4.3	0.28-4.3	micro IU/mL			
	≥13Y	0.27-4.20	0.27-4.20	micro IU/mL			
BHCG	Female non-pregnant, pre-menopause: 0-1 mIU/mL						S,R,H,B
	Female post menopause: 0-7 mIU/mL						
	Male: 0-2 mIU/mL						
Pregnancy, Serum	Negative						S,H,B
Pregnancy, Urine	Negative						S,H,B
Testosterone	0-50Y	8-48	249-836	ng/dL			R
	>50Y	3-41	193-740	ng/dL			
	Tanner Stage 1	<3-6	<3	ng/dL			
	Tanner Stage 2	<3-10	<3-432	ng/dL			
	Tanner Stage 3	<3-24	65-778	ng/dL			
	Tanner Stage 4	<3-27	180-763	ng/dL			
	Tanner Stage 5	5-38	188-882	ng/dL			

Test	Age	Female Range	Male Range	Units	Panic LO	Panic HI	Testing Location
LH	Up to 200Y	see below	1.7-8.6	mIU/mL			S,R, H
	Follicular Phase	2.4-12.6	N/A	mIU/mL			
	Ovulation Phase	14.0-95.6	N/A	mIU/mL			
	Luteal Phase	1.0-11.4	N/A	mIU/mL			
	Postmenopause	7.7-58.5	N/A	mIU/mL			
FSH	Up to 200Y	see below	1.5-12.4	mIU/mL			S,R, H
	Follicular Phase	3.5-12.5	N/A	mIU/mL			
	Ovulation Phase	4.7-21.5	N/A	mIU/mL			
	Luteal Phase	1.7-7.7	N/A	mIU/mL			
	Postmenopause	25.8-134.8	N/A	mIU/mL			
Progesterone	Up to 200Y	see below	<0.1-0.1	ng/mL			S,R, H
	Follicular Phase	<0.1-0.9	N/A	ng/mL			
	Ovulation Phase	0.1-12.0	N/A	ng/mL			
	Luteal Phase	1.8-23.9	N/A	ng/mL			
	Postmenopause	<0.1-0.1	N/A	ng/mL			
	Pregnancy 1st Trimester	11.0-44.3	N/A	ng/mL			
	Pregnancy 2nd Trimester	25.4-83.3	N/A	ng/mL			
	Pregnancy 3rd Trimester	58.7-214	N/A	ng/mL			
Prolactin	Non-Pregnant	4.8-23.3		ng/mL			S,R
	Up to 200Y		4.0-15.2	ng/mL			
Dehydroepiandrosterone Sulfate	Tanner Stage 1	21-82	15-108	ug/dL			R
	Tanner Stage 2-3	32-211	30-183	ug/dL			
	Tanner Stage 4	73-275	94-336	ug/dL			
	Tanner Stage 5	95-449	148-437	ug/dL			

Urine Chemistries

Test	Age	Female Range	Male Range	Units	Panic LO	Panic HI	Testing Location
Bilirubin, UR	Up to 200Y	Negative (semiquantitative, <0.5)		mg/dL			S
Urobilinogen, UR	Up to 200Y	Negative (semiquantitative, <2)		mg/dL			S
Calcium, UR 24hr	Low CA Diet:	0-150	0-150	mg/24hr			S
	High CA diet	240-300	240-300	mg/24hr			
	Up to 200Y	100-240	100-240	mg/24hr			
Chloride, 24hr Urine	Up to 200Y	110-250	110-250	mmol/24hr			S
Creatinine, UR random	Up to 200Y	20-300	20-300	mg/dL			S,R,H
Creatinine, UR 24 hr	Up to 200Y	600-1600	800-1800	mg/24hr			
Microalbumin, random	Up to 200Y	0.0-29.9	0.0-29.9	ratio			R,H
Microalbumin, 24hr	Up to 200Y	<30	<30	mg/24hr			
Microalbumin/Creatinine Ratio	Up to 200Y	0-29.9	0-29.9	mg MA/g C			S
pH, UR	Up to 200Y	4.6-8	4.6-8	pH			S,R
Protein, UR random	Up to 200Y	0-11	0-11	mg/dL			S,R,H
Protein, UR 24hr	Up to 200Y	0-149	0-149	mg/24hr			
Sodium, 24hr Urine	Up to 200Y	40-220	40-220	mmol/24hr			S
Urate, 24hr Urine	Up to 200Y	250-750	250-750	mg/24hr			S