Contents

1. Amendments Table

The Blackrock Health- Galway Clinic Laboratory User Manual is document controlled under the laboratory quality management system. Changes in this revision are listed in Table 1:

Table 1. List of Changes made in This Revision of the Laboratory User Manual

(DCR = Q Pulse Document Change Request)

DCR No.	Change Made
QMS Related Changes	
14746	**Sec. 2. Introduction: 2.1 General**: reference to accredited status updated to reflect additional accredited disciplines of Haematology, Microbiology & Histology & throughout, where relevant. **Sec. 3.4 Patient-focused lab services**: included a reference to the Lab quality policy.
15718	**Sec. 2.2. Blackrock Health -Galway Clinic Website** -lab user manual is now publicly available to lab users / patients on the BRH-GC website, in order to provide patients & users with publicly available information about the examination processes including information on when to expect results (as per ISO 15189:2022 Cl. 4.3 Requirements regarding patients (4.3 b).
15676	**Sec. 5.1 Management of information**: updated to ensure that lab users & patients have been informed that 'there may be times when their information may be made publicly available'. **Sec. 5.2 Lab Policy on Release of Confidential Patient Information**: updated to ensure that lab users & patients have been informed that 'it may be required by law or authorised by contractual arrangement to release confidential patient information'. (as per ISO 15189:2022 Cl. 4.2 Confidentiality: Cl. 4.2.1 & 4.2.2 requirements).
15714	**Sec. 2.3. Legislation Reference:** updated to reflect JCI standard 8th edition, AOP 03.06 Procedures for collecting, identifying, handling, safely transporting & disposing of specimens.
15715	**Appendix 1. Lab Test Repertoire -added.** Note: manual updated throughout to reflect this change & where relevant remove all references to GC-LAB-GEN-Q-F-072 Lab user test list.
15719 15720	**Header/Footer updated:** removed INAB Logo from Header & disclaimer relating to accredited status from footer-(Note: reference to 'accredited activities' remains in Sec. 1 introduction). - document header updated to include the following details which are on Q Pulse, i.e.: author, reviewer, authorisation & effective date (additional information required for the GC website).
Minor Editorial Edits	
14445	**Table numbering:** numbering of tables corrected throughout the manual.
15714	**Added Sec. 1 Amendments Table**: includes a list of changes made by revision for lab users.
15285	**Table 4. Lab Request Forms In Use**: a reference to Service Agreements procedure was added.
15345	**Sec. 11.6 Collection of HIS/CYT Specimens:**-a reference to information provided in 'Appendix 1.4 HIS test Repertoire was added.
15351	**Sec. 16.2.Criteria for Additional Test Requests on the Primary Specimen**- a reference to 'the time limits for requesting additional tests/ examinations' was added.

Changes by Laboratory Department

DCR No.	Test	Change Made
Blood Transfusion		
15373	Confirmatory Groups	Section 16.1 - Blood Transfusion Tests Available: -Table 8.the test 'Confirmatory Groups' was removed from this table.
Haematology		
15609	FISH (FIP1L1-PDGFR)	Updated the Meditech Test. Mnemonic/Lab section to: 'FIP1L1 PDGFR' instead of ' PDGFR-FIP1L1'
14474	IM screen and Morphology/ Blood film	Updated 'TEST NAME (ABBREVIATION) section: 1. IM Test to IM Screen – (IM screen)-(FBC included) 2. Blood Film Morphology - (MORPH) - (FBC Included)
Microbiology		
15667	Legionella Culture	Updated TAT to 10 days
15713	CSF-PCR	Added Cerebrospinal Fluid PCR
Histology		
15722	Breast Specimens	Changed container type to: 10%Formalin Container
	Fresh Tissue/Frozen Section	Separated Fresh tissue/ Frozen Section to two separate entries: Fresh Lymph Node & Frozen Section. Updated Fresh Lymph Node requirements/ TAT as per Pathologist
	GI Endoscopic Biopsies	Change container type to: 10% Formalin Container
	Muscle Biopsies	Changed sample type from Body tissue to Muscle Tissue
	Molecular Tests	Changed sample type to remove paraffin block
	Non Biopsy Cancer Resection Specimens	Change container type to: 10% Formalin Container
	Non Biopsy Specimens	Change container type to: 10% Formalin Container
	Non Gynae FNA Fluid (Head/Neck FNA)	Removed specimen requirement slides, no longer in place & removed coplin jar as slides no longer used
	Renal Biopsies for IMF & EM	Changed from body tissue to renal tissue
	Small Sample /Biopsy Specimens	Changed container type to: 10% Formalin Container
	Urine	Changed Min 30mls of Fluid to 'min 20mls fluid)
	Template Guided Trans-perineal Prostate Biopsies	Changed from body tissue to prostate tissue
	Colonoscopic Biopsies	Changed container type to: 10% Formalin Container
Biochemistry & POC/NPT		
15725	Changes associated with BIO test repertoire	A number of Biochemistry (referral) tests were removed from the test repertoire due to low frequency order, however, information on rarely ordered tests can be obtained by contacting the laboratory at ext. 5699. Profile names omitted for some BIO tests, where not required.

2. Introduction

2.1. General

The laboratory has in place procedures for all pre-examination activities which it makes accessible to relevant laboratory user personnel in this lab user manual & the associated laboratory user test list. The laboratory is accredited to the ISO 15189 Standard by INAB (the Irish National Accreditation Board), with accredited activities currently including Blood bank, Haematology, Microbiology & Histology only, as defined in the Galway Clinic schedule of accreditation on the INAB website www.inab.ie – INAB registration number 222MT.

Galway Clinic, part of Blackrock Health, is the leading provider of private cancer care in the west of Ireland. It is also an affiliated teaching hospital to the Royal College of Surgeons in Ireland (RCSI) and National University of Ireland Galway (NUIG). The hospital provides medical, surgical and advanced radiology, radiotherapy and physiotherapy care to patients using the latest state of the art equipment. The Galway Clinic Laboratory department is located on the first floor and is comprised of Biochemistry/Near Patient Testing, Haematology, Blood Bank (Blood Transfusion & Haemovigilance), Microbiology and Histology / Cytology – providing a clinical diagnostic service to users.

As pre-examination processes can have a key influence the outcome of the intended test/ examination, the laboratory has documented procedures and information on pre-examination activities available to lab users & patients in order to ensure the validity of the results of examinations. The purpose of this manual is to act as a reference guide, for all users of the Galway Clinic Laboratory Service, to key documented procedures and to provide instruction on all aspects of pre-examination including information on the ordering, collection, handling and transport of primary samples to the laboratory. This manual is to be used in association with the Laboratory User Test List which includes an alphabetical listing of the wide range of tests currently offered in-house and those routinely referred to other Laboratories. The manual is written in compliance with ISO 15189:2022 Cl. 7.2 Pre-examination processes.

The laboratory aims to ensure that the information provided in this manual & the associated test list is in sufficient detail to provide laboratory users & patients with a comprehensive understanding of the laboratory's scope of activities and requirements. Current versions of both the lab user manual & associated lab test list are available to both laboratory personnel & all laboratory users' hospital-wide on the Q Pulse HCI web-based portal & on the hospital intranet.

2.2. Blackrock Health- Galway Clinic Website

A current version of this 'Laboratory User Manual' which includes detailed information on laboratory services & a comprehensive test repertoire is publicly available to all lab users and patients on the Blackrock-Health Galway Clinic website. Note: information in the lab user manual includes information about examination processes, including costs where applicable & when to expect results.

Ref: Blackrock Health-Galway Clinic website www.galwayclinic.com

Ref: GC-LAB-GEN-Q-ED-292 ISO 15189:2022 Cl. 4.3 requirements regarding patients, b).

2.3. Legislation Reference

This manual has been written to ensure compliance with current versions of the international standard ISO 15189:2022 Medical laboratories - Requirements for quality and competence, the JCI Accreditation Standard- specifically IPSG 1 Identify Patients Correctly, IPSG 2 Improve effective communication and AOP 03.06 Procedures for collecting, identifying, handling, safely transporting, and disposing of specimens and the EU Blood directive 2002/98/EC.

Ref: GC-LAB-GEN-Q-ED-292 SO15189:2022 Accreditation Standard. Medical laboratories - Requirements for quality and competence. Clause 7.2 Pre-examination processes.

Ref: QU-PPS-40 Joint Commission International Accreditation Standards for Hospitals 8th Edition 2024.

Ref: GC-LAB-GEN-Q-ED-073 Directive 2002/98/EC of the European Parliament and the Council of the European Union

2.4. Patient-Focused Laboratory Services

To ensure patient-focused laboratory services, laboratory management are committed to the following:

a) Staff recruitment, training, development and retention at all levels to provide a full and effective service to its users.
b) The proper procurement and maintenance of equipment and other resources required for the provision of the service.
c) The collection, transport and handling of all specimens in such a way as to ensure the correct performance of laboratory examinations.
d) The use of accredited examination procedures and methods that will ensure the highest achievable quality of all tests performed.
e) Reporting results of examinations in ways which are timely, confidential, accurate and clinically useful.

f) The assessment of user satisfaction, in addition to internal audit and external quality assessment, in order to produce continual quality improvement.

g) The Galway Clinic laboratory is accredited to ISO15189 Standard for the scope of tests detailed in the Galway Clinic INAB scope of testing, available on the INAB website (currently in blood bank, haematology, microbiology & histology only).

h) Laboratory commitment to patient-focused services is reflected in the laboratory quality policy, which is reviewed annually @ annual management review, or as required.

Ref: GC-LAB-GEN-MAN-P-002 Management of the laboratory.

Ref: GC-LAB-GEN-Q-P-010 User satisfaction evaluation.

Ref: GC-LAB-GEN-Q-POL-003 Laboratory quality policy.

Reg: INAB Reg. No. 222MT, Galway Clinic schedule of testing, available on www.inab.ie).

2.5. Key Terms & Definitions

Terms

- CMS: Chief medical scientist.
- SMS: Senior medical scientist
- MDM: Multidisciplinary meeting.
- NPT: Near patient testing.
- POC: Point of care.

Definitions

- **Laboratory User:** Individual or entity requesting services of the medical laboratory, which can include patients, clinicians, and, other laboratories or institutions that send samples for examination.

- **Patient:** person who is the source of material for an examination.

- **Primary Sample/ Specimen:** Discrete portion of a body fluid or tissue or other sample associated with the human body taken for examination (3.8), study or analysis of one or more quantities or characteristics to determine the character of the whole.

- **Sample**: One or more parts taken from a primary sample (3.25)

Source of definitions**:** ISO15189:2022 Chapter 3. Terms & Definitions.

3. Laboratory Information for Patients and Users

The information provided to laboratory users in this manual includes the following:

a) the location(s) of the laboratory, operating hours and contact information;

b) laboratory test repertoire (see Appendix 1);

c) information about examination processes, including costs where applicable & when to expect results.

d) the procedures for requesting and the collection of samples;

e) the scope of laboratory activities and time for expected availability of results;

f) the availability of advisory services;

g) requirements for patient consent;

h) factors known to significantly impact the performance of the examination or the interpretation of the results;

i) patient information leaflet on blood transfusion.

j) details of the laboratory complaint process

This manual also includes information on the following:

a) instruction for preparation of the patient, where relevant;

b) instruction for patient-collected samples;

c) instruction for the packaging and transport of samples to the laboratory;

d) the laboratory's criteria for accepting and rejecting samples;

e) the laboratory's policy on GDPR & data protection of personal information.

Ref: GC-LAB-BT-HV-F-011 Galway Clinic patient information leaflet on Blood Transfusion

Ref: Appendix 1. Laboratory test repertoire.

Ref: GC-LAB-GEN-Q-ED-292 ISO 15189:2022 Cl. 4.3 requirements regarding patients, b).

Ref: Blackrock Health-Galway Clinic website www.galwayclinic.com

3.1. Laboratory Test Repertoire – See Appendix 1

An extensive test repertoire is provided in Appendix 1, A-Z by Laboratory department. Tests are listed A-Z by Test Name & include the following information:

- Laboratory: Galway Clinic Laboratory Department / or if tested at a Referral Lab site
- Test Name Abbreviation: where relevant to the test.
- Sample Type: e.g., whole blood, plasma, tissue etc.
- Container: e.g., blood bottle, swab etc. (& additive, where relevant).

- Volume: e.g., blood draw volume.
- TAT (Turnaround Time): routine TAT & urgent TAT where relevant to the test.
- Special requirements & Instructions: where relevant to the test, including instructions on transport to the laboratory.

Note for lab users: for any queries relating to test information provided in Appendix 1. Laboratory Test Repertoire, please contact the laboratory.

Ref: Appendix 1. Laboratory Test Repertoire (A-Z, by Laboratory Department).

3.2. Tests Not Listed on Test Repertoire or Additional Information

For additional information and/or if a test is not listed on the test repertoire, please contact the laboratory. If you require a diagnostic test that is not listed, please contact the Laboratory department and we will endeavour to outsource your test requirement, as appropriate.

Ref: Appendix 1. Laboratory Test Repertoire (A-Z, by Laboratory Department).

3.3. Laboratory Test Repertoire Review

The laboratory periodically reviews its listed tests and examinations to ensure they remain clinically appropriate and necessary for the patient population served. Laboratory management strives to align the tests offered with clinical needs and the demographics of the patient population. In order to ensure that the offered tests continue to meet clinical appropriateness and necessity standards, the laboratory conducts an annual review of its test repertoire at departmental management review (AMR) meetings, chaired by the laboratory consultant. The test repertoire is updated regularly to reflect;

- change of referral laboratory
- where a new test/examination is offered based on hospital service requirements or consultant clinician requirements
- change / update in legislation or regulations requiring changes in testing / examinations.

Note: At each review/update, a formal change control notification will be issued via email by the LQM to all laboratory users clearly indicating each change.

Ref: GC-LAB-GEN-Q-P-006 Management of change control.

Ref: GC-LAB-GEN-Q-P-014 Management review.

4. General Laboratory Information

4.1. Location and Contact Details

4.1.1. Location of the Galway Clinic and Contact Information

The Galway Clinic is situated on the outskirts of Galway City in Doughiska.

Address:
Blackrock Health – Galway Clinic
Doughiska
Galway
H91HHT0
Ireland

Email:
info@galwayclinic.com

Tel:
+353 91 785 000

Figure 1: Map location of Blackrock Health – Galway Clinic

Directions from all routes are available on the hospital website at www.galwayclinic.com.

There is a 24-Hour carpark open to patients and visitors just at the entrance to the cul-de-sac (signposted) and drop-off/pick-up zones are accessible at the main hospital entrance. There is also a bus service to and from Galway City -operating times are displayed in the hospital foyer.

Ref: Blackrock Health-Galway Clinic website www.galwayclinic.com

4.1.2. Location of the Laboratory Department

The Laboratory is located on the first floor, which can be accessed via the elevator behind main reception or via the main staircase. Follow the signage for 'Laboratory' which will take you through two sets of double-doors into the laboratory foyer. The laboratory is a restricted area with security access (key fob) in place. Hospital personnel with authorised access may enter and follow the internal signage for the appropriate laboratory department. For patients or hospital personnel that do not have authorised fob access, please ring the bell at central reception (the hatch on the right) and a member of laboratory personnel will assist you.

4.1.3. Location of the Phlebotomy Department

The Phlebotomy department is located on the ground floor beside Day-Care/Same-Day-Surgery, past the main reception desk on the right. Both in-patient and out-patient phlebotomy services are provided.

4.1.4. Laboratory Contact Details

Contact details for all laboratory departments are listed in **Table 2**. When phoning from within the hospital, the 4-digit number will suffice, however if calling from out the hospital, the area code (091) and the prefix (78) must be placed before the extension number. To contact main reception from within the hospital, dial 9. Due to GDPR requirements, the laboratory has a 'no fax policy' however, in exceptional circumstances, the fax number is available on request. Laboratory staff can also be contacted via hospital email if required.

Table 2: Laboratory Telephone Contact Details

Department / Location	DECT / Extension Number
Main Hospital Reception	5000 / 9
Laboratory Office	5650
Specimen Reception	DECT 5699
Blood Transfusion	5683
Haematology	5682
Biochemistry	5681
Point of Care/Near Patient Testing	5681
Microbiology	5669
Histology	5670
Laboratory Manager Office	5659
Laboratory Quality Manager Office	DECT 5658
Consultant Histopathologist Office 1	5651
Consultant Histopathologist Office 2	5653
Consultant Histopathologist Office 3	5657
Laboratory Director / Consultant Histopathologist Office	5651
Consultant Microbiologist Office	5656
Consultant Haematologist	• Blood Transfusion: contact via BT Lab @ 5683 • Haematology: contact via HAEM Lab @ 5682
Phlebotomy	DECT 5770 / 5478
Haemovigilance Officer *	DECT 5515
Haemovigilance (out of routine hours) **	DECT 5540
Infection Prevention & Control	DECT 5698

Note 1: Outside Routine Hours: for all contact numbers listed, contact via main reception 091 78 5000.

Note 2.: Hemovigilance is a part-time post (0.5 WTE) for surveillance, education and training activities.

Note 3: The Evening & Weekend Administration Nurse / ADON can be contacted for advice related to SAEs/SARs when the HV officer is not on duty (available on DECT 5540)

4.2. Laboratory Services Opening Hours (Routine / Out-of-Hours)

Table 3: Opening hours for Routine and Out-of-Hour's Service (including cut-off times)

Department / Activity / Service	Opening Hours	Cut-off Times for receipt of specimens in the Lab
Laboratory Office	Monday – Friday 08:00 - 16:30	Not applicable
Laboratory **Central Reception**	Monday - Friday 08:00 - 20:00	Refer to individual departments
Routine Diagnostic Service: - **Haematology** - **Biochemistry & POC/NPT** - **Blood Transfusion**	Monday - Friday 08:00 - 20:00* Saturday 09:00 - 14:00*	Routine **Haematology**: 19:30 For ESR requests: 19:00 Routine **Biochemistry & POC**: 19:30 **Blood Transfusion**: Refer to Section 20.2 of this document.
Routine Diagnostic Service: - **Histology**	Monday - Friday 08:00 - 16:30	Delivery to **Histology** Lab: 16:30 Specimens must be delivered to **Central Reception** *after 16:30*
Routine Diagnostic Service - **Microbiology**	Monday - Friday 08:00 - 16:30 Saturday 08:30 - 13:30 Sunday 09:00 - 12:00	Routine **Microbiology**: 16:00 Routine **Microbiology**: 12:00 Urgent samples only by request
Emergency out of hours Laboratory Service - On call diagnostic service	Monday -Friday 20:00 - 08:00 Saturday / Sunday / Bank Holiday (24 Hours)	Medical Scientist on-call must be contacted via Hospital Reception (Ext. 9/5000)
Phlebotomy Out-patient Service	Monday to Friday 08:00 - 18:00 Weekends and Bank Holidays by prior arrangement, within the service times: 08:00 - 17:30	Last appointment: 17:30 All out-patients attending the phlebotomy department must produce a referral letter or request form from their referring doctor on arrival, for registration.
Phlebotomy In-patient Service	Monday - Sunday: 07:00 - 17:30	Pre-07:00 appointments must be booked in advance with the **Phlebotomy** Dept.
Haemovigilance Service	Monday - Friday: 08:00 - 17:00**	Not applicable
Infection Prevention & Control	Monday - Friday 08:00 – 17:00	Not applicable

Note: Cut-off times are included in this table in order to ensure effective provision of service.

*****The laboratory offers a reduced service between 16:30 and 20:00 on weekdays and at weekends. Please refer to the Laboratory User Test List and the List of tests carried out on-call (Refer to Appendices).

******The Haemovigilance officer is a part-time post, however the Evening Administration Nurse / ADON can be contacted when the HV officer is not on duty.

*******The laboratory endeavours to ensure all above information is current & correct, however there may be changes to associated services, e.g., those that can change over periods of pandemics etc. e.g., the COVID clinic, please contact the laboratory at Ext. 5699 for further information.

4.3. Laboratory Service Fees

A list of laboratory charges is readily available to all laboratory users, including the patient, from the Laboratory Manager at 091 78 5659 / DECT 5699.

4.4. Scope of Laboratory Services

The Laboratory Service provides a comprehensive range of diagnostic testing, clinical advisory and consultative services to our users.

