

# Critical results values



**Sullivan  
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PATHOLOGY

Quality is in our DNA

**Critical result values** (shown in red in the following table) are those values that may indicate a life-threatening medical condition and require immediate notification to the referring doctor (irrespective of whether the pathology request was marked urgent). If a result is outside the critical limits, a scientist or pathologist will make every attempt to contact the referring doctor or proxy.

For hospital patients, our staff will contact a telephone number supplied on the pathology request form or otherwise will contact the ward/facility and notify a member of the nursing staff. Our staff will request that the nurse notify the referrer (or the after hours attending doctor) urgently.

For community patients out of surgery hours, our staff will contact a telephone number supplied on the pathology request form, or alternatively a previously supplied private number (home or mobile) recorded in our doctor database.

Some other results (shown in blue in the table) may be considered urgent enough to contact the referring doctor or ward by phone or fax, but are not considered critical. If the testing is performed after hours, these results are faxed (or phoned the following working day). Other significant results may be phoned or faxed at the discretion of a pathologist or scientist.

Results of tests marked urgent will continue to be phoned or faxed according to either specific instructions on the request form or general instructions previously advised by the doctor.

After hours contact details

Please note that many after hours medical services will only accept pathology results for patients under their direct care.

To supply or update your after hours contact details for critical results, please contact:

Doctor Services staff on 1300 SNPATH (1300 767 284)

Biochemistry			
Alcohol			> 300 mg/dL †
Albumin	< 16 years		< 20 g/L
ALT			> 2500 U/L * †
Ammonia (plasma)			> 100 umol/L
AST			> 2500 U/L * †
Bicarbonate	Adult	< 16 or	> 45 mmol/L †
	< 16 years	< 16 or	> 40 mmol/L †
Bilirubin (Neonatal)			> 400 umol/L
Calcium (corrected)		< 1.50 or	> 3.50 mmol/L
Cortisol (unless referred by endocrinologist)			< 80 nmol/L †
Creatinine Increase of > 250 umol/L over any previous results UNLESS on dialysis			
Creatinine Increase of 150-250 umol/L in the last 12 months UNLESS on dialysis			
Creatine Kinase (CK)			> 20,000 U/L †
Digoxin			> 3.0 ug/L
Free T4		< 5.2 or	> 50 pmol/L †
Glucose	IF Bicarbonate < 18 mmol/L AND no previous HbA1c > 6.4%		
	Adult	< 2.5 or	> 15.0 mmol/L †
	< 16 years	< 2.5 or	> 12.0 mmol/L †
	Otherwise All ages	< 2.5 or	≥ 36.0 mmol/L †
	All ages		> 25.0 - < 36.0 mmol/L
Lipase			> 500 U/L †
Lithium			> 2.00 mmol/L
Magnesium		< 0.40 or	> 4.00 mmol/L
Phenytoin (Dilantin)			> 30 mg/L
Potassium or haemolysis corrected potassium	Adult	< 2.5 or	> 6.3 mmol/L
	Neonatal - heel prick	< 2.5 or	> 8.0 mmol/L †
Sodium		< 122 or	> 155 mmol/L
Tegretol			> 20 mg/L
Troponin T (if no previous elevated result in last 24 hours)			> 50 ng/L
Troponin T			> 14 - 50 ng/L**
Troponin I (if no previous elevated result in last 24 hours)			≥ 100 ng/L
Troponin I			30 - 99 ng/L**
Urea			> 45 mmol/L
Urate Adult			> 1.500 mmol/L
Urate in pregnancy (> 20 weeks gestation) IF Creatinine > 90 umol/L OR platelets < 150 OR ALT high			> 0.360 mmol/L
Otherwise			
Urate in pregnancy (> 20 weeks gestation)			> 0.600 mmol/L

Haematology/Coagulation	
APTT	> 90 sec
Blood film showing schistocytes with thrombocytopenia	< 100 x 10 <sup>9</sup> /L*
Blood film showing bacteria*	
D-Dimer	> 0.40 ug/ml FEU*
Fibrinogen	< 0.50 g/L
Fibrinogen	0.50-1.00 g/L*
Haemoglobin	< 70 g/L*
Haemoglobin	< 90 or > 200 g/L*
Haemoglobin new borns (up to 28 days old)	< 95g/L* or > 240g/L*
INR	≥ 5.0
INR	<1.5 or 4.0 - 4.9
Leukaemia (acute)*	
Malarial parasites*	
Neutrophils	< 0.5 x 10 <sup>9</sup> /L*
Neutrophils	< 1.0 or > 20 x 10 <sup>9</sup> /L*
Platelets	< 20 x 10 <sup>9</sup> /L*
Platelets	< 50 or > 800 x 10 <sup>9</sup> /L*
Platelets in pregnancy	< 80 x 10 <sup>9</sup> /L*
WCC	> 100 x 10 <sup>9</sup> /L*
WCC children ≤ 14 years of age	> 40.0x10 <sup>9</sup> /L*

Microbiology/Molecular Pathology	
Blood cultures: Positive microscopy/culture †	
Bordetella pertussis PCR < 1 year old: Positive result	
CSF: Positive microscopy/culture †	
HSV/VZV PCR result (VZV/HSV1/HSV2) < 3 months old: Positive result any site	
Positive Legionella urinary antigen	
Positive ZN stain (where likely Mycobacterium tuberculosis) †	
Sterile site: Positive microscopy/culture †	
General	
Positive result on 'urgent public health reportable disease'	

Arterial gases only **	
pH	< 7.1
pCO2	> 80 mmHg
pO2	< 60 mmHg

\* First presentation

† Out-of-hours contact at discretion of pathologist

‡ At discretion of pathologist

\*\* Not applicable for hospital in patients or emergency department