

Using Pathology services effectively how you can help us to help you..

As you are aware resources in every NHS hospital department are not limitless and there is a growing need to focus these resources in the right areas. Our primary goal in Pathology is to deliver a high quality service to our users i.e. 'the right result; right every time'.

We can only achieve this with your cooperation and appreciation of the fact that unnecessary growing demands on Pathology services may impact on quality. Pathology services rely not only on the staff that run them but also on machinery (analysers) that require attention 24/7, and problems that may arise from these analysers can sometimes be unpredictable.

Therefore you can help us in the following ways:

- **Avoid unnecessary telephone enquiries.** Use the Pathology Handbook which can be accessed via the intranet Clinical Hub (www.baspath.co.uk) to find information about the laboratory, sample requirements and reference ranges.
- **If you require urgent Biochemistry or Haematology tests between 5.30 and 8am** telephone 7080 for Haematology and 7070 for Biochemistry. If not urgent, tests will be processed as soon as possible, but may not be prioritised. Try not to make routine enquiries during this time since the on-call biochemist will be prioritising emergencies and queries will halt the processing of samples and cause further delays.
- To ensure we reduce the amount of times you need to bleed patients, we provide a valuable add-on service (see web page via Pathology Handbook for actual add-on test availability). But when this is used unnecessarily it diverts available resources and may impact on the general turn around time especially during on-call hours. ***Please ensure that you only use the add-on system to request tests that have arisen from initial results and investigations and not to support poor initial requesting.***
- **Avoid requesting unnecessary tests.** Is there really a clinical reason to do the test? Has it already been done? Have you checked on results reporting? Junior staff are more likely to be criticised for inappropriate testing than infrequent testing and quite often tests are requested but the results are not followed up. At the same time it is important to consider all clinically relevant tests during initial requesting to avoid using the add-on system and delaying patient care as much as possible.
- **Complete the request forms clearly and complete all boxes** – the boxes are there for a good reason. Ensure you include destination for report, and correct Consultant and location codes as well as a contact number if possible. Clinical details must also be filled in and for TDM state the drug dosage and timings. NHS number should be included and is mandatory on all Cellular Pathology requests.
- **Take blood samples in the correct order and avoid haemolysis.** There is an order of draw for taking blood samples that avoids cross contamination (see appendix 1). To avoid haemolysis mix the sample gently by inversion 8 times. Use the Vacutainer procedure to take blood (check expiry date before using). If you have to use a normal syringe remove the needle and tube cap before slowly ejecting blood into the tube. Do **not** put the needle through the rubber stopper. If the patient is on a drip, ensure samples are not taken from the same arm to avoid contamination/ drip arm.

- **Fill the sample bottles to the recommended mark.** If properly used, Vacutainer tubes will automatically fill to correct line. This is important for tubes containing anticoagulant and for coagulation studies (blue top); overfilled or underfilled samples cannot be processed (see appendix 2).
- **Addressograph labelled samples** are accepted for requests *other* than Blood Transfusion but the sticky labels must be suitable. i.e. the labels must be of appropriate size, **not too thick** and placed on the sample bottle so that they fit within the existing label and leave a 'window' that allows us to check the level of the blood and for haemolysis etc. Oversized labels that are longer than the sample bottle or need to be wrapped around the bottle will not be suitable for processing. Any labels to be used on sample tubes must be approved by Pathology prior to their introduction.
- **You must not use pre-printed labels for Blood Transfusion samples.** Write full patient details on the sample clearly and ensure that you sign the sample and request form to confirm that you have bled the correct patient. Errors and omissions will delay processing.
- **Use correct urine universal containers** with borate preservative for urine microscopy and bacterial culture (red top) and plain containers (white top) for Biochemistry and most other Microbiology and non-gynaecological cytology tests. See individual entries in the Pathology Handbook Test Directory for full details.
- **Avoid telephone enquiries for results where possible.** Please use the Results Reporting system (or TD-Web especially if Results Reporting is down) which is available on any Trust networked computer.
- **Do not send batches of samples late or out of hours.** Please send to Pathology as soon as they have been taken. Large batches of samples delay urgent reports and delayed separation of the batched samples may make them unsuitable for analysis.
- **If you require urgent Microbiology tests (CSF, joint fluid analysis..etc)** outside core hours (Monday to Friday 8.00am to 7.00pm) contact the on call Microbiology BMS via switchboard. For clinical advice outside core hours (Monday to Friday 9am- 5.00pm) contact duty Consultant Microbiologist via switchboard.
- **Ensure frozen sections are booked preferably 48hours in advance.** Please telephone 8212 to book and check that a Pathologist will be available.
- **Do not use Point of Care equipment (e.g. glucose meters) without being trained.** This is against Trust policy. Please contact the point of care team **on ext 8382.**
- **Use Point of Care equipment appropriately.** You must be trained to use any point of care equipment (e.g. glucose meters) and you must ensure that the **correct** patient demographics are entered since results may link to the electronic patient record. Please report problems with any device to the point of care team.
Please note that for blood product requests based solely on a Hb level measured by point of care device (e.g. on blood gas analyser or Hemocue), the level must be confirmed by the laboratory before the blood is issued.
- **Mortuary services.** Please ensure the deceased are fully labelled with wrist band and fully completed shroud label which includes declaration of implantable devices. Last offices should be performed before calling the porter for collection. Known infection risk cases should be placed in a body bag; a stock is kept on each ward.
- **Pathology Contacts (see Pathology Handbook for more details)**

