CHEM 68 Chemistry Reference Intervals

Copy of version 1.4 (approved and current)

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Organization TriHealth, Inc

Author
Betsy Pelzel

Description

Reference Range, Reference Ranges

Comments for version 1.4

added B12-FOL

changed CO2 21-33

Approval and Periodic Review Signatures

Type	Description	Date	Version	Performed By	Notes
Approval	Review	12/17/2025	1.4	Betsy Pelzel	
Approval	Review	10/29/2025	1.3	Betsy Pelzel	
Approval	Review	2/28/2025	1.2	Betsy Pelzel	
Approval	Review	5/01/2023	1.1	Betsy Pelzel	
Approval	Lab Director	12/08/2021	1.0	Sajini Mathew	
Approval Captured outside MediaLab	Lab Director	9/01/2020	1.0	Sajini Mathew	Recorded on 12/01/2021 by Betsy Pelzel when document added to Document Control

Approvals and periodic reviews that occurred before this document was added to Document Control may not be listed.

Version History

Version	Status	Type	Date Added	Date Effective	Date Retired
1.4	Approved and Current	Minor revision	12/12/2025	12/17/2025	Indefinite
1.3	Retired	Minor revision	10/29/2025	10/29/2025	12/17/2025
1.2	Retired	Minor revision	2/28/2025	3/11/2025	10/29/2025
1.1	Retired	Minor revision	11/07/2022	5/01/2023	3/11/2025
1.0	Retired	First version in Document Control	12/01/2021	9/01/2020	5/01/2023

TriHealth Laboratories

CHEMISTRY REFERENCE INTERVALS

SQ	TEST	SEX (if applicable)	AGE (if applicable)	RESULT	UNITS
AMEN	Acetaminophen			10.0-30.0	mcg/mL
ALB	Albumin			3.5-5.7	g/dL
ALKP	Alkaline Phosphatase		>16	35-135	IU/L
ALT	ALT (Alanine Aminotransferase)			10-60	IU/L
AMIK	Amikacin			5.00-30.00	mcg/mL
NH3	Ammonia			16-53	mcmol/L
AMYL	Amylase			28-100	U/L
AST	AST (Aspartate Aminotransferase)		>20	10-40	IU/L
BHCG	Beta HCG, Quantitative	Female	Non-Pregnant	<5.0	mIU/mL
			Postmenopausal	<11.7	
BHOB	Beta-Hydroxybutyrate			0.02-0.27	mmol/L
DBIL	Bilirubin, Direct			0.0-0.2	mg/dL
	Bilirubin, Indirect			0.1-1.0	mg/dL
TBIL	Bilirubin, Total		Adult	0.0-1.2	mg/dL
NBILI			Neonatal	0-1 day: 0.1-5.1 1-2 days: 0.1-7.2 3-5 days: 0.1-10.3 6 days- 9 yrs: 0.1-0.8	
BNP	BNP (B-type Natriuretic Peptide)	Male	0-53 years	0-23	pg/mL
			54-63 years	0-38	
			64-74 years	0-72	
			>75 years	0-77	
		Female	0-53 years	0-47	
			54-63 years	0-71	
			64-74 years	0-80	
			>75 years	0-95	
BUN	BUN (Blood Urea Nitrogen)			8-26	mg/dL
CA	Calcium			8.5-10.4	mg/dL
CAIO	Calcium, Ionized		<1 year	4.7-5.3	mg/dL
			≥1 year	4.6-5.4	
CBRMZ	Carbamazepine			4.0-12.0	mcg/mL
CO2	Carbon Dioxide			21-33	mmol/L
CL	Chloride			98-111	mmol/L
CHOL	Cholesterol, Total			<200	mg/dL
CK	CK (Creatine Kinase)			30-233	IU/L
CREAT	Creatinine	Male		0.70-1.30	mg/dL
		Female		0.60-1.20	
CRP	CRP (C-Reactive Protein)			<5.0	mg/L