4.4.1. Diagnostic Testing Services -Laboratory Departments

The laboratory Service consists of the following disciplines or departments:

- Central Reception
- Biochemistry (including Near Patient Testing (NPT) and Intraoperative PTH Service)
- Blood Bank (Blood Transfusion including Haemovigilance service)
- Haematology
- Microbiology
- Histology (including Cytology)

The examinations performed in each discipline, including sample requirements and expected turnaround times (TAT), are detailed in the Laboratory Test Repertoire (see Appendix 1). Test methodologies are approved by departmental consultants and all examination procedures have been independently verified/validated by the laboratory. INAB accredited activities, currently for Blood bank, Haematology, Microbiology & Histology only, are defined in the schedule of accreditation as detailed on the INAB website www.inab.ie – INAB registration number 222MT.

4.4.2. Emergency Out-Of-Hours Service

The Laboratory provides an on-call service for urgent requests during the times listed in **Table 2** above. The on-call service can be accessed outside normal hours by contacting Hospital Reception (dial 9 for internal call or 091-785000 from outside the hospital if required). Laboratory management provides an 'on-call list' to main reception on a weekly basis which provides the names and contact numbers of on-call personnel. In the rare event that the Medical Scientist on-call cannot be contacted after three unsuccessful phone attempts, hospital reception staff will then contact the Laboratory Manager. Refer to Appendix 2 Out of hours test list by laboratory department, for a list of laboratory examinations available out-of-hours. Consultant advisory services are also available out-of-hours where required.

Ref: Appendix 2. Out of hours test list by laboratory department.

4.4.3. Referral Testing Service

For examinations not carried out on site, including specialist examinations, the Galway Clinic laboratory selects and evaluates external laboratories, also known as referral laboratories. These include reference laboratories for specialist examinations and university hospital laboratories. A key requirement for a referral /reference laboratory is to be an accredited facility i.e., INAB or UKAS ISO 15189 accredited. Specimens are logged/recorded in the laboratory and pre-processed to ensure stability prior to referral. Tests that are referred and the referral location is identified on the Laboratory User Test List along with specimen requirements. The testing laboratory is always identified on the test report. Services offered but not carried out on site include:

- Biochemistry / Immunology tests
- Genetic Testing
- Specialised Virology & Serology
- Mycobacterium culture
- Specialised Haematology/ Coagulation
- Histology Breast specimens / Breast, Thyroid and Cervical Smear Cytology

4.4.4. Advisory Services

Clinical and Technical Advice and expertise are available from Laboratory Consultants in all laboratory disciplines, including off-site Laboratory Consultants where required. The consultants can be contacted through the appropriate laboratory department and will communicate with the users on the following:

a) advising on the choice and use of examinations, including required type of sample, clinical indications and limitations of examination methods; and the frequency of requesting the examination;

b) providing advice on individual clinical cases;

c) providing professional judgement on the interpretation of results of examinations;

d) promoting the effective utilisation of laboratory examinations;

e) advising on scientific and logistical matters such as instances of failure of sample(s) to meet acceptability criteria;

f) Proving other general clinical advice as required.

Advisory services are also available at referral laboratory sites through the laboratory, where required. If advice or a consultation is required with regard to any aspect of the Laboratory service please contact the laboratory staff, who will arrange for the appropriate person to consult with you as soon as possible.

Ref: GC-LAB-GEN-Q-P-016 Advisory services.

4.4.5. Phlebotomy Service

In-patient and out-patient Phlebotomy services are provided as follows:

4.4.5.1. In-Patient Phlebotomy Service

An in-patient phlebotomy service is provided to each unit, Monday to Friday and weekends/bank holidays. *Meditech*-generated labels and/or written Laboratory requests may be left for the phlebotomist at the Nurses Station on each unit.

4.4.5.2. Out-Patient Phlebotomy Service

An Out-Patient phlebotomy service is provided Monday to Friday (times stated in **Table 2**). An appointment is not required during this period, however in the interest of health and safety, due to restrictions in our waiting room space, we ask patients to book their appointment in advance, where possible. Patients must register at the Day-Care / Same-Day-Surgery reception desk. Examination requests are submitted via the *Meditech* ordering system to the phlebotomy department, specimen labels are generated and collected by the phlebotomist. All patients attending the Phlebotomy Service must produce a referral letter or request form from their referring doctor on arrival, for registration.

4.4.6. Haemovigilance Service

Haemovigilance is defined as a “set of surveillance procedures from the collection of blood and its components to the follow–up of recipients, to collect and assess information on

unexpected or undesirable effects resulting from the therapeutic use of labile blood products, and to prevent their occurrence" (National Haemovigilance Office, 2004). Reporting of adverse reactions and events has been viewed as part of professional responsibility and is based on a confidential anonymous reporting system.

The advent of EU directive (2002/98/EC) in February 2005 specifies:

a) That all serious adverse reactions and serious adverse events which are attributed to the quality and safety of blood components transfused will be captured and reported.

b) That all blood products are traceable from donor to recipient. This information must be available for thirty years. This will comprise of weekday surveillance procedures and involve the audit of the Haemovigilance process.

If you suspect a transfusion reaction, please contact either the Blood Transfusion Laboratory on extension 5683 or the Haemovigilance Officer / Deputy Haemovigilance Officer on DECT 5515 or DECT 5540 (out of hours).

4.4.7. Near Patient Testing Service / Point of Care Testing (NPT/POC)

A Near Patient Testing (NPT) or POCT device is defined as any device that is not intended for self-testing but is intended to perform testing outside a laboratory environment, generally near to, or at the side of, the patient by a health care professional. The current scope of NPT/POC in the Galway Clinic includes:

- Nova Biomedical Stat Sensor-i Creatinine meter
- Radiometer ABL90 FLEX Blood Gas Analysers
- Siemens Clinitek Status Analyser for Urinalysis
- DXpress™ Reader used for analysis of Urine hCG testing
- ACCU-CHEK® Inform II Glucose Monitoring System
- Nova Biomedical Statstrip Ketone Meter
- HEMOCHRON SIGNATURE ELITE Activated Clotting Time (ACT) analyser
- ROTEM Delta system for Thromboelastometry

When using NPT for clinical diagnostic purposes it is important that testing performed outside a central laboratory is assured of the same quality and standards and does not represent a patient safety risk. The day-to-day running and management of the NPT service is overseen by a Senior Medical Scientist / Near Patient Testing Coordinator who can be contacted through the Biochemistry Department on extension 5681. The governance of near-patient testing in the Galway Clinic comes under the Near-Patient Testing Steering Group.

The laboratory also provides an Intraoperative Parathyroid Hormone (IO-PTH) quantitative measurement near patient testing service. This procedure is recommended as an aid during surgery of hypersecreting parathyroid tissue. A medical scientist must be available to

provide the service so it must be booked in advance by completing the 'Laboratory Service Request Parathyroid Surgeries' form and emailing it to pointofcare@galwayclinic.com.

Ref: GC-LAB-GEN-MAN-P-016 Laboratory management of near patient testing.

4.5. Laboratory Personnel and Staffing

The Laboratory Department Team consists of the following personnel:

- Laboratory Director / Consultant Histopathologist
- Deputy Laboratory Director- Consultant Microbiologist
- Consultant Haematologists (off site)
- Consultant Histopathologists (both on & off site)
- Consultant Microbiologist onsite, Deputy Consultant Microbiologist offsite.
- Laboratory Manager
- Laboratory Quality Manager
- Chief Medical Scientist (CMS) in each Laboratory discipline
- Senior Medical Scientists (SMS) in each Laboratory discipline
- Laboratory IT/Meditech Specialist (SMS)
- Near Patient Testing (NPT/POC) Coordinator (SMS)
- Medical Scientists in each Laboratory discipline
- Medical Laboratory Assistants
- Laboratory Secretary
- Medical Transcriptionist
- MDM Coordinator

4.5.1. Associated Services

Associated Services include:

- Phlebotomy Team (Phlebotomy Manager and Phlebotomists)
- Haemovigilance Sister
- Infection prevention & control clinical nurse manager (IPC CNM)

4.5.2. Support Services

Laboratory Support Services within the hospital include:

- Accommodation / General cleaning
- Engineering

- Information Technology (including a Laboratory IT Specialist)
- Waste Management
- Materials management

5. Management of Information - GDPR & Confidentiality

5.1. Management of Information

Laboratory personnel have access to the data and information needed to provide a service which meets the needs and requirements of the user. It is the policy of the Laboratory Department to manage personal data and information with the highest degree of integrity, security and confidentiality. The laboratory abides by the hospital's current GDPR requirements. Results of Laboratory examinations which can be attributed to a specific patient are confidential, unless disclosure is authorised. Results will normally be reported to the requesting Clinician and may be reported to other parties (e.g., consultants / GPs etc.) who are involved in the patient's care, or as required by law.

The laboratory is responsible, through legally enforceable agreements, for the management of all patient information obtained or created during the performance of laboratory activities. Management of patient information in the laboratory includes privacy and confidentiality. The laboratory will inform the user and/or the patient in advance, of the information it intends to place in the public domain. Except for information that the user and/or the patient makes publicly available, or when agreed between the laboratory and the patient (e.g., for the purpose of responding to complaints), all other information is considered proprietary information by the laboratory & is regarded as confidential.

5.2. Laboratory Policy on Release of Confidential Patient Information

The laboratory will make relevant information available to a patient and any other health service provider at the request of the patient or the request of a healthcare provider acting on their behalf. The laboratory abides by a strict data protection & confidentiality policy based around current national GDPR regulations which includes the requirement for making relevant information e.g., laboratory test results available to the patient through their requesting clinician / health service provider, as required. Requests from patients & other healthcare providers are referred to the medical records department.

When the laboratory is required by law or authorized by contractual arrangements to release confidential information, the patient concerned will be notified of the information released, unless prohibited by law. Information about the patient from a source other than the patient (e.g., complainant, regulator) will be kept confidential by the laboratory. The identity of the source will be kept confidential by the laboratory and will not be shared with the patient, unless agreed by the source.

5.2.1. Access to Lab Results via the Blackrock Health Galway Clinic Patient Portal

Patients can access some results on the hospital online patient portal, see Section 17.4 Blackrock Health Galway Clinic Patient Portal, in this manual.

Ref: GC-LAB-GEN-Q-P-019 Data protection & confidentiality.

Ref: GC-LAB-GEN-Q-ED-292 ISO 15189:2022 Standard. Cl. 4. Confidentiality.

Ref: MR-GL-0021 Information needs & information dissemination (a hospital policy on Q Pulse).

Ref: MR-PPS-3 Medical records confidentiality privacy security of medical records information (a hospital policy on Q Pulse).

5.3. Laboratory Policy on Disclosure

The laboratory has in place processes to ensure, where appropriate, disclosure to patients, users and any other relevant persons of incidents that resulted or could have resulted in patient harm, and records of actions taken to mitigate those harms.

Ref: GC-LAB-GEN-Q-P-019 Data protection and confidentiality.

Ref: GC-LAB-GEN-Q-P-007 Non-conformance & CA.

Ref: QU-PPS-10 Disclosure and discussion of adverse events (a hospital policy on Q Pulse).

6. Aligning Laboratory Services with Requirements Regarding Patients & Clinical Need

6.1.1. General Information

Laboratory management aims to ensure that laboratory services, including appropriate advisory and interpretative services, meet the needs of the users including Clinicians, Nursing staff, and Patients. The Laboratory ensures that the users have the opportunity to provide helpful information to aid the laboratory in the selection of the examination methods, and the interpretation of the examination results. This is achieved by interacting with all users of the Laboratory Service in the following ways:

a) written or email correspondence between the users and laboratory management personnel;

b) direct meetings or telephone conversations with Hospital clinicians or through the Medical Advisory Committee (MAC) meeting;

c) ensuring that the Laboratory User Manual is available to all laboratory users on the hospital Q-Pulse system and publicly available to all lab users including patients on the Blackrock-Health Galway Clinic website; providing details on both the laboratory services and medical diagnostic tests provided;

d) issuing a laboratory user satisfaction survey to lab users on a regular basis in order to acquire feedback. Users are asked to rate their satisfaction with laboratory services (from poor to excellent);

e) making relevant information available to a patient and any other health service provider at the request of the patient or the request of a healthcare provider acting on their behalf;

f) upholding the rights of patients to care that is free from discrimination;

g) evaluating the need for any additional medical diagnostic testing when new services are introduced by the hospital;

The Laboratory has processes in place to ensure the following:

a) that all complaints and feedback (both positive and negative) is reviewed and the laboratory communicates with the users with the intention of continually improving the services provided;

b) that accredited referral laboratories or reference laboratories are selected for any required diagnostic testing that cannot be carried out on site.

c) that examinations offered by the laboratory are periodically reviewed by clinical & scientific personnel, to ensure they are clinically appropriate and necessary;

d) that patients and samples that have been submitted to the laboratory for examination, are treated with the utmost care and respect;

e) that the ongoing availability and integrity of retained patient samples and records is maintained.

The goal of the Laboratory Department is to ensure that our users receive accurate, reliable, meaningful and timely laboratory results. If users encounter any problems with the services or have suggestions for service improvement, please contact the laboratory using the telephone contact details in Table 2 or via internal post/email.

6.1.2. Requirements Regarding Patients

The patients' well-being, safety and rights are the primary considerations of laboratory services. In this context & in compliance with *ISO 15189:2022 Standard, Cl. 4.3 Requirements regarding patients* requirements, the laboratory has endeavoured to ensure that the following key information on laboratory services & activities are available for lab users, including the patient, in this lab user manual as defined in the table below:

Ref: GC-LAB-GEN-Q-P-053 Requirements regarding patients.

6.1.3. Impartiality in Laboratory Activities

The laboratory department is structured & managed in a manner to safeguard impartiality with processes established in the laboratory that do not allow for commercial, financial or other pressures to compromise impartiality.

Ref: GC-LAB-GEN-Q-P-052 Impartiality in laboratory activities.

6.1.4. Risk Management & Continual Improvement

Laboratory management are committed to risk management & continual improvement in laboratory service, having in place risk management & continual improvement processes as an integral part of its quality management system.

Ref: GC-LAB-GEN-Q-P-032 Risk management.

Ref: GC-LABN-GEN-Q-P-009 Continual improvement & quality monitoring.

6.1.5. Management of Clinical Samples

The laboratory has in place processes for the management of clinical /patient samples at all stages of the testing process from pre-analytical, to analytical to post analytical storage & final disposal requirements that ensure the treatment of patients, samples, or remains, with due care and respect.

Ref. GC-LAB-GEN-Q-P-020 Management of clinical material.

6.1.6. Service Contingency in the Event of the Closure, Acquisition or Merger

The laboratory has in place a service contingency plan which incorporates a plan for the management of clinical (patient) samples in the event of the closure, acquisition or merger of the laboratory, in line with hospital policies.

Ref: GC-LAB-GEN-Q-P-047 Service contingency & electronic systems downtime plan.

6.1.7. Delivery of Laboratory Services

The laboratory is committed to upholding the rights of patients & ensuring that laboratory activities are carried out in a manner that is free from discrimination, in line with hospital policies.

Ref: GC-LAB-GEN-Q-P-025 Ethics procedure.

Ref: GOV-GI-006 Galway Clinic Organisational Ethics GLD 6 (a hospital policy on Q Pulse).

7. Management of Complaints & User Feedback

7.1. Hospital & Laboratory Complaints System

The Laboratory encourages users to comment on their experience with the services provided. The hospital (including the laboratory) is committed to responding positively to all complaints or feedback received and regards this as an opportunity to improve the services offered. On admission to the hospital patients are made aware of a hospital online complaints system which is open to all patients & their families. The hospital complaints system is managed by the Nursing & Quality departments, who, as with the hospital user survey, inform laboratory management of any key feedback relating to laboratory, phlebotomy &/or haemovigilance services which require action

In addition, complaints can be made verbally or in writing by lab users to the Laboratory Manager or Quality Manager and the Galway Clinic complaints policy will be followed. Complaints are dealt with in the first instance by the Laboratory Manager/Quality Manager, the Laboratory Director or the hospital Quality Executive. Complaints may also be made by a requesting clinician on behalf of a patient (e.g., relating to a delay in the issue of a result). Each complaint is managed through the laboratory complaints procedure in place and is followed up with appropriate actions taken, where required.

7.2. Hospital & Laboratory User Feedback Systems

7.2.1. General

Feedback by patients & lab users' feedback is essential to the ongoing improvement in laboratory services. To enable this, the laboratory has in place patient & lab-users feedback systems aimed at encouraging/providing an opportunity for both patients and laboratory users to provide helpful feedback on laboratory services provided including the provision of information to aid the laboratory in the selection of the examination methods, and the interpretation of the examination results.

7.2.2. Laboratory User Survey

An annual lab user survey is issued to key laboratory users including requesting clinicians, nursing personnel & relevant allied health personnel who use laboratory services e.g., POC/NPT services. Survey focus is on enabling such personnel to provide feedback on key aspects of laboratory activities & services on behalf of themselves & their patients. Feedback from the survey is linked to continual improvement in laboratory activities & services to benefit patient-care.

7.2.3. eCemplicity Hospital Patient Survey

This easy to access online hospital survey is readily available to all patients, both in-patients & out-patients. The survey covers all hospital activities, including laboratory, phlebotomy & haemovigilance services. Patients are made aware of this hospital survey at time of admission & are encouraged to complete the survey & provide invaluable feedback on hospital services. Patients are encouraged to complete a 'patient satisfaction survey' during their stay in hospital and any issues pertaining to laboratory services are reviewed first by the hospital quality department and where relevant are forwarded to the Laboratory Manager/Quality Manager who follows up on any issues raised. Action taken based on /feedback provided is linked into the laboratory continual improvement process

Ref: GC-LAB-GEN-Q-P-010 User satisfaction evaluation.

Ref: GC-LAB-GEN-Q-P-008 Management of complaints, enquires & feedback.

8. Pre-Collection Information for Laboratory Examinations

8.1. Patient Registration

All patients must be registered on the Hospital Information System (*Meditech*) prior to presenting for phlebotomy or sending a request for any sample type to the laboratory. Where laboratory tests are requested by a Consultant in the Suites or a General Practitioner, a completed and signed request form must be provided to the patient and the patient should be instructed to attend the Day Care Reception desk (Ext. 5475/5477), adjacent to the Phlebotomy department, on the Ground Floor. The patient is then registered on *Meditech* and assigned a unique Medical Record (MR) number (if not previously registered). For new patients or existing patients, a GC account number is created for each visit and all tests requested are ordered against this number for billing purposes. *Meditech* specimen request labels are printed by Day Care Clerical personnel and provided to the phlebotomy department, where applicable.

Out-patients (defined as a patient who attends a unit and is discharged home on the same day) attending for Same-day-surgery, Interventional radiology, Day oncology outpatients and all In-patients (defined as a patient who is admitted to an overnight bed) are automatically registered through the Hospital admissions process in place.

Where a contract is established between the laboratory and an 'external customer' (e.g., another hospital / clinic); for samples/requests that are received directly into the laboratory from these sites, registration is carried out by laboratory personnel in either central reception or the relevant laboratory department.

Note: Registration is carried out in the laboratory in this scenario *only*.

Ref: ADM-GL-002 Registration & admission of inpatients and outpatients (a hospital policy on Q-Pulse)

Ref: GC-LAB-BIO-P-017 *Meditech* Biochemistry Specific Instructions.

8.2. Patient Consent

Requirements regarding patients include informing patients of the requirements to obtain informed consent for testing, when required for a specific test/examination request only. Consent is required for laboratory testing & the laboratory being aware of the patients right to be treated with dignity, respect & honesty & be involved in decisions about their health & wellbeing & ensure that processes are in place for obtaining informed consent from patients, when required or as relevant to the test to be performed only.

8.2.1. Inferred Consent

The laboratory obtains the informed consent of the patient for all procedures carried out on the patient. With the exception of 'test requests with specific requirements that require informed consent', the Galway clinic laboratory assumes '***inferred consent***' when the patient willingly submits to the sample collecting procedure, e.g., venepuncture. That is, where a patient presents e.g. in the phlebotomy department with a laboratory request form and willingly submits to the sample collecting procedure, consent for phlebotomy is implied. However, in some instances before proceeding with venepuncture, the procedure will be explained and *verbal consent* obtained. In the case of in-patients, the phlebotomist will ask the patient for permission, where appropriate.

Ref: ISO15189: 2022: Cl. 7.2.4.3. NOTE on inferred Consent.

8.2.2. Informed Written/Recorded Consent

Special procedures, including more invasive procedures, or those with an increased risk of complications to the procedure, may need a more detailed explanation and, in some cases, recorded consent, e.g., procedures carried out in Same-Day-Surgery, Radiological interventional procedures and Endoscopy. Such procedures may result in specimens being submitted to the laboratory for analysis. The doctor and the patient/ guardian must sign the approved 'Galway Clinic Consent Form' after satisfactory discussion of the proposed procedure with the treating Consultant.

