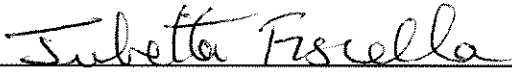
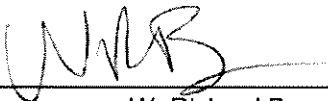




Document Title: Standard Reference Ranges and Alert Values

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

Revised By:	Date Revised	Effective (adopted) Date:
Lisa Musial	1/21/2020	



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REVISION HISTORY

Procedure #	Revision Date	Reason for Revision
UR.CP.CS.pti.0004.0002	12-8-17	<p>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.</p>
UR.CP.CS.pti.0004.0003	2-26-19	<p>Updated list of medical directors, removed Fetten and added Paczos and Ou. Updated Reference Ranges for: PT, INR, troponin hs, MCH, MCHC, and IG # for hematology, therapeutic, factor VIII von willebrand activity, factor X chromogenic, activated protein C resistance, thrombin time, RBC and WBC for macroscopic urines, Oval fat for Urine with microscopic, added csf/misc fluid reference ranges.</p>
UR.CP.CS.pti.0004.0004	1/21/2016	<p>Updated medical directors, removed Dr. Blumberg, added Dr. Turner and Dr. Muchnik. Updated testing locations appropriately for Bailey Rd (Y). Updated Reference Ranges for % band neutrophils, UA glucose, added Factor XIII, activated protein C resistance, Ammonia units, AST units, CK and CR ranges, glucose, HBA1C, and magnesium. Removed Other Body Fluids (synovial/pleural) from SOP per Mary Johnson.</p>



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(H) Highland Hospital - 990 South Ave. Rochester, NY 14620

(B) Strong West - 156 West Ave. Brockport, NY 14420

(R) Ridgeland Road - 77 Ridgeland Rd. Henrietta, NY 14623

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, Y, H, B
Alk Phos	0 - 5D	110 - 300	110 - 300	U/L			S, Y, 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			Y
ALT (SGPT)	Up to 200Y	0 - 35	0 - 50	U/L			S, Y, H, B
Ammonia	Up to 200Y	10 - 47	10 - 47	umol/L			S, H, B
Amylase	Up to 200Y	28 - 100	28 - 100	U/L			S, Y, H, B
Anion Gap	Up to 200Y	7 - 16	7 - 16				S, Y
AST(SGOT)	Up to 200Y	0 - 35	0 - 50	U/L			S, Y, H, B
C3	Up to 200Y	90 - 180	90 - 180	mg/dL			Y
C4	Up to 200Y	10 - 40	10 - 40	mg/dL			Y
Calcium	0 - 11Y	9.0 - 10.8	9.0 - 10.8	mg/dL	6.5	13.0	S, Y, 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, Y, H, B
Cholesterol	Desirable	< 200	< 200	mg/dL			S, Y, 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, Y, H, B
Creatine Kinase	Up to 200Y	26 - 192	39 - 308	U/L			S, Y, H, B
Creatinine	0D - 4D	0.30 - 1.00	0.30 - 1.00	mg/dL			S, Y, H, B
	4D - 12Y	0.20 - 0.70	0.20 - 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, Y, H
CRP, High Sensitivity	Up to 200Y						S, Y, B
	Low Risk	< 1	< 1	mg/L			
	Average Risk	1 - 3	1 - 3	mg/L			
	High Risk	> 3	> 3	mg/L			
Direct Bilirubin	0D - 6D	0 - 0.6	0 - 0.6	mg/dL			S, Y, H, B
	≥ 6D	0 - 0.3	0 - 0.3	mg/dL			
Ferritin	Up to 200Y	10 - 120	20 - 250	ng/mL			S, Y, H
Folate	Up to 200Y	≥ 4.6	≥ 4.6	ng/mL			Y, H
GGT	Up to 200Y	5 - 36	8 - 61	U/L			S, Y, H, B
Glucose (Serum or Plasma)	0D	36 - 110	36 - 110	mg/dL	25	200	S, Y, H, B
	1D - 7D	47 - 117	47 - 117	mg/dL	40	200	
	≥ 7D	60 - 99	60 - 99	mg/dL	50	500	
HDL	Low	< 40	< 40	mg/dL			S, Y, H
	High	> 60	> 60	mg/dL			
HGB A1C	Up to 200Y	≥ 5.6	≥ 5.6	%			Y
Homocysteine	Up to 200Y	0 - 15	0 - 15	umol/L			Y
Indirect Bilirubin	Up to 200Y	0.1 - 1.0	0.1 - 1.0	mg/dL			S, Y, H, B
Insulin	Up to 200Y	3 - 25	3 - 25	uIU/mL			Y
Iron	Up to 200Y	34 - 165	45 - 170	ug/dL			S, Y, H, B
LDH	Up to 200Y	118 - 225	118 - 225	U/L			S, Y, H
LDL (Calculated and Direct)	Optimal	< 100	< 100	mg/dL			S, Y, 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, Y, H, B
Magnesium	Up to 200Y	1.6 - 2.5	1.6 - 2.5	mg/dL	1.0	4.8	S, Y, H, B
NT-Pro BNP	0 - 49Y	0 - 450	0 - 450	pg/mL			S, Y, 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, Y, 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, Y, 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, Y, H, B
TIBC	Up to 200Y	250 - 450	250 - 450	ug/dL			S, Y, H
Total Bilirubin	0D - 1D	2.0 - 6.0	2.0 - 6.0	mg/dL		15	S, Y, 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			
Total Protein	Up to 200Y	6.3 - 7.7	6.3 - 7.7	g/dL			S, Y, H, B
Transferrin	Up to 200Y	200 - 360	200 - 360	mg/dL			Y
Transferrin Saturation	Up to 200Y	15 - 50	20 - 55	%			S, Y
Triglycerides	Normal	< 150	< 150	mg/dL			S, Y, H
	Borderline High	150 - 199	150 - 199	mg/dL			
	High	200 - 499	200 - 499	mg/dL			
	Very High	> 500	> 500	mg/dL			
Troponin, High Sensitivity	Up to 200Y	0 - 13	0 - 21	ng/L		Females: ≥ 70 ng/L - Consistent with Myocardial injury Males: ≥ 110 ng/L - Consistent with Myocardial injury	S, H, B
Urate	Up to 200Y	2.7 - 6.8	3.9 - 9.0	mg/dL			S, Y, H, B
Urea Nitrogen	Up to 200Y	6 - 20	6 - 20	mg/dL			S, Y, H, B
Vitamin B12	Up to 200Y	232 - 1245	232 - 1245	pg/mL			S, Y

