Lipid Panel		
Test	**SI Units**	**Conventional Units**
Total Cholesterol	Desirable: < 5.2 mmol/L	Desirable: < 200 mg/dL
Triglycerides	Desirable : 1.7 – 2.2 mmol/L	Desirable : 150 – 199 mg/dL
HDL Cholesterol	Desirable : 1.0 – 1.5 mmol/L	Desirable : 40 - 59 mg/dL
LDL Cholesterol	Desirable : <3.40 mmol/L	Desirable : <130 mg/dL
Chol/HDL Ratio	< 4.60	-

Renal Panel		
Test	**SI Units**	**Conventional Units**
Sodium	136 – 145 mmol/L	-
Potassium	3.5 – 5.1 mmol/L	-
Chloride	96 – 108 mmol/L	-
Bicarbonate	20-32 mmol/L	-
Urea	2.76 – 8.07 mmol/L	16.6 – 48.5 mg/dL
Creatinine	Generic (M/F): ≤ 1 year : 15 - 37 umol/L > 1 year to 3 years : 21 - 36 umol/L > 3 years to 5 years : 27 - 42 umol/L > 5 years to 7 years : 28 - 52 umol/L > 7 years to 9 years : 35 - 53 umol/L > 9 years to 11 years : 34 - 65 umol/L > 11 years to 13 years : 46 - 70 umol/L > 13 years to 15 years : 44 - 110 umol/L Adults (Male) : 50 - 120 umol/L Adults (Female): 35 - 83 umol/L	Generic (M/F): ≤ 1 year : 0.17 – 0.42 mg/dL > 1 year to 3 years : 0.24 – 0.41 mg/dL > 3 years to 5 years : 0.31 – 0.47 mg/dL > 5 years to 7 years : 0.32 – 0.59 mg/dL > 7 years to 9 years : 0.40 – 0.60 mg/dL > 9 years to 11 years : 0.39 – 0.73 mg/dL > 11 years to 13 years : 0.53 – 0.79 mg/dL > 13 years to 15 years : 0.50 – 1.20 mg/dL Adults (Male) : 0.57 – 1.36 mg/dL Adults (Female): 0.40 – 0.94 mg/dL
eGFR	>60 mL/min/1.73m^2	-
Urine Protein Creatinine Ratio (UPCR)	< 0.18 Normal > 2.50 suggests the presence of nephritic range of proteinuria.	-
24 hr Urine Total Protein	Adult (M/F): < 0.025 – 0.125 g/24hr	Adult (M/F): 25 - 125 mg/24hr
24 hr Urine Creatinine Clearance	Adult (M/F): 71 – 151 mL/min	-
24 hr Urine Uric Acid	Adult (M/F): 1.49 to 4.46 mmol/24hr	Adult (M/F): 250 to 750 mg/24hr
24 hr Urine Magnesium	Adult (M/F): 3.0 - 5.0 mmol/24hr	-
24 hr Urine Phosphate	Adult (M/F): 13 – 42 mmol/24hr	-
24 hr Urine Potassium	Adult (M/F): 25 -125 mmol/24hr	-
24 hr Urine Sodium	Adult (M/F): 40 - 220 mmol/24hr	-
24 hr Urine Chloride	Adult (M/F): 110 -250 mmol/24hr	-
24 hr Urine Urea	Adult (M/F): 428 – 714 mmol/24hr	Adult (M/F): 26– 43 g/24hr
24 hr Urine Microalbumin	Adult (M/F): < 30 mg/24hr	-
Urine Microalbumin / Creatinine Ratio	Male Normal: < 2.5 mg/mmol Microalbuminuria : 2.5 - 30 mg/mmol Macroalbuminuria : > 30 mg/mmol Female Normal : < 3.5 mg/mmol Microalbuminuria : 3.5 - 30 mg/mmol Macroalbuminuria : > 30 mg/mmol	-