Some laboratory examinations e.g., ***genetic testing***, require written consent to be obtained on a special consent form provided by either the Galway Clinic Laboratory or an external testing laboratory. If this is a requirement, it will be stated on the Laboratory User Test List. Such consent forms are available on Q-Pulse or directly from the laboratory.

In addition to consent, ***patient clinical details and family history information*** may also be required in order to interpret the examination results. Disclosure of this clinical information and provision of family history to relevant healthcare professionals at external locations may be required. This must be explained to the patient by clinical personnel where relevant. The patient should be fully informed prior to consent being obtained and the *signed consent form* must accompany the specimen when transported to the laboratory.

In the case of a ***blood transfusion,*** the patient is issued with a **Patient Information Leaflet** (GC-LAB-BT-HV-P-002) and verbal consent is obtained from the nurse or doctor.

Ref: GC-LAB-BT-HV-P-002 Ordering & administration of blood / blood products

Ref: GN-PPC-45 Obtaining consent to clinical treatment & procedures (hospital policy on Q Pulse)

8.2.3. Consent in Emergency Situations

Where obtaining consent is not possible in emergency situations, laboratory policy is to carry out necessary procedures, provided they are in the patient's best interest only, in line with the hospital policy on obtaining consent in emergency situations as outlined in the section on 'exceptions to the rule for obtaining consent' in the hospital policy on consent, i.e., GN-PPC-45 'obtaining consent to clinical treatment & procedures.

Ref: GN-PPC-45 Obtaining consent to clinical treatment & procedures (a hospital policy on Q Pulse).

8.3. Preparation of the Patient

For many laboratory examinations, no preparation is required, but for others, specific instructions must be followed prior to collection of the specimen in order to ensure the accuracy and reliability of the test result. A common preparation for the patient is fasting. Patients are sometimes required to fast for between 8-12 hours prior to sampling (e.g., fasting glucose, glucose tolerance test, fasting lipid profile). Other common patient preparation includes avoiding specific foods (e.g., for urine catecholamine levels), avoiding activity (e.g., blood renin levels), avoiding certain medications or supplements/vitamins etc.

Where special patient preparation is required, this will be stated in the test details on the Laboratory User Test List under the column entitled *'Special requirements at time of collection'*.

It is the responsibility of the person collecting the specimen to verify that the patient meets the pre-examination requirements *prior to* collecting the sample. If there is any doubt regarding preparation of the patient prior to collecting a specimen, please contact the laboratory for advice.

8.4. Positive Patient Identification

Determining the identity of the patient from whom a primary sample is collected is essential. In line with hospital policy, patients undergoing diagnostic or intervention procedures must be identified using the following *minimum* patient identifiers:

a) Full name (Name & Surname)

b) Date of Birth (DOB)

Positive patient identification is performed by asking the patient to state their name and date of birth (in the format DD/MM/YY) to the healthcare worker. This is an *active* procedure; this is not the same as the patient passively agreeing with information supplied by the healthcare worker.

Ref: QU-GI-003 IPSG1. Identify Patients Correctly (Hospital policy on Q-Pulse)

8.5. Special Requirements for Laboratory Tests / Examinations

Some laboratory tests may have special requirements, including the following:

- Samples to be collected at defined time intervals (e.g., Synacthen test, antibiotic levels)
- Sample to be transported to the laboratory on ice (e.g., Renin)
- Sample to be protected from light (e.g., Porphyrins)
- Requirement to contact the laboratory in advance (e.g., for less frequently requested tests)
- Written Patient consent required for specific testing
- Specific specimen labelling instructions
- Patient preparation required (see 7.3 above)

All such requirements will be stated on the Laboratory Test Repertoire (see Appendix 1) under '*Special requirements & Instructions'.* Please contact the laboratory if in any doubt or require advice on special instructions stated for a particular test.

In the case of examinations that are requested less frequently, the user will be directed to contact the Laboratory Central/Specimen Reception for details on specimen requirements. Requirements for such tests will not be listed and N/A (Not Applicable) will be stated in the columns. For rarely requested tests, it is the laboratory's policy to confirm the referral laboratory requirements immediately prior to collecting the specimen.

Ref: Appendix 1. Laboratory Test repertoire- (A-Z by Laboratory Department).

8.6. Dynamic Function Testing

Dynamic function tests (DFT's) involve either stimulating or suppressing a particular hormonal axis and observing the appropriate hormonal response. In general, if a deficiency is suspected a stimulation test should be used whilst if excess is considered likely, a suppression test is required. DFT's must organised with the Biochemistry laboratory (Ext. 5681) prior to commencing the test with the patient.

Ref: GC-LAB-BIO-I-002 Dynamic Function Test - Oral Glucose Tolerance Test

Ref: GC-LAB-BIO-I-005 Dynamic Function Test - Short Synacten Test

9. Requests for Providing Laboratory Investigations

9.1. General Information

All requests to the laboratory must be made through the use of the laboratory request forms or through *Meditech* EMR. Most tests can be ordered electronically by the users on the Hospital Information System – *Meditech*, with the exception of the Histology Department. Electronic requesting should be used to request examinations where it is available. All Laboratory examinations can be requested on a Laboratory Request Form which may also be used during electronic system downtime or for tests that are not orderable on the *Meditech* system. It is a requirement that the correct form is completed and accompanies the specimen when transported to the laboratory. Each request accepted by the laboratory for examination is considered an agreement. A completed request form *or* electronic request on *Meditech* serves as 'the agreement or contract' between the user and the laboratory to carry out the examinations/investigations.

It specifies the information needed on the request to ensure appropriate examination and result interpretation. Specimens labelled with a *Meditech* label do not require a completed paper request form. In this case the *Meditech* order is the electronic equivalent.

9.2. Requests for Providing Laboratory Investigations - General Principles

a) Each request accepted by the laboratory for examination(s) is considered an agreement between the requesting clinician on behalf of the patient & the laboratory for the provision of the test(s) requested.

b) The laboratory ensures that examination requests (paper or electronic on HIS/LIS-Meditech) are designed /formatted in a manner that will provide sufficient information to ensure the following:

- unequivocal traceability of the patient to the request and sample;
- identity and contact information of requester;
- identification of the examination(s) requested;
- informed clinical and technical advice, and
- that clinical interpretation can be provided.

c) The laboratory ensures that test / examination request information is provided in a format or medium as deemed appropriate by the laboratory and acceptable to the user, i.e., by electronic format i.e., order-comms on LIS-Meditech (lab-wide with the exception of Histology) or via paper-based test request forms in use by the histology laboratory.

d) Where necessary for patient care, the laboratory communicates with its users or their representatives, in order to clarify the user's request.

9.3. Information Required on the Test / Examination Request

The examination request should provide sufficient information to ensure unequivocal traceability of the patient to the request and sample. The paper request form and the *Meditech* EMR (Electronic Medical Record) Order Screen (electronic equivalent) allow space for the requester to include the following information:

a) Patient identification, including gender, date of birth, location/contact details of the patient and a unique identifier (MR number);
b) name of clinician, healthcare provider or other person legally authorised to request examinations or use medical information and the destination for the report and contact details;
c) type of primary sample and where relevant, the anatomic site of origin;
d) examinations requested;
e) clinically relevant information about the patient and the request, for examination and result interpretation purposes;
f) the date and, where relevant, time of primary sample collection;
g) the date and time of sample receipt. This is automatically recorded on *Meditech* during the electronic specimen receipt process (specimens with barcoded labels) or manually recorded on the request form and on *Meditech* by laboratory personnel.

9.4. Requests Accepted by the Laboratory

Request for examinations may be submitted to the Laboratory as follows:

a) By placing an electronic request in *Meditech* EMR and submitting the appropriate specimen to the laboratory. The specimen must be labelled with a *Meditech* Label, or in the case of Blood Transfusion, a *hand-held phlebotomy* label.
b) By completing a paper request form and submitting the appropriate specimen to the laboratory. The patient identification on the request form must correctly match the identification on the specimen.
c) Blood/Blood products may also be verbally requested where required, as long as confirmation by request form or electronic equivalent is received by the laboratory within a given time.
d) Users may also contact the laboratory by phone and verbally request *additional* testing on the original sample submitted, within a specified timeframe.

Table 4. Laboratory Request Forms In Use

Laboratory Department	Electronic Request (*Meditech Order-Comm*) or Paper Request Form	Q Pulse Document Number & Title	Tests / Examinations (Ref: GC-LAB-GEN-Q-F-072 Laboratory User Test list) Comment on Use
Blood Transfusion			
Blood Transfusion	Electronic Request (*Meditech Order-Comm*)	GC-LAB-BT-F-092 Electronic Request	All Blood Transfusion tests / examinations listed in Laboratory test list & Blood Products. **General Use:** primary method of ordering Tests/Blood Products throughout the Hospital.
Blood Transfusion	Paper Request Form	GC-LAB-BT-F-002 Blood Transfusion Request Form	All Blood Transfusion tests / examinations listed in Laboratory test list & Blood Products. **General Use:** routinely Used for Blood Product Requests from Theatre & areas without Meditech access.
Blood Transfusion / Haemovigilance	Paper Request Form	GC-LAB-BT-HV-F-012 Investigation of a Suspected Transfusion Reaction Form	Transfusion Reaction Investigation Profile **General Use.**
Haematology & Biochemistry			
Haematology	Electronic Request (*Meditech Order-Comm*)	GC-LAB-HAEM-F-116 Meditech Order Comms Electronic Request Form	All Haematology (including Coagulation) tests / examinations listed in Laboratory test list. **General Use:** and for specific (Coagulation and Thrombophilia screen tests)
Haematology	Paper Request Form	GC-LAB-GEN-Q-F-250 Blood Sciences Request Form	Includes all Haematology tests / examinations listed in Laboratory test list - tests specifically mentioned on the form are FBC, PT/INR, APTT, D-Dimer **General Use:** & areas without Meditech access. Exclusively used in periods of Meditech downtime order issues
Biochemistry			All Biochemistry (including Immunology and Endocrinology) tests / examinations listed in Lab test list. **General Use:** areas without Meditech access**.**

			Exclusively used in periods of Meditech downtime order issues
Microbiology			
Microbiology	Electronic Request (*Meditech Order-Comm*)	GC-LAB-MIC-F-120 Meditech Order Comms Electronic Request Form	All Microbiology (including Serology and Virology) tests / examinations listed in Laboratory test list. **General Use**, except meditech downtime**.**
Microbiology	Paper Request Form	GC-LAB-MIC-F-175 Microbiology Request Form	All Microbiology (including Serology and Virology) tests / examinations listed in Laboratory test list. **General Use** from some non-Meditech locations e.g., theatre & areas without Meditech access. -Used in downtime.
Histology			
Histology	Paper Request Form	GC-LAB-HIS-F-001 Histology & Cytology Request Form	All Histology / Cytology tests / examinations listed in Laboratory test list. **General Use.**

Note: The laboratory will cooperate with lab users or their representatives in clarifying the user's request and where there is any ambiguity, laboratory personnel will contact a member of the clinical team to ensure the correct request is processed.

Ref: GC-LAB-GEN-Q-P-046 Service Agreements

9.5. Completion of an Electronic Request on *Meditech* EMR

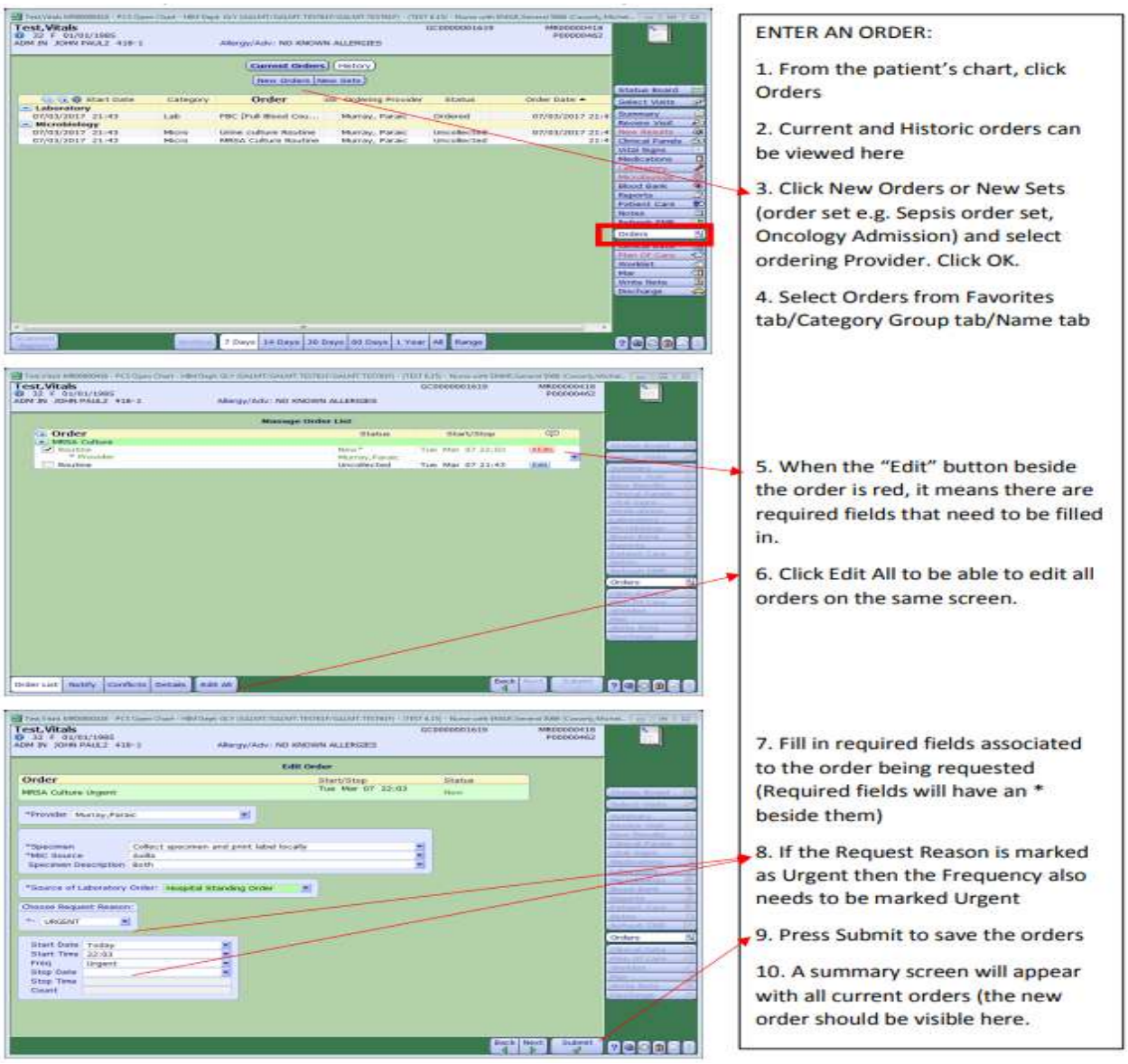
Electronic requests are placed on *Meditech* by trained clinical staff according to the instruction in the '*Meditech* Nurse Training Manual' (titled Patient Care System (PCS) Module Training / *Meditech*). This manual is electronically available at http://gcl1web03v2/TrainingManuals/MTMANUALnur.pdf.

Most laboratory tests can be requested electronically and can be searched for by selecting '*New orders* and then '*Name'* tab on the EMR ordering screen. The User can search for the test by entering the first letter of the test (under the '*Starts with'* tab) or by entering any word contained in the test name by using the '*Any word'* tab. The Laboratory User Test List provides the test names in full and common abbreviations, where relevant. If the test you

require is not listed on *Meditech*, please complete the correct paper request form and send it to the laboratory along with the appropriate specimen. For instruction on how to place Blood Transfusion electronic requests on *Meditech*, please refer to the Haemovigilance procedure 'Ordering and Administration of Blood/Blood products' available on Q-Pulse.

Ref: GC-LAB-BT-HV-P-002 Ordering and Administration of Blood / Blood Products

Figure 2: Entering an Electronic Request on *Meditech* EMR



When placing an electronic request, the mandatory information stated in section 8.5 below must be completed (where possible or relevant) in the appropriate fields on *Meditech*. Specific 'Clinical details' fields are included on the 'order entry' screens depending on the test requested e.g., blood transfusion, coagulation testing, and should be completed where relevant. Clinical details that are recorded elsewhere on the EMR e.g., in the Consultant progress notes, are available for look-up by the Medical Scientist. Clinical context is important for many laboratory examinations, especially for the provision of interpretative comments, therefore clinical details on the patient need to be available to laboratory personnel.

This information may be obtained by the Medical Scientist from the patient's EMR (during result review and authorisation) if not directly provided on the request, or may be sought verbally from clinical personnel before reporting, where required.

9.6. Completion of a Paper Laboratory Request Form

The proper completion of the request form is essential. Persons who request the laboratory examination of the specimen have the responsibility of ensuring that the form is correctly completed. The person collecting the specimen is responsible for ensuring that the container is properly labelled. The following information is *mandatory* and must be documented in a clear, legible manner on the request form:

a) Correct spelling of Forename (one forename is sufficient)
b) Correct spelling of Surname
c) Date of Birth
d) Medical Record (MR) Number (patient's unique identifier)
e) Date that the sample was collected
f) Time that the sample was collected
g) In the case of Blood Transfusion, Biochemistry and Haematology, the identity of the person who collected the sample e.g., a legible signature or the collector's Meditech ID code is required.
h) In the case of Histology and Microbiology specimens (and generally non-blood samples), the specimen type and anatomical site *must* be stated on the request form and the specimen. The signature of the Consultant doctor/clinician and the patient's GC number is also required in Histology.

Other additional information required on the request form:

i) Gender
j) Address
k) The fasting status of the patient
l) Name of the requesting clinician
m) Location (Unit/Clinic). Where the requesting clinician is at an external location, the postal address must be included

n) Date of procedure, if applicable
o) Priority of the request i.e., urgent or routine
p) The tests / examinations required
q) Blood products required and the date/time such products are required
r) Relevant clinical information appropriate to the test(s) requested must be supplied e.g., history of administration of drugs, relevant clinical history, blood transfusion history, special requirements i.e., CMV negative/irradiated blood products etc.

9.7. Urgent Requests

For urgent test requests the person ordering the test must clearly indicate this by ticking the ***Urgent*** box on the request form or in the *Meditech* EMR Order. In the case of all urgent requests for Blood Transfusion and *extremely urgent* requests for other departments, the relevant department should be contacted by phone to discuss requirements. Please note that overuse of the urgent service will adversely affect the turnaround time for all urgent tests.

9.8. Verbal / Oral Requests

The laboratory has a process in place for managing oral requests for examinations, where applicable & where specific criteria are met only, which includes the provision of documented confirmation of the examination request by the test requestor to the laboratory, within a given time. Verbal requests for additional or 'add-on' testing to the primary sample are acceptable from the test requestor within the specified timeframe for testing of the sample-type and where there is sufficient sample volume to do so. The Medical Scientist taking the verbal/oral request, e.g., by phone from the test requestor will record the identity of the person requesting the test and will then, if the additional test criteria are met, add the test request to the appropriate specimen on *Meditech*.

The Blood Transfusion laboratory has a documented procedure concerning verbal requests for blood/blood products. *The requesting doctor must retrospectively place an electronic request or send a written request within a set time period of 24 Hours.*

Ref: GC-LAB-GEN-Q-P-046 Service agreements.

Ref: GC-LAB-BT-P-006 Management of blood / blood products.

10. Primary Sample Collection & Handling

10.1. General Information

The laboratory has in place processes and procedures for the collection and handling of primary samples to ensure that:

- Any deviation from the established collection procedures is clearly recorded.
- The potential risk and impact on the patient outcome of acceptance or rejection of the sample is assessed, recorded and subsequently communicated to the appropriate personnel.
- The laboratory periodically reviews requirements for sample volume, collection device and preservatives for all sample types in order to ensure that neither insufficient nor excessive amounts of sample are collected, and that samples are properly collected to preserve the analyte. This periodic review occurs at annual management review per laboratory department or as required, e.g., @ the time of major change.

Ref: GC-LAB-GEN-Q-P-014 Management review.

10.2. Information for Pre-Collection Activities

Information and instructions for pre-collection activities are provided in this manual in sufficient detail to ensure that the integrity of the sample is not compromised.

