

Changes to laboratory Biochemistry reporting limits and reference intervals

As part of ongoing work to standardise laboratory services across the Awanui network, we are updating a number of Biochemistry test reporting limits and reference intervals. These changes are intended to improve consistency between laboratories and to ensure that we are reporting harmonised, clinically appropriate results across the Awanui network.

Please take note of the following changes:

Updating the lower reportable limit of assays.

This helps ensure results are reported within ranges where the analytical performance of the assay is reliable and supports consistent reporting across the network. This is guided by the assay manufacturer and recently updated information supplied by the instrument and assay manufacturer.

Updating selected reference intervals to align laboratories across the Awanui network.

These changes are part of our ongoing work to standardise laboratory reporting across Awanui Labs and provide clinicians and patients with consistent, high-quality results regardless of where testing is performed within the network.

A list of the relevant assays, including the current and updated reporting limits and the updated reference intervals, is attached for reference. The changes will apply from 19th October 2026.

No action is required from clinicians or end-users in. Results should continue to be interpreted alongside the clinical context and other relevant laboratory findings.

If you have any questions about a specific assay or how these changes may affect interpretation of results, please contact the laboratory.

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Changes to lower limits of reportable range:

Test (Serum/plasma - unless otherwise stated)	Unit	What we currently report	Our New Lower Reporting Limit
Angiotensin Converting Enzyme (ACE)	U/L	5	<12
Acetaminophen	µmol/L	30	<34
Alanine Aminotransferase (ALT)	U/L	5	<6
Albumin	g/L	2	<3
Albumin Urine	mg/L	3	<3
Alkaline Phosphatase (ALP)	U/L	5	<6
Amikacin	mg/L	0.8	<1.3
Ammonia	µmol/L	10	<11
Amylase	U/L	3	<4
Amylase Urine	U/L	//	<4
ASOT	IU/mL	20	<21
Aspartate Aminotransferase (AST)	U/L	5	<6
Beta-Hydroxybutyrate	mmol/L	0.1	<0.11
Bile salts	µmol/L	5	<5
Bicarbonate	mmol/L	10	<10
Bilirubin - Direct	µmol/L	2	<4
Bilirubin - Total	µmol/L	2	<4
Urea	mmol/L	0.5	<0.6
Urea Urine	mmol/L	1	<2
Calcium	mmol/L	0.2	<0.3
Calcium Urine	mmol/L	0.2	<0.3
Carbamazepine	µmol/L	//	<10
Ceruloplasmin	g/L	0.03	<0.04
Chloride	mmol/L	//	<61
Chloride Urine	mmol/L	//	<61
Cholesterol - Total	mmol/L	0.1	<0.2
Complement Component C3/C3c	g/L	0.04	<0.06
Complement Component C4	g/L	0.02	<0.03
C-Reactive Protein (CRP)	mg/L	1	<2
Creatine Kinase	U/L	//	<8
Creatinine	µmol/L	5	<11
Creatinine Urine	mmol/L	0.1	<0.4
Ethanol	mmol/L	2	<3
Ethanol Urine	mmol/L	2	<3
Ethylene Glycol	mmol/L	//	<1
Fructosamine	µmol/L	//	<15
Gamma Glutamyl transferase (GGT)	U/L	3	<4
Gentamycin	mg/L	0.4	<0.4
Glucose	mmol/L	0.1	<0.2