Liver and Bone Panel		
Test	**SI Units**	**Conventional Units**
Total Protein	60 – 80 g/L	6.0 – 8.0 g/dL
Albumin	up to 4 days : 28 to 44 g/L 4 days to 14 years : 38 to 54 g/L 14 - 18 years : 32 to 45 g/L > 18 years : 35 to 50 g/L	up to 4 days : 2.8 to 4.4 g/dL 4 days to 14 years : 3.8 to 5.4 g/dL 14 - 18 years : 3.2 to 4.5 g/dL > 18 years : 3.5 to 5.0 g/dL
Globulin	20 to 34 g/L	2.0 to 3.4 g/dL
A/G Ratio	1.3 to 2.4	1.3 to 2.4

Total Bilirubin	Children with age ≥ 1 mth : Up to 17 µmol/L Adults : Up to 21 µmol/L	Children with age ≥ 1 mth : Up to 1.0 mg/dL Adults : Up to 1.2 mg/dL
Direct Bilirubin	2.0-7.8 µmol/L	0.10 to 0.50 mg/dL
Alkaline Phosphatase	Male 0 - 14 days : 83-248 U/L 15 days - < 1 year : 112 -469 U/L 1 - < 10 years : 142 - 335 U/L 10 - > 13 years : 129 – 417 U/L 13 - < 15 years : 116 - 468 U/L 15 - < 17 years : 82 - 331 U/L 17 - < 19 years : 55 - 149 U/L >18 years : < 130 U/L Female 0 - 14 days : 83-248 U/L 15 days - < 1 year : 112 -469 U/L 1 - < 10 years : 142 - 335 U/L 10 - > 13 years : 129 – 417 U/L 13 - < 15 years : 57 – 254 U/L 15 - < 17 years : 20 - 117 U/L 17 - < 19 years : 45 - 87 U/L >18 years : < 105 U/L	-
SGOT (AST)	Male: <51 U/L Female: <36 U/L	-
SGPT (ALT)	Male: <51 U/L Female: <36 U/L	-
GGT	Male: <60 U/L Female: <40 U/L	-
Calcium	Generic (M/F): Up to 10 days : 1.90 to 2.60 mmol/L >14 days and above : 2.25 to 2.75 mmol/L 18-60yrs : 2.15 to 2.50 mmol/L 60-90yrs : 2.20 to 2.55 mmol/L >90yrs : 2.05 to 2.40 mmol/L	Generic (M/F): Up to 10 days : 7.6 to 10.4 mg/dL >14 days and above : 9.0 to 11.0 mg/dL 18-60yrs : 8.6 to 10.0 mg/dL 60-90yrs : 8.8 to 10.2 mg/dL >90yrs : 8.2 to 9.6 mg/dL
Albumin Adjusted Calcium	Up to 14 days : 1.90 to 2.70 mmol/L >14 days and above : 2.10 to 2.60 mmol/L	Up to 14 days : 7.6 to 10.8 mg/dL >14 days and above : 8.4 to 10.4 mg/dL
Phosphate	Male 1 – 30 days : 1.25 – 2.25 mmol/L 1 – 12 months : 1.15 – 2.15 mmol/L 1 – 3 years : 1.00 – 1.95 mmol/L 4 – 6 years : 1.05 – 1.80 mmol/L 7 – 9 years : 0.95 – 1.75 mmol/L 10 – 12 years : 1.05 – 1.85 mmol/L 13 – 15 years : 0.95 – 1.65 mmol/L 16 – 18 years : 0.85 – 1.60 mmol/L 19 years and above : 0.81 – 1.45 mmol/L Female 1 – 30 days : 1.40 – 2.50 mmol/L 1 – 12 months : 1.20 – 2.10 mmol/L 1 – 3 years : 1.10 – 1.95 mmol/L 4 – 6 years : 1.05 – 1.80 mmol/L 7 – 9 years : 1.00 – 1.80 mmol/L 10 – 12 years : 1.05 – 1.70 mmol/L 13 – 15 years : 0.90 – 1.55 mmol/L 16 – 18 years : 0.80 – 1.55 mmol/L 19 years and above : 0.81 – 1.45 mmol/L	Male 1 – 30 days : 3.88 - 6.98 mg/dL 1 – 12 months : 3.56 - 6.67 mg/dL 1 – 3 years : 3.10 - 6.05 mg/dL 4 – 6 years : 3.26 - 5.58 mg/dL 7 – 9 years : 3.10 - 5.58 mg/dL 10 – 12 years : 3.26 - 5.27 mg/dL 13 – 15 years : 2.79 - 4.81 mg/dL 16 – 18 years : 2.48 - 4.81 mg/dL 19 years and above : 2.51 - 4.50 mg/dL Female 1 – 30 days : 4.34 - 7.75 mg/dL 1 – 12 months : 3.72 - 6.51 mg/dL 1 – 3 years : 3.41 - 6.05 mg/dL 4 – 6 years : 3.26 - 5.58 mg/dL 7 – 9 years : 2.95 - 5.43 mg/dL 10 – 12 years : 3.26 - 5.74 mg/dL 13 – 15 years : 2.95 - 5.12 mg/dL 16 – 18 years : 2.64 - 4.96 mg/dL 19 years and above : 2.51 - 4.50 mg/dL
Uric Acid	Male: 0.24 to 0.49 mmol/L Female: 0.15 to 0.37 mmol/L	Male: 4.0 to 8.2 mg/dL Female: 2.52 to 6.22 mg/dL
R A Factor	< 14 IU/mL	-
Cyclic Citrullinated Peptides Autoantibodies (ACCP)	< 17 U/mL	
Haptoglobin	0.3 – 2.0 g/L	-