As outlined in this section, information for lab users & patients on pre-collection activities includes the following:

a) preparation of the patient (e.g., instructions to caregivers, sample collectors and patients);

b) type and amount of the primary sample to be collected with descriptions of the containers and any necessary additives, and when relevant the order of collecting samples;

c) special timing of collection, where relevant;

d) provision of clinical information relevant to, or affecting sample collection, examination performance or result interpretation (e.g., history of administration of drugs);

e) sample labelling for unequivocal identification of the patient, as well as source and site of sample, and labelling, when several samples from the same patient are to be collected, including multiple pieces of tissue or slides;

f) the laboratory's criteria for acceptance and rejection of samples specific to the examinations requested.

10.3. Instructions for Collection Activities

In order to ensure safe, accurate and clinically appropriate sample collection and pre-examination storage, the laboratory provides instructions in this manual for the following:

a) verification of the identity of the patient from whom a primary sample is collected;

b) verification and when relevant, recording that the patient meets pre-examination requirements [e.g., fasting status, medication status (time of last dose, cessation), sample collection at predetermined time or time intervals];

c) collection of primary samples, with descriptions of the primary sample containers and any necessary additives, as well as the order of sample collection, where relevant, provided both on the lab test list & as part of the Meditech order-comm for tests ordered on Meditech;

d) labelling of primary samples in a manner that provides an unequivocal link with the patients from whom they are collected;

e) recording of the identity of the person collecting the primary sample and the collection date, and, when relevant, recording of the collection time;

f) requirements for separating or dividing the primary sample when necessary;

g) stabilization and proper storage conditions before collected samples are delivered to the laboratory;

h) safe disposal of materials used in the collection process.

Ref: Appendix 1. Laboratory Test repertoire- (A-Z by Laboratory Department).

Ref: GC-LAB-PB-POL-002 Venepuncture policy.

10.4. Specimen Collection Containers

10.4.1. Blood Collection Bottles

The blood collection containers in use in the Galway Clinic are vacuum collection tubes/bottles which uses a system of drawing blood from the patient to the vacuum blood collection tube. The plastic collection tubes are virtually break resistant, thus helping to protect healthcare personnel from injury and exposure to bloodborne pathogens. The colour-coded cap features an integrated shield that prevents human contact with blood on the stopper or tube rim and effectively guards against blood splatter and splashing. Each colour-coded tube contains different preservatives, anti-coagulants or gel-separator barriers required to provide a high-quality specimen appropriate for analysis.

Refer to the Appendix 1. Laboratory Test repertoire- (A-Z by Laboratory Department)-for information on the correct colour-coded bottles to use for a specific examination. Where a test /examination is ordered electronically on *Meditech*, the cap colour of the container

required for blood collection will be indicated on the *Meditech* label and/or the *Phlebotomy Handheld device* and generated label. See **Figure 3** for tube guide and order-of-draw.

10.4.2. Blood Culture Bottles

BACT/ALERT® SA (colour-coded blue/aerobic) and BACT/ALERT® SN (colour-coded purple/anaerobic) culture bottles are used with BACT/ALERT® Microbial Detection System in use in the laboratory. The system is used for the recovery and detection of aerobic microorganisms (bacteria and fungi) and anaerobic and facultative anaerobic microorganisms (bacteria) from blood and other normally sterile body fluids.

Figure 3: Aerobic and Anaerobic Blood Culture Bottles

10.4.3. Order of Draw for Blood Specimen Collection

It is recommended that when blood is collected for several analyses from a single venepuncture, that the sequence outlined in **Figure 3** is followed. If the order of draw is not followed, there is a chance that there could be additive carryover from one tube to the other and this could alter the test results.

Figure 4. Blood Collection Bottle Guide and Order-of-Draw

Cap Colour	Sample Type	Determinations	Laboratory Dept
	Blood Culture Bottles	Blood samples should be taken in the following order **after blood cultures** (Aerobic & Anaerobic Blood Culture Bottles)	Microbiology
	Sodium Citrate (Light Blue)	Coagulation testing: INR, APTT ratio, thrombophilia screen, coagulation studies, D-dimers	Haematology
	ESR (Black)	ESR	Haematology
	Non-Gel Serum (Red)	Chromogranin A, Methotrexate, Vitamin A, Vitamin E, Vitamin K	Referral - Biocemistry
	Serum Gel (Yellow)	HCG, TFTs, Vitamin D, Osmolality **Haematinics** - B12, Ferritin, Folate, Iron profile **Tumour Markers** - CEA, CA199, CA153 **Serology** - Hepatitis B and C, HIV **Antibiotics** - Vancomicin, Gentamicin, Amikacin, Tobramycin	Biochemistry
		Fertility hormones, Cortisol, PTH AFP, β HCG, ACE, Amyloid A, Lipase, Thyroid Abs, FT3, Calcitonin, C-Peptide, Pro Insulin, Insulin, GH, IGF-1, Infliximab, Ethanol (Alcohol), Paracetamol, Salicylate Carbamazapine, Phenytoin, Phenobarbitone, Valproic Acid, Theophylline, Digoxin, Lithium	Referral - Biochemistry
		ANA and tissue Abs, ANCA, Allergy testing (RAST), Total IgE, Tryptase, SPEP, Immunoglobulin GAM, IgG subclasses, RF & CCP, Ceruloplasmin, A1A, Autoimmune Abs (See Test user list), Complement proteins	Referral - Immunology
		EBV, CMV IgG/IgM, Hep A IgG/IgM, Hep E IgG, Hep E IgM, Leptospirosis IgM	Referral - Microbiology
	Lithium Heparin (Green)	Renal profile, Liver profile, Bone Profile, Lipid Profile, Troponin, CK, CRP, Amylase , Uric Acid, Bicarbonate. DPD testing- must contact lab **before** collection	Biochemistry
	EDTA (Purple)	FBC, Reticulocytes, Film, Monospot	Haematology
		HbA1C, BNP	Biochemistry
		Homocysteine, ACTH, Renin, Aldosterone, Ammonia, Catecholamines, Chromogranin B (requires special EDTA Aprotinin tube-contact lab), Metanephrines, TPMT Activity, Tacrolimus, Cyclosporin, Vitamin B1, Vitamin B2, Vitamin B6	Referral - Biochemistry
	Crossmatch (Pink)	Crossmatch, Group & Screen, DAT	Blood Transfusion
	Fluoride Oxalate (Grey)	Glucose	Biochemistry
	Trace Element (Navy)	Trace metals including zinc, aluminium, copper, chromium, cobalt selenium and manganese	Referral - Biochemistry

Ref: GC-LAB-GEN-Q-ED-133 BD Tube guide and recommended order of draw.

Ref: GC-LAB-PB-POL-002 Venepuncture policy.

10.4.4. Urine Collection Containers

Please see **Figure 4** for the correct collection container to use. Some tests require the urine to be collected in a container with a special preservative. This additive may be in either liquid or powder form and is used to ensure the stability of the test substance in the sample during transport or storage. It is important that the additive is not discarded and that the

container is not interfered with in any way. Containers for collection of 24-Hour Urine specimens and for urine cytology examination must be requested directly from the Laboratory Central Reception on Ext. 5699 or the Histology Laboratory on Ext. 5670 when required. Some urine containers with additives are not prepared in advance so please contact the laboratory where required e.g., 24 Hour containers. Refer to the Lab User Test List for information on the correct container to use for each examination.

10.4.5. Investigation of Faecal Samples

Faeces should be collected into a sterile blue-capped container (with scoop) for investigation of gastrointestinal pathogens. In the case of 24-Hour faecal porphyrins, a plain (no additive) 24-Hour urine container may be used. See **Figure 4**.

Ref: GC-LAB-MIC-I-024 Microbiology laboratory specimen containers and requirements.

10.4.6. Swabs

Swabs collected in Amiens transport medium are required for bacterial culture and may be obtained from Stores/Materials Department. Nasopharyngeal swabs for COVID/Influenza testing should be taken in viral swabs with UTM. These swabs are available from the Microbiology Department. Please refer to Appendix 1.3 Microbiology Test repertoire and the laboratory instruction below for the appropriate type of swab to be used for specific investigations.

Ref: GC-LAB-MIC-I-024 Microbiology laboratory specimen containers and requirements.

10.4.7. Histology/ Cytology Specimen Containers

Please refer to the Lab User Test List and the laboratory instruction below for the appropriate container for histology/cytology specimens. Where indicated on the User Test list, please contact the Histology laboratory in advance to obtain the specimen container required for specific tests.

Figure 5: Urine/Faeces Collection Container Guide

Container	Additive	General Laboratory Use
 **Red / Universal 20 mL**	Boric Acid	Urine microscopy and culture, *Legionella* and *Streptococcus pneumonia* antigen
 **White / Universal 20 mL**	No additive / Sterile	Random urine specimen for biochemistry testing that does not require a preservative
 **White 50 mL**	No additive	Random urine specimen for biochemistry testing that does not require a preservative
 **Red-top centrifugal container**	10mls of *PreservCyt* fixative.	Urine for Cytology / contact Histology Laboratory Ext: 5670 for this container
 **24-Hour Urine Collection Container**	Causes serious eye damage and skin irritation  **Contains HCl or NaOH**	**<u>24 HR-Acid</u>** <u>(HCl):</u> Catecholamines, metanephrines, calcium **<u>Alkaline</u>** <u>(NaOH):</u> Oxalate, urate **** Request & Collect container from Laboratory***
	Plain container No additive	**<u>24 HR-Plain</u>**: Cortisol, DHEA, myoglobin, phosphate, potassium, sodium, creatinine, protein, BJP. May also be used for 24 Hr Faeces collection **** Request & Collect container from Laboratory***
 **Blue-cap container with scoop**	No additive	**Faeces:** Investigation of gastrointestinal pathogens, *C. difficile*, Norovirus, Faecal Occult Blood (FOB), Ova, cysts and parasites, *Helicobacter* antigen

10.4.8. Blood Gas Sampling Syringe (Near Patient Testing)

For arterial samples a *Radiometer safe*PICO® self-fill aspirator with a *safe*TIPCAP® containing an integrated mixing device and balanced lyophilised heparin (product code: 956-615) is recommended. For venous blood samples a *Radiometer safe*PICO aspirator with a *safe*TIPCAP containing an integrated mixing device and balanced lyophilised heparin is recommended (product code: 956-622). The syringe contains a built-in mixing ball and dry electrolyte-balanced heparin and mixing of the sample is facilitated using the mixing station on the Radiometer ABL instrument. Proper mixing will ensure a clot-free, homogeneous sample.

Figure 6. *Radiometer safe*PICO® Blood Gas Syringe and *safe*TIPCAP®

10.5. Supply and Storage of Specimen Collection Containers and Request forms

Request forms and most specimen containers in use are supplied to the users by the Hospital Materials Management department/Stores. In the case of special collection containers, the laboratory department should be contacted directly, as indicated in Appendix 1. Laboratory Test repertoire. Please order supplies well in advance to facilitate timely delivery. Specimen collection containers should be stored so as to maintain the items in a manner that prevents damage or deterioration. Staff in clinical areas should ensure that local stocks are replenished regularly and that the expiry dates are checked regularly.

Refer to the Appendix 1. Laboratory Test repertoire for swabs and other specialised collection containers available from the laboratory.

Ref: Appendix 1. Laboratory Test repertoire- (A-Z by Laboratory Department).

11. Collection of Specimens

11.1. General Guidelines

Refer to the Appendix 1. Laboratory Test repertoire for a list of tests available, the specimen required, special requirements and other information regarding specimen collection.

Specimens for some tests must be collected when the patient is fasting or with knowledge of when food was last taken e.g., glucose (fasting and/or 2 hours post prandial). Some tests must be collected in the basal state or with due regard to diurnal variations e.g., cortisol, ACTH. Some tests may be performed *only* after prior arrangement with the laboratory. Any special requirements for a test will be stated on the Lab Test Repertoire, however if there is any doubt regarding test requirements, the appropriate laboratory department should be contacted. Adequate privacy during reception and sampling should be available and appropriate to the type of information being requested and primary sample being collected.

The person who collects the specimen must ensure that the container is appropriate, properly closed and is not externally contaminated by the contents. All samples must be placed in plastic biological hazard type bags and transported in specimen carriers so as not to present a risk to anyone coming in contact with them during transport.

Ref: Appendix 1. Laboratory Test repertoire- (A-Z by Laboratory Department).

11.2. Collection of Blood Samples

It is important that Hand Hygiene is performed prior to commencement of venepuncture. The patient should be greeted and the phlebotomist / nurse / doctor must identify themselves and indicate the procedure that will take place. Patient consent should be obtained where required. Positive patient identification is *mandatory*. It is the responsibility of the collector to verify that the patient meets the requirements for the testing to be undertaken e.g., fasting status, medication status, pre-determined time for specimen collection, etc. All samples collected must be collected in the correct Order of Draw and inverted gently 8-10 times to ensure proper mixing of additive or anticoagulant. All collection tubes must be filled with the required volume and expired tubes should not be used. Please refer to the phlebotomy venepuncture policy for instruction on collection of blood samples. Refer to the Phlebotomy Handheld procedure for collection of specimens using the handheld devices and label printers.

Ref: GC-LAB-PB-POL-002 Venepuncture policy.

Ref: GC-LAB-IT-P-001 Phlebotomy handheld procedure.

Ref: GC-LAB-PB-F-007 Phlebotomy Guideline: Patient Identification Checks.

Ref: GC-LAB-PB-I-006 Phlebotomy Guideline: Vein Selection**.**

11.3. Collection of Blood Cultures

Care must be taken to prevent contamination during both bottle preparation and inoculation of the patient sample. Proper skin disinfection is an essential requirement to reduce the incidence of contamination. Obtain blood samples prior to initiating antibiotic therapy. If this is not possible, draw blood immediately before administering the next antibiotic dose. If collecting blood for other tests, *always* inoculate the blood culture first.

Ref: GC-LAB-PB-I-005 Phlebotomy Guideline: Taking Blood Cultures

Ref: GC-LAB-PB-POL-002 Venepuncture policy.

11.4. Collection of Random Urine Specimens

A mid-stream specimen of urine (MSU) should be collected where possible. Patients should be instructed to void a little urine into the toilet first then pass enough urine into the red top urine container to the fill line and finish urinating into the toilet. Never obtain urine from a bedpan or commode. Freshly voided urine collected into a universal container should be sent to the laboratory without delay. Urine specimens collected into a boric acid container (red-top) are acceptable for culture & sensitivity, microscopy, legionella antigen and pneumococcal antigen testing.

Urine specimens that are received in plain universal containers (white-top) that are older than 48 hours or urine specimens that are received in boric acid containers (red-top) and are more than 96 hours old are unsuitable for culture and will be rejected.

A plain white-top container should be used for random biochemistry analyses e.g., osmolality, electrolytes.

Ref: Appendix 1. Laboratory Test repertoire- (A-Z by Laboratory Department).

11.5. Collection of 24-Hour Urine Specimens / Patient-collected Samples

Specific requirements relating to the measurement of individual urine analytes is given in the Lab User Test List. In some cases, urine is required to be collected over a 24- hour period. It is important that the correct specimen container is used and that the instructions provided by the laboratory are carried out with care, otherwise the results of the test will be invalid. When a 24-Hour specimen container is provided by the laboratory to the patient, it is always accompanied by an instruction leaflet (GC-LAB-BIO-I-012). Please ensure that the container is correctly labelled and includes the start time and finish time of the collection period, before bringing the specimen to the laboratory.

Ref: GC-LAB-BIO-I-012 Collection Instructions for 24 Hour Urine [Patient].

11.6. Collection of Histology/Cytology Specimens

For biopsies and smaller specimens, the pre-filled Formalin 60mL '*HistoPot*' should be used. When selecting the container size for larger specimens, the user must ensure that the specimen container is large enough to allow the specimen to be immersed in at least twice its own volume of formalin. Containers must not be overfilled. The lid must be securely closed to prevent spillage. The request form and specimen containers must have a radioactive label where relevant. Please refer to Appendix 1.4, Histology Lab Test Repertoire for any additional requirements.

Ref: Appendix 1.4. Histology Test repertoire.

11.7. Collection of Microbiological Specimens

Where possible, microbiological specimens should be collected prior to the administration of antimicrobial therapy. Care should be taken to limit contamination from indigenous microbial flora to ensure that the specimen will be representative of the infective site. An adequate amount of specimen should be collected using sterile equipment and aseptic technique to prevent introduction of foreign microorganisms. Inadequate amounts may yield false-negative results.

Fluid specimens requiring a microscopy/cell count, should have an aliquot of fluid taken into an EDTA blood tube to prevent clotting of the fluid and ensuring a cell count can be performed.

The specimen source and/or specific site must be identified correctly so that proper culture media will be selected during processing in the laboratory. Tissue specimens submitted in formalin preservative are unsuitable for culture.

Ref: Appendix 1.3. Microbiology Test repertoire.

11.8. Disposal of Waste Materials used in Specimen Collection

All materials used in specimen collection should be treated as potentially hazardous and discarded using 'sharps' containers and other appropriate colour coded bags, as per current hospital guidelines on waste management.

Ref: FM-GL-006 Guideline on waste management and hazardous materials (hospital policy on Q-Pulse).

12. Labelling the Primary Specimen Container

12.1. General Labelling Requirements

In order to protect patients from adverse errors made due to improperly labelled specimens, laboratory policy demands that proper labelling criteria set out in this section are always met.

The person that collects a specimen from a patient for laboratory analysis is responsible for establishing the identity of both the patient and the specimen(s) at the time of collection. Patient identification must be verified immediately before any specimen collection procedure. Specimens MUST be labelled in the presence of the patient and in such a manner that provides an unequivocal link with the patient from whom they are collected. A label, or any other information, should ***never*** be placed on the lid of the primary specimen container.

Ref: Appendix 1. Laboratory Test repertoire- (A-Z by Laboratory Department).

12.2. Essential Specimen Labelling requirements

When labelling specimens, the following information is *mandatory*: -

a) Patient's Full name (Forename & Surname)

b) Patient's Date of Birth

c) Patient's unique Medical Record (MR) number

d) Date and Time that the specimen was collected

e) Identity of the collector i.e., legible signature (required for Blood Transfusion specimens)/initials or *Meditech* ID code

Note: For blood samples taken using hand-held phlebotomy, the collector's Meditech user mnemonic & time of collection automatically populates on Meditech. However, to date, hand-held phlebotomy is in use by the Phlebotomy department only. All other hospital departments / units (e.g., ER / ICU etc) where hand-held phlebotomy is not yet in use must manually write / transcribe their Meditech mnemonic & collection time on the Meditech label. Specimen type and anatomical site, specifically for histology, non-gynaecological cytology and microbiology specimens.

f) Where there are multiple histology specimens from the same operative procedure each specimen is designated a letter "A", "B", etc. Each specimen must be listed with a *precise description* of the anatomic site.

Note: All patient samples must be labelled at the bedside or point of collection. This is to prevent misidentification and labelling errors.

12.3. Use of Addressograph Labels

Addressograph Labels are *not permitted* on samples for examination by the Blood Transfusion laboratory. Blood Transfusion specimens with addressograph labels will *not* be processed.

For all other laboratory departments, addressograph labels may be used, but must be affixed in a neat manner so they remain legible and do not obstruct opening of the specimen container lids.

Additional information, not contained on the addressograph label, such as date and time of specimen collection, the identity of the collector and the anatomical site (including qualifier i.e., Right or Left) in the case of histology and microbiology specimens, *must* be handwritten legibly on either the addressograph label or on the specimen container label to fulfil labelling requirements set out in section 11.1 & 2.

12.4. Handwritten Labelling

Where samples are labelled by handwriting the specimen label, the mandatory requirements in section 11.1 & 2 above should be written in a clear legible manner on the specimen container label, *never* on the lid. Ensure that there is no smudging of ink and that the handwriting is easy to read. Note that over-writing is *not* permitted.

In the case of Histology specimens, the specimen site *must* be specified on both the request form and on the container. Abbreviations of the terms 'left' or 'right' is not acceptable when labelling histology specimens, this must be written clearly and in full as per the hospital policy on abbreviations.

All specimens must be received with an accompanying legible request form containing the required information. The detail on the request form and the specimen container (not the lid) must match. In the case of multiple samples on a case, each part must be clearly identified as to the site and nature of the specimen.