Test (Serum/plasma - unless otherwise stated)	Unit	What we currently report	Our New Lower Reporting Limit
Glucose CSF	mmol/L	0.1	<0.2
Glucose Urine	mmol/L	0.1	<0.2
Haptoglobin	g/L	0.05	<0.2
Homocysteine	µmol/L	//	<4
HDL-C	mmol/L	0.08	<0.09
High Sensitivity CRP (hs-CRP)	mg/L	0.3	<0.3
Immunoglobulin A	g/L	0.05	<0.06
Immunoglobulin G	g/L	0.3	<0.5
Immunoglobulin G CSF	mg/L	//	<8
Immunoglobulin M	g/L	0.1	<0.06
Iron	µmol/L	0.9	<2
Lactate Dehydrogenase	U/L	20	<11
Lamotrigine	µmol/L	4	<5
Lipase	U/L	3	<6
Lithium	mmol/L	0.1	<0.2
Magnesium	mmol/L	0.1	<0.2
Magnesium Urine	mmol/L	0.1	<0.7
Methanol	mmol/L	1.39	<1.5
Phenobarbital	µmol/L	//	<11
Phenytoin	µmol/L	//	<5
Phosphorus	mmol/L	0.1	<0.2
Phosphorus Urine	mmol/L	0.1	<1.2
Potassium	mmol/L	1.5	<1.6
Potassium Urine	mmol/L	1	<3.1
Rheumatoid Factor	IU/mL	//	<11
Salicylate	mmol/L	//	<0.14
Sodium	mmol/L	80	<81
Sodium Urine	mmol/L	10	<21
Theophylline	µmol/L	4	<12
TPLA	TU	//	<5
Tobramycin	mg/L	0.33	<0.6
Total Protein	g/L	2	<4
Total Protein CSF	g/L	0.04	<0.05
Total Protein Urine	g/L	0.04	<0.05
	mg/L	40	<50
Transferrin	g/L	//	<0.3
Triglycerides	mmol/L	0.1	<0.2
Uric Acid	mmol/L	0.01	<0.02
Uric Acid Urine	mmol/L	//	<0.2
Valproic Acid	µmol/L	//	<42
Vancomycin	mg/L	2	<5

Test (Serum/plasma - unless otherwise stated)	Unit	What we currently report	Our New Lower Reporting Limit
α 1 Antitrypsin	g/L	0.3	<0.4
Apolipoprotein A1	g/L	//	<0.41
Apolipoprotein B	g/L	//	<0.41
Lipoprotein (a)	nmol/L	7	<8
	mg/dL	5	<6

Note: // indicate where no previous lower reporting limit was in place

Reference Interval changes:

Please note the following changes to reference intervals and/or clinical cut-offs for the analytes listed below:

Analyte	Population / specimen	Updated reference interval / cut-off
Ethanol	—	<3 mmol/L; <13.8 mg%
Paracetamol	—	<34 µmol/L
Direct bilirubin	Neonates	<20 µmol/L
	Children and adults	0–5 µmol/L
Urea (serum)	Neonates	1.0–4.0 mmol/L
	1 month– <1 year	1.4–5.4 mmol/L
	1– <4 years	1.8–5.4 mmol/L
	Adults	3.2 – 7.7 mmol/L
Phenobarbitone	—	65–170 µmol/L
Urine phosphate (24-hour)	—	10.0–40.0 mmol/24 h
Urine creatinine (24-hour)	0–<6 months	0.2–1.6 mmol/24 h
	6 months–<2 years	0.2–2.0 mmol/24 h
	2–<6 years	0.5–6.0 mmol/24 h
	6–<10 years	1.5–12.6 mmol/24 h
	10–<15 years	2.0–20.0 mmol/24 h
	Adult female	4.0–17.0 mmol/24 h
	Adult male	7.0–24.0 mmol/24 h
Urine urate (24-hour)	Adult Male and Female	1.5–4.4 mmol/24 h
Urine protein (24-hour)	Male and Female	<0.15 g/24 h
Urine urea (24-hour)	Male and female	420–720 mmol/24 h
Protein: creatinine ratio	Adult Male and Female	<23 mg protein/mmol creatinine
Urine magnesium (24-hour)	Male and female	2.5–8.0 mmol/24 h
Urate: creatinine ratio	Adults Male and Female	Male: 0.1–0.4 Female: 0.1–0.5
Urine potassium (24-hour)	Adult Male and Female	25–125 mmol/24 h
Urine sodium (24-hour)	Adult Male and Female	20–200 mmol/24 h