Lactate Dehydrogenase (LDH)	Children (2-15y): 120 – 300 U/L Adults: <250 U/L	-
Amylase	28 - 100 U/L	-
Glucose Panel		
Test	**SI Units**	**Conventional Units**
Glucose	Fasting : 3.9 – 6.0 mmol/L Random : 3.9 – 11.0 mmol/L 2hr Post Prandial : 3.6 – 7.8 mmol/L	Fasting : 70 - 108 mg/dL Random : 70 - 198 mg/dL 2hr Post Prandial : 65 - 140 mg/dL
HbA1c	Screening Ranges Low risk of diabetes: ≤ 6.0% Proceed to FPG or OGTT: 6.1 to 6.9% High risk of diabetes: ≥ 7.0% Therapeutic Ranges Ideal : 4.5 to 6.4% Optimal: 6.5 to 7.0% Sub-optimal: 7.1 to 8.0% Unacceptable: > 8.0%	-
Insulin	2.6 - 24.9 µU/mL	
HOMA-INSULIN RESISTANCE (IR) SCORE	Normal : < 3	
	Moderate : 3 to 5	
	Severe : > 5	
Special Proteins		
Test	**SI Units**	
Alpha2-Macroglobulin	Male: 1.06 – 2.10 g/L Female: 1.15 – 2.52 g/L	
Complement C3	0.9 – 1.8 g/L	
Complement C4	0.10 – 0.40 g/L	
Anaemia Panel		
Test	**SI Units**	**Conventional Units**
Iron	5.83 - 34.5 µmol/L	33 - 193 µg/dL
Total Iron Binding Capacity (TIBC)	28 - 77 µmol/L	154 - 430 µg/dL
% Iron Saturation	21 - 54 %	-
Transferrin	2.0 - 3.6 g/L	200 - 360 mg/dL
Ferritin	Male: < 1 year: 12-327 µg/L 1-3 years: 6-67 µg/L 4-6 years: 4-67 µg/L 7-12 years: 14-124 µg/L 13-17 years: 14-152 µg/L Adult: 30-400 µg/L Female: < 1 year: 12-327 µg/L 1-3 years: 6-67 µg/L 4-6 years: 4-67 µg/L 7-12 years: 7-84 µg/L 13-17 years: 13-68 µg/L Adult: 13-150 µg/L	-
Folic Acid	Male: 10.2 – 73.0 nmol/L Female: 10.9 – 84.5 nmol/L	-
Vitamin B12	145 - 569 pmol/L	-
Cardiac Markers		
Test	**SI Units**	**Conventional Units**
Creatine Kinase	Male: 39 – 308 U/L Female: 26 – 192 U/L	-
Homocysteine	<15 µmol/L	-

