

BVH Reference Ranges

Last Updated:

5/9/2025 S Pavlock

DXC 700 AU Reference Ranges:

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Acetaminophen	DXC 700 AU		Therapeutic	10 - 30	ug/mL	> 150
			Hepatotoxic			
			4 hrs Post Ingestion	> 150	ug/ml	
			8 hrs Post Ingestion	> 75	ug/ml	
			12 hrs Post Ingestion	> 40	ug/ml	
A/G Ratio	Calculation			1.1 - 2.2		
Albumin	DXC 700 AU	Both	0 Day - 2 Days	2.8 - 4.2	g/dL	
		Male	3 Days - 18+ Years	4.2 - 5.5	g/dL	
		Female	3 Days - 18+ Years	3.7 - 5.3	g/dL	
<b>Alcohol (ETOH)</b>				< 10	mg/dL	> 300
Alkaline Phosphatase	DXC 700 AU	Both	0 Days - 2 Years	150 - 420	IU/L	
		Both	3 Years - 10 Years	100 - 320	IU/L	
		Male	10 Years - 18 Years	100 - 390	IU/L	
		Female	10 Years - 18 Years	100 - 320	IU/L	
		Both	18+ Years	34 - 104	IU/L	
ALT (SGPT)	DXC 700 AU	Both		7 - 52	IU/L	
Ammonia	DXC 700 AU	Both	0 - 2 Weeks	< 90	umol/L	> 100
			2+ Weeks - <18 Years	< 50	umol/L	> 100
			18+ Years	18 - 72	umol/L	> 100
Amylase	DXC 700 AU	Both		29 - 103	IU/L	
Anion Gap	DXC 700 AU	Both		4-12	mmol/L	
AST (SGOT)	DXC 700 AU		0 Years - 4 Years	10 - 60	IU/L	
			5 Years - 9 Years	5 - 50	IU/L	
			10+ Years	13 - 39	IU/L	
Beta Hydroxybutyrate	DXC 700 AU			0.0 - 0.3	mmol/L	
BUN	DXC 700 AU	Both		7 - 25	mg/dL	
BUN/Creatinine Ratio	Calculation	Both		15 - 25	Ratio	
Calcium	DXC 700 AU		0-2 days	6.2 - 11.0	mg/dL	< 5.8, > 13.3
			> 2 days	8.6 - 10.3	mg/dl	< 5.8, > 13.3
Cardiac Risk Factor	Calculation	Male		1/2 Average	3.43	
				Average	4.97	
				2X Average	9.55	
		3X Average		23.99		
		Female		1/2 Average	3.27	
				Average	4.44	
2X Average	7.05					
			3X Average	11.04		
Chloride	DXC 700 AU			98 - 107	mmol/L	
Cholesterol	DXC 700 AU	Both	0 - 17 Years	0 - 169 desirable	mg/dL	
				170-199 borderline high	mg/dL	
				>200 high	mg/dL	
				0 - 199 desirable	mg/dL	
				200-239 borderline high	mg/dL	
			>239 high	mg/dL		
CO2 (Carbon Dioxide)	DXC 700 AU			21 - 31	mmol/L	< 10, > 40
CPK	DXC 700 AU	Both		30 - 223	IU/L	
Creatinine	DXC 700 AU	Male		0.7 - 1.3	mg/dl	> 10.0
		Female		0.6 - 1.2	mg/dl	> 10.0
CRP	DXC 700 AU		Interpretive: For normal applications of CRP, 10 - 50 mg/L indicates mild inflammation, 50 - 100 mg/L indicates more severe inflammation and greater than 100 mg/L represents serious processes and frequently indicates the presence of a bacterial infection.	0.0 - 9.9	mg/L	

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CRP (High Sensitivity)	DXC 700 AU		Interpretive:	0.0 - 2.9	mg/dL	
			Recommended Cardiac Risk	Low < 1 mg/L		
			Assessment	Average 1.0-3.0 mg/L	mg/dL	
Digoxin	DXC 700 AU			High >3.0 mg/L	mg/dL	
Phenytoin	DXC 700 AU			0.8 - 2.0	ng/mL	> 2.4
Direct Bilirubin	DXC 700 AU	Both	0 Days - 5 Days	10 - 20	ug/mL	> 30
			6 - Days - 17 Years	0.03 - 0.6	mg/dL	
			18+ years	0.03 - 0.20	mg/dL	
Gentamicin	DXC 700 AU		Peak	5 - 10	ug/mL	> 10
			Trough	< 2	ug/ml	
GGT	DXC 700 AU			9 - 64	IU/L	
Glomerular Filtration Rate	Calculation	Both	> or = 60		ml/min./	
			GFR		1.73 M <sup>2</sup>	
			30 - 59			
			Moderate decrease in GFR			
			15 - 29			
Severe decrease in GFR						
< 15						
Kidney failure or Dialysis						
Chronic kidney disease is defined as either kidney damage or GFR < 60 mL/min/1.73 m <sup>2</sup> for > or = 3 months. Kidney damage is defined as pathologic abnormalities or markers of damage including abnormalities in blood or urine tests or imaging studies. This GFR is NOT used for medication dosing.						
Glucose	DXC 700 AU		0 Hrs - 4 Hrs	41 - 60	mg/dL	< 25, > 250
			4 Hrs - 1 Day	46 - 60	mg/dl	< 35, > 250
			1 Day - 2 Months	51 - 90	mg/dl	< 45, > 250
			2 Months - 16 Yrs	60 - 99	mg/dL	< 54, > 400
			16 year +	70 - 99	mg/dl	< 54, > 400
Haptoglobin	DXC 700 AU			44 - 215	mg/dl	
HDL (Direct)	DXC 700 AU	Both	0 Years - 17 Years	> 45	mg/dl	
		Male	18+ Years	> 40	mg/dl	
		Female	18+ Years	> 50	mg/dl	
IgA	DXC 700 AU		0-5 years	30 - 250	mg/dL	
			6+ years	66 - 433	mg/dl	
IgG	DXC 700 AU		0-5 years	500 - 1550	mg/dL	
			6+ years	635 - 1,741	mg/dl	
IgM	DXC 700 AU			45 - 281	mg/dL	
Indirect Bilirubin	Calculation			0.0 - 1.0	mg/dL	
Ionized Calcium	NOVA		0-1 day	1.08 - 1.28	mmol/L	
			1-2 days	1.00 - 1.18	mmol/L	
			3+ days	1.12 - 1.32	mmil/L	
Iron	DXC 700 AU	Both	0 Days - 5 Days	100 - 250	ug/dL	
		Both	6 Days - 2 Years	40 - 100	ug/dL	
		Both	2 Years - 17 Years	50 - 120	ug/dL	
		Both	18+ Years	50 - 212	ug/dl	
TIBC	Calculation			261 - 478	ug/dL	
% Saturation Fe	Calculation			> 16	%	
Lactic Acid	DXC 700 AU	Both		0.5 - 2.0	mmol/L	> 4.0
Lipase	DXC 700 AU	Both		11 - 82	IU/L	
LDH	DXC 700 AU	Both		140- 271	IU/L	

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LDL (Calculated and Direct)		Both	0 - 17 years	0 - 109 desirable	mg/dL	
				110 - 129 borderline high	mg/dL	
				> = 130 high	mg/dL	
			18 + years	0 - 99 optimal	mg/dL	
				100 - 129 near optimal	mg/dL	
				130 - 159 borderline high	mg/dL	
				160 - 189 high	mg/dL	
> = 190 very high	mg/dL					
Lithium	DXC 700 AU			0.5 - 1.2	mmol/L	> 1.6
Magnesium	DXC 700 AU			1.7 - 2.4	mg/dL	< 1.0, > 4.4
Osmolality, Serum	Osmometer			280 - 295	mosm/kg	
Phenobarbital	DXC 700 AU			15 - 40	ug/mL	> 60
Phosphorus	DXC 700 AU	Both	0 - 9 Days	4.5 - 9.0	mg/dL	< 1.0
			10 Days - 2 Years	4.0 - 6.5	mg/dL	
			3 Years - 10 Years	3.2 - 5.8	mg/dL	
			11 Years - 15 Years	3.3 - 5.4	mg/dL	
			16+ Years	2.5 - 4.6	mg/dL	
Potassium	DXC 700 AU		0 - 7 Days	3.2 - 5.5	mmol/L	< 2.5, > 6.5
			8 Days - 1 Year	3.4 - 6.0	mmol/L	< 2.5, > 6.5
			2+ Years	3.4 - 4.8	mmol/L	< 2.5, > 6.0
Prealbumin	DXC 700 AU			17 - 34	mg/dL	
Rheumatoid Factor	DXC 700 AU			0 - 14	IU/mL	
Salicylate	DXC 700 AU			0 - 30	mg/dL	> 40
Sodium	DXC 700 AU		0 - 1 Year	130- 145	mmol/L	< 120, > 160
			2+ Years	136 - 145		
Carbamazepine	DXC 700 AU			4 - 12	ug/mL	> 20
Total Bilirubin	DXC 700 AU		0 Day - 1 Day	0.3 - 8.0	mg/dL	> 12.0
			1 Day - 2 Days	0.3 - 11.5	mg/dL	
			3 Days - 5 Days	0.3 - 12.0	mg/dL	> 15.0
			5+ Days	0.3 - 1.0	mg/dL	
Total Protein	DXC 700 AU	Both	0 Day - 15 days	4.4 - 7.6	g/dL	
			16 Days - 1 Year	5.1 - 7.3	g/dL	
			1 Year - 2 Years	5.6 - 7.5	g/dL	
			3 Years - 16 Years	6.0 - 8.0	g/dL	
			17+ Years	6.0 - 8.3	g/dL	
Transferrin	DXC 700 AU			203 - 362	mg/dL	
Triglycerides	DXC 700 AU	Both	0 - 17 Years	0 - 89 normal	mg/dL	
				90 - 129 borderline high	mg/dL	
				> = 130 high	mg/dL	
			18+ Years	0 - 149 normal	mg/dL	
				150-199 borderline high	mg/dL	
				200-499 high	mg/dL	
> 499 very high	mg/dL					
Uric Acid	DXC 700 AU	Both	0 - 11 Years	1.0 - 6.6	mg/dl	
		Male	12 Years - 19 Years	3.0 - 7.7	mg/dl	
		Female	12 Years - 19 Years	2.7 - 5.7	mg/dl	
		Male	20+ Years	4.0 - 7.6	mg/dl	
		Female	20+ Years	2.3 - 6.6	mg/dl	
Valproic Acid	DXC 700 AU			50 - 100	ug/mL	> 150
Vancomycin	DXC 700 AU		Peak	20 - 40	ug/mL	> 40
			Random	10 - 15	ug/mL	
			Trough	10 - 15	ug/ml	
VLDL	Calculation			8 - 39	mg/dL	

