

PRUH - Pathology User Handbook

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| 5.0 | Updated onto new Synnovis template. Section 6.5 amended to distinguish microbiological and blood sciences specimens. Section 8 information regarding referral labs & reference ranges. Section 15.1 Chemical Pathologist advice added. Section 15.2 amended to ensure that chemistry core hours are consistent. | 04/10/2022 |
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1. Introduction

1.1 Purpose and Scope

This handbook is to inform and assist service users in getting the best from Synnovis Pathology Services at the Princess Royal University Hospital.

The Pathology Department is committed to providing a clinical diagnostic service of the highest quality standard for its users, taking into account their needs and requirements.

This Handbook includes information on:

- Contact details for key staff
- Service levels and hours of operation
- Location of services
- Types of investigation offered
- Types of specimens required and collection conditions.
- Instructions for collecting specimens with a particular emphasis on safety and maintenance of sample validity

Should any service user have any queries in connection with any aspect of the pathology wide service, initial contact must be made with the relevant departmental Senior Operational Staff, the Pathology General Manager, or the discipline specific Quality Manager(s).

This Pathology User Handbook should be user-friendly and intuitive. Suggestions for improving the content for the next edition are welcome.

1.2 PRUH Pathology Laboratory

The Pathology department includes the following specialties: -

Blood Sciences [UKAS Accreditation – Reference 20293] refer to the accredited tests schedule on <https://www.ukas.com/>

- Biochemistry
- Haematology
- Blood Transfusion

Infection Sciences:

- Microbiology
- Virology

Tissue Sciences

- Histology
- Non-gynae Cytology

Support Services:

- Specimen Reception
- Consumable supplies
- Specimen deliveries and visitors to Pathology should always present at the Specimen Reception desk, Level 2, South wing.

- Access to all areas of the Pathology department is restricted to authorised staff only. All entrances into the department are secured by Digi-lock or proximity pass access.
- The department operates in compliance with the standards laid out by ISO 15189:2012 and the NHS Antenatal screening programmes, and the legislation regulated by the MHRA and the HTA. The laboratories are registered for training with the Institute of Biomedical Sciences (IBMS).
- The qualified health professionals employed in the department are registered with the Health & Care Professions Council (HCPC) meeting the standards for their training, professional skills, behaviour and health.
- **Clinical advice** and interpretation of results is available during the laboratory routine opening hours.
- **Clinical advice (out of hours)** - contact details and access to clinical advice out-of-hours are specified in each departmental section of this handbook.

| PRUH Pathology Laboratory – contact details | |
|---|---|
| Postal address: | Pathology Laboratory (Synnovis LLP) Level 2, South Wing Princess Royal University Hospital, Farnborough Common, Orpington, Kent, BR6 8ND |
| PRUH Pathology - Clinical Leadership | |
| Name: | Dr Royce Vincent |
| Tel Extn: | 020 3299 4124 (DH) |
| Email: | royce.vincent@nhs.net |
| Service Lead for: | Biochemistry / Immunology |
| | |
| Name: | Dr Paula Garland |
| Tel: | Routine Hours – contact via Haematology secretaries on Ext: PRUH 64265 |
| Email: | p.garland@nhs.net |
| Service Lead for: | Haematology / Blood Transfusion |
| | |
| Name: | Dr Anitha Nayar |
| Tel: | Via Histology office on 016898 64294/95 |
| Email: | anitha.nayar@nhs.net |
| Service Lead for: | Tissue Sciences |
| | |
| Name: | Dr Caoimhe Nic Fhogartaigh |
| Tel: | 020 3299 6260 (DH) |
| Email: | caoimhe.nicfhogartaigh@nhs.net |
| Service Lead for: | Infection Sciences |
| PRUH Pathology General Manager | |
| Name: | Gurjit Lindsay |
| Tel: | 01689 866909 |
| Email: | gurjit.lindsay@synnovis.co.uk |
| Quality Manager (s) | |
| Biochemistry | |
| Name: | Julie Jordan |
| Email: | Julie.jordan1@nhs.net |
| Blood Transfusion | |
| Name: | Cristina Lobato |

| | |
|---|--|
| Email | c.lobato@nhs.net |
| Haematology | |
| Name | Janet Okafor |
| Email | Janet.okafor@nhs.net |
| Tissue Sciences (Histology & Non – Gynae Cytology) | |
| Name | Karen Boniface |
| Email | Karen.boniface@nhs.net |
| Infection Sciences (Microbiology & Virology) | |
| Name | Angela Menezes |
| Email | angela.menezes@nhs.net |

1.3 Definitions

| Term | Definition |
|------|---|
| PRUH | Princess Royal University Hospital |
| MHRA | Medicines and Healthcare products Regulatory Agency |
| HTA | Human Tissue Agency |

2. Pathology Quality Policy

This is the Quality Policy for the Synnovis Pathology laboratory, Princess Royal University Hospital, Bromley and South sites.

This should be read in conjunction with the Pan Synnovis Statement of Purpose PATH-Q-POL2.

Scope:

The Pathology Service of Synnovis Analytics LLP is legally responsible for the laboratory's activities and is part of the Synnovis Group. Synnovis is a partnership between SYNLAB UK & Ireland, Kings College Hospital (KCH) and Guy's and St.Thomas' NHS Foundation Trusts. The Royal Brompton and Harefield Hospitals Pathology services joined the Synnovis and NHS partnership in September 2023 and the Synnovis Hub laboratory at Blackfriars opened April 2024.

The Pathology Laboratories at the Princess Royal University Hospital (PRUH) provide,

- Routine Haematology, Blood Transfusion and Automated Chemistry (Blood Sciences), Infection Sciences (Microbiology & Virology), Tissue Sciences (Histology & Non-gynae Cytology) laboratories and Specimen Reception are located at the Princess Royal University Hospital (PRUH) Site.

Policy

The Pathology Laboratories are committed to providing a service of the highest quality and cost effective service to:

- Hospitals within the KCH NHS Foundation Trust – these include the PRUH, Beckenham Beacon, Orpington (except In-patients), KCH clinics at Queen Mary's Hospital, Sidcup and a defined profile of tests for Genitourinary Medicine Clinic (GUM) on the KCH Denmark Hill site.
- General Practitioners within the NHS South East London CCG (Bromley)
- All women (and couples) in the care of KCH on the Bromley & South Sites who are recommended for the antenatal programme offering sickle cell, thalassaemia (SCT) and infectious diseases in pregnancy (IDP) screening. (The majority of the aspects of the SCT screening programme is referred to the Synnovis Red Cell Laboratory.)
- Her Majesty's Coroners for the boroughs of Bexley & Bromley
- Other users where such arrangements are in place.

The Pathology Service has developed a quality management system, and continues to maintain accreditation to ISO15189:2012 for the Blood Sciences Laboratories. (With the progression towards the Target Operating Model for Synnovis services in the future, the PRUH Pathology disciplines will transition to ISO15189:2022 as part of that plan.)

The purpose of the quality management system is to provide a framework for directing and managing activities carried out by laboratory staff, which is essential to providing a high quality service that meets the needs and requirements of our users.

In order to ensure that the needs and requirements of users are met, the Pathology Service will:

- Operate a quality management system to integrate the organisation, procedures, processes and resources.
- Establish quality objectives and plans to achieve them and review these objectives periodically
- Ensure that all personnel are familiar with the Quality Policy, the Quality Manual and related processes, to ensure user satisfaction.

- Commit to the health, safety and welfare of their entire staff, and visitors to the laboratories.
- Comply with the relevant environmental legislation.
- Be committed to meeting or exceeding the requirements of the standards set for Medical Laboratories to ensure compliance to the ISO 15189:2012 Standard, Blood Safety and Quality Regulations (2005), the Human Tissue Act (HTA 2004), and the NHS Antenatal PHE Screening Programmes; SCT & IDPS
- Uphold professional values and commit to good professional practice and conduct.

The Laboratories are committed to ensuring compliance with the requirements of the ISO 15189 Standard, and to the standards of all relevant accrediting and legislative bodies. This includes a commitment to:

- Staff recruitment, training, development and retention at all levels to provide a full and effective service to its users
- The proper procurement and maintenance of such equipment and other resources as are needed for the provision of the service
- The collection, transport and handling of all specimens in such a way as to ensure the correct and safe performance of laboratory examinations
- The use of examination procedures that will ensure the highest achievable quality of all tests performed, in conjunction with CE and UKCA (UK Conformity Assessed) marked kits and validation of in-house assays
- Reporting results of examinations in ways which are timely, confidential, accurate and clinically useful
- The assessment of user satisfaction, in addition to internal audit and external quality assessment, in order to produce continual quality improvement

3. Laboratory Services

3.1 Laboratory Routine Service

| |
|--|
| Biochemistry – Laboratory operates a 24/7 service |
| Routine: Monday - Friday: 08.00 – 20.00 (17:00pm – 20:00pm reduced service) |
| Haematology – Laboratory operates a 24/7 service |
| Routine: Monday - Friday: 08.00 – 20.00 (17:00pm – 20:00pm reduced service) |
| Blood Transfusion – Laboratory operates a 24/7 service |
| Routine: Monday - Friday: 09.00 – 20.00 (17:00pm – 20:00pm reduced service) |
| Infection Sciences (Microbiology & Virology) |
| Routine Monday - Friday 09:00 - 17.30 Routine samples: all samples received before 16:30 will be processed that day. Samples received after this time will be processed the following day Bank Holidays Saturday morning service 08:00 - 13:00, Out of hours service 13:00 - 9:00am next working day |
| Tissue Sciences (Histology & Cytology) |
| Histology Routine Hours: Monday - Friday, 07:30am - 17:00pm Cytology laboratory operates Monday - Friday 08:00am -16:00pm Out of Hours (including Bank holidays): There is no out-of-hours service available |

3.2 Urgent Requests

All requests that meet the requirements to be processed as urgent from the Emergency Department (ED) are managed as urgent with a target turn-around time of 1 hour.

- Request forms marked '**urgent**' will not be processed with any priority in the absence of verbal notification.
- Results will not be telephoned unless this has been agreed or the results meet the critical telephoning criteria.

For more details, refer to the individual laboratory sections

3.3 Action points for proper use of laboratory service

Where there is inadequate patient identification, poor request form completion and/ or sample labelling there is the potential for results being issued for the wrong patient.

As a result, the Pathology laboratory has set out specific instructions; acceptance and rejection criteria, on the requirement for labelling both specimens and request forms electronic & paper, EPIC/Beaker in secondary care and GP tQuest ordering in primary care.

The criteria for acceptance reduces the number of tests and investigations, which would otherwise not get back to the correct patients records, with potentially fatal

consequences. The laboratory stipulates that the correct and accurate completion of patient details on specimen containers and e-requests/forms is essential to achieve a quality pathology service.

There is a professional responsibility to ensure there is positive patient identification to provide safe and effective patient care.

Patient identification data must be confirmed verbally with the patient i.e. surname, forename name and date of birth. It is accepted that there are very rare and exceptional circumstances where this cannot be achieved.

3.4 Synnovis Phlebotomy Service

The Synnovis Phlebotomy hospital adult inpatient, paediatric inpatient & outpatient services was implemented on 1st Nov 2021 – 7 days per week service.

This service is **NOT** managed by the PRUH Pathology.

| | |
|---|--|
| PRUH Adult inpatient area/ward (x2 rounds – depending on area/ward) | 07:00 – 10:00 & 13:00 – 15.30 - Mon-Fri |
| PRUH Paediatric inpatient area / ward | 07:00 – 10:00 & 13:00 – 15.30 - Mon-Fri |
| GP Paediatric outpatients clinic appointments | 09:00 – 17:00 - Mon-Fri |
| Ward Rounds: Saturday & Sunday | 07:00 – 12:00 Mid-day |

In the event of any query or problem, please contact the

Synnovis Phlebotomy Team Leaders: Ext: 01689 864313 / Internal Direct line – 64313

Synnovis on-call Phlebotomy contact number: 07597 018645

(NOTE: the Synnovis on-call contact is not always on-site)

- Ensure that request forms are completed correctly.
- The phlebotomist cannot add or alter details on the request forms.
- Paediatric outpatients arriving for a Blood Test appointment must be provided with a GP Test Request form by the requestor – phlebotomy staff are unable to print a copy.

Phlebotomy clinics for GP paediatric patients require an appointment; these can be booked by either telephoning or emailing:

☎ 01689 864313

Email: kch-tr.phlebotomy-adult-manager@nhs.net

Paediatric Phlebotomy (16 years and under), appointments must be booked via the GP Surgery.

3.5 PRUH Phlebotomy Service (adults)

GP Patients with special requirements and hospital clinic patients – can be bleed at the PRUH Outpatient C department – walk-in (ticketed) service [09:00 – 17:00 Mon-Fri]

3.6 Direct Access Community Adult Phlebotomy service (adults)

The Trust Phlebotomy service currently continues to manage the Bromley & South sites (Orpington & Beckenham Beacon).

Phlebotomy clinics for GP Adult patients require an appointment; the appointments can be booked by either telephoning or emailing Bromley GP Alliance (BGAL):

☎ 0203 930 0245

✉ www.bromleygpalliance.org

4. Results and Sample Identification

4.1 Hospital Requests

All in-patient and out-patient requests (secondary-care) are ideally made electronically via EPIC/Beaker. [There is an icon on all Trust PC desktops.](#)

Paper forms will only be accepted if the system is unavailable and downtime procedures are in operation. Forms are available from the EPIC downtime pack on all Trust PC desktops.

Please check that the patient details are correct.

If the details on the printed request do not match the details on the wrist-band of the patient, the phlebotomist will not be able to collect the sample and the ward staff/ doctor will be notified.

There are mandatory fields in the EPIC form for clinical details, bleep number and telephone extension. Please ensure that all these are completed.

Any paper request forms submitted must comply with requirements:

- Always include the patient's fore name and last name, hospital number and date of birth
- The hospital number is essential, particularly for blood cross-matching requests.
- It is very important to write the patient's name clearly and legibly because it is difficult to retrieve results from the Pathology computers if even one letter in a name is not clear.
- Always include the date of birth (DOB), gender and ethnicity; these can affect the reference range provided for some of the results.
- Complete other details as requested on the form, particularly clinical information including date of symptom onset, the date of the specimen, relevant drug therapy and 'infection risk' information.
- Request forms are ideally signed and dated by those collecting the specimen.
- State on the form if the request has originated from a private patient source.

The requesting doctor must sign the request form, print their name and bleep number legibly to enable direct contact for clinically significant results or queries regarding the request.

4.2 GP Requests

The vast majority of GP test requests are ordered electronically, via tQuest.

As with any tests requests, these electronic request orders must be completed in full, this is to provide the laboratory staff with the correct information in order to:

- Uniquely identify the patient.
- Ensure all required investigations are selected and requested

- Ensure results correct interpretation in the context of the clinical information included
- Ensure reports are returned to the correct destination and requester of the tests

These criteria are essential on all request forms which patients present to the phlebotomist.

4.3 Labelling samples

All samples **MUST** be labelled **ONCE** the specimen is in the container.

If for practical reasons the container must be labelled first, then if the specimen container is not used it **MUST** be discarded immediately considering Information Governance (IG) and the responsibility of ensuring the patient demographics are not compromised.

Specimens must be labelled in permanent ink in the patient's presence. The specimens must be labelled with reference to the request form or system generated labels.

It is not good practice to use the notes to label specimens; you may be looking at the **WRONG** ones.

It is essential that the samples are labelled immediately with the patient's full name, date of birth, and NHS number or hospital number (whichever is relevant).

- If samples are left without having been labelled, there is a possibility there could be confusion with unlabelled samples from another patient.
- The samples should be bagged at the earliest convenience with the appropriate forms and sent directly to the pathology department.
- Never use pre-labelled tubes; label after specimen collection
- Samples must be labelled by the person collecting the sample
- When collecting multiple specimens, at different times, for the same investigations e.g. glucose tolerance tests ensure that each can be clearly identified with the time each specimen was collected.
- All request forms and samples, (blood, urine, tissue or any other) must have all identifiers present.

4.4 Mislabeled specimens

If the sample is unsuitable for analysis in anyway it will not be analysed. This is to avoid risks to patients. The labelling details on the sample must be complete and must match exactly with those on the accompanying request form.

The Pathology department will strictly enforce this policy. The requested analyses will **NOT** be performed on any samples where there is any discrepancy with patient identification.

Sample rejection and discard will be noted electronically on the Pathology computer system and a report issued in the normal manner. Due to internal pressures, the laboratory will not be able to directly inform the requesting clinician that a sample has been rejected and discarded.

Where the rejection and discard policy would be exceptionally detrimental to patient care, i.e. where the specimen is not repeatable perhaps a biopsy or a baseline sample taken before treatment has been administered, analysis or processing will **only** proceed where there is direct contact by the clinician responsible for the patient.

A disclaimer will have to be signed by the requester to accept all and absolute responsibility for any and all results on such samples with incorrect, inadequate or illegible labelling processed subsequent to consultation with a Consultant Pathologist responsible for the department in which the requested test would have been analysed.

The report will be annotated with the shortcomings of the request.

The laboratory cannot accept any responsibility for such results and the actions taken.

For labelling of Transfusion samples see section 14.

5. Supplies

Users are requested to maintain adequate supplies. The laboratory is not always able to meet requests on demand.

- Stocks of specimen containers are available from the laboratory using the appropriate requisition order form. These must clearly state the requirements and destination for the consumables.

SS-RF-012 version 7.0

Requisition Form - Pathology Laboratory Supplies

5 working days' notice **MUST** be given for all orders
Tel: 01689 864321 Email kch-tr.pruhpathstores@nhs.net

| | | |
|-----------------------------------|-----------------------------|--|
| Contact details for order: | Name and telephone | |
| Date: __ / __ / 20 __ | Surgery/Clinic/Ward Address | |

- For consumable requests from Trust users, delivery of stores between the south sites is by twice-weekly hospital transport. Allow for 2 working days plus any delivery delay when making your order.
- Whilst every effort is made to meet the needs of users, it is not always possible to fill urgent telephoned orders immediately.
- It is important to rotate stock and ensure that any nearing expiry date is returned to the laboratory for use elsewhere or if expiry has been exceeded, stock is discarded.
- It is the duty of the requesting doctor/ specimen collector (e.g. phlebotomist) to ensure samples are sent to the appropriate dispatch point and onwards to the laboratory.