Ref: MR-PPS-002 Diagnosis codes procedure. Codes, symbols, abbreviations and definitions (Hospital policy on Q-Pulse)

12.5. Labelling Samples with a *Meditech*-generated/ Electronic Request Label

When a request is ordered on *Meditech*, a specimen label is generated for each required specimen. This label contains the following information:

a) Patient's Surname and Forename

b) MR number (unique ID)

c) Date of Birth

d) Gender

e) Patient location

f) Requesting clinician

g) Specimen ID encoding the specimen date in the format MMDD, the specimen prefix letter (denotes specimen type) and specimen number e.g., 0718:C00012R

h) A 6-digit specimen number/barcode number

i) Specimen type, including colour code of the collection container

j) Test(s)/Examination(s) requested

k) A barcode – encoding specimen details

l) Space to record identity of collector and specimen collection time

When labelling blood specimens, the Meditech label *must* be affixed with the longest part of the barcode parallel to the bottle as shown in **Figure 6**. The barcode must be straight and not marked/written over to enable an accurate read by the analyser barcode readers. Failure to affix the label correctly may cause sample read errors during processing and may result in delayed analysis of the sample. Do not obscure the 'window' on the side of the tube as this is required by laboratory staff to check the sample volume and to perform visual quality checks.

Note: it is a requirement that all samples collected for Blood Transfusion examinations must either be handwritten clearly and legibly as in section 11.4 **or** must be labelled with a barcoded label printed ONLY from a handheld phlebotomy device (see 11.6). A *Meditech*-generated label is NOT permitted for blood transfusion specimens.

12.6. Labelling Samples with a Label Printed from a Handheld Phlebotomy Device

The hospital is currently implementing an IT-led hospital-wide handheld phlebotomy system on a phased basis. This system can be used for all laboratory samples, with the exception of histology/cytology which must be labelled in handwriting **or** labelled with an addressograph label. When collecting specimens using a handheld phlebotomy device, labels are generated at the bedside and printed on a handheld printer.

Ref: GC-LAB-IT-P-001Phlebotomy handheld procedure.

Ref: GC-LAB-GEN-Q-ED-131 Meditech Expanse Phlebotomy User Guide.

Figure 7: Correct position of *Meditech* labels on Blood Collection Bottles

13. Packaging of Specimens for Delivery to the Laboratory

13.1. Packaging Specimens for Transport from Within the Hospital

It is the policy of the Laboratory to treat all specimens as potentially infectious. All infectious substances are assigned to Dangerous Goods Class 6, Division 6.2. It is advised to take universal precautions in the collection, packaging and the delivery of specimens being sent to the laboratory for analysis. During transport, infectious substances must be contained in a triple-layer packaging system, as outlined below: -

a) The labelled primary container containing the specimen (first layer) for examination should be placed in ***a biohazard bag*** (second layer).

b) The completed request form, where required, should be placed into the pocket of the bag.

c) The correct specimen container and laboratory request form must always be used when sending specimens to the laboratory.

d) It must be ensured that the container is appropriate for the purpose, is properly closed, and is not contaminated on the outside.

e) For transport via the chute, the biohazard bag containing the specimen is placed into ***'a pod'*** (third layer) or safely delivered by hand, preferably using a transport box/tray.

f) The secondary sealed biohazard bag and transportation container prevents the contamination of other containers, request forms, the hands of the specimen receptionist and the immediate environment.

13.2. Packaging of Specimens Transported from Outside the Hospital

It is essential that the packaging used to contain infectious substances during transport is of good quality and is strong enough to withstand the challenges of movement, vibration, temperature, humidity and pressure that may be encountered. All specimens must be packed and transported in accordance with the European Agreement concerning the International Carriage of Dangerous Goods by Road (UNADR) and in compliance with the WHO Guidance on regulations for the Transport of Infectious Substances as indicated.

13.2.1. Diagnostic Specimens / Category A (High Risk)

If the patient specimen contains biological agents capable of causing disease, it is defined as an infectious substance. An infectious substance is classified as Category A if it is transported in a form that, when exposure to it occurs, could cause permanent disability, life-threatening or fatal disease[2]. The UN number and proper shipping name for most shipments of Category A infectious substances is UN2814, Infectious substance affecting humans, Category A. Samples must be transported in accordance with the Dangerous goods

regulations- Packing Instruction 620. The packaging should consist of three components with the following stipulations:

13.2.1.1. The Primary Specimen Container

The primary container (or the secondary packaging) must be capable of withstanding a pressure differential of not less than 95 kPa, as well as temperatures in the range of - 40 °C to +55 °C. The lid on the primary specimen container must be properly sealed to prevent leakage and should be appropriately labelled as to its contents. If screw caps are used, they should be secured by positive means (e.g., paraffin sealing tape). If the infectious substance is in a liquid or semi-liquid form, the primary receptacle must be wrapped in enough absorbent material to absorb all the fluid in the event of a breakage or leakage.

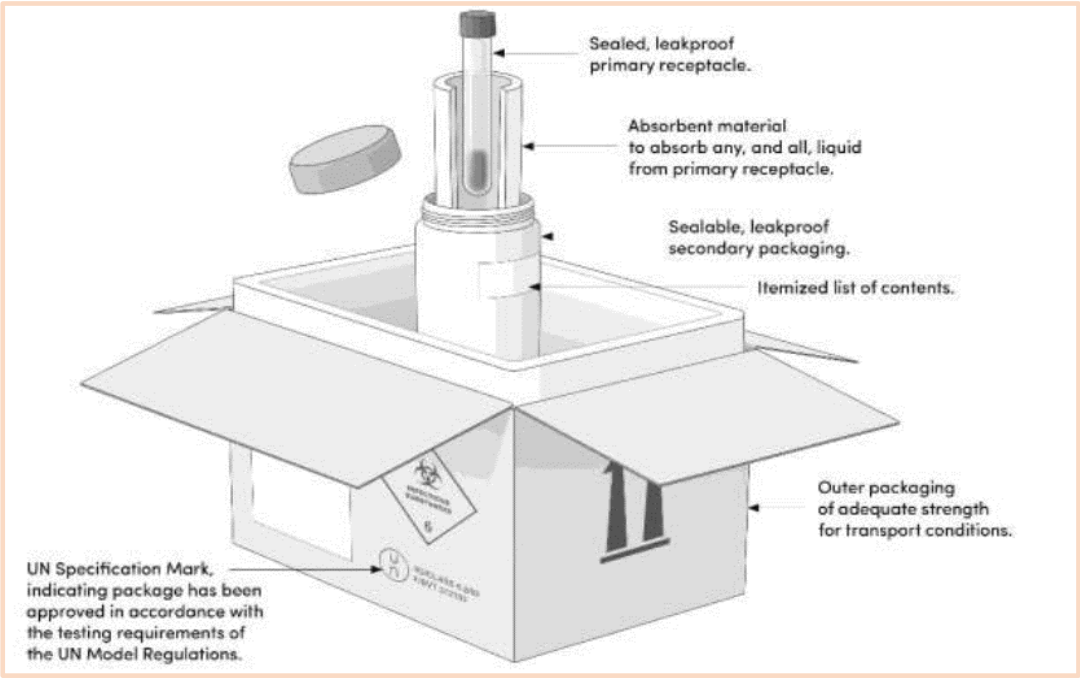
13.2.1.2. A Second Watertight/Leakproof Packaging

This packaging is required to enclose the primary specimen container and as stated above, either the primary receptacle *or* this secondary packaging must be capable of withstanding a pressure differential of not less than 95 kPa, and temp. in the range of - 40 °C to +55 °C.

13.2.1.3. A Third Outer Layer of Packaging

This is used to protect the secondary packaging from physical damage while in transit. It must be rigid and the smallest dimension of the package should not be less than 100 mm.

Figure 8: Packaging a Diagnostic Specimen (Category A/High Risk) for Transport



The request form should be placed between the secondary packaging and outer layers of packaging. The package must be labelled *"Suspected Category A infectious substance"* and the pathogen identified, where possible. The package must contain the label "UN2814 Infectious substance affecting humans". The name, address and contact number of the destination laboratory must be clearly legible on the outer packaging.

Packaging that has been manufactured and approved in accordance with the UN model regulation are provided by the laboratory on request. A licensed courier must be used for the transport of known or suspected infectious specimens.

13.2.2. Diagnostic Specimens / Category B

Infectious substances are subclassified as Category B when they contain biological agents capable of causing infection, but NOT meeting the criteria for Category A, i.e., the consequences of an infection are not considered severely disabling or life-threatening[2]. The UN number and proper shipping name for most shipments of Category B infectious substances is UN 3373, Biological substance, Category B. Samples must be transported in accordance with the Dangerous goods regulations- Packing Instruction 650. The packaging should consist of three components:

13.2.2.1. The Primary Specimen Container

The lid on the primary specimen container must be properly sealed to prevent leakage and should be appropriately labelled as to its contents. If screw caps are used, they should be secured by positive means (e.g., paraffin sealing tape). If the infectious substance is in a liquid or semi-liquid form, the primary receptacle must be wrapped in enough absorbent material to absorb all the fluid in the event of a breakage or leakage. Either the primary container *or* secondary packaging must be capable of withstanding an internal pressure of 95 kPa (0.95 bar).

13.2.2.2. A Second Watertight/Leakproof Packaging

This packaging is required to enclose the primary specimen container and must be capable of withstanding an internal pressure of 95 kPa (0.95 bar) unless this is fulfilled by the primary specimen container. If the outer packaging is soft e.g., a jiffy bag, then this packaging must be rigid.

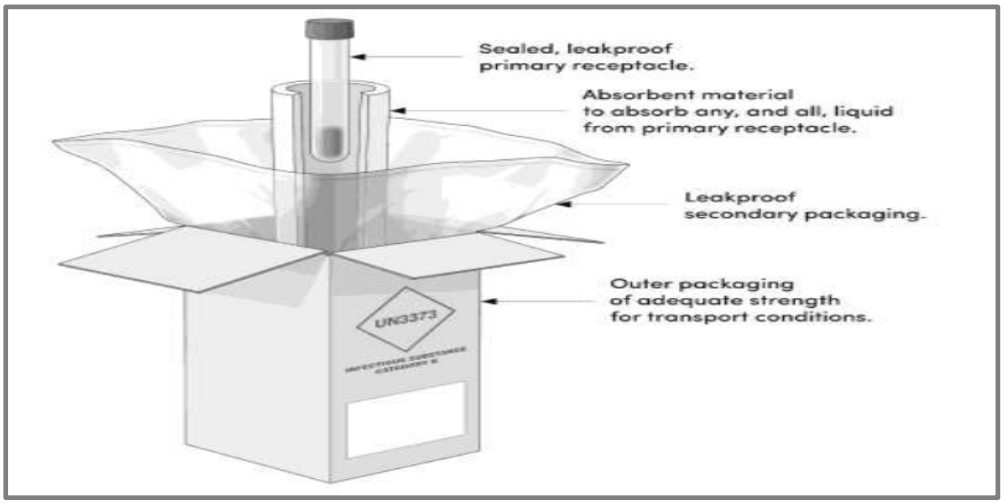
13.2.2.3. A Third Outer Layer of Packaging

This is used to protect the secondary packaging from physical damage while in transit. If the secondary packaging is soft i.e., a biohazard bag, then this outer layer must be rigid. The request form should be placed between the secondary packaging and outer layers of packaging. The package must contain the label "UN3373 Biological Substance category B".

The name, address and contact number of the destination laboratory must be clearly legible on the outer packaging. There is no requirement for a licensed courier to transport Category B Diagnostic Samples.

Laboratory personnel adhere to the packaging procedures set out in 12.2 above when packaging referred specimens for transport to external laboratories. In the case of a dedicated sample collection and delivery service such as *Eurofins Lablink,* which the laboratory uses for the transport of some referral specimens, the transport carrier/box is considered the third or outer layer of packaging. Similarly, any specimens transported to and from the laboratory by taxi are secured in an outer transport box.

Figure 9. Packaging a Diagnostic Specimen (Category B) for Transport



Ref: GC-LAB-BIO-ED-154 WHO Guidance on regulations for the Transport of Infectious Substances

13.3. Storage of Specimens in Clinical Areas Prior to Delivery to the Laboratory

All samples should be dispatched to the laboratory as soon as possible after collection to ensure best turnaround times and most accurate results. Overnight storage of blood samples before dispatch is not recommended and actively discouraged. Failure to receive some specimens on the day of collection, may render them unsuitable for analysis (e.g., potassium, FBC). In some circumstances, there is a requirement for the sample to be received within a shorter timeframe, and additional collection criteria may apply (e.g.,

transporting on ice). Storage of samples in the fridge will also render some tests unsuitable (e.g., Coagulation samples).

In general, once specimens are collected, they should be delivered to the laboratory immediately, without delay. In cases where delay in receipt of a sample means that the sample is unsuitable for analysis, the requesting clinician will be contacted, the reason for rejection will be given, and a repeat sample may be requested.

Histology specimens in fixative must never be refrigerated and should be stored at room temperature.

If there is a delay in transport of the following specimens, they may be stored refrigerated @ 2 - 8°C, in the clinical area and delivered to the laboratory the next day:

- Urines (Random /24 Hour specimens)
- Faeces
- Swabs
- Sputum
- Miscellaneous

Ref: Appendix 1. Laboratory Test repertoire- (A-Z by Laboratory Department).

14. Sample Transportation/Delivery of Samples to the Laboratory

14.1. General Information on Sample Transport

The laboratory provides key information on 'sample transportation' for tests provided in this laboratory user manual & in Appendix 1. Laboratory Test repertoire- aimed at ensuring the following:

a) To ensure the timely and safe transportation of samples, the laboratory provides instructions for:

1. packaging of samples for transportation
2. ensuring the time between collection and receipt in the laboratory is appropriate for the requested examinations;
3. maintaining the temperature interval specified for sample collection and handling;
4. any specific requirements to ensure integrity of samples, e.g., use of designated preservatives.

b) If the integrity of a sample has been compromised and there is a health risk, the organization responsible for the transport of the sample will be notified immediately by laboratory personnel and action taken to reduce the risk and to prevent recurrence.

c) The laboratory has established and periodically evaluates the adequacy of sample transportation systems at annual management review.

Ref: Appendix 1. Laboratory Test repertoire- (A-Z by Laboratory Department).

Ref: GC-LAB-GEN-Q-P-014 Management review.

14.2. Pneumatic Tube System (Chute)

The Pneumatic Tube System (PTS) or 'chute' is commonly used to transport samples from clinical areas to the laboratory. All current blood collection tubes, including blood culture bottles, and universal containers are suitable for transport in the 'chute'.

The following sample types should *never* be sent via the chute and must be hand-delivered:

a) Histology and Cytology specimens

b) CSF specimens

c) Respiratory specimens for patients suspected or known to have TB / SARS / COVID or other category pathogens

d) Specimens for detection of cryoglobulins or cold agglutinins

e) Blood gas samples (ABG/VBG)

f) Samples from theatre for microbiological investigation (BALs, tissues, fluids)

g) Blood Components or Products

h) Any specimen considered an *Irreplaceable* specimen

i) 24 Hour Collection specimens (Urine/Faeces)

j) Radioactive Specimens (e.g., Tissue)

All specimens must be sealed in the Biohazard bag before loading into the pneumatic tube canister or 'pod'. The 'pod' is then placed into the chute sending/receiving station. The receiving location codes are listed on the front of each chute location. Once the code is entered, the pod will travel to the pre-set location. There are chute stations in all Hospital units, Phlebotomy, ICU, Theatre, Laboratory and Pharmacy. The pods are labelled and contain an RFID tag which is linked to each location. When specimens are removed from the pod in the laboratory and it is placed into the sending station, it will return automatically to its home location. The chute system is monitored by the Engineering department and serviced annually by Advanced Pneumatic Technology Ltd (APT).

Ref: GC-LAB-GEN-Q-P-042 Laboratory use of the Pneumatic Tube System (chute).

Ref: Appendix 1. Laboratory Test repertoire- (A-Z by Laboratory Department).

14.3. Hand-Delivery of Specimens to the Laboratory

Any specimen that cannot be transported via the chute should be delivered directly to the laboratory Central reception, Histology or Microbiology Laboratory by hand. Irreplaceable samples, such as Histology/Cytology specimens, CSF samples and samples from theatre for microbiological investigations must be hand delivered to the Laboratory.

In the case of Histology/Cytology and Microbiology samples, the person who brings the specimen to the laboratory must have a Logbook, where all details of the specimen collection are recorded. Laboratory personnel receiving the specimens must check that all information on the specimen(s) and the request form are correct/matching and adequate for testing requirements. They will then sign and date the book to document that the sample has been accepted for testing by the Laboratory. Routine blood samples may be hand-delivered through the 'hatch' in the central reception area and placed in the tray provided. Specific instructions on transport to the laboratory is provided in Appendix 1. Laboratory Test repertoire, where relevant to the test.

Ref: Appendix 1. Laboratory Test repertoire- (A-Z by Laboratory Department).

14.4. Transport of Radioactive Specimens

Radioactive specimens (e.g., Sentinel nodes) should be labelled in theatre with a radioactive hazard label, transported from theatre to the Histology Laboratory in a lead lined transport box and handed over to a histology staff member at specimen reception (not to be left

unattended). Such specimens will immediately be stored in a lead-lined cabinet in the Laboratory and radiation levels will be monitored to ensure safe levels, prior to processing or dispatch to an external laboratory.

Ref: GC-LAB-HIS-P-012 Management of radioactive samples.

Ref: GC-LAB-HIS-P-008 Specimen receipt for histology and cytology samples

14.5. Transport of Specimens Outside Routine Working Hours

a) During routine hours (08.00-16.30):

All samples should be delivered to the relevant Laboratory Department as soon as possible after collection. Samples must be signed for by the relevant staff upon receipt.

b) Between 16.30- 20.00:

Histology samples and Non-urgent Microbiology samples must be delivered to Central specimen reception.

c) Out of Hours (after 20:00) - Monday- Friday and weekends:

Delivery time and date must be recorded on the theatre book out of hours.

Histology / Cytology samples must be delivered to Central specimen reception.

Non-urgent Microbiology samples may be placed in the designated box in the Laboratory cold room labelled “Samples Out of Hours”.

All urgent microbiology samples (out of hours) must be phoned to the Medical Scientist on call and the sample delivered to the laboratory as soon as possible for processing.

d) Blood Culture samples collected after 20:00:

The night sister must be phoned and will transport the samples to the Microbiology laboratory as soon as possible after collection and place them on the BacTalert System.

Specific instructions on transport to the laboratory is provided in Appendix 1. Laboratory Test repertoire, where relevant to the test.

Ref: Appendix 1. Laboratory Test repertoire- (A-Z by Laboratory Department).

14.6. Monitoring of Sample Transportation

Correct transportation of samples to the laboratory is crucial for the delivery of correct and quality assured results. The laboratory continuously monitors the correct transportation of samples focusing on the following:

a) Safe transportation: Ensuring that samples are packaged properly during transport, are not leaking and in a manner that ensures the integrity of the sample and the safety for

the carrier, the general public and the receiving laboratory, in compliance with established requirements.

b) Timely transportation: Ensuring that samples are transported within a time frame appropriate to the nature of the requested examinations and the laboratory discipline concerned.

c) Transport conditions: Ensuring that samples are transported under the correct conditions as stated in the Lab User Test List, within a temperature interval specified for sample collection and handling and with the designated preservatives to ensure the integrity of samples.

If the laboratory receives a sample whose integrity is compromised or which may jeopardise the safety of the carrier, laboratory personnel or the general public (e.g., visibly contaminated specimen container), the sender will be contacted immediately and informed about measures to be taken to eliminate recurrence. In some cases, the specimen will not be accepted for analysis.

Any issues with sample transportation will be recorded and categorised through the Laboratory non-conformance system and specific corrective and preventive actions will be implemented where required.

15. Sample Receipt

Sample receipt processes in the laboratory are aimed at ensuring the following:

a) the unequivocal traceability of samples by request and labelling, to a uniquely identified patient and when applicable, the anatomical site;

b) criteria for acceptance and rejection of samples;

c) recording the date and time of receipt of the sample, when relevant;

d) recording the identity of the person receiving the sample, when relevant;

e) evaluation of received samples, by authorized personnel, to ensure compliance with acceptability criteria relevant for the requested examination(s)

f) instructions for samples specifically marked as urgent, which include details of special labelling, transport, any rapid processing method, turnaround times, and special reporting criteria to be followed;

g) ensuring that all portions of the sample shall be unequivocally traceable to the original sample.

Local departmental sample receipt procedures include the following:

Ref: GC-LAB-BT-P-002 Specimen reception - sample acceptance & rejection criteria in BT.

Ref: GC-LAB-MIC-P-002 Specimen reception and processing in microbiology

Ref: GC-LAB-HIS-P-008 Specimen receipt for histology and cytology samples

Ref: GC-LAB-HAEM-P-024 Specimen reception, acceptance & rejection procedure in HAEM.

Ref: GC-LAB-BIO-P-004 Pre-analysis management (incl. acceptance & rejection criteria) in Biochemistry.