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**Chemistry Cerebrospinal Fluid Tests**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Glucose, Spinal Fluid	DXC 700 AU	Both		40 - 70	mg/dL	< 25
Protein, Spinal Fluid	DXC 700 AU	Both	0 Days - 29 Days	15 - 130	mg/dL	
			30+ Days	15 - 45	mg/dL	
LDH, Spinal Fluid				Not established		
Lactate, Spinal Fluid			Neonate	1.1 - 6.7	mmol/L	
			3 - 10 Days	1.1 - 4.4	mmol/L	
			> 10 Days - 17 years	1.1 - 2.8	mmol/L	
			18+ years	1.1 - 2.4	mmol/L	
CSF Xanthochromia	Visual	Both		Clear		Xanthochromic

**Chemistry Urine Tests:**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range	
Amylase, Random, Urine	DXC 700 AU	Male		16 - 491	U/L		
		Female		21 - 447	U/L		
Amylase:Creatinine Clearance Ratio	DXC 700 AU			0 - 5	%		
Urea Nitrogen, 24 Hour, Urine	DXC 700 AU			12 - 20	gm/24hr		
Calcium, 24 Hour, Urine	DXC 700 AU			100 - 300	mg/24hr		
Calcium, Random, Urine	DXC 700 AU			None			
Calcium: Creatinine Ratio, Random, Urine	DXC 700 AU		0 to 6 months	<0.8	mg/mg		
			6 to 12 months	<0.6	mg/mg		
			2 years +	<0.2	mg/mg		
Chloride, 24 Hour, Urine	DXC 700 AU			110 - 250	meq/24hr		
Chloride, Random, Urine	DXC 700 AU			None			
Creatinine 24 Hour, Urine	DXC 700 AU	Male		930 - 2955	mg/24hr		
		Female		603 - 1783	mg/24hr		
Creatinine Clearance, 24 Hour, Urine	DXC 700 AU	Male		95 - 145	mL/min		
		Female		70 - 115	mL/min		
Glucose, 24 Hour, Urine	DXC 700 AU			Not Detected	g/24hr		
Magnesium, 24 Hour, Urine	DXC 700 AU			24 - 255	mg/24hr		
Magnesium, Random, Urine	DXC 700 AU			None			
Albumin, 24 Hour, Urine	DXC 700 AU		Calc	<30	mg/24hr		
				30-299 mg/24hr is indicative of Albuminuria			
				Greater than or equal to 300 mg/24hr is indicative of Clinical Albuminuria			
				Ur Albumin Excretion Rate	<20	ug/min	
		20-200 ug/min is indicative of Albuminuria					
		> 200 ug/min is indicative of Clinical Albuminuria					
Albumin:Creatinine Ratio, Random Ur	Calc	Male		<17	mg/g		
		Female		<25			
		17 - 299 mg/g in males is indicative of Albuminuria					
		25 - 299 mg/g in females is indicative of Albuminuria					
		Albuminuria					
Osmolality, Random, Urine	Osmometer			50 - 1200	mosm/kg		
Phosphorous, 24 Hour, Urine	DXC 700 AU			0.3 - 1.3	gm/24hr		
Potassium, 24 Hour, Urine	DXC 700 AU			25 - 125	meq/24hr		
Potassium, Random, Urine	DXC 700 AU			None			
Sodium, 24 Hour, Urine	DXC 700 AU			40 - 220	meq/24hr		
Sodium, Random, Urine	DXC 700 AU			None			
Protein, 24 Hour, Urine	DXC 700 AU			50 - 80	mg/24hr		
Protein, Random, Urine	DXC 700 AU			< 10	mg/dL		
UPCR - Urine Protein:Creatinine Ratio				<0.2 mg/mg	mg/mg		
Uric Acid, 24 Hour, Urine	DXC 700 AU			0.25 - 0.75	gm/24hr		
Uric Acid, Random, Urine	DXC 700 AU			None			

**Glucose Tolerance Test, 2 Hour (Oral WHO Protocol) (75 grams of Glucola)**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Fasting Glucose	DXC 700 AU			70 - 125	mg/dL	< 54, > 400
2 Hour Glucose	DXC 700 AU			70 - 199	mg/dL	< 54, > 400
			The ADA criteria for prediabetes is a fasting plasma glucose of 100-125 mg/dL or 2hr post-glucose sample of 140-199 mg/dL.			

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**Glucose Tolerance Test (75 grams of Glucola)**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Fasting Glucose	DXC 700 AU			70 - 125	mg/dL	< 54, > 400
1 Hour Glucose	DXC 700 AU			70 - 199	mg/dL	< 54, > 400
2 Hour Glucose	DXC 700 AU			70 - 199	mg/dL	< 54, > 400
3 Hour Glucose	DXC 700 AU			70 - 125	mg/dL	< 54, > 400
4 Hour Glucose	DXC 700 AU			70 - 125	mg/dL	< 54, > 400
5 Hour Glucose	DXC 700 AU			70 - 125	mg/dL	< 54, > 400
6 Hour Glucose	DXC 700 AU			70 - 125	mg/dL	< 54, > 400
			The ADA criteria for prediabetes is a fasting plasma glucose of 100-125 mg/dL or 2hr post-glucose sample of 140-199 mg/dL.			

**Gestational Glucose Tolerance, 2 Hour (ADA Recommendations) 75 g Glucola**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Fasting Glucose	DXC 700 AU			70 - 91	mg/dL	< 54, > 400
1 Hour Glucose	DXC 700 AU			70 - 179	mg/dL	< 54, > 399
2 Hour Glucose	DXC 700 AU			70 - 152	mg/dL	< 54, > 400

**Gestational Glucose Tolerance, 3 Hour (ACOG Recommendations) 100 g Glucola**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Fasting Glucose	DXC 700 AU			70 - 94	mg/dL	< 50, > 400
1 Hour Glucose	DXC 700 AU			70 - 179	mg/dL	< 50, > 400
2 Hour Glucose	DXC 700 AU			70 - 154	mg/dL	< 50, > 400
3 Hour Glucose	DXC 700 AU			70 - 139	mg/dL	< 50, > 400

**Gestational Diabetes Screen (ACOG Recommendations) 50 g Glucola**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
1 Hour Glucose	DXC 700 AU			70 - 134	mg/dL	< 54, > 400

**2 Hour Post-Prandial Glucose Test:**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
2 Hour Glucose	DXC 700 AU			70 - 139	mg/dL	< 54, > 400

**Insulin Resistance with Glucose - 2 Hour**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Fasting Glucose	DXC 700 AU			70 - 125	mg/dL	< 54, > 400
1 Hour Glucose	DXC 700 AU			70 - 199	mg/dL	< 54, > 400
2 Hour Glucose	DXC 700 AU			70 - 199	mg/dL	< 54, > 400
Fasting Insulin	DXI			1.9 - 23.0	uIU/mL	
1 Hour Insulin	DXI			No Ref Range	uIU/mL	
2 Hour Insulin	DXI			No Ref Range	uIU/mL	

**Chemistry Urine Drug Screening Tests:**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Amphetamines (AMPH)	DXC 700 AU			Negative = < 1000	ng/mL	
Barbiturates (BARB)	DXC 700 AU			Negative = < 200	ng/mL	
Benzodiazepine (BENZ)	DXC 700 AU			Negative = < 200	ng/mL	
Cocaine Metabolites (COCM)	DXC 700 AU			Negative = < 300	ng/mL	
Fentanyl	DXC 700 AU			Negative = < 5	ng/mL	
Methadone (METD)	DXC 700 AU			Negative = < 300	ng/mL	
Oxycodone (OXY)	DXC 700 AU			Negative = < 300	ng/mL	
Opiate (OP)	DXC 700 AU			Negative = < 300	ng/mL	
Phencyclidine (PCP)	DXC 700 AU			Negative = < 25	ng/mL	
Buprenorphine (BUP)	Abbott			Negative = < 10	ng/mL	
Cannabinoid (TCH50)	DXC 700 AU			Negative = <50	ng/mL	

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Beckman DXI :