SQ	TEST	SEX (if applicable)	AGE (if applicable)	RESULT	UNITS
DIG	Digoxin			0.8-2.0	ng/mL
ESTD	Estradiol	Male		<31.5	pg/mL
		Female	Early Follicular	22.4-115.0	
			Midfollicular	25.0-115.0	
			Ovulatory Peak	32.1-517.0	
			Midluteal	36.5-246.0	
			Postmenopausal	<15.0-25.1	
ETOH	Ethanol			<10	mg/dL
FE	Iron			50-212	mcg/dL
FERR	Ferritin	Male		30.0-336.2	ng/mL
		Female		30.0-306.8	
FOL	Folate			>5.8	ng/mL
GENT	Gentamicin-random			2.0-10.0	mcg/mL
GGT	GGT (Gamma Glutamyl Transferase)			7-60	IU/L
GLU	Glucose			70-99	mg/dL
HDL	HDL			>50	mg/dL
IGA	Immunoglobulin A (IgA)		>18 years	64-433	mg/dL
IGG	Immunoglobulin G (IgG)		>18 years	635-1742	mg/dL
IGM	Immunoglobulin M (IgM)		>18 years	42-281	mg/dL
LACT	Lactate			0.5-2.0	mmol/L
LDH	LDH (Lactate Dehydrogenase)			100-271	IU/L
LDL	LDL *(calculated)*			<130	mg/dL
LH	LH (Luteinizing Hormone)	Male		1.2-8.6	mIU/mL
		Female	Midfollicular	2.1-10.9	
			Midcycle	19.2-103.0	
			Midluteal	1.2-12.9	
			Postmenopausal	10.9-58.6	
LIPA	Lipase			11-82	U/L
LI	Lithium			0.6-1.2	mmol/L
MAG	Magnesium			1.7-2.4	mg/dL
NHDLC	Non-HDL Cholesterol			<130	mg/dL
OSMO	Osmolality (serum)			280-300	mOsm/kg
OSMO	Osmolality (urine)			50-800	mOsm/kg
PHEN	Phenobarbital			15.0-40.0	mcg/mL
DIL	Phenytoin (Dilantin)			10.0-20.0	mcg/mL
PHOS	Phosphorus		<1 year	6.0-12.0	mg/dL
			>1 year	2.5-4.5	
K	Potassium			3.6-5.1	mmol/L
PCALM	Procalcitonin			0.00-0.10	mcg/L

SQ	TEST	SEX (if applicable)	AGE (if applicable)	RESULT	UNITS
PROG	Progesterone	Male		0.1-0.8	ng/mL
		Non-Pregnant Female	Midfollicular	0.3-1.5	
			Midluteal	5.2-18.6	
			Postmenopausal	<0.1-0.8	
		Pregnant Female	1st Trimester	4.7-50.7	
			2nd Trimester	19.4-45.3	
TP	Protein, Total			6.0-8.0	g/dL
SALI	Salicylate			<31	mg/dL
NA	Sodium			135-145	mmol/L
THEO	Theophylline			8.0-20.0	mcg/mL
TOBR	Tobramycin-random			0.0-10.0	mcg/mL
TRIG	Triglyceride			<150	mg/dL
HSTNI	Troponin I, High-Sensitivity	Male		<20	ng/L
		Female		<15	
TRNSF	Transferrin			203-362	mg/dL
SAT	IRON Saturation			15-55	%
TIBC	Total iron binding			260-450	mcg/dL
URIC	Uric Acid	Male		4.4-7.8	mg/dL
		Female		2.3-6.6	
UPCR	Urine Protein/Creatinine Ratio			<0.16	
VALP	Valproic Acid			50.0-100.0	mcg/mL
VANC	Vancomycin			5.0-40.0	mcg/mL
B12	Vitamin B12			180-914	pg/mL
BG	**ARTERIAL BLOOD GASES**				
	pH			7.35-7.45	
	pCO_2			34-46	mm Hg
	pO_2			90-110	mm Hg
	HCO_3			21-29	mmol/L
	Base Excess			0-2	mmol/L
	O_2 Saturation			92-96	%
CO	Carbon Monoxide			0.0-1.5	%
MHGB	Methemoglobin			0-2	%