




UR.818 Standard Reference Ranges and Alert Values

Copy of version 4.0 (approved and current)

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Approval and Periodic Review Signatures

Type	Description	Date	Version	Performed By	Notes
Approval	Director of Operations	03-Oct-2024	4.0		
				Nathan Loria	
Approval	New Lab Director Approval	26-Sep-2024	4.0		
				Xiaolan Ou M.D., Ph.D.	
Approval	New Lab Director Approval	16-Sep-2024	4.0		
				Jim Lee M.D.	

Signatures from prior revisions are not listed.

Version History

Version	Status	Type	Date Added	Date Effective	Date Retired
4.0	Approved and Current	Major revision	06-Jun-2024	17-Oct-2024	Indefinite



- (B) Strong West - 156 West Ave. Brockport, NY 14420
- (F) FF Thompson Hospital - 350 Parrish St, Canandaigua, NY 14424
- (I) Highland Hospital - 990 South Ave. Rochester, NY 14620
- (J) Jones Memorial Hospital - 191 N Main St., Wellsville, NY 14895
- (K) Nicholas H. Noyes Hospital - 111 Clara Barton St., Dansville, NY 14437
- (M) St. James Hospital - 7329 Seneca Rd N., Hornell, NY 14843
- (P) Red Creek - 125 Red Creek Dr, Rochester, NY 14623
- (S) Strong Memorial Hospital - 601 Elmwood Ave. Rochester, NY 14642
- (Y) Central Laboratory - 211 Bailey Rd. West Henrietta, NY 14586

Chemistry Reference Ranges*

Test	Age	Female Range	Male Range	Units	Panic LO	Panic HI
Albumin (Serum or Plasma)	Up to 200Y	3.5 - 5.2	3.5 - 5.2	g/dL		
Alkaline Phosphatase (Serum or Plasma)	0 - 5D	110 - 300	110 - 300	U/L		
	6D - 3Y	145 - 320	145 - 320	U/L		
	4Y - 6Y	150 - 380	150 - 380	U/L		
	7Y - 9Y	175 - 420	175 - 420	U/L		
	10Y - 11Y	130 - 560	135 - 530	U/L		
	12Y - 13Y	105 - 420	200 - 495	U/L		
	14Y - 15Y	70 - 230	130 - 525	U/L		
	16Y - 19Y	50 - 130	65 - 260	U/L		
≥ 20Y	35 - 105	40 - 130	U/L			
Alpha 1 Antitrypsin (AAT) (Serum)	Up to 200Y	90 - 200	90 - 200	mg/dL		
ALT (SGPT) (Serum or Plasma)	Up to 200Y	0 - 35	0 - 50	U/L		
Ammonia (Plasma)	Up to 200Y	10 - 47	10 - 47	umol/L		
Amylase (Serum)	Up to 200Y	28 - 100	28 - 100	U/L		
Anion Gap	Up to 200Y	7 - 16	7 - 16			
AST(SGOT) (Serum or Plasma)	Up to 200Y	0 - 35	0 - 50	U/L		
C3 (Serum)	Up to 200Y	90 - 180	90 - 180	mg/dL		
C4 (Serum)	Up to 200Y	10 - 40	10 - 40	mg/dL		
Calcium (Serum or Plasma)	0 - 10Y	9.0 - 10.8	9.0 - 10.8	mg/dL	≤ 6.5	≥ 13.0
	11Y - 24Y	9.0 - 10.4	9.3 - 10.5	mg/dL	≤ 6.5	≥ 13.0
	25Y - 44Y	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 (Serum or Plasma)	Up to 200Y	96 - 108	96 - 108	mmol/L	≤ 80	≥ 120