Pathology	Clinical Lead (Dr Joanne Howard)	1406
	Interim Service Unit Manager (Frederick McQueen)	3280
Biochemistry	Clinical Advice (9.00am – 5.30pm)*	3014/3015/3038

	Laboratory Manager (David Stokes)	3024
	Deputy Laboratory Manager (Claire Smith)	3036
	Laboratory Enquiries	3030/ 4991
Cellular Pathology	Clinical Advice (9.00am – 5.30pm)*	8212
	Laboratory Manager (Sue Bowler)	8209
	Laboratory Enquiries	8212
Haematology	Clinical Advice (9.00am – 5.30pm)*	Bleep 6133
	Laboratory Manager (David Stokes)	3024
	Haematology Laboratory Enquiries	4804
	Blood Transfusion Enquiries	3535
Microbiology	Clinical Advice (9.00am – 5.30pm)*	3342/3040/1249
	Laboratory Manager (Arezou Fanaie)	3555
	Laboratory Enquiries	3557
Point of Care Testing	All enquiries	8382 poct@btuh.nhs.uk
Phlebotomy	Phlebotomy manager	8973

* For clinical advice outside core hours, please contact the relevant clinician through switchboard

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Appendix 1: Blood sample order of draw

BD Vacutainer® System

BD Diagnostics - Preanalytical Systems



Tube Guide including Order of Draw

Please display this in your clinical areas beside your venepuncture equipment

ROYAL FREE HAMPSTEAD NHS TRUST - Telephone 020 7794 0500 - Printed 03.09
 General Enquiries - ext 33220; Clinical Biochemistry - ext 33302; Blood Transfusion ext 33406; Haematology - ext 33220
 Haemophilia - ext 34207; Immunology - ext 33748; Microbiology - ext 33541; Virology - ext 34087

Blood samples should be taken in the following order:

Catalogue Number	Colour Code	Tube Type	Routine Determinations	Special Instructions
		Blood Culture	Aerobic followed by anaerobic - if insufficient blood for both culture bottles, use aerobic bottle only	
363095 Draw Volume 2.7ml	 Light Blue	Sodium Citrate	Haemophilia - (INR, APTT, PT, Fibrinogen, D-dimer) Virology - (Viral PCR)	Sodium Citrate tubes must be filled to the top of the label. Mix tube 3-4 times.
367895 Draw Volume 10ml	 Red	Serum (No Gel)	Clinical Biochemistry - * Immunology - (Autoimmune / Allergy) Microbiology - (Serology / Antibiotic levels) Virology - (Virus Serology, HBV DNA, HCV RNA)	*Please refer to the Analyte Database or the Laboratory Handbook for specific test details. Mix tube 5-6 times.
367954 Draw Volume 5ml	 Gold	SST™II (Gel Serum)	Clinical Biochemistry - (Majority of routine tests / profiles, Tumour Markers, Serum Iron, B12, Folate, Ferritin)	Mix tube 5-6 times.
367885 Draw Volume 6ml	 Green	Lithium Heparin	Immunology - (Lymphocyte function assay) Clinical Biochemistry - (Aluminium)	Aluminium - Avoid prolonged contact with stopper, keep tube upright after collection. Mix tube 8-10 times
367839 Draw Volume 4ml	 Lavender	EDTA	Haematology - (FBC, ESR, Haemoglobinopathy, G6PD) Clinical Biochemistry - (Immunosuppressants, HbA1c) Immunology - (Lymphocyte / T-cell Subsets, Activation Markers, NBT, LAD) Virology - 10ml (HIV viral load testing and HIV resistance testing)	For Virology assays - must use 10ml EDTA tubes. Stocked on Carberry, ICDC, Garrett Anderson, Renal Dialysis Units, Renal Outpatients, St. Peters and Virology. Mix tube 8-10 times
367941 Draw Volume 6ml	 Pink	Cross Match	Blood Transfusion (Blood Group, Antibody Screen, Crossmatch, Antibody Quantification, DAT, Kleihauer)	Labels must be handwritten and labelled as per Blood Transfusion Guidelines. Mix tube 8-10 times
367934 Draw Volume 2ml	 Grey	Fluoride Oxalate	Clinical Biochemistry - (Glucose*, GTT*, mini GTT*, Alcohol)	*Fluoride Oxalate glucose for GTT and GP patients only, the SST should be used for glucose measurement on inpatients. Mix tube 8-10 times
368380 Draw Volume 6ml	 Royal Blue	Trace Element	Clinical Biochemistry - (Trace Elements including Copper, Zinc, Selenium)	Do not use for aluminium collection. Mix tube 8-10 times

Appendix 2: Acceptable Fill Levels for Haematology Tubes