15.1. Sample Acceptance Exceptions & Laboratory Acceptance/Rejection Criteria

To obtain valid medical laboratory results, it is imperative that what is being measured/examined in the sample/specimen is presented unchanged, or as close as possible to its 'in-vivo' state, to the analytical process. Also, it is of utmost importance that any sample taken from a patient is unequivocally linked to that patient.

Sample Acceptance Exceptions & Lab Criteria for Acceptance or Rejection of Samples in the laboratory are aimed at ensuring the following:

a) that the laboratory has in place processes in regard to sample acceptance exceptions that considers the best interests of the patient in receiving care, when a sample has been compromised due to:

1) incorrect patient or sample identification,

2) sample instability due to, for example, delay in transport,

3) incorrect storage or handling temperature,

4) inappropriate container(s), and

5) insufficient sample volume.

b) When a compromised clinically critical or irreplaceable sample is accepted, after consideration of the risk to patient safety, the final report shall indicate the nature of the problem and where applicable, advising caution when interpreting results that can be affected.

Note: the laboratory policy on **'irreplaceable samples'** is used where the sample cannot be re-taken only, e.g., a CSF etc, & where there is clear clinical need (in the patient's best interest) to carry out the test request., as confirmed with the requesting clinician.

Ref: GC-LAB-GEN-Q-F-252 Laboratory 'irreplaceable sample' disclaimer form

15.2. Specimen Quality

15.2.1. Ensuring a High-Quality Sample

There are several factors that can affect the quality of a sample rendering it unsuitable for analysis and thereby being rejected in the laboratory. The general guidelines below should be followed to ensure that a high-quality sample is submitted to the laboratory for examination:

a) Verify that the patient meets pre-examination requirements e.g., fasting status, medication status (time of last dose, cessation), sample collection at predetermined time or time intervals etc.

b) Select the appropriate laboratory request form (**Table 3**) and complete all relevant sections legibly.

c) When placing a request electronically on Meditech, complete all relevant sections.

d) Determine the patient's identity immediately prior to specimen collection.

e) Clean the blood-sampling site with a sterile alcohol wipe prior to venepuncture.

f) Use the correct collection container(s) for the test(s) requested as stated on the Lab User Test list. Contact the laboratory for advice where required.

g) Always check the expiry date on the collection container to confirm it is 'in-date' prior to use.

h) Ensure that the specimen container is correctly labelled with all mandatory labelling requirements. Record the collection time and identity of the collector.

i) Seal the sample container properly to avoid leakage.

j) A paper requisition *must* accompany every Histology and cytology specimen.

15.2.2. Pre-Analytical Factors affecting the Quality of Laboratory Specimens

15.2.2.1. Blood Samples

Laboratory personnel will inspect each blood sample received for Blood Transfusion, Biochemistry/Immunology, Haematology or Virology testing, where relevant to the examinations requested, for the following prior to testing:

a) The Incorrect Blood Collection Container was used

The Primary Sample collection container used to collect the sample dictates the specimen type e.g., blood collected into a purple-top tube containing EDTA anti-coagulant will provide 'EDTA whole blood' or, when centrifuged, 'EDTA plasma'. Laboratory testing encompasses the analysis of several different specimen types or matrices that are specific to each test, therefore, for examination results to be valid, it is imperative that the correct sample collection tube/specimen type is used. The collection of an appropriate sample for testing is facilitated by the adoption of different colours for blood tube caps which aids the visual recognition of the different blood tubes as listed on the Lab User Test list. Samples collected into the incorrect container will be rejected.

b) Evidence of Haemolysis in the Sample

Essentially, haemolysis is the presence of free haemoglobin in a blood sample [1]. It can be attributable to biological conditions leading to the breakdown of red blood cells in vivo i.e., intravascular haemolysis or to non-biological causes occurring during sample collection and handling. The most frequent causes include traumatic venepuncture, sample collection with inappropriate devices i.e., indwelling catheters or very small needles, inappropriate sample management i.e., vigorous mixing or shaking of blood samples after collection, inadequate storage conditions or incorrect transport conditions. Haemolysis can affect analysis in a number of ways including increasing the concentration of intracellular substances such as potassium and LDH, interfering with the analytical method used for some examinations, diluting the sample etc. Visual inspection is carried out on the sample following centrifugation. For some biochemistry examinations, the laboratory uses a standardised approach for identifying haemolysed samples and rating the degree of haemolysis using automatic detection by means of *Haemolysis Index.*

c) Evidence of Gross Lipaemia

Lipaemia is an accumulation of lipoprotein (lipid) particles in the sample causing turbidity. It can be caused by non-fasting, lipid disorders, some medications and intravenous infusions containing lipid emulsions. While low levels of lipemia usually do not significantly affect clinical laboratory testing, the presence of severe lipemia interferes with analysis by

affecting the methodology of the examination, causing volume displacement of electrolytes and affecting the homogeneity of the sample resulting in misrepresentation of the sample by the analyser sampling probes. Visual inspection is carried out on the sample following centrifugation. For Biochemistry examinations, the laboratory uses a standardised approach for identifying lipemic samples and rating the degree of lipaemia using automatic detection by means of *Lipaemia index.*

d) Presence of Clots in the Sample

Improper mixing of anticoagulated blood samples following collection may result in clots. In some cases, partial or complete coagulation within the blood collection tube is not acceptable (unless in a serum tube), as the presence of even small clots will interfere with laboratory testing, making test performance unfeasible or the results inaccurate. This is especially important for haematology and coagulation testing, as blood cell counts will be unreliable when blood cells (especially platelets) are entrapped within the clot and the clotting factors have been consumed during the coagulation process. Clots in the sample may also cause analyser malfunctions as fibrin strands or micro-clots may be aspirated from the sample and cause obstruction of the sampling probes leading to instrument downtime.

e) Under-filled or Over-Filled Specimen containers

If the sample collection container is considerably underfilled, the laboratory cannot perform any or all of the tests requested because the amount of available sample is insufficient and a repeat sample will be requested. In the case of specimen containers with additives such as anti-coagulant, if the container is partially under-filled but there is still adequate specimen, the sample will be accepted for testing *except* in the case of coagulation tests. The minimum specimen volume has been clearly defined for coagulation testing as the concentration of anticoagulant and the volume of blood need to fulfil strict requirements. A fixed ratio i.e., 1:9 has been set between blood and the sodium citrate anticoagulant within the evacuated collection tubes[1]. Similarly, overfilling of specimens will lead to the specimen being rejected. It is essential that tubes are filled exactly taking fill tolerances into account.

f) Age/Storage Conditions of the Sample

Once blood samples have been collected, they should be swiftly transported to the laboratory, under the correct conditions set out in the Lab User Test List, where they are readily analysed or processed for short-term storage or referral to an external laboratory. The laboratory has defined the maximum allowable instability criteria for each test and although many routine analytes are stable in the primary collection container for several hours, there are some with limited stability that require immediate transport and under specified conditions e.g., on-ice. Samples will be rejected if they pass this stability limit.

In any of the instances (**a** to **f** above), the primary sample may be rejected and a second sample will be requested. Where the sample is processed, the issued test report will have a comment noting the concern raised regarding the quality of the specimen received and any possible effects on the result, as appropriate.

Ref: GC-LAB-BIO-I-098 Stability of blood, plasma and serum samples.

15.2.2.2. Specimens for Histological/Cytological Examination

There are several factors that can influence the integrity of Histology/Cytology specimens (i.e., fresh and fixed specimens). Please refer to the Lab User Test List for full details on specific test requirements (i.e., container requirements, sample type/volume, transport details and any special requirements). The following factors should be observed to preserve the integrity of the specimen:

a) The use of the correct fixative where applicable (10% Formalin/Zeus fixative/Cytology fixative).

b) The speed at which the specimen is placed into fixative.

c) The volume of fixative used/container size. The specimen must be fully submerged in the fixative.

d) Fresh Histology tissue specimens (i.e., fresh/frozen section) must be hand delivered to the laboratory immediately.

15.2.2.3. Specimens for Microbiological Examination

The following should be observed when collecting specimens for microbiological examination:

a) Antimicrobial Therapy

Where possible, specimens should be collected before the start of antimicrobial therapy. This will improve the chances of identifying the causative microorganism. Antimicrobial therapy may affect the growth of organisms.

b) Aseptic Technique

Specimens should be collected using aseptic technique to prevent introduction of foreign microorganisms and indigenous skin flora and to ensure specimen is representative of infective site.

c) Amount of Specimen

An adequate amount of specimen must be collected and submitted for examination. Inadequate amounts may yield false-negative results

d) Correct Specimen Container

Specimens should be collected into an appropriate, sterile CE marked leak-proof container and transported to the laboratory in sealed bag as soon as possible.

Swabs for culture should be collected into CE marked containers containing transport media. The transport medium acts as a preservative and prevents the overgrowth of bacteria therefore providing an accurate picture of the sample. Dry swabs will not be accepted in most cases.

It is preferable that urine specimens are collected into a red top universal container (containing boric acid) as the urine sample will be preserved for up to 96 hours. Urine samples in a white top universal container contain no preservative and should be processed on the same day. They are unsuitable for processing after 2 days.

e) Delay in Specimen Transport

Specimens should be transported as soon as possible. If processing is delayed, refrigeration is preferable to storage at ambient temperature, with the exception of Bloods Cultures.

Blood cultures should be sent directly to laboratory. If transport is delayed, samples should be held at room temperature and NEVER refrigerated. It is important for blood culture samples to be incubated as soon as possible after obtaining the sample (<4 hours). After 8pm the blood cultures may be delivered to the laboratory and placed directly onto the BacT/ALERT by the night sister.

CSF samples must be hand-delivered to the laboratory without delay.

f) Providing Patient's Clinical Details:

Relevant clinical details and special requests such as 'extended incubation' should be noted on the request form. It is important to provide as much relevant information as possible to ensure the appropriate causative pathogens are considered and most suitable tests are performed.

15.2.3. Non-Conforming Specimen Containers, Request Forms or Specimen Quality Issues

Where the requirements with respect to labelling the request form and specimen container or specimen quality issues are not met, the criteria set out in the following Tables will apply

Table 5. Non-conforming Specimen / Labelling issues

ISSUE WITH SPECIMEN	ACTION TAKEN IN THE LABORATORY
No Specimen received with request form	The laboratory will inform clinical staff that no specimen has been received.
Specimen accompanying the request form is completely unlabelled	Specimen will be ***rejected,*** clinical area informed and a repeat sample requested. ***Exception:*** If the specimen is **irreplaceable** and a repeat cannot be obtained (Refer to section 15.3)
Specimen completely unlabelled and does not have an accompanying request form	Specimen will be ***rejected*** – unable to contact source as location not identified.
Label affixed to the container lid and not the specimen container	Specimen will be ***rejected,*** clinical area informed and a repeat sample requested. ***Exception:*** If the specimen is **irreplaceable** and a repeat cannot be obtained (Refer to section 15.3)
Two of the three mandatory labelling unique patient identifiers are not correct or are absent from the specimen (Full name, DOB, MR No.)	Specimen will be ***rejected,*** clinical area informed and a repeat sample requested. ***Exception:*** If the specimen is **irreplaceable** and a repeat cannot be obtained (Refer to section 15.3)
Addressograph label on Blood Transfusion specimen	Specimen will be ***rejected,*** clinical area informed and a repeat sample requested.
Identity of Collector not on Specimen (excluding HHP samples)	**Blood Transfusion**: specimen will be ***rejected,*** clinical area informed and a repeat sample requested. **Blood Sciences:** clinical area informed; collector can come to the laboratory & add these details to the label. If not, the sample will be ***rejected*** & a repeat sample requested. **Microbiology:** it is desirable for the collector details to be present. If not, 'Unknown' will be entered on Meditech.
Time of Collection not on Specimen (excluding HHP samples)	**Blood Transfusion**: specimen will be ***rejected,*** clinical area informed and a repeat sample requested. **Blood Sciences**: clinical area informed; collector can come to the laboratory & add these details

	to the label. If not, the sample will be ***rejected*** & a repeat sample requested. **Microbiology:** it is desirable for the time of collection to be re indicated on the specimen. If not, '**Time of Receipts'** will be entered on Meditech.
Specimen label demographics (Meditech or Addressograph) do not match the Request form	Specimen will be ***rejected,*** clinical area informed and a repeat sample requested.
Specimen label demographics (*Meditech* or Addressograph) do not match the Meditech electronic request	Specimen will be ***rejected,*** clinical area informed and a repeat sample requested.
Specimen collected at inappropriate time e.g., where timing is critical such as dynamic function tests	Specimen will be ***rejected,*** clinical area informed and a repeat sample requested.
Specimen type not indicated on the specimen (or request form) for Microbiology investigations	Clinical area will be contacted to provide the information. This is indicated in a comment field in the patient's medical record on Meditech.
Incorrect Specimen Type for the examination requested (Blood Transfusion and Microbiology)	Specimen will be ***rejected,*** clinical area informed and a repeat sample requested.
Incorrect Specimen type for the examination requested (Haematology/Biochemistry)	Specimen will be ***rejected,*** clinical area informed and a repeat sample requested. ***Exception****:* Where several specimens are received and the only issue is that the appropriate *Meditech* label is affixed to the incorrect specimen type, the specimens will be accepted, labels corrected (affixed to correct container type) by MLA/Medical scientist, as long as patient identifiers are correct.
Specimen leaked in transit	Specimen will be ***rejected,*** clinical area informed and a repeat sample requested.
Insufficient Specimen Volume/Quantity	Specimen will be ***rejected,*** clinical area informed and a repeat sample requested.
***Visibly contaminated specimen**	Specimen will be ***rejected,*** clinical area informed and a repeat sample requested.

	Exception: If the specimen is **irreplaceable** and a repeat cannot be obtained (Refer to section 15.3)

*****The term 'visibly contaminated sample' implies any sample (blood / urine / faeces/swab/ container/ other) visibly contaminated on the outside by body fluids, e.g., blood / faeces/ urine / any other type of body fluid/tissue'. Reason for rejection: potential contamination & associated health & safety/ biohazard risk presented to lab personnel handling samples.

HHP: Hand-held phlebotomy.

Note: For all scenarios above, unless otherwise indicated, a Patient Safety Incident will be raised on Q-Pulse.

Table 6. Non-conforming Request Form Issues

ISSUE WITH REQUEST FORM	ACTION TAKEN IN THE LABAORATORY
No Request form provided with the Specimen (where required)	Clinical area will be contacted to provide a fully completed Request form.
***Mandatory* requirements for completion of the request form (Section 9.4) are not fulfilled**	Clinical area will be contacted to provide a fully completed Request form.
Demographic details on the Request form and Specimen do not match (includes spelling of Patient's Name)	Clinical area will be contacted and must update the Request form with the correct details.
Required times, e.g., collection time, missing on the Request form and Specimen	Clinical area will be contacted and must update the Request form with the correct details.
Insufficient information on the request form *outside of the mandatory labelling requirements* e.g., clinical details, transfusion history, time of last dose for antibiotic levels etc.	Clinical area will be contacted to provide the information.
Details on Request form illegible, no tests requested or lack of clarity on test(s) requested	Clinical area will be contacted to provide the information
No requesting clinician /location provided	Clinical area will be contacted to provide the information.
Specimen site not indicated on the request form (or specimen) for Microbiology investigations	Clinical area will be contacted to provide the information.

Note: for all above scenarios, 'event details & action taken' is logged in a comment field in the patient's medical record on *Meditech*.

Table 7. Specimen Quality issues leading to Blood Specimen rejection

SPECIMEN QUALITY ISSUE	ACTION TAKEN IN THE LABORATORY
Grossly Haemolysed Blood Specimens (On visual inspection or Haemolysis Index ≥ 2)	Specimen will be ***rejected,*** clinical area informed and a repeat sample requested.
Grossly Lipaemic Blood Specimens	Specimen will be ***rejected,*** clinical area informed and a repeat sample requested.
Presence of clots/fibrin in Blood Specimens	Specimen will be ***rejected***, clinical area informed and a repeat sample requested.
Underfilled or Overfilled Blood specimens where ratio of blood to additive is critical e.g., Coagulation studies	Specimen will be ***rejected,*** clinical area informed and a repeat sample requested. A Patient Safety Incident will be raised on Q-Pulse.
Aged Specimen / stability compromised	Specimen will be ***rejected,*** clinical area informed and a repeat sample requested. A Patient Safety Incident will be raised on Q-Pulse.
Specimens that have not been transported to the laboratory under the correct conditions e.g., on-ice, protected from light, within optimal timeframe etc.	Specimen will be ***rejected,*** clinical area informed and a repeat sample requested. A Patient Safety Incident will be raised on Q-Pulse.
Specimens collected into an EXPIRED Specimen container	Specimen will be ***rejected,*** clinical area informed and a repeat sample requested. A Patient Safety Incident will be raised on Q-Pulse.

Note: for above scenarios where a patient safety incident is not raised, 'event details & action taken' is logged in a comment field in the patient's medical record on *Meditech*.

Due to the irreplaceable nature of all Histology/Cytology specimens, these specimens cannot be rejected. Non-conforming issues are managed as described in Table 8 below.

Table 8. Non-conforming issues relating to Histology/Cytology Specimens

NON-CONFORMING ISSUE	ACTION TAKEN IN THE LABORATORY
Minimum patient identifiers incomplete on request form e.g., Full name, DOB, MR number, GC number.	Specimen rejection form will be completed. The request form, specimen and specimen logbook will be returned to the clinical area for amendment
Minimum specimen requirements incomplete on request form e.g., no date or time of collection/no Clinician details/no Clinician signature/no specimen site/no specimen type	Specimen rejection form will be completed. The request form, specimen and specimen logbook will be returned to the clinical area for amendment
Specimen details on the request form, specimen container and/or specimen logbook do not match	Specimen rejection form will be completed. The request form, specimen and specimen logbook will be returned to the clinical area for amendment
Abbreviation R or L present instead of Right or Left	Specimen rejection form will be completed. The request form, specimen and specimen logbook will be returned to the clinical area for amendment
Specimen site not identified on request form and specimen container	Specimen rejection form will be completed. The request form, specimen and specimen logbook will be returned to the clinical area for amendment
Mislabelled (incorrect patient) request form or specimen container	Clinical area informed. Specimen rejection form will be completed. The request form, specimen and specimen logbook will be returned to the clinical area for amendment. A Patient Safety incident will be raised.
Specimen unlabelled	Clinical area informed. Specimen rejection form will be completed. The request form, specimen and specimen logbook will be returned to the clinical area for amendment. A Patient Safety incident will be raised.
Specimen not present in the specimen container	Clinical area informed. The Consultant Pathologist will be notified who will contact the Clinician to discuss details of the specimen (size, integrity, difficulty obtaining specimen). The Consultant Pathologist will make the decision if a Patient Safety incident will be raised.

Specimen container leaked in transit	Clinical area informed. A Patient Safety incident will be raised.
Specimen collected in the incorrect specimen container	Clinical area informed. The laboratory will make the decision if the specimen is suitable for processing. A Patient Safety incident will be raised.

Note: Completed 'histology specimen rejection forms' are filed in the patient's medical record on *Meditech.*

15.2.4. Documenting Non-Conforming Events

Laboratory staff will document non-conforming events electronically by raising a Patient Safety incident (PSI) on Q-Pulse. It is important to note the laboratory cannot process specimens with non-conforming issues until they are resolved by clinical staff. Undue delay in correcting issues may result in a requirement to take a repeat specimen (if replaceable). The Pneumatic Tube System (chute) may be used to transport non-conforming specimens and/or forms (where appropriate) to and from the clinical area for the speedy resolution of some issues, however, clinical staff may be required to attend the laboratory in person to rectify issues. Event details and action taken will also be recorded in the 'Specimen Comment' field on *Meditech*.

In the case of a rejected Histology/Cytology specimen, the specimen *and* request form will be returned to the clinical area for correction. Sample-handling/other errors that occur post receipt in the laboratory are raised as laboratory non-conformances on Q- Pulse.

Ref: GC-LAB-GEN-Q-P-007 Non-conformance & CAPA.

15.3. Laboratory Policy on Irreplaceable Specimens

15.3.1. Definition of Replaceable and Irreplaceable Specimens

Irreplaceable specimens are defined below. Any exceptions to this should be made at the discretion of the ordering provider in conjunction with the relevant laboratory consultant.

15.3.1.1. Replaceable specimens

Routine blood and urine specimens.

15.3.1.2. Irreplaceable specimens

All histology/cytology specimens, tissue, body fluids, CSF, BAL, blood cultures collected prior to the administration of antibiotics, bone marrow specimens, some timed blood/urine samples, stones and other specimens for which re-collection will absolutely not reflect the original collection

OR

the sample cannot be collected without high risk to the patient

OR

where a delay due to re-collection could compromise patient care.