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Alpha-fetoprotein (AFP) Tumor Marker	Dxl			< 9.0	ng/mL	
Beta HCG	Dxl	Female	Negative for pregnancy	0.0 - 4.9	miU/mL	
			Indeterminate-Suggest repeat testing in 72 hours	5.0 - 25.0	miU/mL	
			Positive for pregnancy	> 25.0	miU/mL	
BNP	Dxl			0 - 100	pg/mL	
NT-proBNP	Dxl	All	Negative: Heart Failure Unlikely	< 300	pg/mL	
			Gray Zone: Result Indeterminate - Consider other causes of NT-proBNP elevation			
			21 to 49 years	300 - 449	pg/mL	
			50 - 75 years	300 - 899	pg/mL	
			> 75 years	300 - 1799	pg/mL	
			Positive : Heart Failure Likely			
			> 75 years	≥ 1800	pg/mL	
CA 15-3	Dxl			0.0 - 31.3	U/mL	
CA 19-9	Dxl			< 35	U/mL	
CA 125	Dxl			0 - 35	U/mL	
CEA	Dxl		Smokers	< 5.0	ng/mL	
			Non-Smokers	< 3.0	ng/ml	
Cortisol	Dxl		AM	6.7 - 22.6	ug/dL	
			PM	< 10	ug/dl	
Estradiol, Sensitive	Dxl	Male	0 to < 1 Year	< 15.0 - 38.2	pg/mL	
			1 to < 12 (pre-puberty) Years	< 15.0	pg/mL	
			12 to < 19 (puberty) Years	< 15.0 - 34.8	pg/mL	
			19+ Years	< 15.0 - 31.5	pg/mL	
		Female	0 to < 1 Year	< 15.0 - 38.2	pg/mL	
			1 to < 12 (pre-puberty) Years	< 15.0 - 16.0	pg/mL	
			12 to < 19 (puberty) Years	< 15.0 - 196.0	pg/mL	
			19+ Years	See Non-pregnant Females below		
		Pregnant Females	Days from hLH Peak (Day 0)			
			-14 to -10 (Early Follicular)	22.4 - 115.0	pg/mL	
			-9 to -4 (Mid Follicular)	25.0 - 115.0	pg/mL	
			0 (Ovulatory Peak)	32.1 - 517.0	pg/mL	
			+4 to +11 (Mid Luteal)	36.5 - 246.0	pg/mL	
Post-Menopausal Females	Not on hormone therapy	< 15.0 - 25.1	pg/mL			
Ferritin	Dxl	Male		23.9 - 336.2	ng/mL	
		Female		11.0 - 306.8	ng/mL	
Folate	Dxl			≥ 5.9	ng/mL	
hFSH	Dxl	Male		1.27 - 19.26	miU/mL	
		Female	mid-follicular phase	3.85 - 8.78	miU/mL	
			mid-cycle peak	4.54 - 22.51	miU/mL	
			mid-luteal phase	1.79 - 5.12	miU/mL	
			Post-menopausal	16.74 - 113.59	miU/mL	
HybriTech % Free PSA (DRE NEGATIVE) (if Total PSA is 4.0 - 10.0)	Dxl		Probability of Cancer			
			56%	0 - 10	%	
			28%	10 - 15	%	
			20%	15 - 20	%	
			16%	20 - 25	%	
8%	> 25	%				
HybriTech PSA (total)	Dxl			0.0 - 4.0	ng/mL	

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Insulin	Dxl			1.9 - 23.0	uIU/mL		
hLH	Dxl	Male		1.24 - 8.62	miU/mL		
		Female	mid-follicular phase	2.12 - 10.89	miU/mL		
			mid-cycle peak	19.18 - 103.03	miU/mL		
			mid-luteal phase	1.20 - 12.86	miU/mL		
			Post-menopausal	10.87 - 58.64	miU/mL		
Myoglobin	Dxl	Male	17.4 - 105.7	ng/mL			
		Female	14.3 - 65.8	ng/mL			
Progesterone	Dxl	Male		0.11 - 0.41	ng/mL		
		Female	<b>Non-Pregnant:</b>				
			Follicular Phase	0.07 - 1.86	ng/mL		
			Ovulation Phase	0.20 - 2.07	ng/mL		
			Luteal Phase	0.18 - 17.78	ng/mL		
		<b>Pregnant:</b>					
		1st Trimester	0.68 - 63.70	ng/mL			
		2nd Trimester	17.40 - 87.50	ng/mL			
		<b>Post-menopausal</b>	0.06 - 0.37	ng/mL			
				(not on hormone therapy)			
Procalcitonin	Dxl	All	Low risk of severe sepsis and/or septic shock	< 0.50	ng/mL		
			High risk of severe sepsis and/or septic shock	> 2.00			
Prolactin	Dxl	Male		2.64 - 13.13	ng/mL		
		Female	Premenopausal	3.34 - 26.72	ng/mL		
			Postmenopausal	2.74 - 19.64	ng/mL		
PTH, Intact	Dxl			12 - 88	pg/mL		
Rubella IgG	Dxl		Negative (non-reactive)	< 10	IU/mL		
			Equivocal	10.0 - 14.9	IU/mL		
			Positive (reactive)	15.0 - > 500.0	IU/mL		
Testosterone, Total, Serum	Dxl	Male		175 - 781	ng/dL		
		Female		10 - 75	ng/dL		
T3, Free	Dxl			2.5 - 3.9	pg/mL		
T3, Total	Dxl		0 Day - 30 Days	0.48 - 1.84	ng/ml		
			1 Month - 1 Year	0.73 - 2.29	ng/ml		
			2 Years - 5 Years	0.93 - 2.16	ng/ml		
			6 Years - 10 Years	1.04 - 1.98	ng/ml		
			11+ Years	0.87 - 1.78	ng/mL		
T4, Free	Dxl		0 Day - 10 Years	0.60 - 1.34	ng/dL	> 6.00	
			11-18 Years	0.50 - 1.25	ng/dL	> 6.00	
			19+ Years	0.61 - 1.12	ng/dL		
			<b>Pregnancy Ref Ranges:</b>				
			1st Trimester	0.52 - 1.10	ng/dL		
			2nd Trimester	0.45 - 0.99	ng/dL		
			3rd Trimester	0.48 - 0.95	ng/dL	> 6.00	
T4, Total	Dxl		0 Day - 7 Days	8.2 - 21.5	ug/dL		
			8 Days - 3 Months	7.2 - 15.6	ug/dL		
			4 Months - 2 Years	5.5 - 14.5	ug/dL		
			3+ Years	5.0 - 11.5	ug/dL		
Troponin-I, High-Sensitivity	Dxl	Male		0-20	ng/L	≥ 50	
		Female		0-15	ng/L	≥ 50	
TSH (3rd Generation)	Dxl		0 days - 1 day	2.43 - 24.03	uIU/mL		
			1 day - 2 days	1.9 - 17.58	uIU/mL		
			2 days - 3 days	1.4 - 13.1	uIU/mL		
			3 days - 4 days	0.94 - 9.65	uIU/mL		
			4 days - 1 week	0.6 - 6.82	uIU/mL		
			1 week - 5 years	0.57 - 5.58	uIU/mL		
			5 years - 8 years	0.56 - 5.41	uIU/mL		
			8 years - 12 years	0.55 - 5.31	uIU/mL		
			12 years - 15 years	0.53 - 5.16	uIU/mL		
			15 years - 18 years	0.52 - 5.05	uIU/mL		
			18+ years	0.45 - 5.33	uIU/mL		
				Reference Ranges for individuals from birth to 18 years of age were obtained from The Harriet Lane Handbook (20 ed) published by Johns Hopkins Hospital			
				Pregnant Females, 1st Trimester: 0.05 - 3.7 uIU/mL			
				Pregnant Females, 2nd Trimester: 0.31 - 4.35 uIU/mL			
		Pregnant Females, 3rd Trimester: 0.41 - 5.18 uIU/mL					

BVH Reference Ranges

Vitamin B12	Dxl			180 - 914	pg/mL	
Vitamin D-25 Hydroxy	DXI		Deficient	< 20	ng/mL	
			Insufficient	20 - 29	ng/mL	
			Sufficient	30 - 100	ng/mL	
			Upper Safety Limit	> 100	ng/mL	

Arkray Adams HA-8180V A1c

HbA1c (in % units)	Arkray ADAMS HA-8180V		Normal Prediabetes Diabetes	4.0 - 5.6 5.7 - 6.4 ≥ 6.5	% A1c	
eAG (Estimated Average Glucose)	Calc			68 - 114	mg/dL	

DiaSorin Liaison

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Hepatitis B Surface Antigen	Liaison			Negative		
Hepatitis B Surface Antibody	Liaison			Negative		
HBsAb Quantitative	Liaison			< 5.00 = Negative		
				5.00 - 11.99 = Indeterminate		
				> 11.99 = Positive		
Hep B Core IgM Antibody	Liaison			Negative		
Hep B Core Total Antibodies (IgG & IgM)	Liaison			Negative		
Hepatitis A IgM	Liaison			Negative		
Hepatitis A Total Antibody	Liaison			Negative		
Hepatitis C Virus	Liaison			Negative		
HIV-1 and HIV-2 Ab, p24 Ag	Liaison & Alere Determine			Negative (Non-Reactive)		
Procalcitonin	Liaison			<0.49	ng/mL	
Calprotectin, Stool	Liaison			<49	mcg/g	
Elastase-1, Stool	Liaison			>200	mcg/g	
H.pylori Stool	Liaison			Negative		
Measles IgG Antibody	Liaison			Negative		
Mumps IgG Antibody	Liaison			Negative		
QuantiFERON-TB Gold Plus	Liaison			Negative		
Treponema Total Antibody	Liaison			Negative		
Varicella Zoster Virus IgG Antibody	Liaison			Negative		