Test	Age	Female Range	Male Range	Units	Panic LO	Panic HI
Cholesterol (Serum)	Desirable	< 200	< 200	mg/dL		
	Borderline High	200 - 239	200 - 239	mg/dL		
	High	> 240	> 240	mg/dL		
CO2 (Serum or Plasma)	Up to 200Y	20 - 28	20 - 28	mmol/L	≤ 10	≥ 40
Creatine Kinase (Serum)	Up to 200Y	26 - 192	39 - 308	U/L		
Creatinine (Serum or Plasma)	0D - 4D	0.30 - 1.00	0.30 - 1.00	mg/dL		
	5D - 11Y	0.20 - 0.70	0.20 - 0.70	mg/dL		
	12Y - 20Y	0.50 - 1.00	0.50 - 1.00	mg/dL		
	≥ 21Y	0.51 - 0.95	0.67 - 1.17	mg/dL		
Creatinine Clearance	Up to 200Y	87 - 107	107 - 139	mL/min		
CRP (Serum or Plasma)	Up to 200Y	0 - 8	0 - 8	mg/L		
CRP, High Sensitivity (Serum)	Up to 200Y					
	Low Risk	< 1	< 1	mg/L		
	Average Risk	1 - 3	1 - 3	mg/L		
	High Risk	> 3	> 3	mg/L		
Direct Bilirubin (Serum or Plasma)	0D - 6D	0 - 0.6	0 - 0.6	mg/dL		
	≥ 7D	0 - 0.3	0 - 0.3	mg/dL		
Ferritin (Serum)	Up to 200Y	10 - 120	20 - 250	ng/mL		
Folate (Serum)	Up to 200Y	≥ 4.6	≥ 4.6	ng/mL		
GGT (Serum)	Up to 200Y	5 - 36	8 - 61	U/L		
Glucose (Serum or Plasma)	0 - 1D	36 - 110	36 - 110	mg/dL	≤ 25	≥ 325
	2D-7D	47 - 117	47 - 117	mg/dL	≤ 40	≥ 325
	≥ 8D	60 - 99	60 - 99	mg/dL	≤ 50	≥ 500
HDL (Serum)	Low	< 40	< 40	mg/dL		
	High	> 60	> 60	mg/dL		
HGB A1C (EDTA)	Up to 200Y	≤ 5.6	≤ 5.6	%		
Homocysteine (EDTA on ice)	Up to 200Y	0 - 15	0 - 15	umol/L		
Indirect Bilirubin (Serum or Plasma)	Up to 200Y	0.1 - 1.0	0.1 - 1.0	mg/dL		
Insulin (Serum)	Up to 200Y	3 - 25	3 - 25	uIU/mL		
Iron (Serum)	Up to 200Y	34 - 165	45 - 170	ug/dL		

Test	Age	Female Range	Male Range	Units	Panic LO	Panic HI
Lactate Dehydrogenase (LDH,LD)(Serum or Plasma)	Up to 200Y	118 - 225	118 - 225	U/L		
	Optimal	< 100	< 100	mg/dL		