6. Instructions for the transport of samples to the hospital laboratory

Owing to the unknown nature of a patient sample, it is imperative that pathological specimens are transported in a manner in which potentially infectious material will not pose a potential risk, as it is transferred from one location to another. All pathological samples are capable of transmitting infection, and should be treated as potentially High Risk, they should not be assumed to be free from transmissible diseases.

Therefore, there is a need to ensure that all specimens are safely handled, contained and transported from the patient to and between laboratories.

It is the responsibility of those sending specimens from locations within the Trust but not on the PRUH site, i.e. those areas that cannot deliver samples via the pneumatic tube or by hand, that the correct procedures are observed and that they obtain a supply of the approved containers, labels and transport boxes.

All pathological samples must have:

6.1 Primary receptacle

- *Primary receptacle* - a primary watertight leak-proof receptacle containing the specimen. The receptacle must be packaged with enough absorbent material to absorb all fluid in case of breakage.

6.2 Secondary packaging

- *Secondary packaging* - a second durable, watertight, leak-proof packaging to enclose and protect the primary receptacle(s) i.e. the specimen bag
- All samples must be placed in individual plastic 'kangaroo' type sample bags to avoid cross contamination. Any documentation e.g. request forms are to be placed in the separate pocket on the outside of the bag.
- Bags must not be sealed using staples, pins or paperclips.
- Several cushioned primary receptacles may be placed in one secondary packaging, but sufficient additional absorbent material shall be used to absorb all fluid in case of breakage.

6.3 Outer packaging

- The secondary packaging is placed in outer shipping packaging with suitable cushioning material. Outer packaging protects contents from outside influences, such as physical damage, while in transit.
- For postal specimens this will be a UN3373 box
- For cross-site or GP transport this will be a Daniels transport box

Any specimens that are received leaking or in a dangerous condition will not be processed but will be discarded. In this event the clinician will be informed via a report generated electronically on the pathology computer system.

6.4 Transport of specimens by road

The transport of most specimens from the General Practitioner's surgeries or outreach clinics to the hospital laboratory is provided by Trust transport and service providers who will be familiar with their responsibilities.

If for any reason, pathological samples have to be transported via a contracted transport supplier, the following guidelines must be adhered to,

- The box must not be transported in the same compartment as passengers – but must be placed in the boot of any vehicle or the rear compartment of any van used and firmly secured.
- Mail must not be transported in the same carrier box as specimens.
- The container must be secured using appropriate means whilst being transported in the vehicle.
- Specimens must be transported in a secure transport box with a fastened leak proof lid. (Compliant with IATA Packaging Instruction 650 or 621 and UN3373 or UN3291)

It is the responsibility of those sending specimens from locations within the Trust but outside the laboratory site that the correct procedures are observed and that they obtain and utilise the approved and correctly labelled transport boxes.

Each box must display a biohazard warning sign and must also state that the box must not be tampered with or opened and a telephone contact number included for emergency purposes.

Carriage of pathological specimens between hospitals and/ or GP clinics and the hospital by road comes under the remit of 'The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009, as amended (CDG Regs)' – ADR regulations.

6.5 Inter-hospital site transport

Samples are retrieved from designated collection points at Orpington and Beckenham Hospitals, and the regular inter-hospital transport provided by GSG, will collect and deliver the samples to pathology. There are transport runs between the PRUH laboratory and the DH site too.

Samples from patients seen by GP's or patients from community based clinics can leave specimens at the designated collection points at those locations for collection and transport to pathology by GSG transport company. The GP teams may also deliver samples themselves to the phlebotomy out-patient collection points at Orpington and Beckenham Hospitals, or directly to Pathology Specimen Reception at the Princess Royal University Hospital, Level 2, South Wing.

Semen samples for post vasectomy samples can only be accepted at designated times, see below (seminal fluid samples).

To maintain their integrity, specimens must be transported to the laboratory as soon as possible after collection. Delays in the transport of microbiological specimens may cause a loss of viability of fastidious organisms, or an inability to detect potential pathogens because of overgrowth by commensal bacteria.

When this is not practicable, store specimens at 4°C until the next available transport.

Do not freeze samples, unless specifically requested to do so. Ideally Blood Sciences specimens need to be receipted and prepared on the same day as collection. If the inter-site scheduled transport has finished specimen transfer by other means may need to be arranged.

Contact with the laboratory will be necessary if samples are to be sent requiring urgent results.

6.5.1 Contact details for transport issues

Contact Synnovis customer services via: customerservices@synnovis.co.uk

6.6 Internal Transportation by Pneumatic Tube system

On the PRUH site, specimens are delivered directly to the pathology reception by porters, phlebotomists, doctors and nursing staff or sent by the preferred means of transport using the pneumatic tube system.

The PRUH Pneumatic Tube System (an air tube system) propels cylindrical containers (transport PODs) through a tube by compressed air or by partial vacuum. There are 2 tubes; 1 that served ED alone and another that serves the majority of the rest of the hospital. There are POD stations in various locations across the site, not all wards have one.

Before transporting specimens in the Air Tube senders must ensure that the container lids are properly fastened and the samples are placed in specimen bags.

- Items must first be placed inside a pneumatic tube carrier before being sent in the system.
- All samples must be placed in individual plastic 'kangaroo' type sample bags to avoid cross contamination. **(Primary receptacle)**, before being placed into the carrier (transport POD)
- Where there are paper request forms, these must not be placed in the bag with the sample. Place forms into the separate pocket on the outside of the bag.
- If the specimen has to be forced to fit inside a carrier, it is too large and must be either repackaged or delivered to the laboratory by hand.
- Items within the carrier will move around during their journey. In order to prevent breakages, the contents must be protected with absorbent wadding such as paper towels.
- It is important to note that the pods are not leak proof.

It is the senders' responsibility to ensure:

- The specimen is correctly labelled and packed and accompanied by the relevant paperwork
- The correct colour pod is used - **All items entered into the air tube system MUST be in a pod.**
- The ends of the pod are properly latched
- The pod is sent to the correct destination address

PROHIBITED SAMPLES - The air-tube system must **NEVER** be used for the following samples:-

- Histology samples of any kind, especially in formalin
- 24-hour urine collections
- Non-repeatable fluid samples
- CSF samples
- Blood cultures
- Lower respiratory tract samples e.g. sputum and bronchial washings
- Blood-gas samples in syringes or capillary tubes
- Any samples from patients suffering from CJD, viral haemorrhagic fevers or Hazard Group 4 pathogens*
- Any Pharmacy items
- Empty blood transfusion bags

* Approved List of Biological Agents, Advisory Committee on Dangerous Pathogens HSE (2013)

6.6.1 Breakdowns of pneumatic-tube system

If you suspect the system is not working, put a notice on the station saying 'temporarily out of order' and contact Vinci (Facilities) by contacting the ISS helpdesk on 63377. The

system is not the responsibility of the laboratory and therefore they cannot resolve functionality issues.

7. Health and Safety precautions

Health & Safety at Work Act

It is the duty of every employee to take reasonable care for the health and safety of their self and other persons who may be affected by their actions or omissions at work.

Specimens must be packed correctly. It is the responsibility of the requesting doctor or the staff collecting and sending the sample to ensure that the specimen is transported safely and arrives in the laboratory. Laboratory responsibility starts when it arrives in pathology.

7.1 Inoculation (sharps) Injuries

- Current guidelines must be followed so as to avoid needle stick injuries to those taking, transporting and processing samples.
- When blood gas specimens are sent for analysis in the original syringe, it is absolutely prohibited for the needle to be left on the syringe. The syringe must be sealed using an approved cap. Specimens arriving in the laboratory with the needles still in situ will be discarded immediately without processing.

7.2 Infectious Hazards

General requirements and good practice:

- If a Pathology paper request order form is used do not contaminate with the sample.
- Ensure that the sample container is correctly sealed.
- All samples must be placed in individual plastic 'kangaroo' type sample bags to avoid cross contamination. (Primary receptacle) – refer to section 4.7 above
- Under the Health & Safety at work Act, it remains the responsibility of the requester to provide information about potential or known high-risk samples. This information should be provided with the clinical details.

8. Results

8.1 Reporting results

Where reference ranges are applicable for results, they will be published on the report with the test result.

Where examinations/ investigations are referred, this will be annotated on the report and further details on referral laboratories are available on request.

IT IS THE RESPONSIBILITY OF THE CLINICIAN REQUESTING THE TEST TO ENSURE THAT THE RESULT WILL BE VIEWED AND ACTED UPON APPROPRIATELY

Once investigations are complete and the results authorised,

- Internally, where the request has been made in a secondary care setting, the LIMS is interfaced with EPIC and electronic reports are transmitted as reports are authorised and will be available for review.
- Where the request has been made in the primary care setting, using tQuest or not, the report will be delivered to the GP EMIS system. As results are authorised, they queue ready for the next result launch which happens at 15 minute intervals.

For those surgeries or external requesters that receive results in hard copy, reports are printed and posted daily.

8.2 Telephoning results

Results will only be telephoned through to the clinician or clinical area in circumstances where the results meet the critical telephoning criteria and urgent clinical intervention may be required.

Where results are critical for primary care patients, in surgery hours these will be communicated to the requesting GP.

Outside surgery hours the results will be communicated to the - Out of Hours provider contactable via the NHS 111 service.

8.3 Validity of results

Quality assurance programmes are in operation to ensure satisfactory accuracy and precision of all tests. Even so, random errors can occur and may escape detection in the laboratory. Often the Clinician is well placed to detect such errors and is responsible for following up any discrepant results.

If there is doubt about the validity of any result, the laboratory should be contacted immediately. By informing the laboratory of a suspected issue, sometimes it can serve as an alert to a wider problem which can be corrected as soon as possible.

Most samples are kept for a minimum of three days (dependent on laboratory test requested and sample validity). During this time, it is usually possible to check results for some analytes; some samples/ analytes may deteriorate.

8.4 Interpretation of results

Although reports are checked for clinical feasibility before results are released for reporting, because not all the clinical information is available, the requesting clinician has to take the ultimate responsibility for the interpretation of the report. Many factors can influence a Pathology result, and these need to be considered.

If the result does not fit the clinical situation, alert the laboratory and discuss this with a senior member of staff who are always willing to discuss the accuracy and confidence limits of any test, selection of appropriate tests and the significance of any result.

8.5 Actions taken by the Clinician – But these are not dictated by the Labs

The actions to be taken by the clinicians will vary depending on the severity of the result. Escalation of results will also be dependent on the requesting source. If requested by a hospital clinician they may escalate the result to their consultant if required or act on the result as part of the treatment plan and/or inform the patients GP. The timescale for action will also depend on the severity as a very abnormal result could be life threatening therefore action need to be immediate. Actions taken by the clinician or GP will be documented within the patients' health records.

9. Point of Care Testing

The laboratory at the PRUH does not participate in any Point of Care Testing (POCT) – testing in the near vicinity of the patient. All POCT is managed by the Trust although the laboratory is represented on the POCT committee in an advisory capacity only.

10. Risk Management

The pathology department investigates any relevant incidents reported to them irrelevant of the source. The Trust employs the Inphase incident reporting system, and primary care report suspected incidents involving Pathology via the 'GP Alert system' for investigation and reporting outcome.

11. Research

Please refer to www.synnovis.co.uk for information

12. Private Tests

Please refer to www.synnovis.co.uk for information

13. Haematology Department

The Laboratory undertakes routine Haematological investigations, which include FBC, ESR, Coagulation and Thrombophilia.

13.1 Department key contacts

Monday - Friday: 08:00 – 17:00 and Outside of core hours

- Haematology telephone number for results query call Specimen Reception: PRUH 016898 **64266**
- Haematology Laboratory Manager – Lisa Cook Ext: **64262** or email lisacook1@nhs.net
- Haematology Laboratory – Extensions: **64257/64258**
- For clinical advice please contact the Duty Haematology clinician in the first instance – **Bleep 156** or via switchboard
 - **Routine Hours** – contact Haematology secretaries on Ext: **64265**, who will direct your query
 - **Out of hours, weekend and bank holidays** - contact on-call Haematology clinician via switchboard

13.2 Haematology (PRUH) Opening hours

The Laboratory operates a 24/7 service

Routine: Monday - Friday: 08:00am – 20:00 (17:00pm –20:00pm reduced service)

- Non-urgent samples should arrive in Specimen Reception (SR) between 09:00-17:00
- Routine profiles are performed daily (Mon-Fri)

Out of Hours: 20:00 – 08:00am Monday – Friday, and 08:00am Saturday – 08:00am Monday

- Bleep the Biomedical Scientist (BMS) on **Bleep 311** at any time outside normal working for urgent requests

13.3 Location

- Pathology, Level 2, South Wing, Princess Royal University Hospital (PRUH)
- For Synnovis Analytics website: www.synnovis.co.uk

13.4 Sample Requirements

Remember to:

Use the correct specimen bottles and ALL sample labels must include:

- Patient's full name (first name & last name)
- Date of Birth (DOB)
- NHS/hospital number
- Date sample was taken

The details on sample and request **must** match exactly. The laboratory staff cannot alter incorrectly or inadequately labelled samples. The laboratory report will notify the requester of inadequately or incorrectly labelled samples/request forms that will be retained in the laboratory for inspection until the next working day. In addition, rejected requests from SCBU, ITU and ED will be communicated by telephone.

- Ensure the specimen bottle and form (where applicable) are sent separated in a clear sample bag
- Specimen bottles are tightly sealed to avoid leakage in transit
- Inadequately or unlabelled labelled samples will not be processed and will be discarded
- Ensure that requests made via the EPIC/ tQuest systems have a barcode label affixed that contain all patient details listed above and include the requested test assays (if the date collected is different to the printed label, amend the date of collection)
- Clinical details, indication for request and date/time of operation (see individual sections) should be indicated on request form or EPIC /tQuest request.

13.5 Haematology Critical Phoning Limits

The abnormal/critical results will be communicated directly to a member of clinical staff as soon as they are technically validated. The criteria for critical phoning results are based on the recommendations of the Royal College of Pathologists and these are available on request.

13.6 Tests available on an emergency basis

The following tests are available on an emergency basis for the immediate diagnosis and management of **in-patient** after normal working hours, Saturday, Sunday and Bank Holidays:

| Tests | Containers |
|---|--|
| Full Blood Count; WBC differential, Hb, RBC indices, PLT, WBC | EDTA anticoagulant – all 4ml bottle (purple top) |
| Retics | EDTA anticoagulant – 4ml bottle (purple top) |
| ESR | Adult – 4ml bottle (purple top) only |
| Malaria Screen | EDTA anticoagulant – 4ml bottle (purple top), state country visited and when |
| Glandular Fever screening test | 4ml bottle (purple top) or 5ml bottle (gold top) |
| Clotting screen | Citrate anticoagulant (turquoise top) – 2.7ml bottle filled to the line |
| Anti-Xa (Unfractionated Heparin) | Citrate anticoagulant (turquoise top) 2.7 ml bottle filled to the line/arrow |
| Clauss Fibrinogen | Citrate anticoagulant (turquoise top) 2.7 ml bottle filled to the line/arrow |
| D-dimer | Citrate anticoagulant (turquoise top) 2.7 ml bottle filled to the line/arrow |

13.7 Repertoire

Refer to **Appendix 1- Pathology Blood Test Repertoire** – at the end of this document. Contact laboratory if further information required.

13.8 Key factors known to affect the performance or interpretation of Haematology investigations

Samples may be rejected by the Laboratory for the following reasons as the integrity of the specimen; the reliability of the testing process or the interpretation of results could be affected:

13.8.1 Full Blood Count

- Clots present in the sample

- Sample is more than 24 hours old
- Lipaemia
- Haemolysis
- Exposure to heat or warmth for prolonged periods

13.8.2 Clotting samples

- Clotted samples or presence of small fibrin clots
- Samples >4hrs old (Potential for factor deterioration)
- Samples >12hrs old are unsuitable for analysis
- Lipaemia
- Haemolysis
- Exposure to heat or warmth for prolonged periods
- Under filled samples (sample over diluted by anticoagulant) or overfilled

13.9 Requesting extra tests

- Full blood count (FBC) samples are retained under temperature controlled conditions for a maximum of 3 days. The integrity of the sample for FBC and ESR analysis is no longer valid after a period of 24 hours for FBC.
If the sample has been stored in a manner that will maintain its integrity, there are some extra tests that will still be valid up to 7 days after sample collection e.g. Hb electrophoresis.
- Anticoagulant samples are stored for 24 hours under temperature-controlled conditions after which time they are no longer suitable for retesting.
- In circumstances where further or more specialised testing is required, a request must be made as soon as possible within 24 hours after specimen collection so that arrangements can be made for the plasma to be aliquoted and frozen at -20°C.

13.10 ANTICOAGULATION GUIDELINES

Refer to pages on <http://hww-kingsweb>

13.11 Haematology derived reference range source

Ranges have been derived from a number of reputable sources.

1. Adult normal FBC & ESR ranges derived historically from *Practical Haematology, Dacie & Lewis (unknown edition but circa 2010)*.
Reviewed in Q1 of 2022, as part of the validation and verification (V&V) of new equipment installation, business transformation and standardisation project across sites.
2. Coagulation ranges derived from V&V process as part of new equipment implementation in 2019.
3. Due to the ethical issues surrounding the generation of internal ranges, reference ranges for children are derived from published sources, *BCSH Guidelines for Neonatal Haemostasis and Thrombosis, 2002 and Paediatric Haematology, 2nd edition JS Lilleyman et al 1999*.