Electrophoresis:

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Electrophoresis, Protein, Serum	Sebia		Total Protein	6.5 - 8.1	gm/dL	
			Albumin	3.0 - 5.0	gm/dL	
			Alpha-1	0.13 - 0.33	gm/dL	
			Alpha-2	0.56 - 1.13	gm/dL	
			Beta	0.60 - 1.25	gm/dL	
			Gamma	0.53 - 1.48	gm/dL	
			A/G Ratio	1.13 - 2.69		
Electrophoresis, Protein, Urine	Sebia			No Monoclonal Protein		
Immunofixation, Serum	Sebia			No Monoclonal Protein		
Immunofixation, Urine	Sebia			No Monoclonal Protein		



BVH and AFCCC Shared Reference Ranges

Last Updated: 3.26.25 by L.Morman

By: Dr. Heidi Budke

(BVH and ACC shared reference ranges)

**Hematology Reference Ranges:**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range	
<b>WBC</b>			<b>0-1 Day</b>	9.0 - 30.0	x10 <sup>3</sup> / uL	<b>&lt; 2.0 and &gt;50.0</b>	
			<b>1-4 Days</b>	9.4 - 34.0			
			<b>4 Days - 1 Month</b>	5.0 - 20.0			
			<b>1 Month - 6 Months</b>	4.0 - 19.5			
			<b>6 Months-2 Years</b>	6.0 - 17.0			
			<b>2-6 Years</b>	5.0 - 15.5			
			<b>6-18 Years</b>	4.5 - 13.5			
		Male	<b>&gt; or = 18 Years</b>	4.5 - 11.0			
		Female	<b>&gt; or = 18 Years</b>	4.5 - 11.0			
Test	Method	Sex	Criteria	Reference Range	Units	Critical Range	
<b>RBC</b>			<b>0-1 Day</b>	3.90 - 5.90	x10 <sup>6</sup> / uL		
			<b>1-3 Days</b>	3.90 - 5.90			
			<b>4 Days - 1 Month</b>	3.90 - 5.90			
			<b>1 Month - 6 Months</b>	3.30 - 5.30			
			<b>6 Months-2 Years</b>	3.90 - 4.80			
			<b>2-6 Years</b>	3.70 - 4.90			
			<b>6-18 Years</b>	3.80 - 5.60			
		Male	<b>&gt; or = 18 Years</b>	4.30 - 5.80			
		Female	<b>&gt; or = 18 Years</b>	3.80 - 5.20			
Test	Method	Sex	Criteria	Reference Range	Units	Critical Range	
<b>Hemoglobin (Hgb)</b>			<b>0-1 Day</b>	19.0 - 30.0	g/dL	<b>&lt; 9.5 and &gt;22.5</b>	
			<b>1-3 Days</b>	14.5 - 22.5			
			<b>4 Days - 1 Month</b>	13.4 - 19.8			
				<b>1-2 Months</b>	10.7 - 17.1	g/dL	<b>&lt; 6.9 and &gt; 20.8</b>
				<b>2-6 Months</b>	9.4 - 13.0		
				<b>6 Months-2 Years</b>	10.5 - 13.5		
				<b>2-6 Years</b>	11.5 - 13.5		
				<b>6-12 Years</b>	11.5 - 15.5	g/dL	<b>&lt; 6.6 and &gt; 19.9</b>
			Male	<b>12-18 Years</b>	13.0 - 16.0		
		Calculation	Female	<b>12-18 Years</b>	12.0-16.0		
		Male	<b>18 Years and Older</b>	13.5-17.5	g/dL		
		Female	<b>18 Years and Older</b>	12.0 - 16.0			
Test	Method	Sex	Criteria	Reference Range	Units	Critical Range	
<b>Hematocrit (Hct)</b>			<b>0-4 Days</b>	45 - 67	%		
			<b>4 Days - 1 Month</b>	41 - 65			
			<b>1-2 Months</b>	33 - 55			
			<b>2-6 Months</b>	28 - 42			
			<b>6 Months-2 Years</b>	33 - 39			
			<b>2-6 Years</b>	34 - 40			
			<b>6-12 Years</b>	35 - 45			
			Male	<b>12-18 Years</b>			36 - 50
			Female	<b>12-18 Years</b>			37 - 45
			Male	<b>18 Years and Older</b>			41 - 53
		Female	<b>18 Years and Older</b>	36 - 46			
<b>MCH</b>			<b>0 Minutes - 1 Month</b>	30 - 37			
			<b>1-6 Months</b>	29 - 36			
			<b>6 Months - 2 Years</b>	24 - 30			
			<b>2-6 Years</b>	25 - 31			
			<b>6-18 Years</b>	25 - 34			
			<b>&gt; or = 18 Years</b>	27 - 35			

BVH and AFCCC Shared Reference Ranges

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
MCHC	DXH800 DXH600 DXH690T DXH520		0-4 Days	29.0 - 37.0	g/dL	
			4 Days - 1 Month	28.1 - 34.7		
			1-2 Months	28.1 - 35.5		
			2-6 Months	28.3 - 35.3		
			6 Months-2 Years	30.0 - 36.0		
			2-6 Years	31.0 - 37.0		
			6-12 Years	31.0 - 37.0		
		Male	12-18 Years	31.0 - 37.0		
		Female	12-18 Years	31.0 - 37.0		
		Male	18 Years and Older	31.0 - 37.0		
Female	18 Years and Older	31.0 - 37.0				

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
MCV	DXH800 DXH600 DXH690T DXH520		0-4 Days	95 - 121	fL	
			4 Days - 1 Month	88 - 122		
			1-2 Months	91 - 111		
			2-6 Month	84 - 106		
			6 Months-2 Years	70 - 86		
			2-6 Years	75 - 87		
			6-12 Years	77 - 95		
		Male	12-18 Years	78 - 98		
		Male	6-12 Years	150 - 450		
		Male	12-18 Years	150 - 450		
		Female	12-18 Years	150 - 450		
		Male	> or = 18 Years	150 - 450		
		Female	> or = 18 Years	150 - 450		

**Hematology Reference Ranges: (cont.)**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
RDW-CV	DXH800 DXH600		0-7 months	14.9 - 18.7		
			> 7 months	11.6 - 14.8		

Test	Method	Sex	Criteria	Reference Range	Units %	Critical Range
Automated Differential	DXH800 DXH600 DXH690T DXH520	Male	NEUT%	see below	%	
			LYMPH%	see below		
			MONO%	4.7 - 13.9		
			EOS%	0.0 - 6.1		
			BASO%	0.0 - 1.2		
		Female	NEUT%	see below		
			LYMPH%	see below		
			MONO%	3.7 - 11.9		
			EOS%	0.0 - 5.4		
			BASO%	0.0 - 1.5		
Neutrophil			Criteria	x 10 <sup>3</sup> /uL	%	
			0 Day	6.0 - 28.0	68 (54.4 - 81.6)	
			24 Hour	5.0 - 21.0	61 (48.8 - 73.2)	
			1 Week	1.5 - 10	45 (36 - 54)	
			2 Week	1 - 9.5	40 (32 - 48)	
			1 Month	1 - 8.5	35 (28 - 42)	
			6 Month	1 - 8.5	32 (25.6 - 38.4)	
			1 Year	1.5 - 8.5	31 (24.8 - 37.2)	
			2 Year	1.5 - 8.5	33 (26.4 - 39.6)	
			4 Year	1.5 - 8.5	42 (33.6 - 50.4)	
			6 Year	1.5 - 8	51 (40.8 - 61.2)	
			8 Year	1.5 - 8	53 (42.4 - 63.6)	
			10 Year	1.5 - 8.5	54 (43.2 - 64.8)	
			16 Year	1.8 - 8	57 (45.6 - 68.4)	
21-older	1.8 - 7.7	59 (47.2 - 70.8)				

BVH and AFCCC Shared Reference Ranges

Lymphocyte			Criteria	x 10 <sup>3</sup> /uL	%
			0 Day	2 - 11	24 (19.2 - 28.8)
			24 Hour	2 - 11.5	31 (24.8 - 37.2)
			1 Week	2 - 17	41 (32.8 - 49.2)
			2 Week	2 - 17	48 (38.4 - 57.6)
			1 Month	2.5 - 16.5	56 (44.8 - 67.2)
			6 Month	4 - 13.5	61 (48.8 - 73.2)
			2 Year	3 - 9.5	59 (47.2 - 70.8)
			4 Year	2 - 8	50 (40 - 60)
			6 Year	1.5 - 7	42 (33.6 - 50.4)
			8 Year	1.5 - 6.8	39 (31.2 - 46.8)
			10 Year	1.5 - 6.5	38 (30.4 - 45.6)
			16 Year	1.2 - 5.2	35 (28 - 42)
			21-older	1 - 4.8	34 (27.2 - 40.8)

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Automated Retic	DXH800 DXH600		0-1 Day	0.3 - 2.5	%	
			1-4 Days	1.8 - 4.6		
			4 Days - 6 Months	0.1 - 1.7		
			6 Months - 2 Years	0.7 - 2.3		
			2-18 Years	0.5 - 1.0		
		Male	> or = 18 Years	0.8 - 2.5		
		Female	> or = 18 Years	0.8 - 4.1		

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
ESR	Sedimat	Male	< 50 years	0 - 20	mm	N/A
			> 50 years	0 - 23		
		Female	< 50 years	0 - 23		
			> 50 years	0 - 30		

LTR41501

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Monospot	Manual			Negative		

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Bloodborn Parasite Screen	Manual			No parasites seen.		Any parasites seen.