LDL (Calculated and Direct) (Serum)	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 (Serum)	Up to 200Y	13 - 60	13 - 60	U/L		
Magnesium (Serum or Plasma)	Up to 200Y	1.6 - 2.5	1.6 - 2.5	mg/dL	≤ 1.0	≥ 4.8
NT-Pro BNP (Serum)	0 - 49Y	0 - 450	0 - 450	pg/mL		
	50 - 75Y	0 - 900	0 - 900	pg/mL		
	≥ 76Y	0 - 1800	0 - 1800	pg/mL		
Phosphorus (Serum or Plasma)	0D - 1D	4.2 - 8.5	4.2 - 8.5	mg/dL	≤ 1.1	≥ 9.0
	2D - 12Y	4.0 - 6.5	4.0 - 6.5	mg/dL	≤ 1.1	≥ 9.0
	≥ 13Y	2.7 - 4.5	2.7 - 4.5	mg/dL	≤ 1.1	≥ 9.0
Potassium (plasma)	0-7D	3.2 - 5.5	3.2 - 5.5	mmol/L	≤ 2.8	≥ 7.0
	8D-1M	3.4 - 6.0	3.4 - 6.0	mmol/L	≤ 2.8	≥ 7.0
	2M-5M	3.5 - 5.6	3.5 - 5.6	mmol/L	≤ 2.8	≥ 7.0
	6M-1Y	3.5 - 6.1	3.5 - 6.1	mmol/L	≤ 2.8	≥ 7.0
	≥2Y	3.3 - 4.6	3.3 - 4.6	mmol/L	≤ 2.8	≥ 6.2
Potassium (serum)	0D-3M	4.0-6.4	4.0-6.4	mmol/L	≤ 2.8	≥ 7.0
	4M-1Y	3.7-5.6	3.7-5.6	mmol/L	≤ 2.8	≥ 6.2
	2Y-16Y	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 (Serum)	Up to 200Y	20 - 40	20 - 40	mg/dL		
Sodium (Serum, Plasma)	Up to 200Y	133 - 145	133 - 145	mmol/L	≤ 120	≥ 160
TIBC (Serum-calc)	Up to 200Y	250 - 450	250 - 450	ug/dL		
Total Bilirubin (Serum, Plasma)	0D-1D	2.0 - 6.0	2.0 - 6.0	mg/dL		≥ 15
	2D	6.0 - 7.0	6.0 - 7.0	mg/dL		≥ 15
	3D	4.0 - 12.0	4.0 - 12.0	mg/dL		≥ 15
	4D-7D	0.0 - 1.4	0.0 - 1.4	mg/dL		≥ 15
	≥ 8D	0.0 - 1.2	0.0 - 1.2	mg/dL		
Total Protein (Serum, Plasma)	Up to 200Y	6.3 - 7.7	6.3 - 7.7	g/dL		
Transferrin (Serum)	Up to 200Y	200 - 360	200 - 360	mg/dL		
Transferrin Saturation %	Up to 200Y	15 - 50	20 - 55	%		
Triglycerides (Serum, Plasma)	Normal	< 150	< 150	mg/dL		
	Borderline High	150 - 199	150 - 199	mg/dL		
	High	200 - 499	200 - 499	mg/dL		
	Very High	> 500	> 500	mg/dL		
Troponin-T, High Sensitivity (Plasma) - zero & 1 hour	Up to 200Y	0 - 11	0 - 11	ng/L		52 ng/L
Troponin-T, High Sensitivity (Plasma) - three hour & random	Up to 200Y	0-14	0-14	ng/L		52 ng/L
Urate (Serum)	Up to 200Y	2.7 - 6.8	3.9 - 9.0	mg/dL		

Urea Nitrogen (Serum, Plasma)	Up to 200Y	6 - 20	6 - 20	mg/dL		
Vitamin B12 (Serum)	Up to 200Y	232 - 1245	232 - 1245	pg/mL		

Endocrinology

Test	Age	Female Range	Male Range	Units	Panic LO	Panic HI
Estradiol (Serum)	Tanner Stage 1	< 26	< 26	pg/mL		
	Tanner Stage 2	< 26	< 26	pg/mL		
	Tanner Stage 3	< 61	< 27	pg/mL		
	Tanner Stage 4	< 86	< 26 - 36	pg/mL		
	Tanner Stage 5	34 - 170	< 26 - 36	pg/mL		
	Follicular Phase	25 - 166	N/A	pg/mL		
	Ovulation Phase	86 - 498	N/A	pg/mL		
	Luteal Phase	44 - 211	N/A	pg/mL		
	Post Menopausal	< 55	N/A	pg/mL		
	Pregnancy 1st trimester	> 214	N/A	pg/mL		
	Children (1-10 years)	0 - 26	0 - 25	pg/mL		
	Up to 200Y	NA	< 43	pg/mL		
Test	Age	Female Range	Male Range	Units	Panic LO	Panic HI
T4, Free (Serum)	0-1Y	1.1-2.0	1.1-2.0	ng/dL		
	>1Y	0.9-1.7	0.9-1.7	ng/dL		
Free T3 (Serum)	0-30 Day	2.0	5.2	pg/mL		
	1 Month -12 Month	1.5	6.4	pg/mL		
	1Y-7Y	2.0	6.0	pg/mL		
	8Y-12Y	2.7	5.2	pg/mL		
	13Y-20Y	2.3	5.0	pg/mL		
	>20Y	2.0	4.4	pg/mL		
T3 (Serum)	Up to 200Y	80	200	ng/dL		
T4 (Serum)	0 - 1Y	9.7 - 19.1	9.7 - 19.1	microg/dL		
	2Y - 6Y	9.2 - 15.1	9.2 - 15.1	microg/dL		
	7Y - 12Y	7.6 - 13.7	7.6 - 13.7	microg/dL		
	13Y - 17Y	6.4 - 13.4	6.4 - 13.4	microg/dL		
	≥ 18Y	4.6 - 12.0	4.6 - 12.0	microg/dL		
TSH (Serum)	0 - 1Y	1.36 - 8.8	1.36 - 8.8	micro IU/mL		
	2Y - 6Y	0.85 - 6.5	0.85 - 6.5	micro IU/mL		
	7Y - 12Y	0.28 - 4.3	0.28 - 4.3	micro IU/mL		
	≥ 13Y	0.27 - 4.20	0.27 - 4.20	micro IU/mL		
Female non-pregnant, pre-menopause: 0 - 1 mIU/mL						

