

BIOCHEMISTRY TELEPHONING LIMITS

These telephoning limits apply to all patients at all times unless stated.

Analyte	Phone if \leq	Phone if \geq	Comments
Adjusted calcium (mmol/L)	1.80	3.50**	** If adjusted calcium is not available because of a low albumin, telephone results based on the unadjusted calcium result using the same telephoning limits
AKI alert	New stage 1 (GP only)		Only phone if K > 6.0, and if out of hours phone next day (within 24 hrs)
	New stage 2 (GP and outpatients only)		Primary care only: If out of hours can be phoned next day (within 24 hrs)
	New stage 3 (GP and outpatients only)		-
ALT (U/L)	-	600 (>500 if <16 yrs)	-
Ammonia (μ mol/L)	-	100	Always phone results (new and repeats)
Amylase (U/L)	-	400	-
AST (U/L)	-	600	-
Bile acids (μ mol/L)	-	19	- Only in pregnant patients or post partum
Bilirubin, total (μ mol/L)	-	350	Only patients \leq 28 days old and this should be phoned through to the neonatal registrar (DECT 29239)
Bilirubin, direct (μ mol/L)	-	25	Only patients \leq 28 days old and this should be phoned through to the neonatal registrar (DECT 29239)
Carbamazepine (mg/L)	-	25	-
CK (U/L)	-	5000	-
Cortisol (nmol/L)	50	-	Do not phone if part of a dexamethasone suppression test. Primary care only - can be phoned next day (within 24 hrs)
Cortisol (nmol/L) – SST at 30 min	250	-	-
Creatinine (μ mol/L)	-	354* (\geq 200 if <16 yrs)	*Do not phone creatinine to NCCC31, NCCC32 and NCCC33, FHRCIU
CRP (mg/L)	-	300 (\geq 10 in <3 months old)	Primary care only
Digoxin (μ g/L)	-	2.5	Primary care only: If out of hours phone next day (within 24 hrs) unless K<3.0 or suspected overdose.
Glucose (mmol/L)	2.5	25.0 (\geq 15 if <16 yrs)	-
HbA1c	-	140	If out of hours phone result next working day
Lactate (U/L)	-	5.0	-
Lipase (U/L)	-	300	-
Lithium (mmol/L)	-	1.0	Only phone results >1.0
Magnesium (mmol/L)	0.40	-	-
Phenobarbitone (mg/L)	-	70	-
Phenytoin (mg/L)	-	25	-
Phosphate (mmol/L)	0.30	-	-
Potassium (mmol/L)	2.5	6.5	-
Salicylate (mg/L)	-	300	-

Controlled document DO NOT photocopy

Document details i.e. Update responsibility, Ultimate approver, Active date and Review date are held in Q-Pulse

If you recognise an inaccuracy or can suggest an improvement, please raise a Change Request on Q-Pulse

Continued overleaf...

Analyte	Phone if \leq	Phone if \geq	Comments
Sodium (mmol/L)	120 (130 if <16 yrs)	160	-
Theophylline (mg/L)	-	25	-
Total CO ₂	10	-	-
Triglycerides (mmol/L)	-	20	-
Troponin T (ng/L)	-	12	Primary care only
Urea (mmol/L)	-	30 (≥ 10 if <16 yrs) 50*	*Location NCCCREOP, NCCC31 and NCCC32, FHRCIU
TSH >20 mU/L			<ul style="list-style-type: none"> ▪ To GPs, A&E and RVI assessment suite (RVAS) only ▪ Primary care only: if out of hours, phone the next working day
TSH >10 mU/L with fT ₄ <9.5 pmol/L			
fT ₄ >30 pmol/L with TSH <0.05 mU/L or fT ₃ >10 pmol/L			

Consideration should be given to the abnormal result being part of an improving trend, where it may not be necessary to phone the result.

Satellite dialysis units

- Within hours: phone results to the requesting dialysis unit
- Out-of-hours: phone results to the renal registrar on call in the Trust. Phone the consultant on call in the Trust if the renal registrar is unavailable.

Haemolysis

The following locations should be notified when results are not available due to haemolysis:

- If potassium not available, all adult and paediatric inpatient locations and A&E, CPAU, ICCU and Theatres.
- PIU only need to be notified when no results are available due to severe haemolysis.
- Haemolysed samples from outpatients departments and primary care do not need to be phoned.

Contaminated samples (SUSCON)

For in-patients' samples:

- Phone requestor to notify them of the possible contamination of the sample and ask for a repeat sample for all tests requested.
- Refer to Duty Biochemist or DMO if unsure.

Phoning results to GP out of hours deputising service

Ensure a call number is taken and recorded in Apex – refer to SOP for procedure.

Local agreements in place for the following analytes

- Total bilirubin: agreed with Dr Stephan Zalewski (March 2023)
- Potassium ≥ 6.5 mmol/L, dialysis patients: agreed with the renal team

Results part of a dynamic function test.

- If a critical result is part of an expected outcome/response of dynamic function test then these results do not need to be phoned. e.g. suppressed cortisol in overnight dexamethasone suppression test, low glucose in insulin stimulation test.

Evidence base of telephone limits: These limits are based on the Royal College of Pathologist guidelines on the communication of critical limits and limits agreed through a regional approach through the NENC Clinical Biochemistry Specialist Reference Group to reflect local practice.