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Semen Analysis	SQA Vision	Male	Volume	≥ 1.5 ml		
			pH	>7.2		
			WBC concentration	<1 M/ml		
			Sperm concentration	≥ 15 million/ml		
			Total Motility	≥ 40%		
			Sperm morphology	≥ 4%		
			Motile Sperm Conc.	≥ 6 million/ml		
			Sperm Motility Index	≥ 80		
			Total Sperm	≥ 39 million		
			Total Motile Sperm	≥ 16 million		
			Tot. Morph Norm Sperm	≥ 2 million		
			Appearance	clear/white/grey		
			Viscosity	normal		
Debris/Round Cells	< 10 %					
Semen Analysis, Post Vas	SQA Vision	Male		≤ 0.10 million/ml		

**Coagulation Reference Ranges:**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
INR	ACL TOP			0.9-1.1		>5.0
Prottime (PT)	ACL TOP		Mean = 11.5	10.2-12.9	sec	
PTT	ACL TOP			25.1-36.5	sec	> 135
Fibrinogen	ACL TOP			200-393	mg/dL	< 75

BVH and AFCCC Shared Reference Ranges

Test		Sex	Criteria	Reference Range	Units	Critical Range
Anti-Factor Xa	ACL TOP		at 4 hr Post LMWH Dose	1.0-2.0	IU/mL	for twice daily dose

Test		Sex	Criteria	Reference Range	Units	Critical Range
D-Dimer	ACL TOP			<500	ng/mL FEU	<b>Considered Negative for VTE</b> <b>Requires further clinical evaluation.</b>
				≥ 500		

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Platelet Function Analysis	PFA		COL/EPI	71 - 192	sec	N/A
			COL/ADP	55 - 115	sec	

BFT Reference Ranges

Last Updated: 5/9/2025 S. Pavlock

DXC 700 AU Reference Ranges:

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
A/G Ratio	Calculation			1.1 - 2.2		
Albumin	DXC 700 AU	Both	0 Day - 2 Days	2.8 - 4.2	g/dL	
		Male	3 Days - 18+ Years	4.2 - 5.5	g/dL	
		Female	3 Days - 18+ Years	3.7 - 5.3	g/dL	
<b>Alcohol (ETOH)</b>				< 10	mg/dL	<b>&gt; 300</b>
Alkaline Phosphatase	DXC 700 AU	Both	0 Days - 2 Years	150 - 420	IU/L	
		Both	3 Years - 10 Years	100 - 320	IU/L	
		Male	10 Years - 18 Years	100 - 390	IU/L	
		Female	10 Years - 18 Years	100 - 320	IU/L	
		Both	18+ Years	34 - 104	IU/L	
ALT (SGPT)	DXC 700 AU	Both		7 - 52	IU/L	
Amylase	DXC 700 AU	Both		29 - 103	IU/L	
Anion Gap	DXC 700 AU	Both		4-12	mmol/L	
AST (SGOT)	DXC 700 AU		0 Years - 4 Years	10 - 60	IU/L	
			5 Years - 9 Years	5 - 50	IU/L	
			10+ Years	13 - 39	IU/L	
BUN	DXC 700 AU	Both		7 - 25	mg/dL	
BUN/Creatinine Ratio	Calculation	Both		15 - 25	Ratio	
Calcium	DXC 700 AU	Both		8.6 - 10.3	mg/dL	<b>&lt; 5.8, &gt; 13.3</b>
Cardiac Risk Factor	Calculation	Male		1/2 Average 3.43 Average 4.97 2X Average 9.55 3X Average 23.99		
		Female		1/2 Average 3.27 Average 4.44 2X Average 7.05 3X Average 11.04		
Chloride	DXC 700 AU			98 - 107	mmol/L	
Cholesterol	DXC 700 AU	Both	0 - 17 Years	0 - 169 desirable 170-199 borderline high >200 high	mg/dL	
		Both	18+ Years	0 - 199 desirable 200-239 borderline high >239 high	mg/dL	
CO2 (Carbon Dioxide)	Calculation	Both		0.9-1.1	mmol/L	<b>&lt; 10, &gt; 40</b>
CPK		Both		25.1-36.5	IU/L	<b>&gt; 135</b>
Creatinine	DXC 700 AU	Male		0.7 - 1.3	mg/dl	<b>&gt; 10.0</b>
		Female		0.6 - 1.2	mg/dl	<b>&gt; 10.0</b>
Direct Bilirubin	DXC 700 AU	Both	0 Days - 5 Days	0.03 - 0.6	mg/dL	
			6 - Days - 17 Years	0.03 - 0.20	mg/dL	
			18+ years	0.03 - 0.18	mg/dL	
Glomerular Filtration Rate	Calculation	Both		> or = 60 GFR 30 - 59 Moderate decrease in GFR 15 - 29 Severe decrease in GFR < 15 Kidney failure or Dialysis	ml/min/ 1.73 M <sup>2</sup>	
			Chronic kidney disease is defined as either kidney damage or GFR < 60 mL/min/1.73 m <sup>2</sup> for > or = 3 months. Kidney damage is defined as pathologic abnormalities or markers of damage including abnormalities in blood or urine tests or imaging studies.			
			2 Months - 16 Yrs	60 - 99	mg/dL	<b>&lt; 54, &gt; 400</b>
			16 year +	70 - 99	mg/dl	<b>&lt; 54, &gt; 400</b>

BFT Reference Ranges

HDL (Direct)	DXC 700 AU	Both	0 Years - 17 Years	> 45	mg/dl	
		Male	18+ Years	> 40	mg/dl	
		Female	18+ Years	> 50	mg/dl	
Indirect Bilirubin	Calculation			0.0 - 1.0	mg/dL	
Iron	DXC 700 AU	Both	0 Days - 5 Days	100 - 250	ug/dL	
		Both	6 Days - 2 Years	40 - 100	ug/dL	
		Both	2 Years - 17 Years	50 - 120	ug/dL	
		Both	18+ Years	50 - 212	ug/dl	
Lactic Acid	DXC 700 AU	Both		0.5 - 2.2	mmol/L	> 4.0
Lipase	DXC 700 AU	Both		11 - 82	IU/L	
LDH	DXC 700 AU	Both		140 - 271	IU/L	
LDL	Calculation	Both	0 - 17 years	0 - 109 desirable	mg/dL	
				110 - 129 borderline high	mg/dL	
				> = 130 high	mg/dL	
			18 + years	0 - 99 optimal	mg/dL	
				100 - 129 near optimal	mg/dL	
				130 - 159 borderline high	mg/dL	
				160 - 189 high	mg/dL	
				> = 190 very high	mg/dL	
Lithium	DXC 700 AU			0.5 - 1.2	mmol/L	> 1.6
Magnesium	DXC 700 AU			1.7 - 2.4	mg/dL	< 1.0, > 4.4
Phosphorus	DXC 700 AU	Both	0 - 9 Days	4.5 - 9.0	mg/dL	< 1.0
			10 Days - 2 Years	4.0 - 6.5	mg/dL	
			3 Years - 10 Years	3.2 - 5.8	mg/dL	
			11 Years - 15 Years	3.3 - 5.4	mg/dL	
			3 Years - 16 Years	6.0 - 8.0	g/dL	
Triglycerides	DXC 700 AU	Both	0 - 17 Years	0 - 89 normal	mg/dL	
				90 - 129 borderline high	mg/dL	
				> = 130 high	mg/dL	
			18+ Years	0 - 149 normal	mg/dL	
				150-199 borderline high	mg/dL	
				200-499 high	mg/dL	
Uric Acid	DXC 700 AU	Male		4.4 - 7.6	mg/dl	
		Female		2.3 - 6.6	mg/dl	
VLDL	Calculation			8 - 39	mg/dL	

BFT Reference Ranges

**Chemistry Cerebrospinal Fluid Tests**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Glucose, Spinal Fluid	DXC 700 AU	Both		40 - 70	mg/dL	< 25
Protein, Spinal Fluid	DXC 700 AU	Both	0 Days - 29 Days	15 - 130	mg/dL	
			30+ Days	15 - 45	mg/dL	
CSF Xanthochromia	Visual	Both		Clear		Xanthochromic

**Chemistry Urine Tests:**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Creatinine, 24 Hour, Urine	DXC 700 AU	Male		800 - 2000	mg/24hr	
		Female		600 - 1800	mg/24hr	
Creatinine Clearance, 24 Hour, Urine	DXC 700 AU	Male		74 - 140	mL/min	
		Female		74 - 130	mL/min	
Protein, 24 Hour, Urine	DXC 700 AU	Both		50 - 80	mg/24hr	
Protein, Random, Urine		Both	Random	< 10	mg/dL	

**Glucose Tolerance Test, 2 Hour (Oral WHO Protocol) (75 grams of Glucola)**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Fasting Glucose	DXC 700 AU			70 - 125	mg/dL	< 54, > 400
2 Hour Glucose	DXC 700 AU			70 - 199	mg/dL	< 54, > 400
			The ADA criteria for prediabetes is a fasting plasma glucose of 100-125 mg/dL or 2hr post-glucose sample of 140-199 mg/dL.			