14. Blood Transfusion

14.1 Department key contacts

Monday – Friday 08.00 – 20.00 (17.00 – 20.00 reduced service) and out of hours:

- Routine Hours - PRUH Blood Transfusion Laboratory – Ext: **64329**
- Out-of-Hours - BT [Bleep 311](#)

Please Note - that this is a very busy bleep during the out of hours periods. The bleep will be answered - response may not be instant at busy times. Please be patient and refrain from repeating bleeps in quick succession because the bleep-holder cannot reach you whilst your extension is off the hook.

- **Please note** that during core working hours [Bleep 311](#) is reserved for Major Haemorrhage Code Red/ Trauma use (Hospital use only).
- Blood Transfusion Consultant Haematologist – Contact via switchboard
- For clinical advice please contact the Duty Haematology Clinician in the first instance – **Bleep 156** or via switchboard
- Blood Bank Laboratory Manager – Kenneth Amenyah on Ext: **64249** or email kenneth.amenyah@nhs.net
- Transfusion Practitioners – Sue Cole, email s.cole@nhs.net or Hayley Allen, email hayley.allen2@nhs.net Ext: **64282** or WiFi phone **65423**

14.2 Blood Transfusion (PRUH) Opening hours

The Laboratory operates a 24/7 service

Routine Hours

- 08:00 – 20:00 Monday – Friday (17:00 – 20:00 reduced service)

Out-of-Hours

- 20:00pm – 08:00am Monday - Friday
- All day Saturday and Sunday as well as Bank Holidays

- Routine Group and Screen requests **MUST** be received by 18:00 for guaranteed same day processing
- **During Out of Hours periods, urgent blood and blood product requests MUST be bleeped to the Out of Hours BMS on Bleep 311**
- For special blood product requests (e.g., requests for HLA matched platelets) notification is required 24 hours prior to usage). These cannot be ordered out of routine hours.
- Patient with a history of antibodies **MUST** be discussed with the BMS staff as there may be a delay in blood provision.
- When blood and blood products are ready, a comment notification will be sent to the results section for the patient on the EPIC system stating '*Please check EPIC for details*'. If unable to access and view - please call the laboratory for information relating to the availability of blood and blood products.

14.3 Location

- Pathology, Level 2, South Wing, Princess Royal University Hospital (PRUH)
- For Synnovis website: www.synnovis.co.uk

14.4 Sample Requirements

- Group and Screen samples must be taken in Pink Top 6ml EDTA bottles.

All blood transfusion samples **MUST** be labelled with

- Full Name (Surname & Forename)
- Hospital and/or NHS number
- Date of birth
- Date of collection
- Time collected
- ID person taking the sample (or signature if sample is handwritten)

Samples received without a request form will be rejected on the basis that the form was not used to positively identify the patient.

At the patient bedside at the time of venepuncture

- All Blood Transfusion samples **MUST** be handwritten label, unless labelled with a BloodTrack label.
- Any sample with details missing or incorrect in any of these fields will be rejected and a repeat sample required.
- Wrongly labelled samples **CANNOT** be amended once they have been received in the laboratory.
- Incorrectly labelled specimens will be discarded.
- Samples **CANNOT** be shared with another department

Samples labelled with non-BloodTrack addressograph labels are not accepted for blood transfusion. If the sample demographics do not match the sample will be rejected and the ward phoned. If blood is required, inform the laboratory Biomedical Scientist (BMS) on the cross-match bench.

BloodTrackers – Hand held a Personal Digital Assistant (**PDA**) allows ward staff to scan & collect the patient's ID from their wristband, print transfusion sample labels, print Pickup Slips, administer blood components/products and record observations.

The BloodTracker also enables direct dating of all units at the bedside when the transfusion is commenced, thus improving traceability and reducing the workload within the laboratory.

14.5 Sample Validity

- Patients transfused or pregnant in the last 3 months: the sample is valid for up to **72 hours** (incl. product reservation period)
- Patient **not** transfused and **not** pregnant in the last 3 months: the sample is valid for up to 7 days

14.6 Instructions for completing request forms

Clerical errors account for the majority of Blood Transfusion Adverse incidents

Requests for blood must indicate:

- No. of units requested and the type of product required
- Time and Date for which blood is required
- Ward or location of patient
- Any special requirements (i.e. irradiated, CMV negative etc.)
- Any previous antibodies detected
- If previously transfused, state when and where
- Urgent requests - telephone the laboratory or out of hours bleep biomedical scientist on duty.

Requests for blood to cover routine surgery:

- Requests where possible should be in the Blood Bank one clear working day prior to surgery - please give a contact ext. or bleep number.
- A previous Group and Screen sample may be suitable for providing cross-matched blood. Contact (PRUH) **64329 Routine Hours** for more information.

14.7 Requests for Blood Products should be made to Blood Transfusion (PRUH)

Laboratory contact extension Ext: 64329

| Test | Samples required |
|----------------------------------|---------------------------|
| Group & Screen/Cross Match | 6ml K2E (EDTA) (pink top) |
| Direct Antiglobulin Test | 6ml K2E (EDTA) (pink top) |
| Kleihauer | 6ml K2E (EDTA) (pink top) |
| Baby group (aged up to 4 months) | 1 ml (EDTA) (pink top) |

14.8 Useful Links

Refer to pages on <http://hww-kingsweb> by searching for the following topics;

- Blood Transfusion Policy
- Use of Blood Components
- National Blood Service
- Transfusion Reaction Form
- Consent for Blood Transfusion Support and the Patients that Refuse
- Maximum Surgical Blood Ordering Schedule (MSBOS)
- Code Red Policy

14.9 Cross-match Requirements

- Please give as much notice as possible when ordering blood, particularly if patient is known to have atypical red cell antibodies
- **TWO** valid Group and Screen samples must have been **received** in the PRUH laboratory for cross-matching- these **must** have been **taken on separate occasions**. (X2 samples received together are counted as 1 venepuncture episode.)
- If a patient has been transfused in the past, depending on when the transfusion occurred, a fresh sample may be required – Refer to section on **14.5 Sample Validity** (above).

14.10 Collection of Blood

- When blood and blood products are ready, a comment notification will be sent to the results section for the patient on the EPIC system stating 'Please check EPIC for details'. If unable to access and view - please call the laboratory for information relating to the availability of blood and blood products.
- Approved documentation to provide patient identification is mandatory (i.e. prescription chart - ICP)

Before administering any blood it is essential to check that the details on the blood bag and compatibility report match, and the patient has been positively identified (if possible) and the patient ID number on their wristband has been checked.

Check:

- Last name, First Name, Date of Birth and Hospital Number on Blood Component Label and Prescription Form
- Blood component number and expiry date on the unit itself, tag on the unit and Prescription form
- Date, Time and Sign the Blood Bank Register to record collection and removal of the component or follow the Blood Track process for blood collection.
- This is obligatory for recording the **Cold Chain** of blood components; it is a legal requirement

14.11 Repertoire

Refer to [Appendix 1- Pathology Blood Test Repertoire](#) – at the end of this document. Contact the laboratory if further information required.

14.12 Key factors known to affect the performance or interpretation of Blood Transfusion testing

Samples will be rejected by the Laboratory for the following reasons as this may affect the integrity and reliability of the testing process

- Haemolysed samples (e.g. due to poor collection, storage or transport)
- Insufficient samples
- Lipaemic samples
- Samples which have been stored out of temperature control
- Mislabelled/ unlabelled samples

14.13 Requesting extra tests

All blood transfusion samples are stored under temperature-controlled conditions for seven days. Requests for further analysis must be received within this period.

15. Biochemistry Department

The Biochemistry department provides a large range of analytical services.

If you need to request an unusual test please telephone to discuss this before taking the sample. If tests are not analysed in-house, they are sent to a specialist referral centre for testing.

Clinical advice is available from the Consultant Chemical Pathologist and Consultant Clinical Scientist during routine hours and out-of-hours – refer to section below for contact information.

15.1 Department Key contacts

Monday - Friday: 09.00am – 17.15pm

- Biochemistry telephone number for results query and add-on tests call Specimen Reception: PRUH 016898 64266
- Biochemistry Laboratory Manager – Fionah Mushonga Ext:**64261** fionah.mushonga@nhs.net / Lisa Cook – lisacook1@nhs.net
- Core Hours 08:00 – 20:00pm (17.00pm - 20:00pm reduced service) Biochemistry Laboratory - Ext: **64256**
- BMS - Out of hours, weekend and bank holidays: Ext. **64256** or **Bleep 312**
- For **Clinical Advice** please contact the Duty Biochemist:

Routine Hours: Ext **64282 (PRUH)** or if unavailable at the PRUH, contact the Duty Biochemist at Denmark Hill. If applicable the enquiry may be referred to the Chemical Pathologist for clinical advice

Out of hours – on-call duty Consultant is available for advice – via switchboard

15.2 Biochemistry (PRUH) Opening hours

The Laboratory operates a 24/7 service

Monday - Friday: 08:00 – 20:00 (17.00 - 20:00 reduced service)

- Non-urgent samples should arrive in Specimen Reception (SR) between 09:00-17:00
- Routine profiles are performed daily (Mon-Fri)

Out of Hours: 20:00 – 08:00, Monday – Friday, and 08:00am Sat – 08:00 Monday

- Chemistry Laboratory - Ext. **64256** or **Bleep 312**

15.3 Location

- Pathology, Level 2, South Wing, Princess Royal University Hospital (PRUH)
- For Synnovis website: www.synnovis.co.uk

15.4 Repertoire

Refer to **Appendix 1- Pathology Blood Test Repertoire** – at the end of this document. Contact laboratory if further information required.

15.5 Sample Requirements

Remember to: - Use the correct specimen bottles (EPIC and tQuest labels will inform the type and number of bottles required).

ALL sample labels must include:

- Patient's full name (first name & last name)
- Date of Birth (DOB)
- NHS/hospital number
- Date & time sample was taken
- Specimen bottles are tightly sealed to avoid leakage in transit
- Additional tests can often be performed with only a small increase in sample volume - the volumes shown on EPIC or tQuest need not always be accumulated.

15.6 Biochemistry Critical Phoning Limits

The abnormal/critical results will be communicated directly to a member of clinical staff as soon as they are technically validated. The criteria for critical phoning results are based on the recommendations of the Royal College of Pathologists and these are available on request.

15.7 Requesting extra tests

Most specimens are stored in the laboratory for 2-3 days, after which time they are discarded. Some specimens are kept for longer.

If additional testing on a specimen previously sent to the laboratory is required within 48 hours of collection, please raise a '**Add-on test**' request and forward to the lab

If more than 48 hours has elapsed since specimen collection, please contact a member of the laboratory's clinical staff before proceeding. Some tests require special handling and will be unsuitable to be processed unless specified collection criteria are followed.

Very abnormal results are seen and authorised by clinical staff and they may request additional tests to the request.

16. Tissue Sciences (Histology & Cytology)

Histology

Histopathology is the study of the causes and effects of disease related to changes in the cells and tissues of the body. Tissue samples are studied microscopically to establish the cause of illness. We undertake a full range of routine diagnostic tests; including gross specimens, endoscopic, open biopsies (including skin), needle biopsies and curetings together with immunocytochemistry, frozen sections services. The service provides essential information to clinicians in the process of diagnosing cancer and other diseases.

Cytology

Cytology is the study of cells. Cellular material can be obtained from any organ or site from the body by different methods such as:

- Natural voiding (urine and sputum)
- Lumbar puncture (cerebro spinal fluid)
- Aspirations from serosal fluids (pleural, peritoneal) or from suspected lumps or cysts
- Surface scrapings/ brushings (cervical sampling and endoscopic brushings)

Cells obtained from these specimens are processed and examined microscopically in the laboratory enabling the cytology department to make benign, pre-malignant or malignant diagnosis.

16.1 Department key contacts

- Histology Main Laboratory - Ext: **64314**
- Histology Cut-up Room Ext: 64317
- Cellular Pathology Laboratory Manager – Lyn Golding - Ext: **65853**
l.golding1@nhs.net
- Histology Secretaries/Results Query – Ext: **64311 / 64312**
- Cytology Results Query – Ext: **64310**
- For **Clinical Advice** about a case call the histology office on 01689 864294/5 or generic e-mail kch-tr.histology@nhs.net where upon the query will be directed to the relevant Consultant Pathologist

16.2 Tissue Sciences (Cellpath PRUH) Opening hours

Histology Routine Hours: The Histology laboratory operates **Monday-Friday, 07:30 - 17:00**.

- Requests for frozen sections and OSNA analysis **must** be arranged with the laboratory (see table above for contact details) at **least** two working days in advance of any procedure.

Cytology Routine Hours:

The Cytology laboratory operates **Monday, Tuesday, Thursday & Friday 08:00 -17:00**
Wednesdays 08:00 -16:00

Histology /Cytology - Out of Hours (includes Bank holidays) :

There is no out-of-hours service available

16.3 Location

- Cellular Pathology Laboratories, Level 2, South Wing, Princess Royal University Hospital (PRUH)
- For Synnovis Analytics website: www.synnovis.co.uk

16.4 Repertoire - Histology

Routine Histology

- Tissue must be placed in 10% formal saline as soon as possible.
- Use a specimen container that will contain the specimen plus ten times the specimen volume of 10% formal saline if possible. (Containers are ordered from pathology on the appropriate request form)
- Label according to the instructions in section 4.3 and send to the laboratory without undue delay.

Urgent Samples

- Clearly mark the request form **URGENT**. 2WW referrals are indicated with a 'pink' sticker
- Specimens usually require overnight processing for optimum technical results; however in exceptional circumstances it may be possible to process small biopsies during the day. **Please note this does not guarantee a report being issued on that day.**
- Urgent specimens should be brought directly to the laboratory.
- Telephoning the laboratory manager or laboratory would be helpful prior to sending a genuinely urgent sample.

Frozen Sections

- Frozen section diagnosis must be booked by telephone with the laboratory at least two working days in advance.
- Whenever possible the patient should be first on the operating list.
- Arrange for the unfixed frozen section specimen to be brought directly to the laboratory via specimen reception.
- The specimen must be handed to a member of histology staff and must be accompanied with a completed request form. (The form must have details of the theatre as well as contact telephone number for the report to be telephoned through to).
- If the procedure is cancelled the laboratory must be informed.
- Due to the need to maintain and decontaminate frozen sectioning equipment the laboratory may not be able to provide a frozen section service at certain times. Availability of this service can only be guaranteed if the laboratory is given adequate prior notice.

OSNA - Service paused for foreseeable future

- OSNA diagnosis must be booked ideally at least 48 hours in advance of the procedure with the laboratory. Booking is achieved via email with the laboratory team.
- Theatre staff must transport the specimen to the pathology Specimen Reception immediately and hand it directly to a member of the Histology staff together with a completed request form. The form must have all the required details completed i.e. contact details for the report to be telephoned back.
- If the procedure has been cancelled or postponed the laboratory must be informed immediately.
- Due to the need for laboratory preparation prior to the examination, availability of this service can only be guaranteed if the laboratory is given adequate advance notice.
- The cut-off time for receipt of specimens in the laboratory is 16.00 hrs.

High Risk Specimens

- Specimens known to be High Risk cannot be handled unfixed by the department.
- These cases must be immersed in a large volume of fixative before transporting to pathology.
- The nature of the high risk must be clearly legible in the clinical details on the request form. This includes all patients who are known or suspected to have a reportable disease.

16.5 Repertoire – Cytology

Sputum Specimens

- Sample containers and vials **MUST** be fully labelled.
- Sputum specimens should be collected in the early morning.
- Only one specimen per day should be sent.
- No more than three specimens should be sent on any individual patient.
- Sputum specimens for cytology are discouraged in patients with chest infections.
- Avoid sending specimens for 7 - 10 days after bronchoscopy to avoid false positives.

Urine Specimens

- Sample containers and vials **MUST** be fully labelled.
- Urine specimens should consist of the whole or as much of the whole voided specimen as possible in a 30ml universal container.
- Mid-stream specimens are not ideal since abnormal cells are usually present in either the first or last part of the voided urine specimen.
- Urine samples that are unlabelled will not be processed.

****DO NOT USE UNIVERSALS CONTAINING BORIC ACID (Red top)****

Fluid from Pleural, Peritoneal, Pericardial, Joint Cavities and Cysts

- Sample containers and vials **MUST** be fully labelled.
- These samples should be collected in a 30ml universal container.

Fine Needle Aspirates (FNA)

- Fine needle aspirates should be sent to the laboratory previously air-dried &/or wet fixed on glass slides.
- Please contact the laboratory for further details if necessary.

Cerebrospinal Fluids

It is strongly advised that a fresh specimen should be sent to the laboratory within one hour of collection.

- If it is unavoidable to take a CSF sample within the laboratory working hours. Inform the cytology department prior to the samples being taken so that they are aware that a sample has been taken and could arrive out of hours.
- Send separate specimens (using separate request forms) to Microbiology and Biochemistry. It is not ideal for CSF samples to be delayed in processing as it will result in the cell degeneration. However, if cytology are not informed, and a CSF is sent out of hours then it will be kept in the cold storage room and processed on the next working day.

If specimens destined for Cytology are collected outside normal working hours, they should be kept refrigerated until sent to the department.

Bronchial Washings

- Sample containers must be fully labelled
- Fresh specimen should be placed in a clean dry universal container
- Delay in the receipt of unfixed samples can lead to deterioration of specimen
- Do **NOT** use any fixative – such as formalin

Bronchial Brushings

- Sample containers must be fully labelled
- Frosted ended glass slides must be fully labelled
- Prepared slides must be a combination of spray-fixed and air-dried (2 slides are sufficient)
- The collection brush must be placed in a universal container with 20mls Green Cytocollection fluid - ensure the brush is fully immersed with the brush facing towards the bottom of the container
- Contact the cytology department on Ext: 64310 for replacement of green collection fluid
- Do **Not** use formalin fixative

Ovarian Cyst Fluid

- Sample containers must be fully labelled
- Fresh cyst fluid samples should be put into a clean dry universal container with screw cap
- The fluid should be sent as soon as possible to minimise cell deterioration
- If there is a delay in delivering the sample to the laboratory, the sample should be kept in the refrigerator between 4-7°C
- Do **Not** use fixative – such as formalin

16.6 Sample Requirements

Remember to - Use the correct specimen containers and ALL sample labels must include:

- Patient's full name (first name & last name)
- Date of Birth (DOB)
- NHS/hospital number
- Date sample was taken
- Include other relevant clinical history and type of specimen

The details on sample container and request form **must** match exactly. The laboratory staff cannot alter incorrectly or inadequately labelled samples. The laboratory will notify

requesters of inadequately or incorrectly labelled samples/request forms that will be retained in the laboratory.

