

Reference ranges are quoted on all reports where appropriate for the test carried out.

The reference range and reporting units, including any interpretive information, is specific to the methodology used including patient's sex and age, if appropriate. The laboratory ensures the reference ranges remain current for each test methodology, by using its Pathology harmonised reference ranges and manufactured reference ranges where appropriate.

Results may be flagged as being outside the reference range, if very high or very low, and in need of clinical intervention.

All reference ranges are reviewed at regular intervals and are permanently held in our computer system against each patient's results.

Please contact the Client Services Team if you require further information.

Test	Reference Ranges	Units
A.S.O. Titre	0.0 - 200.0 In person > 5years of age, a titre of 200 units or above generally indicates recent streptococcal infection. In younger children, lower levels may be significant.	iu/ml
Albumin	34 - 48	g/L
Albumin/Creatinine Ratio (Urine)	Male : < 2.5 Female : < 3.5	mg/mmCr
Alkaline Phosphatase	Male : 40 - 129 Female : 40 - 104	IU/L
Alpha 1 Antitrypsin	1.1 - 2.1	g/L
Alpha feto protein	1.0 - 11.0	IU/mL
Alpha-1 acid glycoprotein	0.5 - 1.2	g/L
ALT	< 41	IU/L
Amikacin (Post-dose)	20.0 - 25.0	mg/l
Amikacin (Pre-dose)	5.0 - 10.0	mg/l
Ammonia	Male : 16.0 - 60.0 Female : 16.0 - 51.0	umol/L
Amylase	28 - 100	IU/L
Angiotensin Converting Enzyme	8.0 - 52.0	U/L
Anti Cardiolipin Ab IgG	0 - 17	U/ml
Anti Cardiolipin Ab IgM	0 - 15	U/ml
Anti Mullerian Hormone	Female : Reference interval for healthy women not taking Contraceptive medication. Age Range -(Years) Roche AMH 20 - 29 13.1 - 53.8 30 - 34 6.8 - 47.8 35 - 39 5.5 - 37.4 40 - 44 0.7 - 21.2 45 - 50 0.3 - 14.7 Roche AMH for the assessment of Ovarian Reserve for women aged between 18 -44 years Antral Follicle Count Roche AMH (pmol/L) 0 - 7 < 4.9 8 - 15 4.9 - 16.2 Above 15 > 16.2	pmol/L
Anti Thyroglobulin antibodies	Normal < 100 Borderline 100 - 150 Elevated > 150	IU/ml
Apolipoprotein A1	Male : 1.04 - 2.02	g/L

	Female : 1.04 - 2.25	
Apolipoprotein B	Male : 0.66 - 1.33 Female : 0.66 - 1.17	g/L
APTT	26.0 - 37.0	Seconds
APTT Ratio	1.5 - 2.5	Ratio
AST	< 37	IU/L
Basophils	0.00 - 0.10	x10e9/L
Beta 2 Microglobulin	0.8 - 2.2	ug/ml
Bicarbonate	22 - 29	mmol/L
C Reactive Protein	< 5.0	mg/L
C Reactive Protein (Cardiac Risk)	Low Risk : < 1.0 Average Risk : 1.0 - 3.0 High Risk : > 3.0 (Provided no other antecedent inflammation or infection within the last three weeks).	mg/L
C3	0.90 - 1.80	g/L
C4	0.10 - 0.40	g/L
Caeruloplasmin	0.20 - 0.60	g/L
Calcium (24 hr Urine)	2.5 - 7.5	mmol/24hr
Calcium (Corrected)	2.10 - 2.55	mmol/L
Calcium/Creatinine Ratio (Urine)	< 0.60	Ratio
Cancer Antigen 125	< 35	KU/L
Cancer Antigen 15-3	< 25	KU/L
Cancer Antigen 19-9	< 27	KU/L
Carbamazepine	4.0 - 10.0	ug/mL
Carcino embryonic antigen (CEA)	< 3	ng/ml
Chloride	92 - 108	mmol/L
Chloride (24 hr Urine)	110 - 250	mmol/24hr
Cholesterol	< 5.0	mmol/l
CK-MB	0 - 25	IU/L
Conjugated Bilirubin	< 5	umol/L
Creatine Kinase	26 - 140	IU/L
Creatinine	Male : 62 - 106 Female : 62 - 80	umol/L
Creatinine (24 hr Urine)	Male : 9.0 - 21.0 Female : 9.0 - 14.0	mmol/24hr
Creatinine (Enzymatic)	Male : 62 - 106	umol/L