**Glucose Tolerance Test (75 grams of Glucola)**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Fasting Glucose	DXC 700 AU			70 - 125	mg/dL	< 54, > 400
1 Hour Glucose	DXC 700 AU			70 - 199	mg/dL	< 54, > 400
2 Hour Glucose	DXC 700 AU			70 - 199	mg/dL	< 54, > 400
3 Hour Glucose	DXC 700 AU			70 - 125	mg/dL	< 54, > 400
4 Hour Glucose	DXC 700 AU			70 - 125	mg/dL	< 54, > 400
5 Hour Glucose	DXC 700 AU			70 - 125	mg/dL	< 54, > 400
6 Hour Glucose	DXC 700 AU			70 - 125	mg/dL	< 54, > 400

**Gestational Glucose Tolerance, 2 Hour (ADA Recommendations) 75 g Glucola**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Fasting Glucose	DXC 700 AU			70 - 91	mg/dL	< 54, > 400
1 Hour Glucose	DXC 700 AU			70 - 179	mg/dL	< 54, > 399
2 Hour Glucose	DXC 700 AU			70 - 152	mg/dL	< 54, > 400

**Gestational Glucose Tolerance, 3 Hour (ACOG Recommendations) 100 g Glucola**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Fasting Glucose	DXC 700 AU			70 - 94	mg/dL	< 50, > 400
1 Hour Glucose	DXC 700 AU			70 - 179	mg/dL	< 50, > 400
2 Hour Glucose	DXC 700 AU			70 - 154	mg/dL	< 50, > 400
3 Hour Glucose	DXC 700 AU			70 - 139	mg/dL	< 50, > 400

**Gestational Diabetes Screen (ACOG Recommendations) 50 g Glucola**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
1 Hour Glucose	DXC 700 AU			70 - 134	mg/dL	< 54, > 400

**2 Hour Post-Prandial Glucose Test:**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
2 Hour Glucose	DXC 700 AU			70 - 139	mg/dL	< 54, > 400

BFT Reference Ranges

**Insulin Resistance with Glucose - 2 Hour**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Fasting Glucose	DXC 700 AU			70 - 125	mg/dL	< 54, > 400
1 Hour Glucose	DXC 700 AU			70 - 199	mg/dL	< 54, > 400
2 Hour Glucose	DXC 700 AU			70 - 199	mg/dL	< 54, > 400
Fasting Insulin	DXI 600			1.9 - 23.0	uIU/mL	
1 Hour Insulin	DXI 600			No Ref Range	uIU/mL	
2 Hour Insulin	DXI 600			No Ref Range	uIU/mL	

**Chemistry Urine Drug Screening Tests:**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Amphetamines (AMPH)	DXC 700 AU			Negative = < 1000	ng/mL	
Barbiturates (BARB)	DXC 700 AU			Negative = < 200	ng/mL	
Benzodiazepine (BENZ)	DXC 700 AU			Negative = < 200	ng/mL	
Cocaine Metabolites (COCM)	DXC 700 AU			Negative = < 300	ng/mL	
Methadone (METD)	DXC 700 AU			Negative = < 300	ng/mL	
Oxycodone (OXY)	DXC 700 AU			Negative = < 100	ng/mL	
Opiate (OP)	DXC 700 AU			Negative = < 300	ng/mL	
Phencyclidine (PCP)	DXC 700 AU			Negative = < 25	ng/mL	
Buprenorphine (BUP)	Med-Tox			Negative = < 10	ng/mL	
Cannabinoid (TCH50)	DXC 700 AU			Negative = <50	ng/mL	

**Beckman Access II Reference Ranges:**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Beta HCG	Access II			0-4.9	mIU/mL	
BNP	Access II			0-100	pg/mL	
Myoglobin	Access II	Male		17.4-105.7	ng/dL	
		Female		14.3-65.8	ng/dL	
Troponin	Access II	Male		0-20	ng/L	> 50
		Female		0-15	ng/L	> 50
TSH	Access II		0 days - 1 day	2.43 - 24.03	uIU/mL	
			1 day - 2 days	1.9 - 17.58	uIU/mL	
			2 days - 3 days	1.4 - 13.1	uIU/mL	
			3 days - 4 days	0.94 - 9.65	uIU/mL	
			4 days - 1 week	0.6 - 6.82	uIU/mL	
			1 week - 5 years	0.57 - 5.58	uIU/mL	
			5 years - 8 years	0.56 - 5.41	uIU/mL	
			8 years - 12 years	0.55 - 5.31	uIU/mL	
			12 years - 15 years	0.53 - 5.16	uIU/mL	
			15 years - 18 years	0.52 - 5.05	uIU/mL	
			18+ years	0.45 - 5.33	uIU/mL	

**Coagulation Tests:**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
PT	ACL TOP			10.2-12.9	seconds	
INR	Calculation			0.9 - 1.1	Ratio	> 5.00
PTT	ACL TOP			25.1-36.5	seconds	> 135
D-Dimer	ACL TOP			<500	ng/mL FEU	Considered Negative for VTE Requires further clinical evaluation.
				≥ 500		



BFT Reference Ranges

**Serology Tests:**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
HIV	Manual			Negative		
Influenza A/B	Manual			Negative		
Monospot Test	Manual			Negative		
Occult Blood, Fecal	Manual			Negative		
Occult Blood, Gastric	Manual			Negative		
RSV	Manual			Negative for RSV		
RPR	Manual			Non-Reactive		Reactive
Serum Pregnancy	Manual			Negative		
Urine Pregnancy	Manual			Negative		

**Urinalysis Tests:**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Color				Yellow		
Clarity				Clear		
Bacteria	Clinitek Status +			Absent		
Bilirubin	Clinitek Status +			Negative		Large
Glucose	Clinitek Status +			Negative	mg/dL	
Ketones	Clinitek Status +			Negative		
Leukocyte esterase	Clinitek Status +			Negative		
Nitrates	Clinitek Status +			Negative		
pH	Clinitek Status +			4.6 - 8.0		
Proteins	Clinitek Status +			Negative	mg/dL	
RBC/Hgb	Clinitek Status +			Negative		
Specific Gravity	Clinitek Status +			1.001 - 1.035		

BFT Reference Ranges

**Hematology Tests: DXH 690T**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
WBC	DXH690T		0-1 Day	9.0 - 30.0	x10 <sup>3</sup> / uL	< 2.0, > 50.0
			1-4 Days	9.4 - 34.0		
			4 Days - 1 Month	5.0 - 20.0		
			1 Month - 6 Months	4.0 - 19.5		
			6 Months - 2 Years	6.0 - 17.0		
			2-6 Years	5.0 - 15.5		
			6-18 Years	4.5 - 13.5		
			> or = 18 Years	4.5 - 11.0		
RBC	DXH690T		0 Day-1 month	3.90 - 5.90	x10 <sup>6</sup> / uL	
			1 Month - 6 Months	3.30 - 5.30		
			6 Months - 2 Years	3.90 - 4.80		
			2-6 Years	3.70 - 4.90		
			6-18 Years	3.80 - 5.60		
		Male	> or = 18 Years	4.30 - 5.80		
		Female	> or = 18 Years	3.80 - 5.20		
Hemoglobin (Hgb)	DXH690T		0 - 4 Days	14.5 - 22.5	g/dL	< 9.5, > 23
			4 Days - 1 Month	13.4 - 19.8		
			1 Month - 2 Months	10.7 - 17.1		
			2-6 Months	9.4 - 13.0		
			6 Months - 2 Years	10.5 - 13.5		
			2-6 Years	11.5 - 13.5		
		6-12 Years	11.5 - 15.5			
		Male	12-18 Years	13.0 - 16.0		< 6.6, > 19.9
		Female	12-18 Years	12.0 - 16.0		
		Male	18 Years and older	13.5 - 17.5		
Female	18 Years and older	12.0 - 16.0				
Hematocrit (Hct)	DXH690T		0-4 Days	45 - 67	%	
			4 Days - 1 Month	41 - 65		
			1-2 Months	33 - 55		
			2-6 Months	28 - 42		
			6 Months - 2 Years	33 - 39		
			2-6 Years	34 - 40		
			6-12 Years	35 - 45		
		Male	12-18 Years	36 - 50		
		Female	12-18 Years	37 - 45		
		Male	18 Years and older	41 - 53		
Female	18 Years and older	36 - 46				
MCV	DXH690T		0-4 Days	95 - 121	fL	
			4 Days - 1 Month	88 - 122		
			1-2 Months	91 - 111		
			2-6 Months	84 - 106		
			6 Months - 2 Years	70 - 86		
			2-6 Years	75 - 87		
			6-12 Years	77 - 95		
		Male	12-18 Years	78 - 98		
		Female	12-18 Years	78 - 90		
		Male	18 Years and older	80 - 100		
Female	18 Years and older	80 - 100				
MCH	DXH690T		0 Minutes - 1 Month	30 - 37		
			1-6 Months	29 - 36		
			6 Months - 2 Years	24 - 30		
			2-6 Years	25 - 31		
			6-18 Years	25 - 34		
			> or = 18 Years	27 - 35		