Endocrinology

Test	Age	Female Range	Male Range	Units	Panic LO	Panic HI	Testing Location
Estradiol	Tanner Stage 1	5 - 20		pg/mL			S, Y
	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, Y, 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, Y, 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, Y, 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			Y
	> 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, Y, 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, Y, 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, Y, 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, Y
	Up to 200Y		4.0 - 15.2	ng/mL			
Dehydroepiandrosterone Sulfate	Tanner Stage 1	21 - 82	15 - 108	ug/dL			Y
	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, Y, 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			Y, H
Microalbumin, 24hr	Up to 200Y	0.0 - 21.0	0.0 - 21.0	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, Y
Protein, UR random	Up to 200Y	0 - 11	0 - 11	mg/dL			S, Y, 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



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 (P) Red Creek Lab - 400 Red Creek Dr, Rochester, NY 14623
 (R) Ridgeland Road - 77 Ridgeland Rd, 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 ⁷ / μ L	S, Y, H, B, P
	4D - 15D	5.0 - 21.0	5.0 - 21.0	THOU/ μ L		150X10 ⁷ / μ L	
	15D - 29D	5.0 - 20.0	5.0 - 20.0	THOU/ μ L		150X10 ⁷ / μ L	
	29D - 2 M	5.0 - 19.5	5.0 - 19.5	THOU/ μ L		150X10 ⁷ / μ L	
	2M - 6M	6.0 - 17.5	6.0 - 17.5	THOU/ μ L		150X10 ⁷ / μ L	
	6M - 2Y	6.0 - 17.0	6.0 - 17.0	THOU/ μ L		150X10 ⁷ / μ L	
	2Y - 6Y	5.0 - 17.0	5.0 - 17.0	THOU/ μ L		150X10 ⁷ / μ L	
	6Y - 12Y	4.8 - 14.5	4.8 - 14.5	THOU/ μ L		150X10 ⁷ / μ L	
\geq 12Y	4.0 - 10.0	4.2 - 9.1	THOU/ μ L		150X10 ⁷ / μ L		
RBC	0 - 4D	4.0 - 6.6	4.0 - 6.6	MIL/ μ L			S, Y, 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				
\geq 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, Y, 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				
\geq 12Y	11.2 - 15.7	13.7 - 17.5	g/dL				
Hematocrit (includes spun HCT)	0 - 4D	45 - 67	45 - 67	%	19		S, Y, 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			
\geq 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	0 - 4D	31 - 37	31 - 37	pg			S, Y, H, B, P
	4D - 8D	28 - 40	28 - 40	pg			
	8D - 15D	30 - 37	30 - 37	pg			
	15D - 29D	29 - 36	29 - 36	pg			
	29D - 2M	27 - 34	27 - 34	pg			