	Female : 62 - 84	
Creatinine Clearance	70 - 150	ml/min
CSF Glucose	2.5 - 5.0	mmol/L
CSF Protein	0.15 - 0.45	g/L
Cyclic Citrullinated Pep. Ab	0 - 16	U/mL
D-Dimer (FDP)	< 0.5	ug/mlFEU
DHEA Sulphate	2.6 - 7.7	umol/L
Digoxin	0.9 - 2.0	ng/ml
DNA Double Stranded Abs -ELISA	0 - 50	IU/mL
Eosinophils	0.02 - 0.50	x10e9/L
ESR	Male : 0 - 30 Female : 0 - 35	mm/Hour
Faecal Calprotectin	< 50	ug/gFaec
Ferritin	Male : 30 - 400 Female : 30 - 150	ng/mL
Fibrinogen	2.0 - 4.0	g/L
Folate (Serum)	> 3.8	ng/mL
Free Androgen Index	Male : 22.0 - 104.0 Female : 22.0 - 7.1	Ratio
Free Kappa Light Chains	3.3 - 19.4	mg/L
Free Lambda Light Chains	5.7 - 26.3	mg/L
Free T3	3.1 - 6.8	pmol/L
Free T4	12.0 - 22.0	pmol/L
FSH	Male : 1.5 - 11.4 Female : Follicular: 3.5 - 12.5 Ovulatory: 4.7 - 21.5 Luteal: 1.7 - 7.7 Post Menopausal: 26.0 - 135.0	U/L
Gamma GT	Male : 8 - 61 Female : 8 - 36	IU/L
Gentamicin (Post-dose)	6.0 - 10.0	ug/mL
Gentamicin (Pre-dose)	0.5 - 2.0	ug/mL
Gliadin IgA /IgG (Deaminated)	< 10 Negative	U/mL
	10-15 Borderline	
	> 15 Positive	
Globulin	20 - 40	g/L
Glucose (Fasting)	3.8 - 6.0	mmol/L

Glycated Hb (HbA1c)	20 - 42	mmol/mol
	4.0 - 6.0	%
Haematocrit	Male : 0.400 - 0.500 Female : 0.400 - 0.460	L/L
Haemoglobin	Male : 130 - 170 Female : 130 - 150	g/L
Helicobacter IgG	< 8 = Negative 8 - 12 = Equivocal > 12 = Positive	U/mL
Hb A2	2.0 - 3.4	%
Hb F	< 2.0	%
HCG (Intact & Beta)	Male : 0 - 2 Female : Result interpretation for Pregnancy < 3 Negative 3 - 25 Equivocal (Suggest repeat in 48 hrs) > 25 Positive	IU/L
HDL Cholesterol	Male : 0.90 - 1.40 Female : 0.90 - 1.70	mmol/L
HDL/Cholesterol Ratio	> 0.25	Ratio
Homocysteine	< 12.0	umol/L
IgA	0.70 - 4.00	g/L
IgE (Total)	5 - 120	KU/L
IgG	7.0 - 16.0	g/L
IgM	0.40 - 2.30	g/L
Inorganic Phosphate	0.85 - 1.65	mmol/L
INR	0.9 - 1.1 Therapeutic INR Ranges for patients on warfarin: INR 2 - 3 AF, VTE 2.5 - 3.5 MVR, AVR, recurrent thromboembolism	
Insulin	2.6 - 24.9	mIU/l
Intrinsic Factor Antibodies	0 - 5	IU/mL
Iron	Male : 10.6 - 28.3 Female : 10.6 - 26.0	umol/L
Iron Binding Saturation %	20.0 - 50.0	%
Lactate (Plasma)	0.5 - 2.2	mmol/L
Lactate Dehydrogenase (LDH)	240 - 480	U/L
LDL (Calculation)	< 3.0	mmol/L

