

**BIOCHEMISTRY: Telephoning limits for critical or unexpected results**

<b>Analyte</b> <i>(Serum or plasma)</i>	<b>Units</b>	<b>Action Limits</b>		<b>Comments</b>
		<b>Lower</b>	<b>Upper</b>	
<b>Sodium</b>	mmol/L	$\leq 120^1$	$> 150^1$	
		$\pm 10$ mmol/L change within a 24hr period <sup>2</sup>		
<b>Potassium</b>	mmol/L	$< 3.0^1$	$> 6.0^2$	
<b>Urea</b>	mmol/L		$\geq 30^1$	New patients only
<b>Creatinine</b>	mmol/L		$\geq 354^1$	New patients only
<b>Glucose</b>	mmol/L	$\leq 2.5^1$	$> 20.0^2$	
<b>Adjusted Calcium</b>	mmol/L	$\leq 1.80^1$	$> 3.00^2$	
<b>Magnesium</b>	mmol/L	$\leq 0.4^1$		
<b>Phosphate</b>	mmol/L	$\leq 0.3^1$		
<b>AST or ALT</b>	U/L		$> 250^2$	GP/Outpatients only
<b>CK</b>	IU/L		$> 1000^2$	
<b>Amylase</b>	IU/L		$> 250^2$	
<b>Digoxin</b>	mg/L		$\geq 2.5^1$	
<b>Theophylline</b>	mg/L		$\geq 25^1$	
<b>Phenytoin</b>	mg/L		$\geq 25^1$	
<b>Lithium</b>	mmol/L		$\geq 1.5^1$	
<b>CRP</b>	mg/L		$\geq 300^1$	GP requests only
<b>Osmolality</b>	mOsm/Kg	$< 260^2$	$> 320^2$	
<b>Troponin I</b>	ng/L		$> 30$ (Male) <sup>2</sup> $> 15$ (Female) <sup>2</sup>	
<b>AKI</b>			<b>AKI 2<sup>1</sup> and AKI 3<sup>1</sup></b>	New occurrences only
<b>AKI</b>			<b>AKI 1<sup>1</sup></b>	Only if K > 6.0 mmol/L
<b>Ammonia</b>	umol/L		$\geq 100^1$	Inpatients and outpatients only
<b>Bicarbonate</b>	mmol/L	$\leq 10^1$		Inpatients and outpatients only
<b>Cortisol</b>	nmol/L	$\leq 50^1$		Unless if part of overnight dexamethasone suppression test
<b>Cortisol (30min)</b>	nmol/L	$\leq 250^1$		As part of a short synacthen test
<b>Prolactin</b>	mU/L		$> 800^2$	

**Provenance**
<sup>1</sup>The Royal College of Pathologists (RCPATH), The communication of critical and unexpected results, October 2017

<sup>2</sup>Local consensus/agreement and compliant with RCPATH guidelines where applicable