	2M - 4M	25 - 32	25 - 32	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	0 - 4D	29 - 37	29 - 37	g/dL			S, Y, H, B, P
	4D - 8D	28 - 38	28 - 38	g/dL			
	8D - 2M	28 - 36	28 - 36	g/dL			
	2M - 4M	29 - 37	29 - 37	g/dL			
	4M - 6M	32 - 37	32 - 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, Y, 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, Y, H, B, P
Platelet	ALL	160 - 370	150 - 330	THOU/ μ L	19		S, Y, 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	%		16	S, Y, H, B
	≥ 1 D	0 - 10.0	0 - 10.0	%		11	
NEUTROPHIL #	0 - 4D	6.0 - 26.0	6.0 - 26.0	THOU/μL			S, Y, H, B
	4D - 15D	1.5 - 10.0	1.5 - 10.0	THOU/μL			
	15D - 29D	1.0 - 9.0	1.0 - 9.0	THOU/μL			
	29D - 6M	1.0 - 8.5	1.0 - 8.5	THOU/μL			
	6M - 2Y	1.5 - 8.5	1.5 - 8.5	THOU/μL			
	2Y - 12Y	1.5 - 8.0	1.5 - 8.0	THOU/μL			
	≥ 12Y	1.6 - 6.1	1.8 - 5.4	THOU/μL			
LYMPHOCYTE #	0 - 4D	2.0 - 11.0	2.0 - 11.0	THOU/μL			S, Y, H, B
	4D - 15D	2.0 - 17.0	2.0 - 17.0	THOU/μL			
	15D - 29D	2.5 - 16.5	2.5 - 16.5	THOU/μL			
	29D - 6M	4.0 - 13.5	4.0 - 13.5	THOU/μL			
	6M - 2Y	3.0 - 9.5	3.0 - 9.5	THOU/μL			
	2Y - 6Y	2.0 - 8.0	2.0 - 8.0	THOU/μL			
	6Y - 12Y	1.5 - 7.0	1.5 - 7.0	THOU/μL			
≥ 12Y	1.2 - 3.7	1.3 - 3.6	THOU/μL				
MONOCYTE #	0 - 4D	0.4 - 3.0	0.4 - 3.0	THOU/μL			S, Y, H, B
	4D - 15D	0.3 - 2.7	0.3 - 2.7	THOU/μL			
	15D - 29D	0.2 - 2.5	0.2 - 2.5	THOU/μL			
	29D - 6M	0.2 - 2.4	0.2 - 2.4	THOU/μL			
	6M - 2Y	0 - 1.1	0 - 1.1	THOU/μL			
	≥ 2Y	0.2 - 0.9	0.3 - 0.8	THOU/μL			
EOSINOPHIL #	ALL	0.0 - 0.4	0.0 - 0.5	THOU/μL			S, Y, H, B, P
BASOPHIL #	ALL	0.0 - 0.1	0.0 - 0.1	THOU/μL			S, Y, H, B, P
IG #	< 17Y	0.0 - 0.1	0.0 - 0.1	THOU/μL			S, Y, H
	≥ 17Y	0.0 - 0.0	0.0 - 0.0	THOU/μL			S, Y, H
% METAMYELOCYTES	ALL	0 - 1.0	0 - 1.0	%			S, Y, H, B, P
% MYELOCYTES	ALL	0 - 0	0 - 0	%			S, Y, H, B, P
% PROMYELOCYTES	ALL	0 - 0	0 - 0	%			S, Y, H, B, P
% BLASTS	ALL	0 - 0	0 - 0	%			S, Y, H, B, P
% REACTIVE LYMPHS	ALL	0 - 6.0	0 - 6.0	%			S, Y, H, B, P
NUCLEATED RBC	0 - 3D	0 - 5.0	0 - 5.0	per 100 WBC			S, Y, H, B, P
	4D - 7D	0 - 1.0	0 - 1.0	per 100 WBC			
	> 7D	0.0 - 0.2	0.0 - 0.2	per 100 WBC			
NUCLEATED RBC #	ALL	0.0 - 0.0	0.0 - 0.0	THOU/μL			S, Y, 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, Y, 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, Y, 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, Y, 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	Normal	Normal	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	-			