LH	Male : 1.7 - 8.6 Female : Follicular: 2.4 - 12.6 Ovulatory: 14.0 - 95.6 Luteal: 1.0 - 11.4 Post Menopausal: 7.7 - 58.5	U/L
Lipoprotein (a)	0 - 75	nmol/L
Lithium	0.6 - 1.2	mmol/L
Lymphocytes	1.0 - 3.0	x10x9/L
Magnesium	0.65 - 1.05	mmol/L
Magnesium (24 hr Urine)	2.0 - 8.2	mmol/24hr
MCH	27.0 - 32.0	pg
MCHC	315 - 345	g/L
MCV	80.0 - 100.0	fL
Monocytes	0.2 - 1.0	x10e9/L
Myeloperoxidase (MPO)	< 6.0	Units
Neutrophils	2.0 - 7.0	x10e9/L
Oestradiol	Male : 99 - 192 Female : Follicular Phase 98 - 571 Ovulation Phase 177 - 1153 Luteal Phase 122 - 1094 Post Menopause < 183	pmol/L
Osmolality (Serum)	285 - 295	mOsm/Kg
Phenobarbitone	10.0 - 30.0	ug/mL
Phenytoin	10.0 - 20.0	ug/mL
Phosphate (24 hr Urine)	15.0 - 50.0	mmol/24hr
Plasma Haemoglobin	< 1	g/L
Platelets	150 - 410	x10e9/L
Potassium	3.5 - 5.1	mmol/L
Potassium (24 hr Urine)	35.0 - 99.0	mmol/24hr
Progesterone	Male : < 0.5 Female : Follicular: 0.18 - 2.8 Ovulation phase: 0.4 - 38.1 Luteal: 5.8 - 75.9 Post Menopausal: < 0.2	nmol/L

Procalcitonin	< 0.5 represents a low risk of severe sepsis and/or septic shock >2.0 represents a high risk of severe sepsis and/or septic shock	ng/ml
Prolactin	Male : 86 - 324 Female : 86 - 496	uIU/ml
Prostate Specific Antigen	Male : < 5.10 Female :	ug/L
Protein (24 hr Urine)	0.00 - 0.14	g/24Hr
Protein C Activity	70 - 140	%
Protein/Creatinine Ratio (Urine)	0.0 - 13.0	Ratio
Proteinase 3 (PR3)	< 2.0	Units
Prothrombin Time	12.0 - 15.0	Seconds
PTH (Intact Molecule)	1.6 - 6.9	pmol/L
RBC	Male : 4.5 - 5.5 Female : 4.5 - 4.8	x10e12/L
RDW	12.0 - 16.0	%
Reticulocytes	50.0 - 100.0	x10e9/L
Reticulocytes percentage count	0.5 - 2.5	%
Rheumatoid Factor	< 14.0	IU/mL
Sex Hormone Binding Globulin	Male : 14 - 78 Female : 14 - 145	nmol/L
Sodium	136 - 145	mmol/L
Sodium (24 hr Urine)	137.0 - 256.0	mmol/24hr
Testosterone	Male : 7.6 - 31.4 Female : 7.6 - 1.8	nmol/l
Thyroid Peroxidase antibodies	< 50 Negative 50 - 75 Borderline > 75 Positive	IU/mL
Total Bilirubin	0 - 20	umol/L
Total Protein	66 - 87	g/L
Transglutaminase	< 15	Units/ml
Triglycerides (Fasting)	< 2.30	mmol/L
Troponin-T	< 14	ng/L
TSH	0.27 - 4.20	mU/L
Unsaturated Iron Binding Capacity	20.0 - 62.0	umol/l
Urate (24 hr Urine)	1.2 - 3.0	mmol/24hr
Urea	1.7 - 8.3	mmol/L
Urea (24 hr Urine)	166.0 - 581.0	mmol/24hr

Uric Acid	Male : 202 - 416 Female : 202 - 339	umol/L
Valproate (Epilim)	50.0 - 100.0	ug/mL
Vancomycin (Post-dose)	25.0 - 40.0	ug/mL
Vancomycin (Pre-dose)	10.0 - 20.0	ug/mL
Vitamin B12	197 - 771	pg/mL
Vitamin D (D2+D3)	< 25 Deficient 25-50 Insufficient > 200 Suggest reduce dose of Vit D	
WBC	4.0 - 10.0	x10e9/L