- Ensure the specimen containers and form are sent separated in a clear sample bag
- Specimen containers are tightly sealed to avoid leakage in transit

Inadequately labelled samples will not be processed, until the discrepancy is resolved. Requesters of inadequately labelled Histology requests will be invited to attend the laboratory to amend the labelling and asked to complete and sign a disclaimer to accept full responsibility for any results generated on the specimen and then acted upon.

- Clinical details, indication for the request and date/time of operation should be indicated on request form or EPIC request.

16.7 Tests available on emergency basis

Urgent Histology Samples

- Clearly mark the request form URGENT.
- Specimens usually require overnight fixation and processing for optimum technical results; however in exceptional circumstances the laboratory will process 'Fresh Tissue samples', 'Frozen Sections and OSNA (when OSNA service is resumed) samples during the day. This guarantees a report being issued on that day.
- OSNA samples should reach the laboratory before 16.00 hours.
- Urgent specimens should be brought directly to Specimen Reception.
- Telephoning the laboratory manager or laboratory would be helpful prior to sending a genuinely urgent sample.

Urgent Non-Gynae Cytology Samples

Urgent specimens should reach the laboratory before 14.00 hours unless otherwise specified.

16.8 Requesting extra tests

The examining Histopathologist may request additional staining techniques to be performed, or may be asked by a Consultant at a referral centre for the block to be forwarded for further examination.

Blocks and slides are retained for a period of 30 years and therefore, except in cases where there was only a very small piece of tissue, there will be specimen available for further examination.

The original wet tissue, from which blocks and slides have been made, will be disposed of after completion and authorisation of the histology report, which is approximately 6 weeks.

17. Infection Sciences (Microbiology & Virology)

17.1 Department key contacts

- Infection Sciences Laboratory Specimen Reception /Results - Ext: **64269**
- Microbiology (main) Laboratory – Ext: **64342/64343**
- Virology Laboratory – Ext: **64250**
- Infection Sciences Laboratory Manager – Ricky Stow Ext:**64322** or email ricky.stow@nhs.net
- Contact Duty Consultant Microbiologist for **Clinical Advice** - during core hours call – Tel:[01689 864287](tel:01689864287)
- Outside of normal working hours, contact via switchboard

17.2 Infection Sciences (PRUH) Opening hours

Routine: Monday - Friday: 09:00am – 17:30

- Routine samples (Mon-Fri); all samples received before 16:30 will be processed that day
- Samples received after this time will be processed the following day

Saturday: 08:00 - 13.00

- There is a limited service on Saturdays until 13:00 for essential specimens only

Out of Hours (OOH):

- Monday – Friday 17:30pm-09:00am, and from 13:00pm Saturday – 09.00am Monday

Bank Holiday:

- 13:00- 09:00 the following morning

Any **Urgent** work required out-of-hours must be requested by speaking to the on-call Biomedical Scientist (BMS) on duty. The BMS on duty can be contacted via switchboard

- All Sundays and bank holidays are also covered by an on-call service

17.3 Location

- Pathology, Level 2, South Wing, Princess Royal University Hospital (PRUH)
- For Synnovis Analytics website: www.synnovis.co.uk

17.4 Repertoire

Refer to **Appendix 1- Pathology Blood Test Repertoire** – at the end of this document.
Contact laboratory if further information required.

17.5 Additional information pertinent to individual tests / specimen types

Urine specimens for culture

- Patients **MUST** be instructed on the correct method to collect a mid-stream urine (MSU) to avoid contamination and a possibly misleading result.
- Urine specimens **MUST** be collected into boric acid containers (Red top universal containers) or a sterile white topped universal containers and sent to the Microbiology department as soon as possible after collection.
- Specimens should be kept in a refrigerator (not a freezer) overnight if necessary.
- A request form **MUST** give all relevant clinical information, including antibiotic therapy. Clinical information is required by laboratory staff in order to interpret the bacterial growth obtained, in order to report a meaningful result

Results reporting:

- Most negative results for culture and microscopy will be available within 24 hours.
- Positive cultures with identification and antibiotic sensitivity results will usually be reported within 48 hours.
- Antibiotic sensitivity results **WILL NOT** be reported on mixed bacterial cultures (due to probable poor collection and/or storage) unless specifically agreed for clinical reasons with the Consultant Microbiologist.

Urine for TB culture (AAFB)

- This test requires three complete early morning urines collected on three consecutive days into special containers available upon request from the Pathology supplies department Ext. 64321.
- The specimens must be kept cool and sent to the Microbiology laboratory as soon as possible after all three specimens have been collected.
- Specimens are cultured for up to 42 days (6 weeks)
- Stained films for the presence of acid alcohol fast bacilli (AAFB) are NOT performed on urine specimens.

Urine for Pregnancy Tests

- **N.B** The laboratory performs a pregnancy test with the same sensitivity as that which is available in any chemist. It would be more cost effective to ask the patient to test their own sample, as it would give a quicker and more efficient result.
- An early morning urine specimen (EMU) should be collected into a universal container (white top), and sent to the Microbiology laboratory as soon as possible after collection.
- Specimens can be kept in a refrigerator overnight and then sent to the laboratory.
- The date of the last menstrual period (LMP) should be given on the request form together with any relevant clinical details.
- Results are usually available within 24 hours.

Urine for Schistosoma / Bilharzia ova

- A terminal specimen of urine (the last few drops) should be collected into a universal container (white top)
- The urine should be collected between 10:00 and 14:00 after gentle exercise.
- Specimens should be sent to the Microbiology laboratory as soon as possible after collection
- Results are available within 24 hours.
- Please state risk factors / country of exposure.

Faeces for microbiological and/ or virology testing

- PLEASE NOTE: Faeces samples are NOT routinely processed at weekends and Bank Holidays unless with the prior agreement of a Consultant Microbiologist.

- Specimens should be collected into universal containers with a blue lid and spoon. The specimen container **MUST** not be overfilled and the lid **MUST** be screwed on tightly. Leaking specimens will be discarded without processing.
- Full clinical details, including any foreign travel, **MUST** be given in order for the correct investigations to be performed.
- Specimens **MUST** be sent to the Microbiology laboratory as soon as possible after collection. The specimen **MUST** be fully labelled including the date of collection. Old specimens (>4 days) will be discarded without processing.
- Hard, formed specimens will not be routinely processed.
- Specimens should be kept in the refrigerator overnight.
- Patients with positive toxin results for *Clostridium Difficile* will not be retested for 1 month.

Results reporting:

- Faeces for culture: results will take a minimum of 48 hours, and may take up to 5 days.
- Faeces for Rotavirus: within 24 - 48hours.
- Faeces for Virology (referred test): 10-14 days
- *Clostridium Difficile* toxin results: Usually within 24 hours
- Ova, cysts and parasites: Usually within 24 hours.
- Positive results (e.g. *Salmonella*, *Campylobacter* spp, and parasites) will be telephoned as soon as possible by the Microbiology laboratory. Antibiotic sensitivity results are not routinely reported. Please telephone the Consultant Microbiologists if clinical advice is required.
- Positive isolates from faeces are Notifiable Diseases.

The Infection Control department will telephone positive *Clostridium Difficile* toxin results.

Helicobacter pylori

Please note, in line with the Local Dyspepsia Management Guidelines (July 2005), faecal specimens are now required to test for *Helicobacter pylori* (collected as above).

Blood specimens will no longer be processed for antibody detection.

Sputum for routine bacterial culture

- Sputum specimens for culture should be from a deep cough, collected into a sterile container (white top universal container), and ideally assisted by physiotherapy or postural drainage.
- The sample lid **MUST** be screwed on tightly.
- Specimens of saliva or those contaminated with food particles or mouthwash will **NOT** be processed.
- Specimens collected into waxed collection cups **MUST NOT** be sent for processing as these specimens do not have a tight seal and constitute a Health and Safety risk to all staff during transportation.
- The specimen containers must be labelled with the patient's fore and last name, DOB, the requesting location and date sample collected, and accompanied by a completed request form.
- The request form must give full clinical details and any antibiotic therapy to enable the laboratory staff to perform the correct tests and interpret the culture results obtained in, order to report a meaningful result.
- **ANY LEAKING OR UNLABELLED SPECIMEN WILL NOT BE PROCESSED**

Results reporting:

- Gram films are not routinely performed on sputum specimens.
- Culture results will usually be available within 48 hours.

Sputum for TB culture

- Please see above for sputum specimen collection.
- **ANY LEAKING OR UNLABELLED SPECIMEN WILL NOT BE PROCESSED**

Results reporting:

- Microscopy: results available within 24 – 48 hours.
 - Positive microscopy results will be telephoned to the referring clinician as soon as available.
 - TB culture – all cultures are continuously monitored on the MB BACT machine at 37°C for up to 6 weeks.
- Positive TB cultures will be notified to the referring clinician as soon as available.

MRSA swabs

- Please refer to the Infection Control Department (ext. 64279) or Consultant Microbiologists (ext 64287) for advice on swabs to be taken, and the timing of swabs in relation to the antibiotic eradication regime etc.
- The laboratory is open for receipt of these specimens Monday to Friday (08:30 – 17:30) and Saturday, Sunday and Bank Holidays (09:00 – 11:00)
- Groups of swabs from each patient should be banded together.
- The majority of results will be available within 48 -72hours.
- Positive MRSA results will be telephoned to the ward or referring clinician when available by the staff of the Infection Control department.

For further information and clinical advice regarding MRSA treatment and protocol please see section for key staff and their contact details.

Genital swabs

- Separate swabs MUST be collected for Chlamydia (available from the supplies department ext.64321)
- A separate form must be completed for Chlamydia investigations.
- High vaginal swabs are routinely screened for:
 - Trichomonas vaginalis
 - Candida
 - Beta haemolytic streptococci
 - Staphylococcus aureus

If screening for sexually transmitted disease is required, please send Urethral and / or cervical swabs.
High vaginal swabs are NOT routinely screened for *Neisseria gonorrhoea*.

Swabs for viral culture

- The swab should be collected and immediately placed into viral transport (green top swab) medium (available from the supplies department ext.64321)
- The specimen and completed request form MUST be sent to the Serology department as soon as possible.
- This is a referred test and the average turn-around time is approximately 10 –14 days.

Fungal Culture

It is not necessary to routinely culture samples from all fungal nail infections, as empirical treatment can be tried.

Specimen requirements

- See collection instructions in appendices
- Skin scrapings, nail and hair samples should be collected into folded squares of black paper, into Dermapak holders or into clean, dry sterile laboratory containers available from the Pathology Supplies department. Ext.64321

- Skin and nails should be cleansed before specimen collection to prevent bacterial or saprophytic fungal contamination of the culture.
- Samples from the cutaneous layer (skin) should be collected from the edge of the lesion using a sterile blunt scalpel blade.
- Samples from the scalp should include hair roots, contents of plugged follicles and skin scales. Hair samples should be plucked with the use of sterile forceps.
- Nails samples should be collected from any discoloured, dystrophic or brittle parts of the nail to include the full thickness of the nail. Nail scrapings are preferable for culture rather than one nail clipping.
- Specimens should be sent to the Microbiology laboratory with a fully completed request form.

Results reporting:

- Specimens for Mycology are processed approximately 2- 3 x per week.
- Microscopy results are usually available within 1 week and a report is issued.
- Fungal cultures are read weekly for up to 3 weeks.
- Positive cultures are identified and reported as soon the cultures become positive.
- Negative fungal cultures are reported after 3 weeks incubation.

17.6 Seminal fluid specimens for post vasectomy investigation

- Patients **MUST** abstain from sexual intercourse for 3 days prior to the production of the specimen.
- The specimen must be obtained by masturbation and collected into a clean, dry sterile container (not into a sheath, unless they are special collection sheaths containing NO spermicide). The specimen **MUST** be produced at home and the time noted on the request form.
- NB There are no facilities for the specimen to be produced at the Princess Royal University Hospital.
- The specimen **MUST** be brought by the patient to the Pathology Reception area (2nd Floor South Wing Zone B) at The Princess Royal University Hospital.
- Semen specimens **MUST** not be sent on the routine specimen transport.
- Specimens **MUST** arrive in the Pathology department between 0900 and 1130 Monday to Friday **ONLY** (excluding Bank Holidays) to allow transportation to the Reference Laboratory. Specimens received after this time cannot be accepted for processing and will need to be repeated.
- The request form **MUST** be completed in the male partner's name. Forms completed in the female partner's name cannot be accepted as this contravenes Trust policies and the Data Protection Act.
- Samples **MUST** be given to a member of staff in the reception and **NOT** left in the collection box.

Results reporting:

- Specimens must be delivered to the laboratory before 16.00, Monday to Friday and will be reported the same day.

17.7 Covid-19 testing

Covid-19 tests are performed on Trust patient.

A combined nose and throat viral swab (green lid) is required for sample analysis. All other sample types (e.g. upper respiratory swabs) have to be referred to the DH site for testing as only the viral swabs have been validated on the PRUH testing platforms.

Tests are requestable via EPIC and should be labelled with the EPIC/Beaker generated label.

Specimens destined for Covid-19 testing must not be transferred between the ward area and the laboratory in the pneumatic tube but must be delivered by hand, directly to the laboratory in a red Daniels box with the lid securely fastened.

Covid-19 swabs are processed between 08.00am and 24.00, Monday – Sunday on the Panther analysers (PCR).

If authorised by KCH Trust Silver command, swabs can be tests urgently for patients presenting in the Emergency Department or patients who need testing pre-operatively.

There are 2 rapid testing platforms for the approved priority cases, the Cepheid analyser for which the TAT is approximately 1 hour and the e-Plex with a TAT of 1 ¾ hours.

All results are available via EPIC

17.8 Sample requirements

Remember to:

Use the correct specimen bottles and ALL sample labels must include:

- Patient's full name (first name & last name)
- Date of Birth (DOB)
- NHS/hospital number
- Date sample was taken

The details on sample and request **must** match. The laboratory staff cannot alter incorrectly or inadequately labelled samples. The laboratory will notify staff of inadequately or incorrectly labelled samples/request forms that will be retained in the laboratory for inspection for the rest of the day.

- Ensure the specimen bottle and form are sent separated in a clear pathology sample (form in the pouch)
- Specimen bottles are tightly sealed to avoid leakage in transit
- **Inadequately and unlabelled samples** will not be processed and will be discarded
- Clinical details, indication for request and date/time of operation (see individual sections) should be indicated on request form or EPIC request.

17.9 Tests available on emergency basis

There is a reduced repertoire of tests available on an emergency basis for the immediate diagnosis and management of a patient outside the core hours 17.30pm – 09.00 Monday - Friday, Saturday, Sunday and Bank Holidays.

Please note: that the Biomedical Scientist (BMS) covering the service outside core hours is not resident in the hospital and **MUST** be informed (via switchboard) of any urgent samples that require testing. If urgent samples are sent without informing the BMS, they will not be performed.

17.10 Referral Laboratories used by this laboratory

Refer to the PRUH Pathology list - [Direct Referral Laboratories \[PP-QF-044\]](#)

17.11 Requesting extra tests

Most specimens for microbiological investigations are best performed on fresh samples, however specimens are stored under temperature controlled conditions for 7 days after receipt in the laboratory.

Any additional investigations required should be discussed with the laboratory to ascertain suitability for further analysis.

Serology samples are aliquoted and frozen. These are maintained at -20°C for a period of 2 years. Further tests may be requested within this time-frame.

17.12 Notification of Infectious Diseases

The table below shows the infectious diseases that are notifiable in England and Wales.

Please note that 'suspected food poisoning' is also notifiable. It is not vital to send a faeces specimen for laboratory confirmation.

List of Notifiable diseases is available on the UKHSA website

[Notifiable diseases and causative organisms: how to report - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/notifiable-diseases-and-causative-organisms-how-to-report)

All laboratories in England performing a primary diagnostic role must notify UKHSA on the confirmation of a notifiable organism.

The laboratory at the PRUH reports to the UKHSA via a Lab-link - CoSurv

17.13 Urgent notification of serious Infectious Diseases

Serious infectious diseases with urgent implications for the non-hospital community, such as meningococcal infection or typhoid, require prompt notification.

Notification of an infectious disease will enable the appropriate action to be taken in the community. This action may include:

- Treating/monitoring close family or other contacts who may have been exposed to the infection (e.g. Tuberculosis, meningococcal meningitis)
- Investigation to identify the source as the infection may have been acquired from contaminated food, water or the environment (e.g. E.coli 0157, salmonella, cryptosporidiosis)
- For further information regarding infectious diseases,

17.14 Covid -19 testing and reporting

The laboratory at the PRUH provide Covid-19 testing for the secondary care patient cohort.

National reporting of the positive outcomes are notified to UKHSA via several routes; for those tests reported via Winpath (Panther & e-Plex), there is electronic data extraction and reporting directly to UKHSA. Other data is collated for the KCH Trust and reported by the DH site (Luminiere Dx and Cepheid method).

To ensure the capture of new emerging variants of concern, data is sent to the GSTT laboratory for submission to UKHSA on our behalf.