High Sensitive Troponin-I	**Risk stratification cutoff for cardiovascular disease** Male Low : <6 pg/mL Moderate : ≥ 6 to ≤ 12 pg/mL Elevated : > 12 pg/mL Female Low : <4 pg/mL Moderate : ≥ 4 to ≤ 10 pg/mL Elevated : > 10 pg/mL **AMI Exclusion** Male : < 34.2 pg/mL Female : < 15.6 pg/mL	-
CK-MB	Male: < 6.23 ng/mL Female: <4.89 ng/mL	-
HS C-Reactive Protein (hsCRP)	Low risk : Less than 1.0 mg/L Average risk : Between 1.0 – 3.0 mg/L Increased risk : Greater than 3.0 mg/L Suggestion of infection / other sources of inflammation :Greater than 5.0 mg/L	-
Apolipoprotein A1	Male: 1.04 – 2.02 g/L Female: 1.08 – 2.25 g/L	-
Apolipoprotein B	Male: 0.66 – 1.33 g/L Female: 0.60 – 1.17 g/L.	-
Apolipoprotein A1 / B Ratio	0.22 to 0.80 g/L	-
Homocysteine (HOC)	≤ 15 µmol/L	
hsTroponin T (hsTROP/TnT)		< 14 pg/mL
Lipoprotein(a) [Lp(a)]	Normal: <75 nmol/L Intermediate: 75 - 125 nmol/L Abnormal: >125 nmol/L	-
NT-proBNP		<125 pg/mL
D-Dimer (DDI)		< 0.5 ug/mL
Thyroid Panel		
Test	**SI Units**	
FT3	Group GEL Children, Adolescents: 0 to 6 days: 2.66 – 9.68 pmol/L > 6 days to ≤ 3 months: 3.00 – 9.28 pmol/L >3 months to ≤ 12 Months: 3.30 – 8.95 pmol/L > 1 year to ≤ 6 Years: 3.70 – 8.45 pmol/L > 6 years to ≤ 11 Years: 3.89 – 8.02 pmol/L >11 years to ≤ 20 Years: 3.93 – 7.70 pmol/L Adults: 3.10 – 6.80 pmol/L **Pregnant women**: 1st Trimester: 3.78 - 5.98 pmol/L 2nd Trimester: 3.21 - 5.45 pmol/L 3rd Trimester: 3.09 - 5.02 pmol/L	
FT4	0-1 day: 10-22 pmol/L 2-6 days: 15.5-40.1 pmol/L 7 days-1 year: 13.9-26.1 pmol/L 2-7 years: 12.1-22.0 pmol/L 8-13 years: 13.9-22.1 pmol/L 14-18 years: 13.6-23.2 pmol/L Adult: 12 - 22 pmol/L **Pregnant female**: 1st Trimester: 12.1 – 19.6 pmol/L 2nd Trimester: 9.6 – 17.0 pmol/L 3rd Trimester: 8.4 – 16.0 pmol/L	