BHCG (Serum)	Female post menopause: 0 - 7 mIU/mL					
	Male: 0 - 2 mIU/mL					
Pregnancy, Serum	Negative					
Pregnancy, Urine	Negative					
Testosterone (Serum)	20 - 49Y	0-48	249 - 836	ng/dL		
	≥ 50Y	0-41	193 - 740	ng/dL		
	Tanner Stage 1	< 13	< 13	ng/dL		
	Tanner Stage 2	< 13	< 13 - 432	ng/dL		
	Tanner Stage 3	< 13 - 24	65 - 778	ng/dL		
	Tanner Stage 4	< 13 - 27	180 - 763	ng/dL		
	Tanner Stage 5	< 13 - 38	188 - 882	ng/dL		
LH (Serum)	Up to 200Y	see below	1.7 - 8.6	mIU/mL		
	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 (Serum)	Up to 200Y	see below	1.5 - 12.4	mIU/mL		
	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		

Test	Age	Female Range	Male Range	Units	Panic LO	Panic HI
Progesterone (Serum)	Up to 200Y	see below	< 0.1 - 0.1	ng/mL		
	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		
Prolactin (Serum)	Pregnancy 3rd Trimester	58.7 - 214	N/A	ng/mL		
	Non-Pregnant	4.8 - 23.3		ng/mL		
Dehydroepiandrosterone Sulfate (DHEA Sulfate)	Up to 200Y		4.0 - 15.2	ng/mL		
	Tanner Stage 1	21 - 82	15 - 108	ug/dL		
	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		
	0 - 24Y	148 - 407	211 - 492	ug/dL		
	25Y - 34Y	99 - 340	160 - 449	ug/dL		
35Y - 44Y	61 - 337	89 - 427	ug/dL			

(Serum)	45Y - 54Y	35 - 256	44 - 331	ug/dL		
	55Y - 64Y	19 - 205	52 - 295	ug/dL		
	65Y - 74Y	9 - 246	34 - 249	ug/dL		
	≥ 75Y	12 - 154	16 - 123	ug/dL		

Urine Chemistries

Test	Age	Female Range	Male Range	Units	Panic LO	Panic HI
Bilirubin, UR	Up to 200Y	Negative (semiquantitative, < 0.5)		mg/dL		
Urobilinogen, UR	Up to 200Y	Negative (semiquantitative, < 2)		mg/dL		
Calcium, UR 24hr	Low CA Diet:	0 - 150	0 - 150	mg/24hr		
	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		
Test	Age	Female Range	Male Range	Units	Panic LO	Panic HI
Creatinine, UR random	Up to 200Y	20 - 300	20 - 300	mg/dL		
Creatinine, UR 24 hr	Up to 200Y	600 - 1600	800 - 1800	mg/24hr		
Microalbumin, random	Up to 200Y			see ratio		
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		
pH, UR	Up to 200Y	5.0-8.0	5.0-8.0	pH		
Protein, Total, UR random	Up to 200Y	0 - 11	0 - 11	mg/dL		
Protein, Total, UR 24hr	Up to 200Y	0 - 149	0 - 149	mg/24hr		
Sodium, 24hr Urine	Up to 200Y	40 - 220	40 - 220	mmol/24hr		
Urate, 24hr Urine	Up to 200Y	250 - 750	250 - 750	mg/24hr		