18. Appendix 1 – Pathology Blood Test Repertoire (general guidance on sample volume and any special requirements)

| Test Name | Alternative Name | Specimen Type 1 | Sample Volume | Special Requirements | Discipline |
|---------------------------------|--|-----------------|--------------------|--|--------------|
| (a) Alpha-glucosidase | Maltase | Lithium heparin | 2 bottles (5-8mls) | | Biochemistry |
| (β) Beta-glucocerebrosidase | (β) Beta-glucosidase, Glucosylase | Lithium heparin | 2 bottles (5-8mls) | | Biochemistry |
| (β) Beta-glucosidase | Glucosylase, (β) Beta-glucocerebrosidase | Lithium heparin | 2 bottles (5-8mls) | | Biochemistry |
| 1,25 Vitamin D | | Potassium EDTA | 1bottle (4.0ml) | Sample must be separated with 30 mins of collection and stored at -20°C. Send sample FROZEN on DRY ICE (-70°C by courier). | Biochemistry |
| 3-O Methyl Dopa | | Lithium heparin | 1bottle (4.0ml) | Store separated plasma frozen (-20°C). Send sample FROZEN on DRY ICE (-70°C) by courier. | |
| 11-deoxycortisol | Cortisolone | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| 17 Beta-oestradiol | E2, oestrogen, 17β-oestradiol, oestradiol | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| 17-alpha Hydroxyprogesterone | 17α-hydroxyprogesterone, 17α-OH Progesterone, 17-Hydroxyprogesterone, 17-OH Progesterone, 17-Hydroxyprogesterone | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| 17-Hydroxyprogesterone | 17-alpha Hydroxyprogesterone, 17α-hydroxyprogesterone, 17α-OH Progesterone, 17-Hydroxyprogesterone, 17-OH Progesterone | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| 17-OH Progesterone | 17-Hydroxyprogesterone, 17-alpha Hydroxyprogesterone, 17α-hydroxyprogesterone, 17α-OH Progesterone, 17-Hydroxyprogesterone | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| 17α-hydroxyprogesterone | 17α-OH Progesterone, 17-Hydroxyprogesterone, 17-OH Progesterone, 17-Hydroxyprogesterone, 17-alpha Hydroxyprogesterone | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| 17α-OH Progesterone | Hydroxyprogesterone, 17-OH Progesterone, 17-Hydroxyprogesterone, 17-alpha Hydroxyprogesterone, 17α-hydroxyprogesterone | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| 17β-oestradiol | E2, oestrogen, 17 Beta-oestradiol, Oestradiol | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| 25-hydroxyvitamin D | Vitamin D, Vitamin D2, Vitamin D3, Ergocalciferol, Cholecalciferol | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| 5α-dihydrotestosterone (5α-DHT) | Androstanolone, Dihydrotestosterone (DHT) | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| 6-TGN | 6-Thioguanine, Thioguanine Nucleotides | Potassium EDTA | 1bottle (4.0 mL) | | Biochemistry |
| 6-Thioguanine | Thioguanine Nucleotides, 6-TGN | Potassium EDTA | 1bottle (4.0 mL) | | Biochemistry |
| 9-hydroxyrisperidone | Risperidone | Potassium EDTA | 2mL | | Biochemistry |
| A1AT Genotype | AAT Genotype, α1-Antitrypsin Genotype, Serum trypsin inhibitor Genotype, alpha-1 proteinase inhibitor Genotype, Alpha-1-Antitrypsin Genotype | Potassium EDTA | 1mL | | Biochemistry |
| AAT Genotype | α1-Antitrypsin Genotype, Serum trypsin inhibitor Genotype, alpha-1proteinase inhibitor Genotype, Alpha-1-Antitrypsin Genotype, A1AT Genotype | Potassium EDTA | 1mL | | Biochemistry |
| ACCP | CCP; Anti cyclic citrullinated peptides | Gel SST | 1bottle (3.5ml) | | Immunology |
| ACE | Serum ACE; Angiotensin Converting Enzyme | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Acetaminophen | Paracetamol, APAP | Gel SST | 1bottle (3.5ml) | | Biochemistry |

| | | | | | |
|--|--|---------------------|------------------|--|--------------|
| Acetyl Choline Receptor Antibody (AChR Ab) | Acetylcholine Receptor Binding Antibody, Acetylcholine Receptor Blocking Antibody, Acetylcholine Receptor Modulating Antibody | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Acetylcholine Receptor Binding Antibody | Acetylcholine Receptor Blocking Antibody, Acetylcholine Receptor Modulating Antibody, Acetyl Choline Receptor Antibody (AChR Ab) | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Acetylcholine Receptor Blocking Antibody | Acetylcholine Receptor Modulating Antibody, Acetyl Choline Receptor Antibody (AChR Ab), Acetylcholine Receptor Binding Antibody | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Acetylcholine Receptor Modulating Antibody | Acetyl Choline Receptor Antibody (AChR Ab), Acetylcholine Receptor Binding Antibody, Acetylcholine Receptor Blocking Antibody | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Acetylcholinesterase (ACHE) | Cholinesterase | Gel SST | 400 µL | | Biochemistry |
| Acid Phosphatase; PSA | Prostate Specific Antigen | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| ACTH | Adrenocorticotrophic Hormone, Corticotrophin | Potassium EDTA | 1bottle (4.0 mL) | Sample should be kept on ice and transported to the lab | Biochemistry |
| Adenovirus DNA PCR | | Potassium EDTA | 1bottle (4.0 mL) | | Microbiology |
| ADH | Antidiuretic Hormone, Vasopressin, Arginine Vasopressin, AVP | Test no longer | 1bottle (4.0ml) | Specimen to SPR within 15 minutes of collection | Biochemistry |
| Adjusted Calcium | Corrected Calcium | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Adrenal Antibodies | Adrenal Cortex Antibodies, Anti-adrenal antibodies, Anti-adrenal cortex antibodies | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Adrenaline | TEST NO LONGER AVAILABLE | No longer available | | | |
| Adrenal Cortex Antibodies | Anti-adrenal antibodies, Anti-adrenal cortex antibodies, Adrenal Antibodies | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Adrenal Cortex Antibodies | | Gel SST | 1bottle (3.5ml) | | Immunology |
| Adrenocorticotrophic Hormone | ACTH, Corticotrophin | Potassium EDTA | 1bottle (4.0 mL) | Sample should be kept on ice and transported to the lab | Biochemistry |
| AFP | Alpha Feto Protein | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| AIP | Autoimmune (60) | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Alanine Aminotransferase | Alanine Transaminase, Serum glutamate pyruvate transaminase (SGPT) | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Alanine Transaminase | Alanine aminotransferase, Serum glutamate pyruvate transaminase (SGPT) | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Albumin | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Alcohol | C2H5OH, Ethanol, EtOH | Sodium Fluoride | 1bottle (3.5ml) | | Biochemistry |
| Aldosterone | Electrocortin | Potassium EDTA | 1bottle (4.0 mL) | Must be bled at the PRUH and samples taken to the laboratory | Biochemistry |
| Alkaline Phosphatase | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Alkaline Phosphatase Isoenzymes | | Gel SST | 500 µL | | Biochemistry |
| Alpha-aminoadipic semialdehyde | | Random Urine | | Store frozen (-20°C). Send sample FROZEN on DRY ICE (-70°C) by courier if transfer takes >16 hours | |
| Alpha Fetoprotein | AFP | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Alpha Galactosidase | α-galactosidase, Fabry's Screen | Lithium heparin | 5 mL | | Biochemistry |
| alpha-1 proteinase inhibitor Genotype | Alpha-1-Antitrypsin Genotype, A1AT Genotype, AAT Phenotype, α1-Antitrypsin | Potassium EDTA | 1mL | | Biochemistry |

| | | | | | |
|------------------------------------|---|-----------------|------------------|---|--------------|
| Alpha-1-acid Glycoprotein (α1AGP) | Orosomucoid (ORM) | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Alpha-1-antitrypsin Faecal | | Faeces | | Freeze immediately (-20°C) Send sample FROZEN on DRY ICE (-70°C) by courier. Vetting required. | Biochemistry |
| Alpha-1-antitrypsin | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Alpha-1-Antitrypsin Genotype | A1AT Genotype, AAT Genotype, α1-Antitrypsin Genotype, Serum trypsin inhibitor Genotype, alpha-1 proteinase inhibitor Genotype | Potassium EDTA | 2-5mls | | Biochemistry |
| Alpha-1-Antitrypsin Phenotype | | Potassium EDTA | 2-5mls | | Biochemistry |
| Alpha-tocopherol | Vitamin E | Lithium Heparin | 1bottle (4.0ml) | Protect sample from light | Biochemistry |
| ALT | Alanine Aminotransferase, SGPT; Alanine Transferase, Serum Glutamate Pyruvate | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Aluminium | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| AMA (CTD Screen) | Anti Mitochondrial antibodies | Gel SST | 5mls | | Biochemistry |
| AMH | Anti Mullerian Hormone | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Amidohydrolase Biotinidase | BTD, Biotinidase | Lithium heparin | 1bottle (3.5ml) | | Biochemistry |
| Amikacin | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Amniophylline | Theophylline | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Amino Acids | | Lithium heparin | 2 mL | | Biochemistry |
| Amiodarone | Desethylamiodarone | Gel SST | 1bottle (3.5ml) | Pre dose sample | Biochemistry |
| Amitriptyline | Nortriptyline | Gel SST | 2 mL | | Biochemistry |
| Ammonia | NH4 | Potassium EDTA | 1bottle (4.0 mL) | | Biochemistry |
| Amoebic IFAT | | Gel SST | 1bottle (3.5ml) | | Microbiology |
| Amylase | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Amyloid A | Serum Amyloid A (SAA) | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| ANA | ANF; Auto Antibody Screen. | Gel SST | 1bottle (3.5ml) | | Immunology |
| Anafinal | Desmethylclomipramine, Clomipramine | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| ANCA | MPO/PR3; Renal Screen; Vasculitis Screen. | Gel SST | 1bottle (3.5ml) | | Immunology |
| ANCS | C ANCA; ANCA | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| ANCA Slide | | Gel SST | 1bottle (3.5ml) | | Immunology |
| Androgen Index | Free Androgen; FAI; SHBG | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Androstanolone | Dihydrotestosterone (DHT), 5α-dihydrotestosterone (5α-DHT) | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Androstenedione | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| ANF | ANA; ANTI NUCLEAR FACTOR; ANTIBODIES | Gel SST | 1bottle (3.5ml) | | Immunology |
| Angiotensin Converting Enzyme | ACE | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Angiotensinogenase | Renin | Potassium EDTA | 500µL | Must be bled at the PRUH and samples taken to the laboratory | Biochemistry |
| Anti Cardiolipin Ab | Anti Phospholipid AB. | Gel SST | 1bottle (3.5ml) | | Immunology |
| Anti Centromere | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Anti cyclic citrullinated peptides | ACCP; anti CCP; Ab; Anti cyclic citrullinated peptides | Gel SST | 1bottle (3.5ml) | | Immunology |
| Anti Gliadin AB | TTG (alternative replacement test) | Gel SST | 1bottle (3.5ml) | | Immunology |
| Anti Mullerian Hormone (AMH) | Mullerian-Inhibiting Hormone (MIH), Mullerian Inhibiting Factor (MIF), Mullerian | Gel SST | 500 µL | | Biochemistry |

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| Anti Neutrophil Cytoplasmic antibody | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Anti Phospholipid AB (Do not request - see special requirements) | Cardiolipin Ab | Gel SST | 1bottle (3.5ml) | | Immunology |
| Anti xa | Clexane | Sodium Citrate | 2.7ml | | Haematology |
| Anti-adrenal antibodies | Anti-adrenal cortex antibodies, Adrenal Antibodies, Adrenal Cortex Antibodies | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Anti-adrenal cortex antibodies | Adrenal Antibodies, Adrenal Cortex Antibodies, Anti-adrenal antibodies | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Anti-Aquaporin-4 Antibodies | Aquaporin Antibodies, AQP-4 Antibodies, Neuromyelitis Optica | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Antibody investigation | | Pink EDTA | 6-28mL | | Blood Transfusion |
| Anti-CCP | Anti cyclic citrullinated peptides | Gel SST | 1bottle (3.5ml) | | Immunology |
| Antidiuretic Hormone | ADH, Vasopressin, Arginine vasopressin, AVP | Test no longer | 5 mL | | Biochemistry |
| Anti-Intrinsic factor | Intrinsic Factor Antibodies, IF Antibody (Type 1 or 2), Intrinsic Factor Binding | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Antimitochondrial Antibodies (CTD screen) | AMA | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Anti-neuronal nuclear antibodies 1 (Hu) | Anti-neuronal nuclear antibodies 2 (Ri), Paraneoplastic Antibodies, Neuronal | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Anti-neuronal nuclear antibodies 2 (Ri) | Anti-neuronal nuclear antibodies 1 (Hu), Paraneoplastic Antibodies, Neuronal | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Anti Reticulin | ARA (CTD Screen) | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Anti-staphylococcal antibodies | | Gel SST | 1bottle (3.5ml) | | Microbiology |
| APAP | Acetaminophen, Paracetamol | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Apixaban levels | | Sodium Citrate | 2.7ml | | Haematology |
| Apolipoprotein A1 (Apo A1) | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Apolipoprotein B (APO B) | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| APTT | | Sodium Citrate | 2.7ml | | Haematology |
| AQP-4 Antibodies | Anti-Aquaporin-4 Antibodies, Aquaporin Antibodies, Neuromyelitis Optica | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Aquaporin 4 | | Gel SST | 1bottle (3.5ml) | | Immunology |
| Aquaporin Antibodies | AQP-4 Ab, Anti-Aquaporin-4 Antibodies, Neuromyelitis Optica Antibodies (NMO) | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Arginine Vasopressin | ADH, Vasopressin, Antidiuretic Hormone, AVP | Test no longer | 5 mL | Specimen to SPR within 15 minutes of collection | Biochemistry |
| Array CGH (aCGH) | Genetics Test, Chromosome Analysis | Potassium EDTA | 1bottle (4.0 mL) | | Biochemistry |
| Ascorbic Acid | Vitamin C, Ascorbate | Lithium Heparin | 2ml | Call the laboratory ahead of taking a sample and deliver ASAP. Protect from light. | Biochemistry |
| ASO titre | | Gel SST | 1bottle (3.5ml) | | Microbiology |
| Aspartate aminotransferase | Serum glutamic oxaloacetic transaminase (SGOT), Aspartate transaminase | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Aspartate Transaminase | AST; Aspartate aminotransferase, serum glutamic oxaloacetic transaminase | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Aspergillus - Galactamanan | RASTP | Gel SST | 1bottle (3.5ml) | | Microbiology |
| AST | Aspartate Transaminase | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Auto Antibody Screen | Liver antibody screen | Gel SST | 1bottle (3.5ml) | | Immunology |
| Autoimmune (60) | AIP | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| AVP | Arginine Vasopressin, ADH, Vasopressin, Antidiuretic Hormone | Test no longer | 1bottle (4.0ml) | Specimen to SPR within 15 minutes of collection | Biochemistry |
| B2 Glycoprotein | | Gel SST | 1bottle (3.5ml) | | Immunology |
| B2 Microglobulin | B2M | Gel SST | 1bottle (3.5ml) | | Immunology |

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|------------------------------------|---|-----------------|-------------------|---|-------------------|
| Beta-Carotene | | Gel SST | 1 bottle (3.5ml) | Separate sample immediately after collection and store frozen (-20°C). Protect sample from light. Send sample FROZEN on DRY ICE (-70°C) by courier. | Biochemistry |
| Beta-HCG | Human Chronic Gonadotrophin, β -HCG | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Beta-HCGT | HCG Tumour Marker | Gel SST | 1 bottle (| | Biochemistry |
| Bicarbonate | CO ₂ ; HCO ₃ | Gel SST | 1 bottle (3.5ml) | Receive within 4 Hours | Biochemistry |
| Bile Acid | Bile Salts | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Bile Acid Urine | | Random Urine | | Store frozen (-20°C). Send sample FROZEN on DRY ICE (-70°C) by courier if transfer likely to take >24 hours. | Biochemistry |
| Bile Salts | Bile Acid | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Bilharzia/Schistosoma antibodies | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Bilirubin (Direct) | Split bilirubin, conjugated/unconjugated bilirubin. | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Bilirubin (Total) | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Biotinidase | Amidohydrolase Biotinidase, BTB | Lithium heparin | 1 bottle (3.5ml) | | Biochemistry |
| Biotinidase activity | | Lithium heparin | 1 bottle (4.0ml) | Store separated plasma frozen (-20°C). Send sample FROZEN on DRY ICE (-70°C) by courier. | Biochemistry |
| BK virus DNA - Blood | | Potassium EDTA | 1 bottle (4.0 mL) | | Microbiology |
| Blood films | | Potassium EDTA | 1 bottle (4.0 mL) | | Haematology |
| Blood Group & Red Cells Antibodies | | Pink EDTA | 6ml | | Blood Transfusion |
| Blood Pyruvate | | | | Complex specimen requirements apply. Sample can only be taken at Denmark Hill | |
| BNP | Brain Natriuretic Peptide | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Bordetella Pertussis | Whooping Cough | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Borrelia (Lyme) antibodies | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Brain Natriuretic Peptide | NT-proBNP, N-terminal pro B-type natriuretic peptide, B-type natriuretic | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Brucella screen | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| BTB | Amidohydrolase Biotinidase, Biotinidase | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| B-type natriuretic peptide | Brain Natriuretic Peptide, N-terminal pro B-type natriuretic peptide, NT-proBNP | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Butyrylcholinesterase (BCHE) | Pseudocholinesterase | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| C ANCA | ANCS | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| C Reactive Protein | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| C1 Esterase Inhibitor | | Gel SST | 1 bottle (3.5ml) | | Immunology |
| C25OH | Ethanol, Alcohol, ETOH | Sodium Fluoride | 1 bottle (2.0ml) | | Biochemistry |
| Cadmium | | Potassium EDTA | 1 bottle (4.0 mL) | Send additional empty sample container from the same batch to test for contamination. | Biochemistry |
| Caeruloplasmin | | Gel SST | 5 mL | | Biochemistry |
| Calcitonin | Thyrocalcitonin | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Calcium | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |

