

# AWANUI LABS CRITICAL ACTION LIMITS



Wellington | Hutt | Wairarapa

TEST NAME	UNITS	EMAIL LIMITS		PHONE LIMITS		COMMENTS
		LOWER	UPPER	LOWER	UPPER	
<b>BIOCHEMISTRY</b>						
Sodium	mmol/L	<125		<120	>155	Results that are stable at these levels and are accompanied by clinical information supporting these levels may be emailed instead of phoned.
Potassium	mmol/L	3.5 (community)	>5.6 (community)	<3.0	>6.0	Age of sample, presence of haemolysis and time elapsed between collection and separation and patient with end stage renal failure on renal dialysis are taken into consideration when evaluating these results and may influence whether results are phoned or emailed.
Creatinine	µmol/L		>300			At first presentation.
CRP			>100		>200	For community patients only.
Urea	mmol/L		>20			Results will be emailed if urea is >20 mmol/L with creatinine <160 µmol/L at first presentation.
Uric Acid	mmol/L		Preg >0.34		Preg >0.45	
Adjusted Calcium	mmol/L		>2.80 (community)	<1.80	>3.00	Results that are stable at these levels and are accompanied by clinical information supporting these levels may be emailed instead of phoned.
Magnesium	mmol/L	<0.60		<0.50	>2.0	
Lipase	U/L				>200	On first presentation.
Pancreatic Amylase	IU/L		>60		>150	Results that are stable at these levels may be emailed instead of phoned.
Phosphate	mmol/L			<0.5	>3.0	Age of sample and time elapsed between collection and separation are taken into consideration when evaluating these results and may influence whether results are phoned or emailed.
Total Bilirubin – adults	µmol/L		>400			At first presentation. As significant haemolysis may cause underestimation of bilirubin, results falling outside these limits may be emailed.
Total Bilirubin – paediatric patients	µmol/L	All Paediatric results <250 are emailed		All paediatric results ≥250 are phoned		As significant haemolysis may cause underestimation of bilirubin, results falling outside these limits may be phoned.
ALT (Limits apply to Community and Kenepuru patients)	IU/L		>1000		>3000	ALT >1000 Emailed at first presentation. ALT >3000 along with Total Bilirubin >100 µmol/L will always be phoned.
AST (Limits apply to Community and Kenepuru patients)	IU/L		>1000		>3000	AST >1000 Emailed at first presentation. AST >3000 along with Total Bilirubin >100 µmol/L will always be phoned.
Carbamazepine	µmol/L				>50	
Hs Troponin (Limits apply to Community, Kenepuru, Wakefield, SCross, Bowen)	ng/L	All results are emailed			≥14	As significant haemolysis may cause underestimation of Hs Troponin, results falling outside these limits may be phoned.
Glucose	mmol/L		>25 (Patient not known to have diabetes) >30 (Patient known to have diabetes)	≤2.5	>30 (Patient not known to have diabetes) >35 (Patient known to have diabetes)	
Lithium	mmol/L	1.0 - 1.2			>1.2	
Phenytoin	µmol/L	>80			>90	
Valproate	µmol/L	>700			>800	
Cortisol	nmol/L	<150		<30 if not on Dexamethasone		Cortisol emailed <150. Result is phoned through <30 Not known to be on Dexamethasone.
Paracetamol	µmol/L					All detectable on first presentation.
Saicylate	mmol/L					All detectable on first presentation.
Tobramycin					>10	Trough levels only (>8 hours post dose).
Vancomycin					> 25	
Digoxin	nmol/L				≥2.0	
Blood Gas				pH ≤ 7.1 (hospital)	pH ≥ 7.55 (hospital) Lactate > 5 (hospital)	Hospital patients phoned if pH <7.1 ≥ 7.55 Lactate > 5.
Ethanol	mmol/L				>40	On first presentation (hospital).
FT4	pmol/L				>30	With TSH <0.05 on first presentation.
FT4/TSH	pmol/L				<5.0	With TSH >50 on first presentation.
Gentamicin	mg/L				>2.0	
Ammonia	µmol/L				>106	
Methotrexate		Email all community results				
Urine Protein/Creatinine Ratio		Email all community pregnant patients if available				

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		LOWER	UPPER	LOWER	UPPER	
<b>HAEMATOLOGY</b>						
WBC	x 10 <sup>9</sup> /L			N/A	>30 (Community & Outpatients)  >50 (Hospital)	Applies to all patients except Haematology / Medical Oncology patients.
HB	g/L			< 80 or < 50 below reference range (0-3yrs)  < 70 (Hospital patients > 3yrs, Haematology or Medical Oncology patients)  < 80 (Community & Outpatients > 3yrs)	> 20 above reference range (0-3yrs)  > 200 (>3yrs)	As a number of the Hb critical ranges are specific to individual age related ranges, please refer to CBC age related ranges in the WSCL Specimen Test Guide, for reference.  Note: The only result phoned for Haematology / Medical Oncology patients is Hb <70.
PLT	x 10 <sup>9</sup> /L			< 80 (Pregnant patients)  < 10 (Known ITP patients, Haematology or Medical Oncology patients)  < 20 (All other patients)	> 1000 (NOT post-op patients within the last 14 days or known ET patients)	Note: The only result phoned for Haematology / Medical Oncology patients is Platelets <10.
Neutrophils	x 10 <sup>9</sup> /L			< 0.5	> 20 (Community & Outpatients ONLY)	Applies to all patients except Haematology / Medical Oncology patients.
INR	Ratio	<b>All community results are emailed</b>			> 5.0	Must be phoned regardless of the previous result.
APTT	seconds				> 40 (if patient is not on anticoagulants)  >120 (if patient is on anticoagulants)	
FIB	g/L			< 1.0		
D Dimer	ng/mL				<b>NOT Emergency Department</b>  Up to 50 years old >500  51 and over = Patient age x10 (e.g. patient 55 years old >550)	Must be phoned regardless of the previous result.
ESR	mm/hr			>100 (with clinical details suggesting possible temporal arteritis)		
<b>MICROBIOLOGY / MOLECULAR</b>						
Sample Type	Test	<b>Critical Result Phone Action</b>				
CSF positive Gram stain	Cell Count and Gram Stain	Results that will be phoned through for <b>within 1hr</b> of the result becoming available.				
Joint fluids positive Gram stain	Gram Stain					
Meningococcal PCR positive	PCR Result					