BFT Reference Ranges

MCHC	DXH690T		0-4 Days	29.0 - 37.0	g/dL	
			4 Days - 1 Month	28.1 - 34.7		
			1-2 Months	28.1 - 35.5		
			2-6 Months	28.3 - 35.3		
			6 Months - 2 Years	30.0 - 36.0		
			2-6 Years	31.0 - 37.0		
			6-12 Years	31.0 - 37.0		
		Male	12-18 Years	31.0 - 37.0		
		Female	12-18 Years	31.0 - 37.0		
			Male	18 Years and older		
	Female	18 Years and older	31.0 - 37.0			
Platelet Count	DXH690T			150 - 450	$\times 10^3 / \mu\text{L}$	< 50, > 999
RDW-cv	DXH690T		0-6 months	14.9 - 18.7		
			> 6 months	11.6 - 14.8		
Absolute Neutrophil Critical			<15 years < 0.5	Absolute		Automated
Neutrophil	DXH690T			$\times 10^3/\mu\text{L}$		%
			0-1 Day	6.0 - 28.0		54.4-81.6
			1-7 days	5.0 - 21.0		48.8-73.2
			7-14 days	1.5 - 10		36-54
			14 days-1 Month	1 - 8.5		32-48
			1-6 Month	1 - 8.5		28-42
			6 month - 1 Year	1.5 - 8.5		25.6-38.4
			1-2 Years	1.5 - 8.5		24.8-37.2
			2-4 Years	1.5 - 8.5		26.4-39.6
			4-6 Years	1.5 - 8		33.6-50.4
			6-8 Years	1.5 - 8		40.8-61.2
			8-10 Years	1.5-8		42.4-63.6
			10-16 Years	1.5 - 8.5		43.2-64.8
			16-21 Years	1.8 - 8		45.6-68.4
	>21 Years	1.8 - 7.7		47.2-70.8		
Lymphocyte	DXH690T			$\times 10^3/\mu\text{L}$		%
			0-1 Day	2 - 11		24 (19.2 - 28.8)
			1-7 days	2 - 11.5		31 (24.8 - 37.2)
			7-14 days	2 - 17		41 (32.8 - 49.2)
			14 days-1 Month	2 - 17		48 (38.4 - 57.6)
			1-6 Month	2.5 - 16.5		56 (44.8 - 67.2)
			6 month - 1 Year	4 - 13.5		61 (48.8 - 73.2)
			1-2 Years	4 - 10.5		61 (48.8 - 73.2)
			2-4 Years	3 - 9.5		59 (47.2 - 70.8)
			4-6 Years	2 - 8		50 (40 - 60)
			6-8 Years	1.5 - 7		42 (33.6 - 50.4)
			8-10 Years	1.5 - 6.8		39 (31.2 - 46.8)
			10-16 Years	1.5 - 6.5		38 (30.4 - 45.6)
			16-21 Years	1.2 - 5.2		35 (28 - 42)
	>21 years	1 - 4.8		34 (27.2 - 40.8)		
Monocyte	DXH690T			$\times 10^3/\mu\text{L}$		%
			Male	0.3-1.1		4.7-13.9
			Female	0.1-1.1		<b>3.7-13.9</b>
ESR	ESR Auto Plus	Male	< 50 years	0 - 20	mm	
			> 50 years	0 - 23		
		Female	< 50 years	0 - 23		
			> 50 years	0 - 30		
Semen, Post Vasectomy	Manual	Male		No sperm seen.		

BFT Reference Ranges

**Critical Tests:**

Testing Area:	Test
<b>Blood Bank Critical Tests:</b>	Transfusion Reaction Evaluation
	Transfusion associated infection or disease
	Positive DAT on a newborn

**Critical Tests:**

\*Infection Control Concern-only call Inpatient/NH\*

Testing Area:	Test type	Test	Reference Range	Source	Critical Range
<b>Microbiology</b>	<b>Culture</b>	CSF Gram Stain	Negative	CSF	Positive*
	<b>Molecular</b>	Group A Strep	Negative	Throat	Positive
	<b>Rapid Kit</b>	Exposure HIV 1/2	Negative	Blood	Positive

**Bluffton Blood Gas, Arterial**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
pH Arterial	iSTAT		0 minutes-1 month	7.33-7.49		
	iSTAT		1-2 months	7.33-7.49		7.21-7.59
	iSTAT		2 months-2 years	7.34-7.46		7.21-7.59
	iSTAT		> 2 years	7.35-7.45		7.21-7.59
pCO2 Arterial	iSTAT		0-2 months	27-40	mmHg	
	iSTAT		2 months-2 years	26-41		
	iSTAT		>2 Years	36-46		
pO2 Arterial	iSTAT		0-2 months	60-76	mmHg	
	iSTAT		>2 months	80-105		
HCO3 Arterial	iSTAT			22-36	mEq/L	
Base Excess Arterial	iSTAT			-2.0 - 3.0	mEq/L	
tCO2 Arterial	iSTAT		0-2 months	17-24		
	iSTAT		2 months-2 years	16-24		
	iSTAT		>2 years	19-29		
sO2 Arterial	iSTAT			94-100		

**Bluffton Blood Gas, Venous**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
pH Venous	iSTAT		0-1 month	7.33 - 7.42		
	iSTAT		>1 month	7.33-7.42		7.21-7.59
pCO2 Venous	iSTAT			40-50	mmHg	
pO2 Venous	iSTAT			25-47	mmHg	
HCO3 Venous	iSTAT			23-28	mEq/L	
Base Excess Venous	iSTAT			-2.0 - 3.0	mEq/L	
tCO2 Venous	iSTAT		0-18 Years	18-27		
	iSTAT		>18 Years	24-35		
sO2 Venous	iSTAT			60-85		

## AFCCC Reference Ranges

Last Updated: 3.26.25 by L.Morman

### Chemistry Reference Ranges:

#### Au 480 Reference Ranges:

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
A/G Ratio	Calculation	Both		1.1 - 2.2	Ratio	
Albumin	AU 480	Both		3.5 - 5.7	gm/dL	
Alkaline Phosphatase	AU 480	Both		34 - 104	IU/L	
ALT (SGPT)		Both		7 - 52	IU/L	
Anion Gap	Calculation	Both		7 - 17	mmol/L	
AST (SGOT)	AU480	Both		13 - 39	IU/L	
BUN	AU480	Both		7 - 25	mg/dL	
BUN/Creatinine Ratio	Calculation	Both		15 - 25	Ratio	
Calcium	AU480	Both	> 2 days	8.6 - 10.2	mg/dl	< 6.3, > 13.3
Chloride	AU480	Both		98 - 107	mmol/L	
CO2 (Carbon Dioxide)	AU480	Both		21 - 31	mmol/L	< 10, > 40
Creatinine	AU480	Both		0.6 - 1.3	mg/dl	> 10.0
Direct Bilirubin	AU480	Both		0.1 - 0.5	mg/dL	
Glomerular Filtration Rate	Calculation	Both		> or = 60 GFR	ml/min/ 1.73 M <sup>2</sup>	
				30 - 59 Moderate decrease in GFR		
				15 - 29 Severe decrease in GFR		
				< 15 Kidney failure or Dialysis		
			Chronic kidney disease is defined as either kidney damage or GFR < 60 mL/min/1.73 m <sup>2</sup> for > or = 3 months. Kidney damage is defined as pathologic abnormalities or markers of damage including abnormalities in blood or urine tests or imaging studies. This GFR is NOT used for medication dosing.			
Glucose	AU480		0 Hrs - 4 Hrs	41 - 60	mg/dL	< 25, > 250
			4 Hrs - 1 Day	46 - 60	mg/dl	< 35, > 250
			1 Day - 2 Months	60 - 99	mg/dl	< 45, > 250
			2 Months - 16 Yrs	60 - 99	mg/dL	< 54, > 400
			16 year +	70 - 99	mg/dl	< 54, > 400
Indirect Bilirubin	Calculation	Both		0.9-1.1	mg/dL	
LDH		Both		25.1-36.5	IU/L	> 135
Magnesium		Both		1.7 - 2.4	mg/dL	< 1.0, > 4.4
Phosphorus	AU 480	Both		2.5 - 5.0	mg/dL	< 1.0
Potassium	AU480	Both		3.5 - 5.1	mmol/L	< 2.5, > 6.0
Sodium	AU480	Both	2+ Years	136 - 145	mmol/L	< 120, > 160
Total Bilirubin	AU480	Both		0.3 - 1.0	mg/dL	> 15.0
Total Protein	AU480	Both		6.4 - 8.9	gm/dl	

BVH Critical Test List

Last Updated: 4.28.25by L.Morman  
 Reviewed. No changes required. H Budke, M.D.

**Hematology Tests with Critical Ranges:**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
WBC	DXH690T		0-1 Day	9.0 - 30.0	x10 <sup>3</sup> / uL	< 2.0 and >50.0
			1-3 Days	9.4 - 34.0		
			4 Days - 1 month	5.0 - 20.0		
			1 month - 6 months	4.0 - 19.5		
			6 months - 2 years	6.0 - 17.0		
			2 - 6 years	5.0 - 15.5		
			6 - 18 years	4.5 - 13.5		
		Male	> or = 18 years	4.5 - 11.0		
		Female	> or = 18 years	4.5 - 11.0		
Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Hemoglobin (Hgb)	DXH690T		0-4 Days	14.5-22.5	g/dL	< 9.5 and > 22.5
			4 Days - 1 month	13.4 - 19.8	g/dL	< 6.9 and > 20.8
			1-2 months	10.7 - 17.1		
			2-6 months	9.4 - 13.0		
			6 months - 2 years	10.5 - 13.5		
			2-6 years	11.5 - 13.5		
			6-12 years	11.5 - 15.5		
		Male	12-18 years	13.0 - 16.0	g/dL	< 6.6 and > 19.9
			18 years and older	13.5 - 17.5		
		Female	12-18 years	12.0 - 16.0		
			18 years and older	12.0 - 16.0		
		Platelet Count	DXH690T			150 - 400
Absolute Neutrophil			NEUT#			<15 years < 0.5
Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Bloodborn Parasite Screen	Manual			No parasites seen.		Any parasites seen.