*As applicable, refer to each site for site specific test menu



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Hematology

Test	Age	Female Range	Male Range	Units	Panic LO	Panic HI
WBC	0 - 5M	5.0 - 20.0	5.0 - 20.0	THOU/ μ L		150X10 ³ / μ L
	6M - 5Y	4.0 - 15.0	4.0 - 15.0	THOU/ μ L		150X10 ³ / μ L
	> 5Y	3.5 - 11.0	3.5 - 11.0	THOU/ μ L		150X10 ³ / μ L
RBC	0 - 14D	4.0 - 6.5	4.0 - 6.5	MIL/ μ L		
	15D - 5 months	3.0 - 5.5	3.0 - 5.5	MIL/ μ L		
	6M - 5Y	3.5 - 5.5	3.5 - 5.5	MIL/ μ L		
	6Y - 12Y	4.0 - 5.5	4.0 - 5.5	MIL/ μ L		
	> 12Y	4.0 - 5.5	4.0 - 6.0	MIL/ μ L		
Hemoglobin	0 - 14D	12.0 - 22.5	12.0 - 22.5	g/dL		
	15D - 5M	9.0 - 15.0	9.0 - 15.0	g/dL		
	6M - 5Y	10.0 - 15.0	10.0 - 15.0	g/dL		
	6Y - 12Y	11.2 - 16.0	11.2 - 16.0	g/dL		
	> 12Y	11.2 - 16.0	12.0 - 17.0	g/dL		
Hematocrit (includes spun HCT)	0 - 14D	37 - 67	37 - 67	%	19	
	15D - 5M	27 - 45	27 - 45	%	19	
	6M - 5Y	30 - 45	30 - 45	%	19	
	6Y - 12Y	34 - 49	34 - 49	%	19	
	> 12Y	34 - 49	37 - 52	%	19	
MCH	0 - 4D	31 - 37	31 - 37	pg		
	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		
	\geq 12Y	26 - 32	26 - 32	pg		
	0 - 4D	29 - 37	29 - 37	g/dL		
	4D - 8D	28 - 38	28 - 38	g/dL		

MCHC	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 - 14D	90 - 120	90 - 120	fL		
	15D - 5M	80 - 120	80 - 120	fL		
	6M - 5Y	70 - 100	70 - 100	fL		
	> 5Y	75 - 100	75 - 100	fL		
RDW	ALL	0 - 15	0 - 15	%		
Platelet	ALL	150 - 450	150 - 450	THOU/μL	19	

Diff Test

Test	Age	Female Range	Male Range	Units	Panic LO	Panic HI
% BAND NEUTROPHILS	0 - 1 D	0 - 15.0	0 - 15	%		16
	≥ 1 D	0 - 10.0	0 - 10.0	%		11
NEUTROPHIL #	0 - 14D	1.5 - 25.0	1.5 - 25.0	THOU/μL		
	15D - 5Y	1.5 - 10.0	1.5 - 10.0	THOU/μL		
	6Y - 12Y	1.5 - 8.0	1.5 - 8.0	THOU/μL		
	> 12Y	1.5 - 6.5	1.5 - 6.5	THOU/μL		
LYMPHOCYTE #	0 - 6M	2.0 - 15.0	2.0 - 15.0	THOU/μL		
	6M - 5Y	2.0 - 10.0	2.0 - 10.0	THOU/μL		
	6Y - 12Y	1.5 - 10.0	1.5 - 10.0	THOU/μL		
	> 12Y	1.0 - 5.0	1.0 - 5.0	THOU/μL		
MONOCYTE #	ALL	0.1 - 1.0	0.1 - 1.0	THOU/μL		
EOSINOPHIL #	0 - 5Y	0.0 - 1.0	0.0 - 1.0	THOU/μL		
	> 5Y	0.0 - 0.5	0.0 - 0.5	THOU/μL		
BASOPHIL #	ALL	0.0 - 0.2	0.0 - 0.2	THOU/μL		
IG #	< 17Y	0.0 - 0.1	0.0 - 0.1	THOU/μL		
	≥ 17Y	0.0 - 0.0	0.0 - 0.0	THOU/μL		
% METAMYELOCYTES	ALL	0 - 1.0	0 - 1.0	%		
% MYELOCYTES	ALL	0 - 0	0 - 0	%		
% PROMYELOCYTES	ALL	0 - 0	0 - 0	%		
% BLASTS	ALL	0 - 0	0 - 0	%		
% REACTIVE LYMPHS	ALL	0 - 6.0	0 - 6.0	%		
NUCLEATED RBC	0 - 3D	0 - 5.0	0 - 5.0	per 100 WBC		
	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		

