

Out of Hours Protocol - Reporting of Markedly Abnormal Laboratory Test Results

A markedly abnormal blood result may indicate that the patient needs urgent treatment. The communication of such important results should be a priority, and in certain circumstances, could be lifesaving.

To enable the out of hours (OOH) clinicians to assess the urgency of the situation full and accurate information is essential. For this to be available there needs to be effective communication between the primary care GP, the Pathology Laboratory and OOH providers.

Roles and responsibilities

1. Primary care.

- Ensure all demographic and clinical details are correct and included on request form (or computer database).
 - To include:
 - Name
 - Date of birth
 - Address
 - Telephone number
 - GP practice
 - NHS number
- Urgent samples from general practice should be marked/bagged as such so that they may be prioritized for completion within the working day, **and the laboratory telephoned in advance to alert it of the urgency.**
- Where a result is anticipated and not available before the close of surgery, the OOH service should be notified by the practice. They should formally hand over the patient including giving contact details and the clinical history: this applies particularly to D dimers and troponins.
- The patient should be advised that they may be contacted by an out of hours clinician if the results require urgent, out of hours action.
- Check on any communication from OOH service first thing each morning. There should be a system in place to alert GP's regarding urgent results. Some results may require immediate attention as the OOH service may have decided to leave for the patient's own GP to deal with.

2. Pathology

- Where possible the laboratory will try to telephone any abnormal result to the patient's own practice within usual opening hours.
- The Royal College of Pathology provides nationally agreed action limits for telephoning results, and the local laboratories should publish their action limits reflecting these guidelines. (See Appendix).

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- Abnormal results generated out of hours (16:30 to 08:00) will be communicated to the OOH service via the professional line 0117 244 9283.
- Brisdoc OOH service has a workflow and capacity coordinator who can be contacted via the professional line 0117 9030017
- The laboratory should pass on any contact information along with clinical details, if supplied, or relevant previous results. They should record to whom the result was given
- Calls to the OOH service will be monitored and audited. This should identify unnecessary delays in specimen transport or analysis which may be rectified.
- Pathology will try to supply addresses where requested, but the data may not be reliable and should be cross checked with the NHS Spine and/or EMIS records.

3. OOH service

- It is OOH's responsibility to accept the abnormal result when telephoned.
- The work flow and capacity coordinator via the professional line will record all the patient demographics, clinical information and relevant previous results on the computer. They should note the laboratory, caller's name and telephone number.
- If the details are incomplete the call handler should;
 - a. Check for any previous encounters on Adastral with correct details
 - b. Try directory enquiries
 - c. Try local A&E – who may be able to provide a telephone number or patient could be in hospital.
 - d. Try local ambulance services who may be able to provide a telephone number.
- If still no contacts then the OOH doctor should review and the outcome be recorded.
- If there is real clinical concern a home visit may be indicated.
- The result and the clinical outcome will be communicated automatically via Adastral to the patient's own GP the next morning. Any urgent results should be made obvious.

PATHOLOGY SCIENCES

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APPENDIX - Out of Hours Reporting to Out Patients and Primary Care (Limits to be used once the GP practice is closed).

Biochemistry

Analyte	Action limit (s)			Units
	Less than		Greater than	
Sodium	≤120	or	≥ 160	mmol/L
Potassium	≤ 2.5	or	≥ 6.5	mmol/L
Creatinine			≥ 354 (≥200 in <16yo)	umol/L
AKI Stage			= 2 or 3 first incidence only	
Urea			≥ 30 (≥ 10 in <16yo)	mmol/L
Glucose	≤ 2.5	or	≥ 25	mmol/L
Adjusted Calcium	≤ 1.8	or	≥ 3.5	mmol/L
Magnesium	≤ 0.4			mmol/L
Phosphate	≤ 0.32			mmol/L
Lipase			≥ 300	U/I
Amylase			≥ 500	IU/L
ALT			≥ 750 (Males) ≥ 525 (Females)	IU/L
AST			≥ 750 (Males) ≥ 525 (Females)	IU/L
Total bile acids			≥100 (Sat/Bank Hol)	umol/L
CK			≥ 5000	IU/L
Ammonia			≥100	umol/L
Troponin I			≥ 18	ng/L
Lithium			≥ 1.5	mmol/L
Digoxin			≥ 2.5 (If K< 3.0) (If K ≥3.0 Fri/Sat only)	ug/L
Paracetamol			≥ 5	mg/L
Salicylate			≥ 300	mg/L
Theophylline			≥ 25	mg/L
Phenytoin (adjusted)			≥ 25	mg/L
Carbamazepine			≥ 17	mg/L
CRP			≥ 300	mg/l

¹ Royal College of Pathologists Document 'The communication of critical and unexpected pathology results' October 2017.

Haematology

Test	Results that need phoning To the OOH service –GP requests
Hb	Less than 70 g/L
	Drop of more than 40 g/L in last 2 weeks
Hb Renal Patient	Less than 60 g/L
INR (Warfarin monitoring)	INR > 6.5
Fibrinogen	Less than 0.5 g/l
Platelets	Less than 30x10 ⁹ /L or >1000x10 ⁹ /L
WBC	Lymphocytosis > 50 or Neutrophilia > 50
Neutrophils	Lower limit: neutropenia < 0.5 with any presence of blast cells
Malaria/Parasites	Always telephone a positive (<i>De Novo</i>) result
PV	>5.0 mPa

Refer also to HA/HA/SOP/031 which details communication of out of hours results for Blood Transfusion and HA/HA/SOP/057 with details communication of our of hours results for Haematology.

Immunology and Immunogenetics

Immunology laboratory service operates between 08:00 – 18:00 weekdays.

Communication of out of hours results from the Immunogenetics service is described in document TTRENSOP010.

Microbiology

Microbiology laboratory service operates between 08:00 – 18:00 weekdays. An “on call” service operates outside of these hours.

If, as a result of processing tests out of hours, we discover an abnormal result this is communicated to our medical staff who review the information on a case-by-case basis and will act accordingly to contact the appropriate deputising service if necessary.