TSH	0-1 day: 2-25 mIU/L 2-5 days: 0.70-15.2 mIU/L 6 days-3 months: 0.72-11.0 mIU/L 4-12 months: 0.73-8.35 mIU/L 1-6 years: 0.70-5.97 mIU/L 7-11 years: 0.60-4.84 mIU/L 12-20 years: 0.51-4.30 mIU/L Adult: 0.270-4.200 mIU/L **Pregnant female**: 1st Trimester: 0.33 - 4.59 mIU/L 2nd Trimester: 0.35 - 4.10 mIU/L 3rd Trimester: 0.21 - 3.15 mIU/L	
Total T3	1.3-3.1 nmol/L	
Anti-Tg	<4.11 IU/mL	
Anti-TPO	<5.61 IU/mL	
Anti TSH Receptor (ATSHR; TRAb)	< 1.23 IU/L	
Thyroglobulin	3.68 to 64.15 ug/L	
Tumor Markers		
Test	**SI Units**	
Alpha Feto Protein (AFP)	**Tumor Marker Cutoff**: < 7.1 ng/mL **Maternal serum range** Gestation Week 14 : Up to 27.9 ng/mL Gestation Week 15 : Up to 30.9 ng/mL Gestation Week 16 : Up to 36.1 ng/mL Gestation Week 17 : Up to 40.4 ng/mL Gestation Week 18 : Up to 48.3 ng/mL Gestation Week 19 : Up to 54.8 ng/mL	
CA125	<36 U/mL	
CA 15-3	< 34.5 U/mL	
CA 19-9	< 39 U/mL	
Carcinoembryonic Antigen (CEA)	< 5 µg/L	
Total PSA	< 4.000 ng/mL	
Squamous Cell Carcinoma Antigen (SCC)	< 2.1 ng/mL	
Hormones		
Test	**SI Units**	
ANTI-MÜLLERIAN HORMONE (AMH)	Healthy Men: 5.50 – 103.00 pmol/L Healthy Women: 20 – 24 years: 8.71 – 83.60 pmol/L 25 – 29 years: 6.35 – 70.30 pmol/L 30 – 34 years: 4.11 – 58.00 pmol/L 35 – 39 years: 1.05 – 53.50 pmol/L 40 – 44 years: 0.19 – 39.10 pmol/L 45 – 50 years: 0.07 – 19.30 pmol/L Polycystic ovary syndrome (PCOS) women: 13.30 – 135.00 pmol/L *Ovarian Reserve: Very low ovarian reserve: < 0.8 pmol/L Low ovarian reserve: 0.8 to < 4.5 pmol/L Normal ovarian reserve: 4.5 to < 14.3 pmol/L Good ovarian reserve: ≥ 14.3 pmol/L	
CORTISOL	Morning hours (6-10 am): 133-537 nmol/L Afternoon hours (4-8 pm): 68.2-327 nmol/L	

DHEA-S	Children (M/F) < 1 week : 108-607 ug/dL 1-4 weeks : 31.6-431 ug/dL 1-12 months : 3.4-124 ug/dL 1-4 years : 0.47-19.4 ug/dL 5-9 years : 2.8-85.2 ug/dL Adult Male 10-14 Years : 24.4-247 ug/dL 15-19 Years : 70.2-492 ug/dL 20-24 Years: 211-492 ug/dL 25-34 Years : 160-449 ug/dL 35-44 Years : 88.9-427 ug/dL 45-54 Years : 44.3-331 ug/dL 55-64 Years : 51.7-295 ug/dL 65-74 Years : 33.6-249 ug/dL ≥ 75 Years : 16.2-123 ug/dL	
	Adults Female 10-14 Years : 33.9-280 ug/dL 15-19 Years : 65.1-368 ug/dL 20-24 Years : 148-407 ug/dL 25-34 Years : 98.8-340 ug/dL 35-44 Years : 60.9-337 ug/dL 45-54 Years : 35.4-256 ug/dL 55-64 Years : 18.9-205 ug/dL 65-74 Years : 9.40-246 ug/dL ≥ 75 Years : 12.0-154 ug/dL	
ESTRADIOL	Male: 41.4 – 159 pmol/L Female (non-pregnant): Follicular phase: 45.4 – 854 pmol/L Ovulation phase: 151 – 1461 pmol/L Luteal phase: 81.9 – 1251 pmol/L Postmenopausal: <505 pmol/L Female (pregnant): 1st trimester: 563 – 11902 pmol/L 2nd trimester: 5729 – 78098 pmol/L 3rd trimester: 31287 - >110100 pmol/L	
FOLLICLE STIMULATING HORMONE	Male: 1.5 – 12.4 IU/L Female: Follicular phase: 3.5 – 12.5 IU/L Ovulation phase: 4.7 – 21.5 IU/L Luteal phase: 1.7 – 7.7 IU/L Postmenopausal: 25.8 – 134.8 IU/L	