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|------------------------------------|--|-------------------|------------------|---|--------------|
| Calcium channel abs | | Gel SST | 1bottle (3.5ml) | | Immunology |
| Cancer Antigen 125 | Carbohydrate Antigen 125, Carcinoma Antigen 125 | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Cancer Antigen 153 | Carbohydrate Antigen 153, Carcinoma Antigen 153 | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Cancer Antigen 199 | Carbohydrate Antigen 199, Carcinoma Antigen 199 | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Carbamazepine | Tegretol | Gel SST | 1bottle (3.5ml) | Trough Level | Biochemistry |
| Carbohydrate Antigen 125 | Cancer Antigen 125, Carcinoma Antigen 125, CA125 | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Carbohydrate Antigen 153 | Cancer Antigen 153, Carcinoma Antigen 153 CA153 | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Carbohydrate Antigen 199 | Cancer Antigen 199, Carcinoma Antigen 199, CA199 | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Carbohydrate Deficient Transferrin | CDT | Gel SST | 500 µL | | Biochemistry |
| Carboxyhaemoglobin | | Blood Gas Syringe | | | Biochemistry |
| Carcinoembryonic Antigen | CEA | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Carcinoma Antigen 125 | Carcinoma Antigen 125, Carbohydrate Antigen 125 | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Carcinoma Antigen 153 | Carcinoma Antigen 153, Carbohydrate Antigen 153 | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Carcinoma Antigen 199 | Carcinoma Antigen 199, Carbohydrate Antigen 199 | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Cardiac Enzymes | Creatinine Kinase, Creatinine Phosphokinase; CK | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Cardiolipins | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Carnitine | Free Carnitine, Acylcarnitine | Guthrie Card | | | Biochemistry |
| Catecholamines (plasma) | Dopamine, Adrenaline (epinephrine), Noradrenaline (norepinephrine) | Test no longer | | | Biochemistry |
| Catechol-O-Methyl-Transferase | COMT | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| CCP | ACCP; anti CCP; Ab; Anti cyclic citrullinated peptides | Gel SST | 1bottle (3.5ml) | | Immunology |
| CD4/ CD8 Lymphocyte Subsets | T Cell Subsets, Lymphocyte Subsets | Potassium EDTA | 1bottle (4.0 mL) | | Biochemistry |
| CD4:CD8 | | Potassium EDTA | 1bottle (4.0 mL) | | Immunology |
| CDT | Carbohydrate Deficient Transferrin | Gel SST | 500 µL | | Biochemistry |
| CEA | Carcinoembryonic Antigen | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| CFTR Gene Analysis | Cystic Fibrosis Gene Analysis | Potassium EDTA | 1bottle (4.0 mL) | | Biochemistry |
| Chickenpox (VZV) IgG | | Gel SST | 1bottle (3.5ml) | | Microbiology |
| Chikungunya virus antibodies | | Gel SST | 1bottle (3.5ml) | Contact laboratory ext 64250 for URGENT test e.g. contact during pregnancy | Microbiology |
| Chloride | Electrolytes | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Cholecalciferol | Vitamin D, Vitamin D2, Vitamin D3, Ergocalciferol, 25-hydroxyvitamin D | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Cholesterol | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Cholestanol | | Lithium heparin | 1bottle (4ml) | Store frozen (-20°C). Send sample FROZEN on DRY ICE (-70°C) by courier if transfer likely to take >24 hours | Biochemistry |
| Cholinesterase | Acetylcholinesterase | Gel SST | 400 µL | | Biochemistry |
| Chromium | | Potassium EDTA | 1bottle (4.0 mL) | Use plastic cannula or second draw if metal needle essential | Biochemistry |
| Chromogranin A (CgA) (CHGA) | Parathyroid Secretory Protein I | Potassium EDTA | 1bottle (4.0 mL) | Sample should be transported to the lab immediately | Biochemistry |
| Chromogranin B (CgB) (CHGB) | Secretogranin I | Potassium EDTA | 1bottle (4.0 mL) | Sample should be transported to the lab immediately | Biochemistry |
| Chromosome Analysis | Array CGH (aCGH), Genetics Test | Potassium EDTA | 1bottle (4.0 mL) | | Biochemistry |

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| CK | Creatinine Kinase | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Clauss Fibrinogen | | Sodium Citrate | 2.7ml | | Haematology |
| Clobazam | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Clomipramine | Desmethylclomipramine, Anafranil | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Clonazepam | Rivotril | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Clotting Screen | | Sodium Citrate | 2.7ml | | Haematology |
| Clozapine | Clozaril, Norclozapine | Potassium EDTA | 2 mL | | Biochemistry |
| Clozaril | Clozapine, Norclozapine | Potassium EDTA | 2 mL | | Biochemistry |
| CMV IgG antibodies | | Gel SST | 1bottle (3.5ml) | | Microbiology |
| CMV IgM | | Gel SST | 1bottle (3.5ml) | | Microbiology |
| CMV PCR - EDTA blood | | Potassium EDTA | 1bottle (4.0 mL) | | Microbiology |
| CO2 | Bicarbonate | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Cobalamin | Vitamin B12 | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Cobalt (Co) | See Below | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Cobalt - Serum | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Cobalt - Blood | | Potassium EDTA | 1bottle (4.0ml) | | Biochemistry |
| Celiac Screen | Gladin antibodies; TTGs | Gel SST | 1bottle (3.5ml) | | Immunology |
| Coenzyme Q10 - Ubiquinone | | Potassium EDTA | 1bottle (4.0ml) | DO NOT FREEZE. Store at room temperature, send urgently by courier at ambient temperature to arrive within 24hr. Ensure arrives before 12 p.m. on Fridays. | Biochemistry |
| Cold Agglutinins | | 1 x 6ml Pink 1 x 3.5 Serum | 1x 6ml 1x 3.5ml | IN-HOUSE Keep warm, transport to BT. (Phleb to contact the laboratory before sending) | Blood Transfusion |
| Colistin levels | | Gel SST | 3-5mls | | Microbiology |
| Complement C1Q | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Complement C1Q Antibody | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Complement C3 | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Complement C4 | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Complex antibody resolution | | 1-4 x Pink EDTA | 6ml | | Blood Transfusion |
| COMT | Catechol-O-Methyl-Transferase | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Conjugated/ unconjugated bilirubin | Direct bilirubin, split bilirubin | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Connective Tissue Disease Screen | CTD. | Gel SST | 1bottle (3.5ml) | | Immunology |
| Coombs' Test, Direct Coomb' Test | DCT/DAT | Pink EDTA | 3-6mL | | Blood Transfusion |
| Copeptin | | Gel SST | 1bottle (3.5ml) | | |
| Copper (Cu) (Serum) | | Gel SST | 1mL | | Biochemistry |
| Corrected Calcium | Adjusted Calcium | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Corticotrophin | ACTH, Adrenocorticotrophin Hormone | Potassium EDTA | 1bottle (4.0 mL) | Sample should be kept on ice and transported to the lab immediately | Biochemistry |

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| Cortisol | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Cortisolone | 11-deoxycortisol | Gel SST | 150 µL | | Biochemistry |
| Coxiella | | Gel SST | 1bottle (3.5ml) | | Microbiology |
| Coxiella (Q fever) antibodies | | Gel SST | 1bottle (3.5ml) | | Microbiology |
| Coxsackie antibodies | | Gel SST | 1bottle (3.5ml) | | Microbiology |
| Coxsackie B1gM - (enterovirus) | | Gel SST | 1bottle (3.5ml) | | Microbiology |
| C-Peptide | Proinsulin c-peptide, Insulin c-peptide. | Gel SST | 350 µL | Transport to laboratory immediately and Separate within 30 minutes of venepuncture. | Biochemistry |
| Creatinine | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Creatinine Kinase | Creatinine Phosphokinase (CPK), Cardiac Enzymes; CK | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Creatinine Phosphokinase (CPK) | Creatinine Kinase, Cardiac enzymes | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Creatinine Transport - Plasma & Urine | | Urine & plasma | | Store frozen (-20°C). Send sample FROZEN on DRY ICE (-70°C) by courier. | |
| Cryofibrinogens | | Potassium EDTA | 1bottle (4.0ml) | Contact Haematology laboratory for instruction. | Haematology |
| Crossmatch | | 1-4 Pink EDTA | 6ml to 24ml | | Blood Transfusion |
| Cryoglobulin | Cryoprotein | Gel SST | 1bottle (3.5ml) | Sample to be kept at 37°C | Biochemistry |
| Cryoglobulins | | Gel SST | 1bottle (3.5ml) | Must come straight to laboratory in flask 37°C | Immunology |
| Cryptococcal antigen | | Gel SST | 1bottle (3.5ml) | | Microbiology |
| CSF Glucose | | Sodium Fluoride | 1bottle (3.5ml) | | Biochemistry |
| CSF Ferritin | | CSF | Sample | Store frozen (-80°C). Send sample FROZEN on DRY ICE (-70°C) by courier. | Biochemistry |
| CSF Tau Protein | | CSF | Sample | Store frozen (-80°C). Send sample FROZEN on DRY ICE (-70°C) by courier. | Biochemistry |
| CSF Amyloid | | CSF | Sample | Store frozen (-80°C). Send sample FROZEN on DRY ICE (-70°C) by courier. | Biochemistry |
| CSF ACE | | CSF | Sample | Store frozen (-80°C). Send sample FROZEN on DRY ICE (-70°C) by courier. | Biochemistry |
| CSF HVA | | CSF | Sample | Samples must be collected onto dry ice at bedside. Store frozen (-80°C). Send sample FROZEN on DRY ICE (-70°C) by courier. Samples must be sent before 12 p.m. if not possible keep in freezer until next working day. | Biochemistry |
| CSF 5HTAA | | CSF | Sample | Samples must be collected onto dry ice at bedside. Store frozen (-80°C). Send sample FROZEN on DRY ICE (-70°C) by courier. Samples must be sent before 12 p.m. if not possible keep in freezer until next working day. | Biochemistry |

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| CSF 5MTHF | | CSF | Sample | Samples must be collected onto dry ice at bedside. Store frozen (-80° C). Send sample FROZEN on DRY ICE (-70° C) by courier. Samples must be sent before 12 p.m. if not possible keep in freezer until next working day. | Biochemistry |
| CTD | Connective Tissue Disease Screen. | Gel SST | 1 bottle (3.5ml) | | Immunology |
| Cyclosporin | CsA | Potassium EDTA | 1 bottle (4.0 mL) | | Biochemistry |
| Cystic Fibrosis Gene Analysis | CFTR Gene Analysis | Potassium EDTA | 1 bottle (4.0 mL) | | Biochemistry |
| Cytogenetics | | Potassium EDTA | 1 bottle (4.0 mL) | | Haematology |
| DABS | Diabetic Anti-body Screen | Gel SST | 1 bottle (3.5ml) | | Immunology |
| DAT | Direct Coombs Test; DCT | 1 Pink EDTA samples | Min. 1ml - 6ml | | Blood Transfusion |
| DCT | Direct Coombs Test; DAT | 1 Pink EDTA samples | Min. 1ml - 6ml | | Blood Transfusion |
| D-Dimer | FDP | Sodium Citrate | 2.7ml | | Haematology |
| Dehydroepiandrosterone Sulphate | DHEA-S, DHAS | Gel SST | 1 mL | | Biochemistry |
| Dengue virus antibodies | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Desethylamiodarone | Amiodarone | Gel SST | 1 bottle (3.5ml) | Pre dose sample | Biochemistry |
| Desmethyl Dothiepin | Dothiepin, Dosulepin, Prothiaden | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Desmethyldoxepin | Doxepin | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| DHAS | Dehydroepiandrosterone Sulphate, DHEA-S | Gel SST | 1 mL | | Biochemistry |
| DHEA-S | Dehydroepiandrosterone Sulphate, DHAS | Gel SST | 1 mL | | Biochemistry |
| Diastat | Valium, Diastat | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Diazepam | Diastat, Valium | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| DIC Screen | | Sodium Citrate | 2.7ml | | Haematology |
| Digoxin | | Gel SST | 1 bottle (3.5ml) | Trough Level | Biochemistry |
| Dihydropyrimidine Dehydrogenase | DPD | Potassium EDTA | 2 bottles (5-8mls) | | Biochemistry |
| Dihydrotestosterone (DHT) | 5a-dihydrotestosterone (5a-DHT), Androstanolone | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| DNA | ds DNA. | Gel SST | 1 bottle (3.5ml) | | Immunology |
| Dopamine (plasma) | Adrenaline (epinephrine), Noradrenaline (norepinephrine), Catecholamines | Test no longer | | | Biochemistry |
| Dosulepin | Prothiaden, Dosulepin, Desmethyl Dothiepin | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Dothiepin | Dosulepin, Prothiaden, Desmethyl Dothiepin | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Downs NTD Screen | | Potassium EDTA | 1 bottle (4.0 mL) | | Biochemistry |
| Doxepin | Desmethyldoxepin | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| DPD | Dihydropyrimidine Dehydrogenase | Potassium EDTA | 2 bottles (5-8mls) | | Biochemistry |
| DS DNA | DNA (CTD Screen) | Gel SST | 1 bottle (3.5ml) | | Immunology |
| E2 | oestrogen, 17β-oestradiol, 17 Beta-oestradiol, Oestradiol | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Diphtheria antibodies level | | Gel SST | 1 bottle (3.5ml) | | Microbiology |

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|------------------------------|---|-----------------|-------------------|--|--------------|
| EBV / VCA antibodies | EBV IgG | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| EBV / VCA | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| EBV PCR | EBV Igm | Potassium EDTA | 1 bottle (4.0 mL) | | Microbiology |
| eGFR | Glomerular Filtration Rate, GFR | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Electrocortin | Aldosterone | Potassium EDTA | 500 µL | Must be bled at the PRUH and samples taken to the laboratory | Biochemistry |
| Electrolytes | Sodium, Potassium, Chloride | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Elisa Immunofluorescent | Part of ANCA Profile | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| EMA Binding | | Potassium EDTA | 1 bottle (4.0 mL) | Contact Kings Red Cell Centre (RCC) 020 3299 2455. Requires FBC and Reticulocyte count prior to referral | Haematology |
| ENA | Extractable Nuclear antigens. | Gel SST | 1 bottle (3.5ml) | | Immunology |
| Endomysial Ab | TTG; Coeliac Screen, Anti Gliadin | Gel SST | 1 bottle (3.5ml) | | Immunology |
| ENO2 | Gamma-enolase, Neurone Specific Enolase (NSE) | Gel SST | 250 µL | | Biochemistry |
| EBV DNA | | Gel SST | | | Microbiology |
| Enterovirus IgM ELISA | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Enterovirus RNA PCR – Blood | | Potassium EDTA | 1 bottle (4.0 mL) | | Microbiology |
| EPI/SEP | Protein electrophoresis | Gel SST | 1 bottle (3.5ml) | | Immunology |
| Epanutin | Phenytoin | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Epilim | Valproate, Sodium Valproate, Valproic Acid | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| EPO | Erythropoietin | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Ergocalciferol | Vitamin D, Vitamin D3, Cholecalciferol, 25-hydroxyvitamin D, Vitamin D2 | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Erythropoietin | EPO | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| ESR | | Potassium EDTA | 1 bottle (4.0 mL) | | Haematology |
| Ethane 1,2 Diol | Ethylene Glycol, Ethanediol | Sodium Fluoride | 1 bottle (2.0ml) | | Biochemistry |
| Ethanediol | Ethylene Glycol, Ethane 1,2 Diol | Sodium Fluoride | 1 bottle (2.0ml) | | Biochemistry |
| Ethanol | C2H5OH, Alcohol, EToH | Sodium Fluoride | 1 bottle (2.0ml) | | Biochemistry |
| Ethosuximide | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Ethylene Glycol | Ethanediol, Ethane 1,2 Diol | Sodium Fluoride | 1 bottle (2.0ml) | Serum from gel tubes NOT acceptable. Send urgently. Inform referral lab before sending. Send urgently by courier at ambient temperature. | Biochemistry |
| EToH | C2H5OH, Ethanol, Alcohol | Sodium Fluoride | 1 bottle (3.5ml) | | Biochemistry |
| Extractable Nuclear antigens | ENA | Gel SST | 1 bottle (3.5ml) | | Immunology |
| Fabry's Screen | Alpha Galactosidase, α-galactosidase | Lithium heparin | 1 bottle (4.0 mL) | | Biochemistry |
| Factor Assays | | Sodium Citrate | 2.7ml | | Haematology |
| Factor V Leiden | | Potassium EDTA | 1 bottle (4.0 mL) | | Haematology |
| FAI | Free Androgen; Androgen Index; SHBG | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| FBC | | Potassium EDTA | 1 bottle (4.0 mL) | | Haematology |

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|---------------------------------|--|------------------|--------------------|--|--------------|
| FDP | D-Dimer | Sodium Citrate | 2.7ml | | Haematology |
| Ferritin | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Fibroblast Growth Factor | | Potassium EDTA | 1bottle (4ml) | Store separated plasma frozen (-20°C). Send sample FROZEN on DRY ICE (-70°C) by courier. | Biochemistry |
| Filaria antibodies (IFAT) | | Gel SST | 1bottle (3.5ml) | | Microbiology |
| Flecainide | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Folate (Serum) | Folic Acid | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Folic Acid | Folate (serum) | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Follicle Stimulating Hormone | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Free Androgen Index | FAI; Androgen Index; SHBG | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Free Kappa | Serum Free Light Chains | Gel SST | 1bottle (3.5ml) | | Immunology |
| Free T3 | Triiodothyroxine | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Free T4 | Thyroxine | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| FSH | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Fructosamine | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| G6PD assays | | Potassium EDTA | 1bottle (4.0 mL) | | Haematology |
| GAD | Glutamic Acid Decarboxylase Ab | Gel SST | 1bottle (3.5ml) | | Immunology |
| GAD Antibodies | Glutamic Acid Decarboxylase Ab | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| GAL1PUT | Galactose-PO4 Uridyltransferase, GALT | Lithium Heparin | 1mL | | Biochemistry |
| Galactokinase | | Lithium Heparin | 1mL | | Biochemistry |
| Galactose-1-phosphate | | Lithium Heparin | 1mL | Store in fridge. Send by CitySprint at ambient | Biochemistry |
| Galactose-PO4 Uridyltransferase | GAL1PUT, GALT | Lithium Heparin | 1mL | | Biochemistry |
| GALT | Galactose-PO4 Uridyltransferase, GAL1PUT | Lithium Heparin | 1mL | | Biochemistry |
| Gamma Glutamyl Transpeptidase | Gamma Glutamyl transferase; Gamma GT | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Gamma Glutamyl Transpeptide | Gamma Glutamyl Transferase | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Gamma-enolase | ENO2, Neurone Specific Enolase (NSE) | Gel SST | 250 µL | | Biochemistry |
| Gamma-enolase | ENO2, Neurone Specific Enolase (NSE) | Gel SST | 250 µL | | Biochemistry |
| Gamma GT | GGT | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Gamma-vinyl-GABA | Vigabatrin | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Ganglioside Antibodies | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Gastric Parietal Cell | ANF | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Gastrin | | Potassium EDTA | 1bottle (4.0 ml) | Patient should be fasting. Sample to be transported to the lab immediately | Biochemistry |
| GB | GMB; Glomerular Basement membrane | Gel SST | 1bottle (3.5ml) | | Immunology |
| GBM | Glomerular Basement membrane Ab.;GB | Gel SST | 1bottle (3.5ml) | | Immunology |
| Genetics Test | Chromosome Analysis, Array CGH (aCGH) | EDTA Lithium Hep | 4ml x 1 4ml x 1 | | Biochemistry |
| Genetics/karyotype | | EDTA Lithium Hep | 4ml x 1 4ml x 1 | | Immunology |
| Gentamicin | | Gel SST | 1bottle (3.5ml) | Trough Level | Biochemistry |
| GFR | Glomerular Filtration Rate, eGFR | Gel SST | 1bottle (3.5ml) | | Biochemistry |