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
INR	Calculation			0.9-1.1		> 5.0
PTT	ACL TOP			25.1-36.5	sec	> 135
Fibrinogen	ACL TOP			200-393	mg/dL	< 75

BVH Critical Test List

<b>Chemistry Tests with Critical Ranges:</b>						
Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Acetaminophen	DXC 700 AU		Therapeutic	10 - 30	ug/mL	> 150
			Hepatotoxic			
			4 hrs Post Ingestion	> 150	ug/ml	
			8 hrs Post Ingestion	> 75	ug/ml	
			12 hrs Post Ingestion	> 40	ug/ml	
Alcohol (ETOH)	DXC 700 AU			< 10 (none detected)	mg/dL	> 300
Ammonia	DXC 700 AU	Both	0 - 2 Weeks	< 90	umol/L	> 100
			2+ Weeks - <18 Years	< 50	umol/L	> 100
			18+ Years	9 - 35	umol/L	> 100
Calcium	DXC 700 AU		0-2 days	6.2 - 11.0	mg/dL	< 5.8, > 13.3
			> 2 days	8.6-10.3	mg/dl	< 6.3, > 13.3
CO2 (Carbon Dioxide)	DXC 700 AU			21-31	mmol/L	< 10, > 40
Creatinine	DXC 700 AU	Male		0.61 - 1.24	mg/dl	> 10.0
		Female		0.44 - 1.03	mg/dl	> 10.0
			4 Hrs - 1 Day	46 - 60	mg/dl	< 35, > 250
			1 Day - 2 Months	51 - 90	mg/dl	< 45, > 250
			2 Months - 16 Yrs	60 - 99	mg/dL	< 54, > 400
			16 year +	70 - 99	mg/dl	< 54, > 400
Lactic Acid	DXC 700 AU			0.5 - 2.0	mmol/L	> 4.0
Magnesium	DXC 700 AU			1.7 - 2.4	mg/dL	< 1.0, > 4.4
Phenobarbital	DXC 700 AU			15 - 40	ug/mL	> 60
Phosphorus	DXC 700 AU		0 - 9 Days	4.5 - 9.0	mg/dL	< 1.0
			10 Days - 2 Years	4.0 - 6.5	mg/dL	
			3 Years - 9 Years	3.2 - 5.8	mg/dL	
			10 Years - 15 Years	3.3 - 5.4	mg/dL	
			16+ Years	2.5 - 4.6	mg/dL	
Potassium	DXC 700 AU		0 - 7 Days	3.2 - 5.5	mmol/L	< 2.5, > 6.5
			8 Days - 1 Year	3.4 - 6.0	mmol/L	< 2.5, > 6.5
			2+ Years	3.4 - 4.8	mmol/L	< 2.5, > 6.0
Salicylate	DXC 700 AU			0 - 30	mg/dL	> 40
Sodium	DXC 700 AU		0 - 1 Year	130- 145	mmol/L	< 120, > 160
			2+ Years	133 - 142		
Tegretol	DXC 700 AU			4 - 12	ug/mL	> 20
Total Bilirubin	DXC 700 AU		0-1 Day	1.4 - 8.7	mg/dL	> 12.0
			1-2 Days	3.4 - 11.5	mg/dL	> 15.0
			3-5 Days	1.5 - 12.0	mg/dL	
			> 5 Days	0.3 - 1.2	mg/dL	
T4, Free	Dxl		0 Day - 10 Years	0.60 - 1.34	ng/dL	> 6.00
			11-18 Years	0.50 - 1.25	ng/dL	> 6.00
			19+ Years	0.61 - 1.12	ng/dL	> 6.00
Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Fasting Glucose	DXC 700 AU			70 -125	mg/dL	< 54, > 400
1 Hour Glucose	DXC 700 AU			70 - 199	mg/dL	< 54, > 400
2 Hour Glucose	DXC 700 AU			70 - 199	mg/dL	< 54, > 400
3 Hour Glucose	DXC 700 AU			70 - 125	mg/dL	< 54, > 400
4 Hour Glucose	DXC 700 AU			70 -125	mg/dL	< 54, > 400
5 Hour Glucose	DXC 700 AU			70 - 125	mg/dL	< 54, > 400
6 Hour Glucose	DXC 700 AU			70 - 125	mg/dL	< 54, > 400

**Gestational Glucose Tolerance, 2 Hour (ADA Recommendations) 75 g Glucola**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Fasting Glucose	DXC 700 AU			70-91	mg/dL	< 54, > 400
1 Hour Glucose	DXC 700 AU			70 - 179	mg/dL	< 54, > 399
2 Hour Glucose	DXC 700 AU			70-152	mg/dL	< 54, > 400

BVH Critical Test List

**Gestational Glucose Tolerance, 3 Hour (ACOG Recommendations) 100 g Glucola**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Fasting Glucose	DXC 700 AU			70 - 94	mg/dL	< 50, > 400
1 Hour Glucose	DXC 700 AU			70 - 179	mg/dL	< 50, > 400
2 Hour Glucose	DXC 700 AU			70 - 154	mg/dL	< 50, > 400
3 Hour Glucose	DXC 700 AU			70 - 139	mg/dL	< 50, > 400

**Gestational Diabetes Screen (ACOG Recommendations) 50 g Glucola**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
1 Hour Glucose	DXC 700 AU			70 - 134	mg/dL	< 54, > 400

**2 Hour Post-Prandial Glucose Test:**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
2 Hour Glucose	DXC 700 AU			70 - 139	mg/dL	< 54, > 400

**Insulin Resistance with Glucose - 2 Hour**

Test	Method	Sex	Criteria	Reference Range	Units	Critical Range
Fasting Glucose	DXC 700 AU			70 - 125	mg/dL	< 54, > 400
1 Hour Glucose	DXC 700 AU			70 - 199	mg/dL	< 54, > 400
2 Hour Glucose	DXC 700 AU			70 - 199	mg/dL	< 54, > 400
Fasting Insulin	DXI 600			1.9 - 23.0	uIU/mL	
1 Hour Insulin	DXI 600			No Ref Range	uIU/mL	
2 Hour Insulin	DXI 600			No Ref Range	uIU/mL	

**Microbiology Tests with Critical Ranges:**

\*Infection Control Concern-only call Inpatient/NH\*

Testing Area:	Test type		Test	Reference Range	Source	Critical Range	
<b>Microbiology</b>	<b>Culture</b>		Blood	Negative	Blood	Positive	
			CSF	Negative	CSF	Positive	
			Acid Fast Bacillus	Negative	All	Positive	
			Group A Strep Backup	Negative	Throat	Positive	
			Group B Strep	Negative	Nursery only	Positive	
			Gonorrhoea	Negative	All	Positive	
		<b>Organism</b>	MDRO*	Negative	All	Positive*	
			CRE*	Negative	All	Positive*	
			ESBL*	Negative	All	Positive*	
			VRE*	Negative	All	Positive*	
	MRSA*	Negative	All	Positive*			
<b>Microbiology</b>	<b>PCR</b>		Bordatella pertussis	Negative	NP	Positive	
			Bordatella para/ bronch	Negative	NP	Positive	
			Bordatella holmesii	Negative	NP	Positive	
			Gonorrhoea PCR	Negative	genital / urine	Positive <16yo	
			Chlamydia PCR	Negative	genital / urine	Positive <16yo	
			MRSA PCR*	Negative	nasal	Positive*	
			CDT Toxin PCR	Negative	stool	Positive	
			Covid PCR*	Negative	nasal	Positive	
<b>Microbiology</b>	<b>EIA</b>		Group A Strep	Negative	Throat	Positive	
			Giardia Antigen	Negative	Stool	Positive	
			Cryptosporidium Antigen	Negative	Stool	Positive	
			CDT Toxin Screen EIA	Negative	Stool	Positive	
			Ova and Parasite	Negative	Stool	Positive	
			Legionella Antigen	Negative	Urine	Positive	



BVH Critical Test List

**Critical Tests by Testing Area: Summary**

Testing Area:	Test
<b>Hematology Critical Tests:</b>	White Blood Cell Count (WBC)
	Hemoglobin (Hgb)
	Absolute Neutrophil Count
	Platelet Count
	Blood Parasites Screen (Malaria)

Testing Area:	Test
<b>Coagulation Critical Tests:</b>	PT/INR (International Normalized Ratio)
	PTT
	Fibrinogen

Testing Area:	Test
<b>Blood Gases Critical Tests:</b>	pH
	pCO2
	pO2
	Oxyhemoglobin
	Carboxyhemoglobin
	Methemoglobin
	O2 Content
	Total Hemoglobin

Testing Area:	Test
<b>Chemistry Critical Test:</b>	Ammonia
	BUN
	Calcium
	CO2
	Creatinine
	CSF Glucose
	CSF Xanthochromia
	Glucose
	Gestational Diabetes Screen Test (Glucose)
	Gestational Diabetes Tolerance Test (Glucose)
	Glucose Tolerance Test
	2 Hour Post-Prandial Glucose Test

BVH Critical Test List

**Critical Tests by Testing Area Summary: (cont.)**

Testing Area:	Test
<b>Chemistry Critical Test: (cont.)</b>	Lactic Acid
	Magnesium
	Phosphorous
	Potassium
	Sodium
	Free T4
	Total Bilirubin
Troponin I	

Testing Area:	Test
<b>Therapeutic Drug Critical Tests:</b>	Digoxin
	Dilantin
	Gentamicin
	Phenobarbital
	Tegretol
	Valproic Acid
	Vancomycin

Testing Area:	Test
<b>Toxicology Critical Tests:</b>	Acetaminophen
	Alcohol (ETOH)
	Salicylate

Testing Area:	Test
<b>Blood Bank Critical Tests:</b>	Transfusion Reaction Evaluation
	Transfusion associated infection or disease
	Antibody Titer increase 2 tube or more
	Positive DAT on a newborn