Test	Age (from --> up to, NOT including)	Female Range	Male Range	Units	Panic LO	Panic HI
% RETICULOCYTE	0 - 3D	3.5 - 5.4	3.5 - 5.4	%		
	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		
	4 - 30D	51.3 - 110.4	51.3 - 110.4	THOU/mL		
	31 - 60D	51.8 - 77.9	51.8 - 77.9	THOU/mL		
	61D - 6M	48.2 - 88.2	48.2 - 88.2	THOU/mL		
	7M - 3Y	43.5 - 111.1	43.5 - 111.1	THOU/mL		
	4Y - 7Y	36.4 - 68.0	36.4 - 68.0	THOU/mL		
	8Y - 13Y	42.4 - 70.2	42.4 - 70.2	THOU/mL		
	14Y - 19Y	41.6 - 65.1	41.6 - 65.1	THOU/mL		
	> 19	29.9 - 90.9	33.8 - 124.0	THOU/mL		
ERYTHROCYTE SEDIMENTATION RATE	0 - 49	0 - 20	0 - 15	mm/hr		
	≥ 50	0 - 30	0 - 20	mm/hr		

Urinalysis

Test	Age (from --> up to, NOT including)	Female Range	Male Range	Units	Panic LO	Panic HI
COLOR	ALL	Yel, Dark Yel	Yel, Dark Yel	-		
APPEARANCE	ALL	Clear	Clear	-		
GLUCOSE	ALL	Negative	Negative			
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			
NITRITES	ALL	Negative	Negative	-		
LEUKOCYTE ESTERASE	ALL	Negative	Negative	-		

Urinalysis with Microscopic

Test	Age (from --> up to, NOT including)	Female Range	Male Range	Units	Panic LO	Panic HI
BACTERIA, UR	ALL	None Seen - 1+	None Seen - 1+			
MUCUS, UR	ALL	Not Present	Not Present			
RENAL EPITH, UR	ALL	None	None	/hpf		
SQUAMOUS EPITH, UR	ALL	None Seen - 1+	None Seen - 1+			
TRANS EPITH, UR	ALL	0 - 1+	0 - 1+			
TRICOMONAS, UR	ALL	Not Present	Not Present	/hpf		
RBC, UR	ALL	0 - 2	0 - 2	/hpf		
WBC, UR	ALL	0 - 5	0 - 5	/hpf		
YEAST, UR	ALL	Not Present	Not Present	/hpf		
GRANULAR CASTS, UR	ALL	None seen	None seen	/lpf		
HYALINE CASTS, UR	ALL	0 - 5	0 - 5	/lpf		
MISC. CASTS, UR	ALL	None seen	None seen	/lpf		
WAXY CASTS, UR	ALL	None seen	None seen	/1pf		
AMORPHOUS CRYSTALS, UR	ALL	None seen	None seen	/hpf		
CA OXALATE CRYSTALS, UR	ALL	None seen	None seen	/hpf		
CYSTEINE CRYSTALS, UR	ALL	None seen	None seen	/hpf		
LEUCINE CRYSTALS, UR	ALL	None seen	None seen	/hpf		
TYROSINE CRYSTALS, UR	ALL	None seen	None seen	/hpf		
OVAL FAT (BODIES, FREE OVAL FAT)	ALL	None seen	None seen	/hpf		

Coagulation

Test	Age (from --> up to, NOT including)	Female Range	Male Range	Units	Panic LO	Panic HI
PT	ALL	10.0 - 12.9	10.0 - 12.9	seconds		
INR**	ALL	0.9 - 1.1	0.9 - 1.1	ratio		≥ 5.0
<i>THERAPEUTIC</i>	ALL	2.0 - 3.0	2.0 - 3.0	ratio		
PTT	ALL	25.8 - 37.9	25.8 - 37.9	seconds		>200
FIBRINOGEN	ALL	172 - 409	172 - 409	mg/dL		
ANTITHROMBIN III	ALL	81 - 125	81 - 125	%		
D-DIMER	ALL	0 - 0.5	0 - 0.5	µg/mL FEU		
FIBRIN SPLIT PRODUCTS	ALL	< 5	< 5	microgram/mL		
THROMBIN TIME	ALL	13.0 - 17.7	13.0 - 17.7	seconds		

CSF/ Misc Fluid Testing

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

Thromboelastograph (TEG) Testing

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

*As applicable, refer to each site for site specific test menu