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|---|---|-----------------|----------------------|--|-------------------|
| Glandular fever screen | Paul Bunnet; Monospot; Infectious mononucleosis; Epstein Barr | Potassium EDTA | 1 bottle (4.0 mL) | | Haematology |
| Gladin Antibodies | TTG; Coeliac Screen | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Globulin | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Glomerular Basement membrane Ab | GBM; GB | Gel SST | 1 bottle (3.5ml) | | Immunology |
| Glomerular Filtration Rate | eGFR, GFR | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Glucan | BD Glucan | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Glucagon | | Potassium EDTA | 1 bottle (4.0 ml) | Sample should be transported to the lab immediately | Biochemistry |
| Glucosylase | (β) Beta-glucosidase, Glucosylase | Lithium heparin | 2 bottles (5 - 8 mL) | | Biochemistry |
| Glucose | | Sodium Fluoride | 1 bottle (2.0 ml) | | Biochemistry |
| Glutamic Acid Decarboxylase Ab | GAD | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Glutamate Pyruvate | SGPT; Alanine Transferase, Alanine Transaminase | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Glycine | | Lithium Heparin | | | Immunology |
| Glycogen storage enzymology | | Lithium Heparin | 7 - 10 ml | Send by CitySprint at ambient temperature to arrive WITHIN 24hrs. DO NOT FREEZE. | Biochemistry |
| Gonadotrophins | | Gel SST | 1 bottle (3.5ml) | | |
| Granulocyte Antibodies | | 2 x Pink EDTA | 2 x 6ml 4 x 3.5ml | | Blood Transfusion |
| Group Children < 4 months | | Potassium EDTA | Paed | | Blood Transfusion |
| Group Children > 4 months | | Pink EDTA | 6ml | | Blood Transfusion |
| Growth Hormone (GH) | Somatotropin, hGH | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Gut Hormones | Vasoactive Intestinal peptide | Potassium EDTA | 1 bottle (4.0 ml) | Sample to be transported to laboratory immediately | Biochemistry |
| H. influenzae antibodies | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Ham's Test | | Potassium EDTA | 1 bottle (4.0 mL) | | Haematology |
| Haptoglobin | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Hb electrophoresis screen | Haemoglobinopathy; Sickle and Thalassaemia screen | Potassium EDTA | 1 bottle (4.0 mL) | | Haematology |
| HbA1c | | Potassium EDTA | 1 bottle (4.0 ml) | | Biochemistry |
| HC03 | Bicarbonate | Gel SST | 1 bottle (4.0 mL) | Sample should be transported to the lab immediately | Biochemistry |
| HCG Ectopic | BETA HCGE | Gel SST | 1 bottle (4.0 mL) | | Biochemistry |
| HCG Tumour Marker | BETA HCGT | Gel SST | 1 bottle (4.0 mL) | | Biochemistry |
| HDL (in Lipid profile) | | Gel SST | 1 bottle (4.0 mL) | | |
| Hepatitis A - HepA IgM - HepA IgG | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Hepatitis B - HepBs Ag - HepBs Ab | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Hepatitis B DNA | HBV DNA | Potassium EDTA | 1 bottle (4.0 mL) | | Microbiology |
| Hepatitis C | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Hepatitis C viral load / Hepatitis C genotype | HEP C RNA HCV RNA | Potassium EDTA | 1 bottle (4.0 mL) | | Microbiology |
| Hepatitis D | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Hepatitis E | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Herpes simplex antibodies | | Gel SST | 1 bottle (3.5ml) | | Microbiology |

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|---|---|--|-------------------------|---|-------------------|
| Heterophile abs | | Gel SST | 1 bottle (3.5ml) | | Chemistry |
| HFE | Haemochromatosis | Pink EDTA | 6ml | | Blood Transfusion |
| hGH | Growth Hormone (GH), Somatotropin | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| High-Density Lipoprotein | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Histone | | Gel SST | 1 bottle (3.5ml) | | Immunology |
| Histone Antibody | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| HIT Screen | | Gel SST | 1 bottle (3.5ml) | | Haematology |
| HIV antibody / antigen | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| HIV PCR | | Potassium EDTA | 1 bottle (4.0 mL) | | Microbiology |
| HIV viral load / HIV resistance studies | | Potassium EDTA | 1 bottle (4.0 mL) | | Microbiology |
| HLA antibodies | | 2-6 x Pink EDTA 4 x Serum | 2/6 x 6ml 4 x 3.5 ml | Please telephone the laboratory for advice before sending blood | Blood Transfusion |
| HLA B27 | | Pink EDTA | 6ml | | Blood Transfusion |
| HLA typing for transplant | | Donor : 2-6 Pink | 2/6 x 6ml | | Blood Transfusion |
| | | Recipient: 2-6 x Pink and 2 x Serum | 2/6 x 6ml 2 x 3.5 ml | | |
| Homocysteine | | Lithium Heparin Potassium EDTA Gel SST | 1 bottle (3.5ml) | Sample should be transported to the lab immediately | Biochemistry |
| HPA antibodies | | 2-6 x Pink EDTA 4 x Serum | 2/6 x 6ml 4 x 3.5 ml | Please telephone the laboratory for advice before sending blood | Blood Transfusion |
| HTLV 1/2 antibodies | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Human Chronic Gonadotrophin | Beta-HCG, β -HCG | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Hydatid CFT | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Hydroxycobalamin | Vitamin B12 | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| IF Antibody (Type 1 or 2) | Intrinsic Factor Binding Antibody, Intrinsic Factor blocking antibody, Anti-Intrinsic | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| IGA | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| IGE | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| IGF-1 | Insulin like Growth Factor 1, Somatomedin C | Gel SST | 330 μ L | | Biochemistry |
| IgG Aspergillus | | Gel SST | 1 bottle (3.5ml) | | |
| IgG subclasses | | Gel SST | 1 bottle (3.5ml) | | Immunology |
| IGG Subclasses | Immunoglobulin G Subclasses | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Immunoglobulin A | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Immunoglobulin G | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Immunoglobulin G Subclasses | IGG Subclasses | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Immunoglobulin M | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| INR | | Sodium Citrate | 2.7ml | | Haematology |
| Insulin | | Gel SST | 250 μ L | Separated within 30 minutes of venepuncture. Sample should be transported to lab immediately. | Biochemistry |

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|---------------------------------------|---|-----------------|--------------------------|---|
| Insulin abs | Diabetes Ab | Gel SST | 1bottle (3.5ml) | |
| Insulin Antibody | | Gel SST | 1bottle (3.5ml) | |
| Insulin c-peptide | C-peptide, Proinsulin c-peptide | Gel SST | 350 µL | Separated within 30 minutes of venepuncture. Sample should be transported to lab immediately. |
| Insulin like Growth Factor 1 | IGF-1, Somatomedin C | Gel SST | 330 µL | |
| Interstitial Cell Stimulating Hormone | Leutenising Hormone | Gel SST | 1bottle (3.5ml) | |
| Intrinsic factor | | Gel SST | 1bottle (3.5ml) | |
| Intrinsic Factor Antibodies | IF Antibody (Type 1 or 2), Intrinsic Factor Binding Antibody, Intrinsic Factor blocking | Gel SST | 1bottle (3.5ml) | |
| Intrinsic Factor Binding Antibody | Intrinsic Factor blocking antibody, Anti-Intrinsic factor, Intrinsic Factor Antibodies, | Gel SST | 1bottle (3.5ml) | |
| Intrinsic Factor blocking antibody | Anti-Intrinsic factor, Intrinsic Factor Antibodies, IF Antibody (Type 1 or 2), | Gel SST | 1bottle (3.5ml) | |
| Iron | | Gel SST | 1bottle (3.5ml) | |
| J01 | Part of ENA | Gel SST | 1bottle (3.5ml) | |
| Keppra | Levetiracetam | Gel SST | 1bottle (3.5ml) | |
| Ketones | | Potassium EDTA | 1bottle (4.0 mL) | |
| Kleihauer Test | | Pink EDTA | 6ml | |
| Lactate | Lactic Acid | Sodium Fluoride | 1bottle (2.0ml) | |
| Lactate Dehydrogenase | Lactic acid dehydrogenase | Gel SST | 1bottle (3.5ml) | |
| Lactic Acid | Lactate | Sodium Fluoride | 1bottle (2.0 ml) | |
| Lactic Acid Dehydrogenase | Lactate Dehydrogenase | Gel SST | 1bottle (3.5ml) | |
| Lamba | Serum Free Light Chains | Gel SST | 1bottle (3.5ml) | |
| Lamictal | Lamotrigine | Gel SST | Blood: 2mL Serum: 1mL | |
| Lamotrigine | Lamictal | Gel SST | Blood: 2mL Serum: 1mL | |
| LDH | Lactate Dehydrogenase, Lactic Acid Dehydrogenase | Gel SST | 1bottle (3.5ml) | |
| LDL | | Gel SST | 1bottle (3.5ml) | |
| Lead (Pb) | | Potassium EDTA | 1bottle (4.0 mL) | (Cannot 'share' specimen for other tests) |

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|------------------------|---|---------|-----------------|--------------|
| Leishmania IFAT | | Gel SST | 1bottle (3.5ml) | Microbiology |
| Leptospiral antibodies | | Gel SST | 1bottle (3.5ml) | Microbiology |
| Leutenising Hormone | LH, Interstitial Cell Stimulating Hormone | Gel SST | 1bottle (3.5ml) | Biochemistry |
| Leuteotropic Hormone | Prolactin, Leuteotropin | Gel SST | 1bottle (3.5ml) | Biochemistry |
| Leuteotropin | prolactin, Leuteotropic Hormone | Gel SST | 1bottle (3.5ml) | Biochemistry |
| Levetiracetam | Keppra | Gel SST | 1bottle (3.5ml) | Biochemistry |
| LH | Leutenising Hormone | Gel SST | 1bottle (3.5ml) | Biochemistry |

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|-------------------------------|---|-----------------|--------------------|---|--------------|
| Lipase | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Listeria antibodies | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Lithium | | Gel SST | 1 bottle (3.5ml) | Trough Level | Biochemistry |
| Liver Cytosol Antibody | Liver, Kidney, Microsomal Antibodies (LKM in autoimmune Profile 60) | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| LKM | Liver, Kidney, Microsomal Antibodies (LKM in autoimmune Profile 60) | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Low Density Lipoprotein | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Lupus Anticoagulant | | Sodium Citrate | 2.7ml x 2 | | Haematology |
| Lyme antibodies | Borrelia antibodies | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Lymphocyte Subsets | T Cell Subsets, CD4/CD8 Lymphocyte Subsets | Potassium EDTA | 1 bottle (4.0 mL) | | Biochemistry |
| Lysosomal Enzymes | White Cell Enzymes | Lithium heparin | 2 bottles (5-8) mL | | Biochemistry |
| MAG antibodies | Myelin Associated Glycoprotein | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| MAG/MOG abs | | Gel SST | 1 bottle (3.5ml) | | Immunology |
| Magnesium | MG | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Malaria Parasites | Malaria Screen | Potassium EDTA | 1 bottle (4.0 mL) | | Haematology |
| Malarial antibodies | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Maltase | (a) Alpha-glucosidase | Lithium heparin | 3 - 10 mL | | Biochemistry |
| Manganese | | Potassium EDTA | 1 bottle (4.0 mL) | Use plastic cannula or second draw if metal needle essential. | Biochemistry |
| Measles IgM | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Meningococcal DNA PCR - Blood | | Potassium EDTA | 1 bottle (4.0 mL) | | Microbiology |
| Mercury (blood) | | Lithium Heparin | 4 mL | | Biochemistry |
| Metanephrines (Blood) | Normetanephrines (Blood) | Potassium EDTA | 1 mL | Specimen to SPR within 15 minutes of collection | Biochemistry |
| Methanol (METH) | | Blood/Urine | Sample | Plasma (fluoride oxalate) Serum from bel tubes NOT | Biochemistry |
| Methotrexate | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |

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| Methylmalonic Acid (MMA) | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| MG | Magnesium | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Monoclonal Band | MBand | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| MPQ/PR3 | Myeloperoxidase; PR3 Renal Screen; Request as ANCS. | Gel SST | 1 bottle (3.5ml) | | Immunology |
| Mullerian Inhibiting Factor (MIF) | Mullerian Inhibiting Substance (MIS), Anti Mullerian Hormone (AMH), Mullerian- | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Mullerian Inhibiting Substance (MIS) | Anti Mullerian Hormone (AMH), Mullerian-Inhibiting Hormone (MIH), Mullerian | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Mullerian-Inhibiting Hormone (MIH) | Mullerian Inhibiting Factor (MIF), Mullerian Inhibiting Substance (MIS), Anti Mullerian | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Mumps IgG antibodies | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Muscle Specific Kinase Antibodies | MuSK Antibodies | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| MuSK abs | | Gel SST | 1 bottle (3.5ml) | | Immunology |
| MuSK Antibodies | Muscle Specific Kinase Antibodies | Gel SST | 1 bottle (3.5ml) | | Biochemistry |

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|-------------------|-------------------|----------------|-------------------|--|--------------|
| Mycophenolate | Mycophenolic Acid | Potassium EDTA | 1 bottle (4.0 mL) | | Biochemistry |
| Mycophenolic Acid | Mycophenolate | Potassium EDTA | 1 bottle (4.0 mL) | | Biochemistry |

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|---|--|----------------|-------------------|---|--------------|
| Mycoplasma antibodies | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Myelin Associated Glycoprotein Antibodies | MAG Antibodies | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Myeloma Screen | Protein electrophoresis & Immunoglobulins | Gel SST | 1 bottle (3.5ml) | | Immunology |
| Myositis antibodies | | Gel SST | 1 bottle (3.5ml) | | Immunology |
| Needlestick injury Recipient | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Neuromyelitis Optica Antibodies (NMO) | Aquaporin Antibodies, AQP-4 Antibodies, Anti-Aquaporin-4 Antibodies | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Neuronal Antibodies | Purkinje Cell Ab (Yo), Anti-neuronal nuclear antibodies 1(Hu), Anti-neuronal nuclear | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Neuronal antibodies | | Gel SST | 1 bottle (3.5ml) | | Immunology |
| Neurone Specific Enolase (NSE) | Gamma-enolase, ENO2 | Gel SST | 250 µL | | Biochemistry |
| NH4 | Ammonia | Potassium EDTA | 1 bottle (4.0ml) | | Biochemistry |
| NMDA abs | | Gel SST | 1 bottle (3.5ml) | | Immunology |
| NMDA antibodies | N-Methyl D-aspartate | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| N-Methyl D-aspartate antibodies | NMDA antibodies | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Noradrenaline (norepinephrine) (plasma) | Catecholamines, Dopamine, Adrenaline (epinephrine) | Test no longer | | | Biochemistry |
| Norclozapine | Clozapine, Clozaril | Potassium EDTA | 2 mL | | Biochemistry |
| Normetanephrines (Blood) | Metanephrines (Blood) | Potassium EDTA | 1 mL | Specimen to lab within 15 minutes of collection | Biochemistry |
| Normetadrenaline | | Test no longer | | | |
| Nortriptyline | Amitriptyline | Gel SST | 2 mL | | Biochemistry |
| N-terminal pro B-type natriuretic peptide | Brain Natriuretic Peptide, NT-proBNP, B-type natriuretic peptide | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| NT-proBNP | Brain Natriuretic Peptide, N-terminal pro B-type natriuretic peptide, B-type natriuretic | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Oestradiol | E2, oestrogen, 17β-oestradiol, 17 Beta-oestradiol | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Olanzapine | | Potassium EDTA | 1 bottle (4.0 mL) | | Biochemistry |
| Orosomucoid (ORM) | Alpha-1-acid Glycoprotein (α1AGP) | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Osmolality | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Oxalate (Plasma) | | Potassium EDTA | 1 bottle (4.0 mL) | Send to laboratory immediately for spinning and freezing. | Biochemistry |
| P3NP | Procollagen III Peptide, Procollagen III N-peptide, P1NP, Procollagen-3 N-Terminal | Gel SST | 500 µL | | Biochemistry |
| Paracetamol | Acetaminophen, APAP | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Paraneoplastic Antibodies | Paraneoplastic Antibodies, Neuronal Antibodies, Purkinje Cell Ab (Yo), Anti- | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Paraprotein/PP | Protein electrophoresis | Gel SST | 1 bottle (3.5ml) | | Immunology |
| Parathormone | Parathyroid Hormone | Potassium EDTA | 1 bottle (4.0 mL) | | Biochemistry |
| Parathyroid Hormone | Parathormone | Potassium EDTA | 1 bottle (4.0 mL) | | Biochemistry |
| Parathyroid Secretory Protein | Chromogranin A (CgA) (CHGA) | Potassium EDTA | 1 bottle (4.0 mL) | | Biochemistry |
| Parietal Cell Antibodies | PCA | Gel SST | 1 bottle (3.5ml) | | Immunology |
| Parvovirus DNA | | Potassium EDTA | 1 bottle (4.0ml) | | Microbiology |
| Parvovirus IgM / IgG | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Paul Bunnell | Glandular Fever; Monospot | Potassium EDTA | 1 bottle (4.0 mL) | | Haematology |