15.3.2. Procedure Followed in the Case of an Irreplaceable Specimen

15.3.2.1. Specimens that do not meet Minimum Labelling Criteria

Where an irreplaceable specimen does not fulfil minimum labelling criteria, a patient safety incident is raised in the Laboratory and the relevant Laboratory Consultant is informed. The Laboratory Consultant will make the final decision on whether to process the sample. Laboratory personnel will notify the clinical area/requesting clinician and will request that the person who collected the sample (or an appropriate individual that was present at the time the specimen was collected) attends the laboratory to identify and correctly label the specimen. The individual will be required to complete and sign a Laboratory 'Irreplaceable Sample Disclaimer Form' *prior to* the specimen being processed.

If the specimen is accepted for testing, laboratory staff will enter a comment on *Meditech* documenting that the specimen was re-labelled.

If the Laboratory Consultant does *not* approve the request to proceed with testing, laboratory staff will:

a) Notify the ordering provider of the specimen rejection

b) Cancel the order on *Meditech* with the appropriate cancellation comment

c) Hold the rejected specimen at the appropriate conditions and clearly label the specimen as 'Rejected'. The specimen will be discarded in accordance with the established routine retention time for that specimen.

Where a Histology/Cytology specimen (irreplaceable specimen) is rejected, based on the criteria listed in **Table 8**, laboratory staff will complete a 'Specimen rejection form' stating the reason why the specimen was rejected and by whom. This form is returned to the clinical area along with the specimen and the request form.

The amendment to the request form or the specimen container must be completed by the sample collector or a suitably qualified representative from the clinical area. They must sign and date the 'Specimen rejection' form and return it with the specimen and request form to the Histology Laboratory. Laboratory personnel will ensure the specimen meets the acceptance criteria for testing.

15.3.2.2. Samples of Compromised Quality that do not meet Acceptance Criteria

In some cases, a clinician may pursue the testing of an 'irreplaceable specimen' that has been deemed unacceptable due to compromised stability or quality. The relevant Laboratory Consultant must be informed and must approve the testing to proceed based on the reasoning of the requesting clinician. A 'Laboratory Irreplaceable Sample Disclaimer Form' must be completed. If the specimen is approved for testing, the resulting test report will include an appropriate comment to indicate that the exception may lead to a compromised result.

Ref: GC-LAB-GEN-Q-F-252 Laboratory 'irreplaceable sample' disclaimer form

Ref: GC-LAB-BT-F-112 Irreplaceable Sample Disclaimer

Ref: GC-LAB-HIS-F-132 Specimen Rejection Form

Ref: GC-LAB-HIS-P-008 Specimen Receipt for Histology and Cytology Samples

Ref: GC-LAB-GEN-Q-P-029 Laboratory Acceptance / Rejection Procedure

Ref: GC-LAB-GEN-Q-I-027 Blood Sciences Acceptance /Rejection Criteria Table

Ref: GC-LAB-GEN-Q-I-026 Blood sciences instructions for specimen rejection & result recall

16. Pre-Examination Handling, Preparation & Storage Post Sample Receipt

16.1. Sample Protection

The laboratory has in place procedures and appropriate facilities for securing patient samples, ensuring sample integrity and preventing loss or damage during, handling, preparation and storage. Details on the management of samples post receipt in the laboratory are clearly defined in the 'post-receipt, lab use only' section of Lab test list & in local departmental sample receipt procedures.

Local departmental sample receipt procedures include the following:

Ref: GC-LAB-BT-P-002 Specimen reception - sample acceptance & rejection criteria in BT

Ref: GC-LAB-MIC-P-002 Specimen reception and processing in microbiology

Ref: GC-LAB-HIS-P-008 Specimen receipt for histology and cytology samples

Ref: GC-LAB-HAEM-P-024 Specimen reception, acceptance & rejection procedure in HAEM

Ref: GC-LAB-BIO-P-004 Pre-analysis management [incl. acceptance/rejection criteria] in BIO.

16.2. Criteria for Additional Test/Examination Requests on the Primary Specimen

Once a specimen has been sent to the laboratory and further additional testing is required, the specimen reception area or the relevant laboratory department may be contacted to investigate the feasibility of using the initial specimen for further analysis, as age of specimen may impact on the validity of test results. In the case of Blood Transfusion requests, a request form or equivalent (*Meditech* order) must accompany such requests as the Laboratory cannot process additional test requests until the request form is provided. However, the lack of the request form will not impede the processing of an *urgent* request.

For electronically requested tests e.g., Biochemistry, Haematology or Microbiology 'add-on' tests, it is acceptable for clinical staff to request additional examinations by phone and the medical scientist will add the electronic request on *Meditech* on their behalf. The identity of staff requesting the test will be recorded.

Additional testing may be requested by the patient's clinician/other consulting clinician. Where further testing is relevant to the investigation or diagnosis of the condition or symptoms which gave rise to the original test request, then it is the policy of the Laboratory department to pursue a diagnosis by performing additional tests using the primary specimen. In this case, further testing may be requested by a Laboratory Consultant.

Histology molecular tests must be requested via email to lab.sec@galwayclinic.com or via a Consultant Pathologist or via discussion at MDM.

Criteria for additional test requests (including the time limits for requesting additional examinations) are defined in local departmental sample receipt procedures:

Ref: GC-LAB-BT-P-002 Specimen reception - sample acceptance & rejection criteria in BT

Ref: GC-LAB-MIC-P-002 Specimen reception and processing in microbiology

Ref: GC-LAB-HIS-P-008 Specimen receipt for histology and cytology samples

Ref: GC-LAB-HAEM-P-024 Specimen reception, acceptance & rejection procedure in HAEM

Ref: GC-LAB-BIO-P-004 Pre-analysis management [incl. acceptance/rejection criteria] in BIO

16.3. Repeat Testing on the Primary Specimen

Repeat examinations may be required on the primary specimen due to analytical failure or where laboratory findings are inconclusive. In the case of analytical failure or issues with quality control, the test will be repeated on a back-up instrument or specimens will be stored under appropriate conditions in the laboratory and re-examined once the issue has been resolved. The users will be informed of any significant delays to the turnaround time in these circumstances.

16.4. Sample Stability

The laboratory has considered the stability of the analyte in a primary sample for test/examination requests, i.e., the time between sample collection and performing the examination are specified for tests / examinations carried out in the laboratory and monitored, where relevant.

Ref: GC-LAB-GEN-Q-P-020 Management of clinical material.

16.5. Storage of Examined Specimens for Archive and Look Back Purposes

The requirement to store primary specimens and the storage times vary according to the laboratory discipline. Where specimens or permanent / semi-permanent preparations of the primary specimen e.g., histology paraffin blocks, microscopy slides etc. are stored, they are appropriately labelled, indexed and catalogued in the laboratory. Specimen retention times have been established in line with the RCPath and the Institute of Biomedical science (IBMS) Guidelines for the Retention and Storage of Pathological Records and Specimens. Please refer to the 'Management of Clinical Materials' procedure for further details on retention of specimens in the laboratory & to local laboratory department storage & retention lists for clinical material.

Ref: GC-LAB-GEN-Q-P-020 Management of clinical materials

Ref: GC-LAB-GEN-Q-ED-053 The retention and storage of pathological records and specimens. Guidance from royal college of pathologists & institute of biomedical science.

16.6. External Third-Party Assessment Programme

The Laboratory participates in relevant external third-party assessment schemes or inter-laboratory comparison programmes, where available. These independent third-party programmes are used to verify the accuracy of the test procedures used. Results of these assessments are reviewed regularly by Clinical Laboratory personnel. The Laboratory is committed to participating in such schemes, as they become available, to ensure comprehensive assessment of the test repertoire. Documentation of both participation and performance in Quality Assurance schemes are readily available to all relevant personnel.

Ref: GC-LAB-GEN-Q-P-015 Quality assurance management.

17. Blood Transfusion Department

17.1. Blood Transfusion Tests Available

The tests/examinations available in the Blood Transfusion Department are shown in Table 9.

Table 9. Blood Transfusion Tests available

N/A = Not applicable

Test/Profile		Specimen Type	Sample Requirements			Special Requirements	Turnaround Time (TAT)	
			Additive Required	Volume Required	Container Type		Routine	Urgent
Blood Group & Antibody Screen		Whole Blood	EDTA	6 mL	Pink Top Bottle	None	< / = 4 Hrs. /Same Day	< / = 1 Hr.
Blood Group and Crossmatch		Whole Blood	EDTA	6 mL	Pink Top Bottle	None	< / = 4 Hrs. /Same Day	< / = 1 Hr.
Direct Antiglobulin Test		Whole Blood	EDTA	6 mL	Pink Top Bottle	None	< / = 4 Hrs. /Same Day	< / = 1 Hr.
Antigen Phenotyping		Whole Blood	EDTA	6 mL	Pink Top Bottle	None	N/A	N/A
Antibody Investigation / Identification		Whole Blood	EDTA	6 mL	Pink Top Bottle	None	N/A	N/A
Transfusion Reaction Investigation (TFRI) May be required in addition - Discuss with Consultant Haematologist	**TRFI**	Whole Blood	EDTA	6 mL	Pink Top Bottle	Please contact the BT Laboratory and the HV Sister	N/A	< / = 2 Hrs.
	Tryptase (Serious Allergic / Anaphylactic)	Whole Blood	Serum	6ml	Yellow Top Bottle	Requires 3 samples at different times intervals. (Refer to GC-LAB-GEN-Q-F-072 Lab User Test List)	N/A	5 days
	IgA (Anaphylaxis / hypersensitivity)	Whole Blood	Serum	6ml	Yellow Top Bottle	None	N/A	10 working days

17.2. Management of Routine and Urgent Blood Transfusion Requests

The term **'Same Day'** in relation to the Turnaround Time (TAT) for examination in Blood Transfusion implies the following:

- **Routine Requests:** All tests requested as 'routine' will be analysed and resulted within 4 hours, on the same day of receipt. In general, pre-op requests are tested within a 2-4-Hour period, if batched;
- **Urgent Requests:** All urgent tests should be phoned to the Laboratory by the originator (Nurse / Clinician), and either requested or documented as 'Urgent' on the request with the reason for urgency clearly documented. Urgent requests will be processed and resulted within 2 hours, on the same day of receipt, or as quickly as it is safely possible to do so e.g., in a case of 'emergency transfusion' etc. The period of 2 hours allows for the time required for the Medical Scientist on call to reach the lab, out of hours. Urgent samples will generally be processed within 60 to 90 minutes during the routine working day.

Note: TAT per test is listed on the Laboratory Test repertoire.

Ref: Appendix 1. Laboratory Test repertoire- (A-Z by Laboratory Department).

17.3. Delays Encountered that may Negatively Affect Turnaround Times

Where a delay is encountered e.g., the presence of an antibody in a Group and Antibody Screen in an 'emergency request', the requester (Nurse / Clinician) will immediately be informed. The antibody is identified as quickly as it is possible to do so, within a 2-hour period, unless it is an inconclusive result, whereby the sample may have to be referred to the IBTS for further investigations. This rarely occurs, and the requester is informed at all stages of this process. Emergency Red Cell Blood Stock is always available for use in the Blood Issue Fridge in the Blood Transfusion Lab.

17.4. Management of Transfusion Reaction Investigations (TFRI)

Investigation into a transfusion reaction is always considered 'urgent'. If you suspect a transfusion reaction, please contact the Haemovigilance Officer or the Blood Transfusion laboratory. Refer to the Haemovigilance procedure 'Ordering and Administration of Blood Components and Blood Products' for instructions on how to manage a suspected transfusion reaction.

Note: The Microbiology investigation of a TFRI can take up to 7 days to complete as the blood culture is incubated for 7 days.

Ref: GC-LAB-BT-HV-P-002 Ordering & administration of blood components/blood products.

Ref: GC-LAB-BT-P-012 Investigation of a suspected transfusion reaction

Ref: GC-LAB-MIC-P-046 Microbiology investigation of suspected transfusion reaction

17.5. Blood Bank Policy on Requests for Blood / Blood Products

For all blood group-specific Blood Product requests, the patient's blood group MUST be confirmed by two separate samples. Where it states 'No sample required' in Table 10, this implies that a patient's Blood Group or crossmatch is not necessary prior to the issue of these Blood / Blood Products.

17.6. Blood/Blood Products Available for Transfusion

Table 10: Blood/Blood Products stored on site in the Blood Transfusion Laboratory

Blood Product	Storage Temp.	Patient Sample Type	Specimen Requirements			Special Requirements	Turnaround Time	
			Additive Required	Vol. (mL)	Container Type		Routine	Urgent
Red Cells	2-6˚C	Whole Blood	EDTA	6	Pink Top Bottle	None / Contact the BTF Lab if require advice	< / = 4 hours (if blood group already established by laboratory)	< / = 1 hour (if blood group already established by laboratory)
Albumin (stored in Pharmacy)	Room Temp	None	None	None	None	None / Contact the Pharmacy or the BTF Lab if require advice	Immediately	Immediately
Anti D (*) Immunoglobulin (*Rhophylac 300*)	2-6˚C	Whole Blood	EDTA	6	None	None / Contact the BTF Lab if require advice	Immediately	Immediately
Solvent-Detergent Plasma (*Octaplas*)	-18˚C	Whole Blood	EDTA	6	None	None / Contact the BTF Lab if require advice	< / = 4 hours (if blood group already established by laboratory)	< / = 1 hour (if blood group already established by laboratory)
Platelets	20-24˚C	Whole Blood	EDTA	6	None	None / Contact the BTF Lab if require advice	Min of 4-6 Hours (Transport Time) To be ordered from the IBTS in Dublin on request	Approx. 2.5-3.5 hours (Transport Time)/ To be ordered from the IBTS in Dublin on request OR Platelets may be available from GBTE in < / = 1 hour in urgent situations based on GBTE's platelet stock levels
Novoseven **	2-6˚C	No sample required	NA	NA	NA	None / Contact the BTF Lab if require advice	Immediately	Immediately
Octaplex **	2-6˚C	No sample required	NA	NA	NA	None / Contact the BTF Lab if require advice	Immediately	Immediately

Alprolix	2-6˚C	No sample required	NA	NA	NA	None / Contact the BTF Lab if require advice	Immediately	Immediately
Wilate	2-6˚C	No sample required	NA	NA	NA	None / Contact the BTF Lab if require advice	Immediately	Immediately
Elocta	2-6˚C	No sample required	NA	NA	NA	None / Contact the BTF Lab if require advice	Immediately	Immediately
Fibrinogen	2-6˚C	No sample required	NA	NA	NA	None / Contact the BTF Lab if require advice	Immediately	Immediately

Note: Albumin is stored in the pharmacy, and is ordered on demand. Albumin is supplied by Baxter Healthcare and stored at room temperature as per storage recommendations.

For each of the above Blood Products listed and marked with ** the Consultant Haematologist will be contacted by Medical Scientist personnel in the Blood Transfusion Laboratory to advise on the exact usage / dosage requirements per patient.

All Blood Products are provided during emergency out of hour's service. Blood Transfusion samples may be referred to the Crossmatch Laboratory in the IBTS (Reference Laboratory) for further testing / investigations, e.g., investigation of complex antibody patterns, confirmatory testing where a rare antibody type is identified etc.

18. Reporting of Laboratory Results

18.1. General Information

Results are available to all internal locations with *Meditech* access as soon as they are released / authorised by the Laboratory. Hard copy reports are printed and posted / delivered daily to external locations or to internal locations that do not have access to the *Meditech* System. Test reports issued by accredited laboratory departments comply with the requirements of the INAB R1 Regulation and INAB Policy PS23 (that accredited Medical Testing Laboratories shall not issue non-accredited test reports within their scope of accreditation).

The following is stated on all accredited test reports (electronic and Hardcopy):

"An INAB Accredited Testing Laboratory Reg. No 222MT"

Where relevant, accredited and non-accredited are clearly indicated on the test report.

Where the user requires deviations and exclusions from, or additions to, the documented collection procedure, these will be recorded and included in the examination report and communicated to the appropriate personnel.

If a delay occurs in reporting of results, requesting clinicians are notified by Laboratory personnel as soon as possible. The Laboratory does not communicate directly with the patient regarding results and any queries received from patients will be re-directed to the ordering clinician or to the Medical Records Department.

18.2. Interpretation of Laboratory Reports and Clinical Advice

Results are reported with reference ranges / clinical decision limits / therapeutic ranges and may include the result flags shown in table below. Interpretative and clinical advice comments are included on the report if appropriate. Clinical Advice and Interpretation is available and can be obtained by contacting the appropriate laboratory.

Scientific staff should be consulted where uncertainty exists about the availability, appropriateness, or selection of tests, the nature of the specimen required, acceptance criteria of the test, or the interpretation of results.

Table 11. Result Flags used on Laboratory Reports

FLAG	DESCRIPTION
***Meditech* Official Laboratory Report & Hard Copy**	
*	Result outside the Reference Range
H	*Critical* HIGH Value
L	*Critical* LOW Value
***Meditech* EMR Viewer**	
H	Result outside the Reference Range - HIGH
L	Result outside the Reference Range - LOW
H	*Critical* HIGH Value
L	*Critical* LOW Value
	Comment attached to the result – click to view

18.3. Reporting of Results Within the Hospital / Meditech Access

Once authorised, all Laboratory results (including results from referral laboratories) will be available for look-up by the clinician (nurse / doctor) on the hospital computer system- *Meditech*. In the event that the laboratory is contacted by a referral laboratory with a critical result, a Medical Scientist will convey the result by phone to the clinician as soon as possible.

18.4. Blackrock Health Galway Clinic Patient Portal

Patients may access their Laboratory Results (Biochemistry, Haematology and Microbiology results *only*) via secure Patient portal, if they have signed up for this facility at pre-admission and have created their own personal account. Laboratory results will be available to view on the portal 30 days post day of authorisation by the Laboratory department. Any critical or urgent results will have been communicated to the relevant person/clinician within the agreed timeframe as per laboratory policy. Please be advised that Laboratory staff *cannot* discuss results with the patient. If the patient has any queries on results and reports displayed on the patient portal they will be referred back to the ordering / attending provider. Laboratory Results available on the portal are not considered official reports. If official copies of these reports are required, the patient must obtain a copy of the official report from the Medical Records Department.

Note: Results prior to the 'go-live' date of 23/07/2023 will *not* be available on the portal, however reports may be obtained from the Medical Records Department.

Ref: GC-LAB-GEN-Q-P-027 Reporting of results.

Ref: IT-PPS-9 Patient Portal Policy (a hospital policy on Q-Pulse)

18.5. Reporting of Results Externally / Locations without *Meditech* Access

A hard-copy of the report will be issued to the requesting clinician following authorisation. These reports will be delivered to external locations and Consultant Suites that do not have access to *Meditech*, via internal or external post.

18.6. Policy on Amended Reports

In the rare event of an issued report requiring amendment, it is laboratory policy to withdraw the original report and issue an amended report in its place. The revised or amended report will clearly be identified as a revision. The reason for the change is recorded and included in the revised report. All relevant personnel will be made aware of the amendment/revision. The date & time of the change and the person responsible for the change will be recorded on *Meditech*.

The amendment process is documented in detail in the 'Reporting of Results' procedure for each Lab Department.

Ref: GC-LAB-GEN-Q-P-027 Reporting of results

Ref: GC-LAB-BIO-P-013 Review, authorisation, reporting & management of Biochemistry results

Ref: GC-LAB-BT-P-017 Reporting of results in Blood Transfusion

Ref: GC-LAB-HAEM-P-026 Haematology Reporting of Results (Electronic, Written, Verbal)

Ref: GC-LAB-HIS-P-005 Reporting of Histology/Cytology results

Ref: GC-LAB-MIC-P-080 Reporting of Results in Microbiology

18.7. Communication of Results

Laboratory results are available to view on *Meditech* as soon as they are authorised, however, it is the policy of the Laboratory Department to alert the clinician by phone when results for specific tests or parameters reach pre-determined *markedly abnormal* levels or fall within established *critical decision limits.*

Results will also be telephoned if there is an arrangement in place with the Laboratory to do so e.g., *urgent* requests where the Laboratory has received prior *verbal notification* to alert the clinician that the result is available or where a specific result is required to be alerted on a select cohort of patients for logistical reasons e.g., oncology.

In Histology, these are cases where the Histopathologist may have concerns that histopathology findings are clinically significant for the patient and will be unexpected. The decision will require professional judgement on the part of the pathologist and should be made in conjunction with the clinical details on the request form. Histology reports are communicated directly to the requesting Consultant.