β-HUMAN CHORIONIC GONADOTROPIN (HCG BETA)	Male < 2.0 mIU/mL Female: non-pregnant premenopausal ≤ 1 mIU/mL Female: Postmenopausal: ≤ 7 mIU/mL Gestation week Reference range (IU/L) (mIU/mL) 3 weeks : 5.8 - 71.2 4 weeks : 9.5 - 750.0 5 weeks : 217 - 7138 6 weeks : 158 - 31795 7 weeks : 3697 - 163563 8 weeks : 32065 - 149571 9 weeks : 63803 - 151410 10 weeks : 46509 - 186977 12 weeks : 27832 - 210612 14 weeks : 13950 - 62530 15 weeks : 12039 - 70791 16 weeks : 9040 - 56451 17 weeks : 8175 - 55868 18 weeks : 8099 - 58176	
LUTEINIZING HORMONE (LH)	Male: 1.7 mIU/mL - 8.6 mIU/mL Female: Follicular phase: 2.4 mIU/mL - 12.6 mIU/mL Ovulation phase: 14.0 mIU/mL- 95.6 mIU/mL Luteal phase : 1.0mIU/mL - 11.4 mIU/mL Postmenopause: 7.7 mIU/mL - 58.5 mIU/Ml	
PARATHYROID HORMONE	1.6-6.9 pmol/L	
PROGESTERONE	Male: 0.16 - 0.47 nmol/L Female (non-pregnant): Follicular Phase: 0.18-2.84 nmol/L Ovulation Phase: 0.39-38.10 nmol/L Luteal Phase: 5.82-75.90 nmol/L Postmenopause: 0.16-0.40 nmol/L Female (pregnant): 1st trimester: 35-141 nmol/L 2nd trimester: 80.80-264 nmol/L 3rd trimester: 187-681 nmol/L	
PROLACTIN	Male: 4.04 - 15.2 ng/mL Female: 4.8-23.3 ng/mL (Non-pregnant)	
TESTOSTERONE	Males: 20-49 yrs (5-95th percentile): 8.64-29.0 nmol/L ≥ 50 yrs (5-95th percentile): 6.68-25.7 nmol/L Females: 20-49 yrs (5-95th percentile): 0.290-1.67 nmol/L	
Free Testosterone (calculated)	**Male** 20 - 49 years old : 0.198 - 0.619 nmol/L >= 50 years old : 0.163 - 0.473 nmol/L **Female** 20 - 49 years old : 0.003 - 0.033 nmol/L >= 50 years old : 0.001 - 0.020 nmol/L	

Bioavailable Testosterone (calculated)	**Male** 20 - 49 years old : 4.360 - 14.300 nmol/L >= 50 years old : 3.590 - 11.000 nmol/L **Female** 20 - 49 years old : 0.059 - 0.756 nmol/L >= 50 years old : 0.030 - 0.430 nmol/L	
CALCULATED FREE ANDROGEN INDEX (FAI)	**Free Androgen Index (FAI) %** **Male** ≤29 years old : 30.0 - 128.0 % <39 years old : 24.0 - 122.0 % <49 years old : 14.0 - 126.0 % >48 years old : 18.0 - 82.0 % **Female** ≤ 49 years old : 0.4 - 8.4 % > 49 years old : 0.4 - 6.6 %	
Sex Hormone Binding Globulin (SHBG)	**Male** 20 - 49 years old : 16.5 - 55.9 nmol/L >= 50 years old : 19.3 - 76.4 nmol/L **Female** 20 - 49 years old : 24.6 - 122 nmol/L >= 50 years old : 17.3 - 125 nmol/L	
ACTH	1.6 to 13.9 pmol/L	