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|----------------------------------|--|-----------------|-----------------|---|--------------|
| PCA | Parietal Cell Antibodies | Gel SST | 1bottle (3.5ml) | | Immunology |
| Phenobarbital | Phenobarbitone | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Phenobarbitone | Phenobarbital | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Phenytoin | Epanutin | Gel SST | 1bottle (3.5ml) | Trough Level | Biochemistry |
| Phosphate | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Phospholipids | BMS will decide if antiphospholipids is required after cardiolipin result. | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Phylloquinone | Phytomenadione, Phytanadione, Vitamin K | Gel SST | 1bottle (3.5ml) | Protect sample from light. | Biochemistry |
| Phytomenadione | Phylloquinone, Vitamin K, Phytanadione | Gel SST | 1bottle (3.5ml) | Protect sample from light. | Biochemistry |
| Phytanadione | Phylloquinone, Vitamin K, Phytomenadione | Gel SST | 1bottle (3.5ml) | Protect sample from light. | Biochemistry |
| Pipicollic acid | | Lithium Heparin | or CSF or Urine | Store frozen (-20°C). Send courier at ambient | Biochemistry |
| Pituitary Gonadotrophins | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| PINP | Procollagen III Peptide, P3NP, Procollagen III N-peptide, Procollagen-3 N-Terminal | Gel SST | 500 µL | | Biochemistry |
| Plasma Viscosity | | Potassium EDTA | 1bottle (4.0ml) | | Haematology |
| Porphyrin (Blood) | | Potassium EDTA | 1bottle | Protect sample from light | Biochemistry |
| Potassium | Electrolytes | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Potassium channel abs | | Gel SST | 1bottle (3.5ml) | | Immunology |
| Primidone | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Procalcitonin | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Procollagen-3 N-Terminal Peptide | Procollagen III N-peptide, PINP, P3NP, Procollagen III Peptide | Gel SST | 500 µL | | Biochemistry |
| Procollagen III N-peptide | Procollagen III Peptide, PINP, P3NP, Procollagen-3 N-Terminal Peptide | Gel SST | 500 µL | | Biochemistry |
| Progesterone | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Proinsulin | | Lithium Heparin | (or Serum) | Separate immediately. Store frozen (-20°C). Send sample | Biochemistry |
| Proinsulin c-peptide | Insulin c-peptide, C-peptide | Gel SST | 350 µL | | Biochemistry |
| Prolactin | Leuteotropic Hormone, Leuteotropin | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Prostate Specific Antigen | Acid Phosphatase; PSA | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Protein electrophoresis | Paraprotein/PP, EP/SEP, Myeloma Screen | Gel SST | 1bottle (3.5ml) | | Immunology |
| Prothiaden | Dosulepin, Dothiepin, Desmethyl Dothiepin | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| PSA | Acid Phosphatase, Prostate Specific Antigen | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Pseudocholinesterase | Butyrylcholinesterase | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Pneumococcal antibodies | | Gel SST | 1bottle (3.5ml) | | Microbiology |
| Pneumococcal Blood PCR | | Potassium EDTA | 1bottle (4.0ml) | | Microbiology |
| PTH | Parathyroid Hormone; Parathormone | Potassium EDTA | 1bottle (3.5ml) | | Biochemistry |
| Purkinje Cell Ab (Yo) | Anti-neuronal nuclear antibodies 1 (Hu), Anti-neuronal nuclear antibodies 2 (Ri), | Gel SST | 1bottle (3.5ml) | | Biochemistry |

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| Pyridoxal phosphate | | CSF | Sample | Samples must be collected onto dry ice at bedside. Store frozen (-80°C). Send sample FROZEN on DRY ICE (-70°C) by courier. Samples must be sent before 12 p.m. if not possible keep in freezer until next working day. | Biochemistry |
| Pyridoxine | Vitamin B6 | Potassium EDTA | 1 bottle (3.5ml) | Protect Sample from light | Biochemistry |
| Q fever (Coxiella) antibodies | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Quantiferon TB gold | | Lithium Heparin | 2 x 6-8mls | Mon-Thurs only and must be received in lab before 2 p.m. | Microbiology |
| RAST | Aspergillus Precipitins | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Red Cell Folate | | Potassium EDTA | 1 bottle (4.0 mL) | | Haematology |
| Renal Screen | ANCA | Gel SST | 1 bottle (3.5ml) | | Immunology |
| Renin | Angiotensinogenase | Potassium EDTA | 500µL | | Biochemistry |
| Reticulin Antibodies | ARA (CTD Screen) | Gel SST | 1 bottle (3.5ml) | | Immunology |
| Reticulocytes | Retics | Potassium EDTA | 1 bottle (4.0 mL) | | Haematology |
| Retinol Binding Protein (RBP) and Proximal Tubular | | Random Uriner | | Store in fridge, send by courier at ambient temperature. | Biochemistry |
| Retinol | Vitamin A | Lithium Heparin | 1 bottle (3.5ml) | Protect sample from the light | Biochemistry |
| Rheumatoid Factor | Rose-Waaler | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Riboflavin | Vitamin B2 | Potassium EDTA | 1 bottle (4.0 mL) | Protect Sample from light | Biochemistry |
| Rickettsial antibodies | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Risperidone | 9-hydroxyrisperidone | Potassium EDTA | 2mL | | Biochemistry |
| Rivaroxaban levels | | Sodium Citrate | 2.7ml | | Haematology |
| Rivotril | Clonazepam | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| RNP | Part of ENA (CTD Screen) | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Rose-Waaler | Rheumatoid Factor | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Rubella contact (IgG and IgM) | | Gel SST | 1 bottle (3.5ml) | Contact laboratory Ext. 64250 for URGENT specimens | Microbiology |
| Rubella IgM | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Rubella screen IgG | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| SACE | Serum Ace | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Salicylate | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| SCL70 | Part of ENA (CTD Screen) | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Schistosoma/Bilharzia antibodies | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Secretogranin I | Chromogranin B (CgB) (CHGB) | Potassium EDTA | 1 bottle (4.0 mL) | | Biochemistry |
| Selenium | | Trace Element | 1 bottle | | Biochemistry |
| Serum Amino Acids | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Serum Amyloid A | Amyloid A | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Serum Free Light Chains | SLC/SFLC; Free Kappa/Lambda | Gel SST | 1 bottle (3.5ml) | | Immunology |

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| Serum glutamate pyruvate transaminase (SGPT) | Alanine Aminotransferase, Alanine transaminase | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Serum glutamic oxaloacetic transaminase (SGOT) | Aspartate aminotransferase, Aspartate transaminase | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Serum trypsin inhibitor Genotype | alpha-1 proteinase inhibitor Genotype, Alpha-1-Antitrypsin Genotype, A1AT | Potassium EDTA | 1mL | | Biochemistry |
| Sex Hormone Binding Globulin | Sex steroid-binding protein (SBP), Testis-specific androgen-binding protein (ABP), Testosterone-estradiol-binding globulin (TeBG) | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Sex Steroid-binding protein (SBP) | Sex Hormone Binding Globulin, Testis-specific androgen-binding protein (ABP), Testosterone-estradiol-binding globulin (TeBG) | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| SGPT | Alanine Transferase, Serum Glutamate Pyruvate Transaminase, Alanine Transaminase | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| SHBG | Sex Hormone Binding globulin | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Sickle Solubility test | Electrophoresis | Potassium EDTA | 1 bottle (4.0 mL) | | Haematology |
| SLC/SFLC | Serum Free Light Chains | Gel SST | 1 bottle (3.5ml) | | Immunology |
| SMA | Smooth Muscle antibody | Gel SST | 1 bottle (3.5ml) | | |
| Smooth Muscle Antibody | SMA | Gel SST | 1 bottle (3.5ml) | | |
| Sodium | Electrolytes | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Sodium Valproate | Vaproate, Valproic Acid, Epilim | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Somatomedin C | Insulin like Growth Factor 1, IGF-1 | Gel SST | 330 µL | | Biochemistry |
| Somatotropin | hGH, Growth Hormone (GH) | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Specific IGE/RAST Test | Allergens listed | Gel SST | 1 bottle (3.5ml) | | Immunology |
| Split bilirubin | Direct bilirubin, conjugated/unconjugated bilirubin | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Syphilis serology (STS/STD) | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| T Cell Subsets | CD4/ CD8 Lymphocyte Subsets, Lymphocyte Subsets | Potassium EDTA | 1 bottle (4.0 mL) | | Biochemistry |
| Tacrolimus | | Potassium EDTA | 1 bottle (4.0 mL) | pre dose/ trough sample | Biochemistry |
| Tacrolimus | | Potassium EDTA | 1 bottle (4.0 mL) | | Immunology |
| T-cell subsets | | Potassium EDTA | 1 bottle (4.0 mL) | | Immunology |
| Tegretol | Carbamazepine | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Teicoplanin levels | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Testis-specific androgen-binding protein (ABP) | Sex Hormone Binding Globulin, Sex Steroid-binding protein (SBP), Testosterone- | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Testosterone | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Testosterone-estradiol-binding globulin (TeBG) | Sex Hormone Binding Globulin, Sex Steroid-binding protein (SBP), Testis-specific- | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| TFT | Thyroid Function Test | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Theopental | | Gel SST | 1 bottle (3.5ml) | Required urgently, discuss with lab first. Sample taken at least | |
| Theophylline | Aminophylline | Gel SST | 1 bottle (3.5ml) | Trough Level | Biochemistry |

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| TIBC | Total Iron Binding Capacity | Gel SST | 1bottle (3.5ml) | | |
| Thiamine | Vitamin B1 | Potassium EDTA | 1bottle (4.0 mL) | Protect Sample from light | Biochemistry |
| Thioguanine Nucleotides | 6-Thioguanine, 6-TGN | Potassium EDTA | 1bottle (4.0 mL) | | Biochemistry |
| Thiopurine Methyltransferase | Thiopurine S-methyltransferase | Potassium EDTA | 1bottle (4.0 mL) | | Biochemistry |
| Thiopurine S-methyltransferase | Thiopurine Methyltransferase | Potassium EDTA | 1bottle (4.0 mL) | | Biochemistry |
| Thrombophilia Screen | Within the Thrombophilia Screen these tests may be requested individually: Prothrombin Gene: <i>1 x EDTA</i> Factor 5 Leiden: <i>1 x EDTA</i> APCRV: <i>2 x Sodium Citrate</i> Anti-Thrombin III: <i>2 x Sodium Citrate</i> Protein C: <i>2 x Sodium Citrate</i> Free Protein S: <i>2 x Sodium Citrate</i> | Sodium Citrate | (x4 bottles x 2.7ml) | | Haematology |
| | | Potassium EDTA | 1bottle (4.0ml) | | |
| Tissue Transglutaminase | Coeliac Screen, Anti Gliadin, Anti Endomysial | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Thyrocalcitonin | Calcitonin | Gel SST | 400 µL | | Biochemistry |
| Thyroglobulin | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Thyroid AB | TPO; Thyroid Microsomal ANTIS | Gel SST | 1bottle (3.5ml) | | Immunology |
| Thyroid Peroxidase AB | TPO | Gel SST | 1bottle (3.5ml) | | Immunology |
| Thyroid Stimulating Hormone | Thyrotropin, Thyrotropic Hormone; TSH | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Thyrotropic Hormone | Thyroid Stimulating Hormone, Thyrotropin | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Thyrotropin | Thyroid Stimulating Hormone, Thyrotropic Hormone | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Thyroxine | Free T4 | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Tobramycin levels | | Gel SST | 1bottle (3.5ml) | | Microbiology |
| Topiramate | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Total IGE | IGE (In House check) | Gel SST | 1bottle (3.5ml) | | Immunology |
| Total Iron Binding Capacity | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Total Protein | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Toxocara antibodies | | Gel SST | 1bottle (3.5ml) | | Microbiology |
| Toxoplasma IgG | | Gel SST | 1bottle (3.5ml) | | Microbiology |
| TPHA/VDRL | Syphilis RPR | Gel SST | 1bottle (3.5ml) | | Microbiology |
| TPMT | Thiopurine Methyltransferase | Potassium EDTA | 1bottle (4.0 mL) | | Biochemistry |
| TPO | Thyroid AB; Thyroid Peroxidase AB | Gel SST | 1bottle (3.5ml) | | Immunology |
| Triglyceride | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Triiodothyroxine | Free T3 | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Troponin I High sensitivity | | Gel SST | 1bottle (3.5ml) | Store frozen (-20°C). Send sample FROZEN on DRY ICE (- | Biochemistry |
| Troponin | | Gel SST | 1bottle (3.5ml) | | Biochemistry |
| Trypanosome serology | | Gel SST | 1bottle (3.5ml) | | Microbiology |
| Trytase | | Gel SST | 1bottle (3.5ml) | | Immunology |

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| TSH | Thyroid Stimulating Hormone | Gel SST | | | Biochemistry |
| TSH Receptor | | Gel SST | 1 bottle (3.5ml) | | Immunology |
| TTG | Coeliac Screen; Endomysial AB; Anti Gladin AB | Gel SST | 1 bottle (3.5ml) | | Immunology |
| Typhus antibodies | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| Unsaturated Iron Binding Capacity | | Gel SST | 1 bottle (3.5ml) | Suppressed Test | Biochemistry |
| Urate | Uric Acid | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Urea | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Uric Acid | Urate | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Valium | Diazepam, Diastat | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Valproate | Valproic Acid, Sodium Valproate, Epilim | Gel SST | 1 bottle (3.5ml) | Trough Level | Biochemistry |
| Valproic Acid | Valproate, Sodium Valproate, Epilim | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Vancomycin | | Gel SST | 1 bottle (3.5ml) | Trough Level | Biochemistry |
| Vasculitis Screen | ANCA | Gel SST | 1 bottle (3.5ml) | | Immunology |
| Vasoactive Intestinal peptide | VIP; Gut Hormones | Potassium EDTA | 1 bottle (4.0 mL) | Sample to be transported to laboratory immediately | Biochemistry |
| Vasopressin | Antidiuretic Hormone, Arginine Vasopressin, AVP, ADH | Test no longer | 5 mL | Specimen to SPR within 15 minutes of collection | Biochemistry |
| Very Long chain fatty acids (VLCFA) | | Potassium EDTA | 1 bottle (4.0 mL) | | Biochemistry |
| Vigabatrin | Gamma-vinyl-GABA | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Vitamin A | Retinol | Lithium heparin | 1 bottle (3.5ml) | Protect Sample from light | Biochemistry |
| Vitamin B1 | Thiamine | Potassium EDTA | 1 bottle (4.0 mL) | Protect Sample from light | Biochemistry |
| Vitamin B12 | Cobalamin | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Vitamin B2 | Riboflavin | Potassium EDTA | 1 bottle (4.0 mL) | Protect Sample from light | Biochemistry |
| Vitamin B6 | Pyridoxine | Potassium EDTA | 1 bottle (4.0 mL) | Protect Sample from light | Biochemistry |
| Vitamin C | Ascorbate, Ascorbic Acid | Lithium Heparin | 1 bottle | Call the laboratory ahead of taking a sample. Protect from light | Biochemistry |
| Vitamin D | Vitamin D2, Ergocalciferol, Vitamin D3, Cholecalciferol, 25-hydroxyvitamin D | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Vitamin D2 | Vitamin D, Ergocalciferol, Vitamin D3, Cholecalciferol, 25-hydroxyvitamin D | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Vitamin D3 | Vitamin D, Vitamin D2, Ergocalciferol, Cholecalciferol, 25-hydroxyvitamin D | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Vitamin E | Alpha-tocopherol | Lithium Heparin | 1 bottle | Protect sample from light | Biochemistry |
| Vitamin K | Phylloquinone, Phytomenadione, Phyttonadione | Gel SST | 1 bottle (3.5ml) | Protect sample from light | Biochemistry |
| Voltage Gated Potassium Channel Antibodies (VGKC) | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Voltage Gated Calcium Channel Antibodies | | Gel SST | 1 bottle (3.5ml) | | Biochemistry |
| Von Willebrand screen | | Sodium Citrate | 8.1ml (x3 bottles) | | Haematology |
| Voriconazole level | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| VZV (Chickenpox) screen IgG | | Gel SST | 1 bottle (3.5ml) | | Microbiology |
| White Cell Cystine/Cystinosis | | Lithium Heparin | | Sample must arrive at referral laboratory within 24hrs. Send by CitySprint at ambient temperature. | Biochemistry |

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| White Cell Enzymes | Lysosomal Enzymes | Lithium heparin | 7-10 mL | | Biochemistry |
| Zika virus | | Potassium EDTA Gel SST | 1 bottle (4.0 mL) | Laboratory must receive Urine with these samples or they will not be processed | Microbiology |
| Zinc | Zinc | Trace Element | 1mL | | Biochemistry |
| α 1-Antitrypsin Genotype | Serum trypsin inhibitor, alpha-1 proteinase inhibitor, Alpha-1-Antitrypsin Genotype. | Potassium EDTA | 1mL | | Biochemistry |
| α -galactosidase | Alpha Galactosidase, Fabry's Screen | Lithium Heparin | 5 mL | | Biochemistry |
| β -HCG | Beta-HCG, Human Chronic Gonadotrophin | Gel SST | 1 bottle (3.5ml) | | Biochemistry |

For Urine Tests Repertoire – please refer to the synnovis website