



**MAYO UNIVERSITY HOSPITAL PATHOLOGY LABORATORY
BIOCHEMISTRY DEPARTMENT**

Document Identification

B/LI/001

Edition

12

Effective Date

5th February 2026

Test Values Currently Phoned to Wards/Clinicians

POINTS TO NOTE:

- Results falling outside these defined limits AND where the patient has no previous history/ relevant clinical details OR when there is a significant change to previous results, will be telephoned to the requesting clinician/ location;
- This list IS **NOT** exhaustive – phoning of a result not on this list is at the discretion of the Scientist;
- All phoned results must be recorded as such in the patient notes or in the 'Telephone' function on APEX ensuring a record is made of the receiving person's name (as per B/LP/003);
- **PLEASE NOTE:** The escalation process for the phoning of critical results, in the event when requesting clinician/location is not contactable, is detailed at the end of this document.
- **Urgency of results – how soon we need to phone a critical result:**
 - **Category A** as soon as possible on identification of critical alert –highest degree of urgency;
 - **Category B** on the same working day;
 - **Category C** by the next working day.

ANALYTE	AGE RANGE	INTERNAL (ED/INTERNAL WARDS)	EXTERNAL (GP/OPD/NURSING HOMES/DISTRICT HOSP)	Urgency A/B/C
Albumin (g/L)	All	-	≤20 - ≥60	C
ALP (IU/L)	Up to 15 years	-	≥600	C
	>15 years - Adults	-	≥600	C
ALT (IU/L)	All	≥300	≥300	B (A in Maternity)
Ammonia (mmol/L)	Up to 4 weeks	≥130	N/A	A
	>4 weeks - Adult	≥100 ¹	N/A	A
Amylase (IU/L)	All	≥300	≥200	A
AST (IU/L)	All	-	≥150	B
βHCG (urine)	All	Positive on pre-op or trauma patients		A (Pre-op/Trauma) C (all other)
Bicarbonate ¹	All	<10	<10	B
Blood Gases (Arterial)	All	PH <7.1	N/A	A

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ANALYTE	AGE RANGE	INTERNAL (ED/INTERNAL WARDS)	EXTERNAL (GP/OPD/NURSING HOMES/DISTRICT HOSP)	Urgency A/B/C
Bilirubin (mmol/L) - Total	Up to 6 days	≥250	≥250	A
	>6 days - 10 years	-	≥50	B
	>10 years - Adult	-	≥100	C
Calcium (mmol/L) / Adjusted Calcium	All	≤1.90 - ≥2.90	≤1.90 - ≥2.90	A
CK (IU/L)	All	-	≥1000	A
Creatinine (μmol/L) <i>(Only new significant increases in non-dialysis patients)</i>	Up to 10 years	≥150	≥150	A
	>10 years - Adult	≥450	≥450	A
CRP (pg/ml)	Up to 6 days	≥5	≥5	B
	>6 days - 10 years	≥30	≥30	B
	>10 years - Adult	≥300 ¹	≥100	B
Ferritin (ng/ml)	All	-	>1000	C
FT4 (pmol/l)	All	-	≥50	C
Gentamicin (mg/L)*	All	-	>1.0	A
GGT (IU/L)	All	-	≥750	C
Glucose (mmol/L)	Up to 10 years	≤1.8 - ≥15	≤2.0 - ≥15	A
	>10 year –adult (random)	≤2.5 - ≥25 ¹	≤2.5 - ≥20	A
	>10 year - Adult (fasting)	≤2.5 - ≥25 ¹	≤2.5 - ≥20	A
	CSF (All)	≤1.5	N/A	A
Iron (μmol/l)	All	≥55 ⁴	≥55 ⁴	A (All Paediatrics) B (if noted to be on iron supplementation)
Lactate (mmol/L)	All	≥3.5	N/A	A
Lithium (mmol/l)	All	≥1.5 ¹	≥1.5 ^{1,2}	A

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Magnesium (mmol/l)	All	≤0.4 ¹ - ≥2.0	≤0.4 - ≥2.0	A
Phosphate (mmol/l)	All	<0.3 ¹ - >2.6	<0.39 - >2.6	A
Paracetamol (mmol/l)	All (up to 12 hrs post ingestion)	≥0.25	N/A	A
Potassium (mmol/L)	All	≤2.5 - ≥6.5 ¹	≤2.5 - ≥6.5 ¹ (Samples < 4 hrs or spun)	A
Procalcitonin (ng/ml)*	All	-	>2.0	B
Salicylate (mmol/l)	All	≥2.0	N/A	A
Sodium (mmol/L)	Up to 16 years	≤130 - ≥160 ¹	≤130 - ≥155 ²	A
	16 years - Adult	≤120 - ≥160 ¹	≤120 - ≥155 ²	A
Sweat Cl (mmol/L)	All	≥60	N/A	C
Total Protein (g/L)	All	-	≤30 - ≥95	C
Total PSA (µg/L)	<69 years	-	≥15	C
	≥70 years	-	≥20	C
TSH (mIU/L)	All	-	≥80	B
Triglyceride (mmol/L) ²	All	>20	>20	A
Troponin I (ng/L)	All	≥20 ³	≥20 ³	A
Urate (mmol/L)	Adult	-	≥750	B
Urea (mmol/L)	Up to 10 years	≥10	≥10	B
	10 years - Adult	≥30 ^{1,2}	≥30 ²	B
Vancomycin (mg/L) *	All	>25	>15	A
Vitamin B12 (pg/ml)	All	<70.0	-	B

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MISCELLANEOUS				
HAEMOLYSED SAMPLES		A/E; Oncology; Urgent bloods	-	-
REJECTED SAMPLES / Samples not processed		A/E; Oncology; Urgent bloods	External samples if classed as URGENT by the requesting GP	-
Unsuitable samples, unexpected results or suspicion of sample mislabelling or WBIT are all brought to the attention of the Ward or the Medical Team. *Critical results for antibiotics and PCT to be phoned to Microbiologist during routine hours and to requesting doctor out of hours.				