Test	SI Units	Conventional Units
VITAMIN D TOTAL	Deficient: < 25.0 nmol/L Insufficient: 25.0 - 74.9 nmol/L Desirable: 75.0 - 249.9 nmol/L Possible Toxicity: ≥250.0 nmol/L	Deficient: < 10.0 ng/mL Insufficient: 10.0 - 29.9 ng/mL Desirable: 30.0 - 99.9 ng/mL Possible Toxicity: ≥ 100.0 ng/mL

IGE

Test	SI Units	-
TOTAL IMMUNOGLOBULIN E	Neonates (up to 28 days): < 1.5 IU/mL Infants in 1st year of life (>28 days and up to 1 year): < 15 IU/mL Children aged 1-5 years: <60 IU/mL Children aged 6-9 years: <90 IU/mL Children aged 10-15 years: <200 IU/mL Adults: <100 IU/mL	
IgA	**Children and juveniles** 0 - 1 year : 0.05 to 0.83 g/L 1 - 3 years : 0.20 to 1.00 g/L 4 - 6 years : 0.27 to 1.95 g/L 7 - 9 years : 0.34 to 3.05 g/L 10 - 11 years : 0.53 to 2.04 g/L 12 - 13 years : 0.58 to 3.58 g/L 14 - 15 years : 0.50 to 2.49 g/L 16 - 19 years : 0.61 to 3.48 g/L **Adult (>19 yrs)** : 0.7 – 4.0 g/L	
IgG	**Children and juveniles** 0 – 14 days : 3.20 to 12.10 g/L 15 days - <1 yr : 1.48 to 6.31 g/L 1 - < 4 yrs : 3.17 to 9.94 g/L 4 - < 10 yrs : 5.01 to 11.70 g/L 10 - < 19 yrs : 5.95 to 13.10 g/ **Adult (≥19 yrs)** : 7 - 16 g/L	

IgM	**Children and juveniles** 0 - 1 year : 0.00-1.45 g/L 1 - 3 years : 0.19-1.46 g/L 4 - 6 years : 0.24-2.10 g/L 7 - 9 years : 0.31-2.08 g/L 10 -11 years : 0.31-1.79 g/L 12 -13 years : 0.35 -2.39 g/L 14 -15 years : 0.15-1.88 g/L 16 -19 years : 0.23-2.59 g/L **Adult (>19 yrs)** : 0.4 - 2.3g/L	

Test	SI Units	Conventional Units
ANTI-STREPTOLYSIN-O (ASO)	≤ 200 IU/mL	
Ethanol	Flushing, slowly of reflexes, impaired visual activity: 0.02 - 0.10 g/dL. Depression of CNS: > 0.10 g/dL. Fatalities: > 0.40 g/dL.	
Magnesium	12 - 20 Years : 0.70 – 0.91 mmol/L < 60 Years: 0.66 – 1.07 mmol/L 60 - 90 Years: 0.66 – 0.99 mmol/L > 90 Years: 0.70 – 0.95 mmol/L	12 - 20 Years : 1.70 - 2.21 mg/dL < 60 Years: 1.60 - 2.60 mg/dL 60 - 90 Years: 1.60 - 2.41 mg/dL > 90 Years: 1.70 - 2.31 mg/dL
Hepatitis B Surface Antigen (QUANTITATIVE) (HSQ)	< 0.05 IU/mL	
Procalcitonin (PCT)	< 0.5 ng/mL	
Cholinesterase	5320 - 12920 U/L	

Insulin Like Growth Factor 1

Male		
Age (years)	Range (ng/mL)	
	Low	High
3 months	12	94.1
6 months	11.8	94.6
1	11.8	96.4
2	13.9	104
3	18.9	116
4	26.8	134
5	36.6	156
6	47.1	184
7	57.5	216
8	67.5	254
9	76.9	296
10	85.7	343
11	93.9	392
12	101	434
13	108	467
14	115	489
15	120	501
16	125	503
17	129	495
18	132	476
19	134	450
20	136	421
21	137	394
22	137	370
23	136	348
24	135	328
25	132	310
26	130	295
27	128	282