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					
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	/lpf			
HYALINE CASTS, UR	ALL	0 - 2	0 - 2	/lpf			
MISC. CASTS, UR	ALL	None	None	/lpf			
WAXY CASTS, UR	ALL	None	None	/lpf			
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			
OVAL FAT (BODIES, FREE OVAL FAT)	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, Y, H, B
INR**	ALL	0.9 - 1.1	0.9 - 1.1	ratio		> 5.0	S, Y, H, B
THERAPEUTIC	ALL	2.0 - 3.0	2.0 - 3.0	ratio			
PTT	ALL	25.8 - 37.9	25.8 - 37.9	seconds			S, Y, 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 VIII VONWILLEBRAND ACTIVITY (RCO)	ALL	37 - 174	37 - 174	% activity			S
FACTOR IX	ALL	92 - 161	92 - 161	% activity			S
FACTOR X	ALL	78 - 147	78 - 147	% activity			S
FACTOR X CHROMOGENIC	ALL	72 - 148	72 - 148	% activity			S
FACTOR XI	ALL	69 - 154	69 - 154	% activity			S
FACTOR XII	ALL	57 - 163	57 - 163	% activity			S
FACTOR XIII	ALL	75 - 155	75 - 155	% 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	µg/mL FEU			S, H, B
ACTIVATED PROTEIN C RESISTANCE	ALL	> 2.1	> 2.1	-			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	13.0 - 17.7	13.0 - 17.7	seconds			S
EUGLOBULIN LYSIS	ALL	> 120	> 120	minutes			S

CSF/Misc Fluid Testing

Test	Age from ---> up to but NOT including	Female Range	Male Range	Units	Panic LO	Panic HI	Testing Location
CSF TESTING							
CSF RBC	0 - 30D	0 - 50	0 - 50	/uL			S, H
	> 30D	0 - 5	0 - 5	/uL			
CSF NUCLEATED CELLS	0D - 30D	0 - 27	0 - 27	/uL			S, H
	1M - 16Y	0 - 7	0 - 7	/uL			
	> 16Y	0 - 5	0 - 5	/uL			
CSF DIFFERENTIAL							
NEUTROPHIL, CSF%	0D - 30D	0 - 8	0 - 8	%			S, H
	> 30D	0 - 2	0 - 2	%			
LYMPHOCYTE, CSF%	0D - 30D	2 - 38	2 - 38	%			S, H
	> 30D	63 - 99	63 - 99	%			
MONOCYTES, CSF%	0D - 30D	50 - 94	50 - 94	%			S, H
	> 30D	3 - 37	3 - 37	%			
MACROPHAGES, CSF%	0D - 30D	1 - 9	1 - 9	%			S, H
	> 30D	0 - 1	0 - 1	%			

Thromboelastograph (TEG) Testing

Test	Age from --> up to but NOT including	Female Range	Male Range	Units	Panic LO	Panic HI	Testing Location
Thromboelastograph (TEG)							
R-TIME	ALL	4 - 10	4 - 10	MINUTES		> 12	5
K-TIME	ALL	1 - 3	1 - 3	MINUTES			5
ANGLE	ALL	53 - 73	53 - 73	DEGREES	< 40		5
MAXIMUM AMPLITUDE (MA)	ALL	50 - 72	50 - 72	MILLIMETERS	< 40		5
LY30	ALL	0.0 - 8.0	0.0 - 8.0	%		> 10	5