Male		
Age (years)	Range (ng/mL)	
	Low	High
28	125	271
29	123	263
30	120	257
31	118	253
32	116	250
33	114	247
34	111	244
35	109	242
36	107	239
37	105	236
38	103	234
39	101	231
40	98.5	229
41	96.4	226
42	94.4	223
43	92.4	221
44	90.5	218
45	88.5	216
46	86.5	214
47	84.6	211
48	82.6	209
49	80.6	207
50	78.7	205
51	76.7	203
52	74.8	201
53	72.8	200
54	70.9	198
55	68.9	196

Male		
Age (years)	Range (ng/mL)	
	Low	High
56	67	195
57	65.3	194
58	63.7	193
59	62.3	192
60	61.1	191
61	60	190
62	59.2	189
63	58.5	188
64	57.9	188
65	57.4	187
66	56.8	186
67	56.3	186
68	55.8	185
69	55.2	185
70	54.7	185
71	54.1	184
72	53.6	184
73	53	184
74	52.4	184
75	51.9	184
76	51.3	184
77	50.7	184
78	50.2	184
79	49.6	184

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Female		
Age (years)	Range (ng/mL)	
	Low	High
3 months	13.8	86.4
6 months	15.4	92
1	18.7	104
2	26.1	128
3	34.2	155
4	43.2	185
5	53	216
6	63.6	250
7	75	286
8	87.3	324
9	99.9	363
10	112	398
11	123	427
12	132	451
13	140	468
14	146	480
15	151	485
16	154	485
17	156	479
18	156	466
19	155	449
20	152	429
21	148	410
22	143	392
23	138	375
24	134	359
25	130	343
26	126	329
27	122	315

Female		
Age (years)	Range (ng/mL)	
	Low	High
28	118	303
29	115	292
30	112	281
31	109	271
32	107	263
33	104	255
34	102	248
35	100	242
36	98.3	238
37	96.5	234
38	94.8	231
39	93.1	228
40	91.4	227
41	89.8	225
42	88.1	224
43	86.5	222
44	84.9	221
45	83.3	220
46	81.8	219
47	80.2	218
48	78.7	218
49	77.2	217
50	75.7	215
51	74.3	214
52	72.8	212
53	71.4	210
54	70	207
55	68.6	204
56	67.3	201

Female		
Age (years)	Range (ng/mL)	
	Low	High
57	65.9	198
58	64.6	194
59	63.3	190
60	62	186
61	60.7	182
62	59.5	179
63	58.3	176
64	57.3	173
65	56.3	170
66	55.5	168
67	54.8	166
68	54.2	164
69	53.8	163
70	53.5	162
71	53.3	161
72	53.2	160
73	53.2	160
74	53.3	160
75	53.5	160
76	53.7	161
77	54	162
78	54.3	163
79	54.7	164
80	55.1	166

FRIEDWALD FORMULA
LDL- C (mg/dL) = [Total Cholesterol – {(Triglycerides/2.2) + HDL}] x 38.61
LDL- C (mmol/L) = Total Cholesterol – {(Triglycerides/2.2) + HDL}

Estimated Glomerular Filtration Rate (eGFR) calculated using the CKD-EPI equation:

Female:

When serum creatinine **≤ 0.7 mg/dL**, $eGFR = 144 \times (Scr/0.7)^{-0.329} \times (0.993)^{Age}$
When serum creatinine **> 0.7 mg/dL**, $eGFR = 144 \times (Scr/0.7)^{-1.209} \times (0.993)^{Age}$

Male:

When serum creatinine **≤0.9 mg/dL**, $eGFR = 141 \times (Scr/0.9)^{-0.411} \times (0.993)^{Age}$
When serum creatinine **>0.9 mg/dL,** $eGFR = 141 \times (Scr/0.9)^{-1.209} \times (0.993)^{Age}$

Where Scr is the serum Creatinine in mg/dL.

The eGFR is expressed in mL/min/1.73m2