There is a procedure in place to ensure clear and unambiguous results reach an authorised receiver. Results provided verbally are always followed by an official report. All communication is recorded and documented as part of the patient's record.

Ref: GC-LAB-GEN-Q-P-024 Communication procedure

Ref: GC-LAB-GEN-Q-P-028 Management of Laboratory Results for Communication

Ref: GC-LAB-HIS-P-005 Reporting of Histology/Cytology results

18.7.1. Communication of Critical Results

A *Critical* result is defined as a result that is so extremely abnormal that it is considered life-threatening or could result in significant morbidity and therefore requires urgent action. *Critical* results have been defined by the Laboratory Consultant in charge of each laboratory department in liaison with clinical areas and have been approved by the Hospital Medical Advisory Committee (MAC). These results are documented and available on Q-Pulse.

Once a *critical* result is confirmed in Biochemistry and Haematology, it is phoned immediately prior to the result being released on *Meditech*. Any actions taken to communicate the result, including the date, time, the name of the Medical Scientist who communicates the result, the person notified, the result(s) conveyed, verification of accuracy of communication, and any difficulties encountered in notification, will be documented on the test report. Some of this information may not be visible on the official report but it is documented internally on the record and may be retrieved if required.

Critical results are phoned on **first presentation** or on **worsening presentation** *only*, and where a critical result is not phoned on an occasion, the reason for this will be documented on the record e.g., previously noted and phoned yesterday. If the result cannot be communicated on the first phone attempt prior to release, the report will be released within the established turnaround time and further attempts to reach the clinician will be made. All

attempts are made to communicate the result within 1 hour of the result being generated. This timeframe is in keeping with the published RCPath guidelines on the communication of critical and unexpected pathology results.

In Blood Transfusion, a positive antibody screen is communicated *immediately*, only in an emergency situation or if a delay in the issue of red cells is anticipated.

Critical results in Microbiology are communicated to the Consultant Microbiologist within 15 minutes of availability.

In Histology, a frozen section is considered a *critical test* and the result is always telephoned by the Consultant Histopathologist directly to the Consultant Surgeon within 20 minutes of receiving the sample, in line with RCPI guidelines on the Implementation of the National Histopathology Quality Improvement Programme (2021).

The critical result communication process is monitored as a Key Performance Indicator (KPI) in the laboratory and audited regularly for Quality purposes.

Ref: GC-LAB-GEN-Q-P-028 Management of Laboratory Results for Communication (Critical & Markedly Abnormal).

Ref: GC-LAB-BIO-I-023 Biochemistry Results for Communication

Ref: GC-LAB-BT-I-002 Blood Transfusion Results for Communication

Ref: GC-LAB-HAEM-I-002 Haematology Results for Communication

Ref: GC-LAB-HIS-I-077 Histology Results for Communication

Ref: GC-LAB-MIC-I-028 Microbiology Results for Communication

18.8. Biological Reference Intervals and Clinical Decision Values

Reference intervals are provided on every laboratory report where the test result is commonly interpreted against a 'reference' population. Reference intervals are sourced as follows:

a) General literature concerning reference intervals, including textbooks and compendia from professional bodies.

b) Manufacturers' data as quoted in technical data sheets, kit inserts and similar materials.

c) Specific literature on reference intervals, particularly individual publications with data obtained from the particular methodology used in the laboratory.

d) Specific literature on individual analytes where national/international harmonisation of reference intervals has taken place e.g., Pathology Harmony (UK).

e) In-house laboratory derived reference intervals.

f) Laboratory derived intervals from similar hospital laboratories using the same methodology with a similar patient population.

For some examinations, reference intervals are replaced by decision limits set by national or international consensus e.g., cholesterol and triglyceride (NCEP) or HbA1c (IFCC).

Reference intervals and/or clinical decision values will be provided on the test report either beside the test result or attached as a comment. Laboratory reference ranges are reviewed annually or as required and are available on Q-Pulse. The departmental lists of reference ranges include paediatric ranges and clinical decision limits where relevant.

It is important that users do not refer to external reference ranges in the interpretation of results generated by the Laboratory e.g., such as those provided in diaries or hand-books. The reference intervals in use are dependent on the method of analysis used and are also specific to the population we serve. The use of inappropriate reference intervals must be avoided. If you have any queries about the validity of any reference interval provided to you, please contact the Laboratory for clarification.

Ref: GC-LAB-BIO-I-024 Biochemistry reference ranges.

Ref: GC-LAB-HAEM-F-031 Haematology reference ranges.

19. References

1. Lippi, Giuseppe, von Meyer, Alexander, Cadamuro, Janne and Simundic, Ana-Maria. "Blood sample quality" Diagnosis, vol. 6, no. 1, 2019, pp. 25-31. https://doi.org/10.1515/dx-2018-0018
2. Guidance on regulations for the transport of infectious substances 2019–2020. Geneva: World Health Organization; 2019 (WHO/WHE/CPI/2019.20)

20. Appendices

20.1. Appendix 1. Laboratory Test Repertoire (A-Z by Lab Department)

For additional information and/or if a test is not listed, please contact the laboratory.

20.1.1. Appendix 1.1: Blood Transfusion Test Repertoire

Blood Transfusion (In House)

Test Name: Antibody Identification	
Laboratory	Blood Transfusion
Test Name Abbreviation	ABID
Test Parameters	ABID (Ordered by BT staff only)
Sample Type	Whole blood
Container	Pink Top bottle EDTA
Volume	6ml
TAT (Turn Around Time)	3hrs (Urgent) 24hrs (Routine)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: Antigen Typing (Extended Phenotyping)	
Laboratory	Blood Transfusion
Test Name Abbreviation	AGID
Test Parameters	AGID (Ordered by BT staff only)
Sample Type	Whole blood
Container	Pink Top bottle EDTA
Volume	6ml
TAT (Turn Around Time)	3hrs (Urgent) 24hrs (Routine)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-

	labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: Blood group & Antibody screen	
Laboratory	Blood Transfusion
Test Name Abbreviation	G&S
Test Parameters	GS
Sample Type	Whole blood
Container	Pink Top bottle EDTA
Volume	6ml
TAT (Turn Around Time)	1 hr (Urgent) 4 hrs (Routine)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: Direct Antiglobulin Test (DAT)	
Laboratory	Blood Transfusion
Test Name Abbreviation	DAT
Test Parameters	DAT
Sample Type	Whole blood
Container	Pink Top bottle EDTA
Volume	6ml
TAT (Turn Around Time)	2hrs (Urgent) 4 hrs (Routine)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname,

	DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: Red Cell Crossmatch	
Laboratory	Blood Transfusion
Test Name Abbreviation	RC
Test Parameters	RC
Sample Type	Whole blood
Container	Pink Top bottle EDTA
Volume	6ml
TAT (Turn Around Time)	1 hr (Urgent) 4 hrs (Routine)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: Transfusion Reaction Investigation	
Laboratory	Blood Transfusion
Test Name Abbreviation	TRI
Test Parameters	QSAR
Sample Type	Whole blood
Container	Pink Top bottle EDTA
Volume	6ml
TAT (Turn Around Time)	4hrs (Urgent)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled &

	signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand

Blood Transfusion (Referred)

Test Name: ABO Anomaly Investigation	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	ABO Group
Test Parameters	BBK REFERRAL
Sample Type	Whole blood
Container	Pink Top bottle EDTA
Volume	6ml
TAT (Turn Around Time)	24hrs (Urgent) 10 working days (Routine)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand Courier: Taxi / First Direct
Test Name: Antibody Investigation	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	ABID
Test Parameters	BBK REFERRAL
Sample Type	Whole blood
Container	Pink Top bottle EDTA
Volume	6ml
TAT (Turn Around Time)	24hrs (Urgent) 10 working days (Routine)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time

	bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: Blood Group Genotyping Investigation	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	Genotyping
Test Parameters	BBK REFERRAL
Sample Type	Whole blood
Container	Pink Top Bottle EDTA
Volume	6ml
TAT (Turn Around Time)	14 days (Urgent)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: Crossmatch	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	XM
Test Parameters	BBK REFERRAL
Sample Type	Whole blood
Container	Pink Top bottle EDTA
Volume	6ml
TAT (Turn Around Time)	2hrs (Urgent) 6hrs (Routine)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand

Test Name: Direct Antiglobulin Test	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	DAT
Test Parameters	BBK REFERRAL
Sample Type	Whole blood
Container	Pink Top Bottle EDTA
Volume	6ml
TAT (Turn Around Time)	2 days (Urgent)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand Courier: Taxi / First Direct
Test Name: Elution of Red Cell Antibodies	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	Elution
Test Parameters	BBK REFERRAL
Sample Type	Whole blood
Container	Pink Top Bottle EDTA
Volume	6ml
TAT (Turn Around Time)	2 days (Urgent)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: Extended Phenotyping	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)

Test Name Abbreviation	AGID
Test Parameters	BBK REFERRAL
Sample Type	Whole blood
Container	Pink Top Bottle EDTA
Volume	6ml
TAT (Turn Around Time)	5 days (Urgent)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: HLA B27 Typing	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	HLA B27
Test Parameters	HLAB27
Sample Type	Whole blood
Container	Pink Top Bottle EDTA
Volume	6ml
TAT (Turn Around Time)	14 days (Routine)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: HLA Class I & II Typing	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	HLA Class I & II
Test Parameters	HLAII
Sample Type	Whole blood

Container	Pink Top Bottle EDTA
Volume	6ml
TAT (Turn Around Time)	21 days (Routine)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: HLA Typing and Disease Association	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	HLA DQ DR
Test Parameters	HLAII
Sample Type	Whole blood
Container	Pink Top Bottle EDTA
Volume	6ml
TAT (Turn Around Time)	15 working days (Routine)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: Human Platelet Antigen Typing	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	HPA
Test Parameters	No Test Code. Please request test on a BT Request form
Sample Type	Whole blood
Container	Pink Top Bottle EDTA
Volume	6ml
TAT (Turn Around Time)	10 working days (Routine)

Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: IgA	
Laboratory	See Appendix 1.5 Bio Test repertoire
Test Name Abbreviation	See Appendix 1.5 Bio Test repertoire
Test Parameters	See Appendix 1.5 Bio Test repertoire
Sample Type	See Appendix 1.5 Bio Test repertoire
Container	See Appendix 1.5 Bio Test repertoire
Volume	See Appendix 1.5 Bio Test repertoire
TAT (Turn Around Time)	See Appendix 1.5 Bio Test repertoire
Special Requirements & Instructions	See Appendix 1.5 Bio Test repertoire
Test Name: Investigation of Auto-Immune Haemolytic Anaemia	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	AIHA
Test Parameters	BBK REFERRAL
Sample Type	Whole blood
Container	Pink Top Bottle EDTA
Volume	6ml
TAT (Turn Around Time)	5 days (Urgent)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: Mast Cell Tryptase	

Laboratory	See Appendix 1.5 Bio Test repertoire
Test Name Abbreviation	See Appendix 1.5 Bio Test repertoire
Test Parameters	See Appendix 1.5 Bio Test repertoire
Sample Type	See Appendix 1.5 Bio Test repertoire
Container	See Appendix 1.5 Bio Test repertoire
Volume	See Appendix 1.5 Bio Test repertoire
TAT (Turn Around Time)	See Appendix 1.5 Bio Test repertoire
Special Requirements & Instructions	See Appendix 1.5 Bio Test repertoire
Test Name: Monoclonal Antibody Interference Investigation	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	Anti-CD38
Test Parameters	BBK REFERRAL
Sample Type	Whole blood
Container	Pink Top Bottle EDTA
Volume	6ml
TAT (Turn Around Time)	5 days (Urgent)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: Platelet Refractoriness	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	Platelet Refractoriness
Test Parameters	No Test Code. Please request test on a BT Request form
Sample Type	Whole blood, Serum
Container	Pink Top Bottle EDTA (6ml) Yellow Top bottle Gel -SST Tube (Clotted) (5-10ml)
Volume	6ml Pink top, 5-10ml Yellow Top

TAT (Turn Around Time)	14 working days (Routine)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: Post-Transfusion Purpura	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	PTP (Discuss with IBTS Consultant /Reg.)
Test Parameters	No Test Code. Please request test on a BT Request form
Sample Type	Whole blood, Serum
Container	Pink Top Bottle EDTA (6ml) Yellow Top bottle Gel -SST Tube (Clotted) (5-10ml)
Volume	6ml Pink top, 5-10ml Yellow Top
TAT (Turn Around Time)	N/A
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: RhCE Variant Typing Investigation	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	RHCE Variant
Test Parameters	BBK REFERRAL
Sample Type	Whole blood
Container	Pink Top Bottle EDTA
Volume	6ml
TAT (Turn Around Time)	21 days (Urgent)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's

	Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: RhD/RhCE Genotype	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	Rh Typing
Test Parameters	BBK REFERRAL
Sample Type	Whole blood
Container	Pink Top Bottle EDTA
Volume	6ml
TAT (Turn Around Time)	14 days (Urgent)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: Screening for HLA Antibodies	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	HLA Antibodies
Test Parameters	No Test Code. Please request test on a BT Request form
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube (Clotted)
Volume	5-10ml
TAT (Turn Around Time)	14 working days (Routine)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately

	Transport type: Via Chute / By hand
Test Name: Screening for Platelet Alloantibodies	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	Platelet Antibodies
Test Parameters	No Test Code. Please request test on a BT Request form
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube (Clotted) Serum
Volume	5-10ml
TAT (Turn Around Time)	14 working days (Routine)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: Transfusion Associated Acute Lung Injury	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	TRALI (Discuss with IBTS Consultant /HV. Send sample to QC Lab, NBC, IBTS.)
Test Parameters	No Test Code. Please request test on a BT Request form
Sample Type	Whole blood, Serum
Container	Pink Top Bottle EDTA (6ml) Yellow Top bottle Gel -SST Tube (Clotted) (20ml)
Volume	6 ml pink top, 20ml Yellow Top
TAT (Turn Around Time)	N/A
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: Transfusion Reaction Investigation	

Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	TRI
Test Parameters	BBK REFERRAL
Sample Type	Whole blood
Container	Pink Top Bottle EDTA
Volume	6ml
TAT (Turn Around Time)	5 hours (Urgent) 14 days (Routine)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand
Test Name: Weak D Genotype	
Laboratory	Blood Transfusion-Referral Laboratory (IBTS)
Test Name Abbreviation	RhD Typing
Test Parameters	BBK REFERRAL
Sample Type	Whole blood
Container	Pink Top Bottle EDTA
Volume	6ml
TAT (Turn Around Time)	14 days (Urgent)
Special Requirements & Instructions	Sample bottle must be labelled with handheld phlebotomy device label OR be legibly hand-labelled with Patient's Forename, Surname, DOB, MR number, Date bled, Time bled & signature of sample taker. Sample bottle must be in-date. Samples should be gently inverted 8-10 times Delivery time: Immediately Transport type: Via Chute / By hand

20.1.2. Appendix 1.2: Haematology Test Repertoire

ADAMTS 13 Assay	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	ADAMTS 13 Assay
Sample Type	Plasma
Container	Blue Sodium- Citrate x 2
Volume	Draw Volume 2.7ml x 2
TAT (Turn Around Time)	Routine 2 weeks; Urgent same day
Special Requirements & Instructions	Always Contact Haematology Laboratory in advance. Specific clinical information form must be completed.
Anti-Platelet antibodies - Platelet Antibodies Free	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Platelet Antibodies Free
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube x 2
Volume	Draw Vol-12ml
TAT (Turn Around Time)	Routine 4 weeks; Urgent 3 weeks
Special Requirements & Instructions	Samples must be collected and received in laboratory by 12pm MON to Wed ONLY. To perform test for Free and Bound Anti platelet antibodies - both sample types must be collected. Minimum 5ml serum required. Minimum 15ml whole blood required. Please always attach a clinical information form with bloods. See Q-Pulse for copy of form - Platelet Immunology. Deliver to laboratory immediately via Shute or by Hand.
Anti-Platelet antibodies - Platelet Antibodies Bound	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Platelet Antibodies Bound
Sample Type	Plasma
Container	Purple EDTA x 3
Volume	Draw Vol - 3 X 4mL

TAT (Turn Around Time)	Routine 4 weeks; Urgent 3 weeks
Special Requirements & Instructions	Samples must be collected and received in laboratory by 12pm MON to Wed ONLY. To perform test for Free and Bound Anti platelet antibodies - both sample types must be collected. Minimum 5ml serum required. Minimum 15ml whole blood required. Please always attach a clinical information form with bloods. See Q-Pulse for copy of form - Platelet Immunology. Deliver to laboratory immediately via Shute or by Hand.
Anti-Thrombin 3 (Also part of 'Thrombophilia Screen')	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Anti-Thrombin 3
Sample Type	Plasma
Container	Blue Sodium- Citrate x 2
Volume	Draw Volume 2.7ml x 2
TAT (Turn Around Time)	Routine 6 weeks; Urgent 6 weeks
Special Requirements & Instructions	Clinical details to include details of current or recent anticoagulation therapy. Samples to be received in laboratory before 12pm.Testing should not be done during thrombotic period or while patient is on anticoagulants. Patients must be off DOACs for a minimum of 72hrs, and off LMWH for a minimum of 12 hrs prior to sample collection. Bottles must be filled to the mark. Deliver to laboratory via Shute or by Hand.
Anti-Xa Assay (See Factor Xa below)	
Laboratory	**Refer to Factor Xa**
Test Name Abbreviation	
Sample Type	
Container	
Volume	
TAT (Turn Around Time)	
Special Requirements & Instructions	
Instructions for Laboratory Post Receipt	

Activated protein C resistance (Also part of Thrombophilia screen)		
Laboratory	Haematology – Referral Laboratory	
Test Name Abbreviation	APCR	
Sample Type	Plasma	Whole blood
Container	Blue Sodium- Citrate x 2	Purple EDTA x 2
Volume	Draw Volume 2.7ml x 2	Draw Vol- 2 x 3ml
TAT (Turn Around Time)	Routine 6 weeks; Urgent 6 weeks	Routine/Urgent 9 weeks from time of referral
Special Requirements & Instructions	Clinical details to include details of current or recent anticoagulation therapy. Samples to be received in laboratory before 12pm. Testing should not be done during thrombotic period or while patient is on anticoagulants. Bottles must be filled to the mark. Deliver to laboratory via Shute or by Hand.	All Factor V Leiden must be accompanied by an APCR result from an external source. Factor V Leiden tests will only be done if APCR is abnormal. A signed genetic consent form and completed request form must be obtained on sample receipt. Deliver to laboratory immediately via Shute or by Hand.
Activated Partial Thromboplastin Time/APTT ratio (Also done as part of coagulation screen)		
Laboratory	Haematology	
Test Name Abbreviation	APTT, APTTr	
Sample Type	Plasma	
Container	Sodium- Citrate	
Volume	Draw Volume 2.7ml x 2	
TAT (Turn Around Time)	Routine 4 hours; Urgent 1.5 hours	
Special Requirements & Instructions	Sample must be filled to the mark Deliver to laboratory within 1 hour via Shute or by hand. Deliver immediately if Patient is on Heparin.	
BCR-ABL		
Laboratory		
Test Name Abbreviation		
Sample Type		

Container	**Refer to RT PCR for BCR-ABL**
Volume	
TAT (Turn Around Time)	
Special Requirements & Instructions	
BReast CAncer Gene (BRCA gene testing)	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	BRCA
Sample Type	Whole Blood
Container	Purple EDTA x 2
Volume	Draw Volume 4ml x 2
TAT (Turn Around Time)	Routine 2 weeks; Urgent 3 weeks
Special Requirements & Instructions	Request form and consent form required. BRCA Test Request and Consent Form is available on Q-Pulse. Can be taken Mon-Thurs during routine hours and on Fridays up to 12.30pm. Deliver to laboratory within one hour via Shute or by Hand.
CALR exon 9 Mutation	
Laboratory	**Refer to MPN Panel**
Test Name Abbreviation	
Sample Type	
Container	
Volume	
TAT (Turn Around Time)	
Special Requirements & Instructions	
CD3/CD4/CD8 count and T Lymphocyte subsets	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	CD4/CD8 B and T Lymphocyte subsets
Sample Type	Whole Blood
Container	Purple Top EDTA x 2
Volume	Draw Vol 2 x 4mL

TAT (Turn Around Time)	Routine/Urgent 2 weeks	
Special Requirements & Instructions	Must be received in lab by 9am. SJH MUST receive samples by 14.30 pm on day of sample collection. Deliver to laboratory immediately via Shute or by Hand.	
cfDNA Lung T790M mutation		
Laboratory	Haematology – Referral Laboratory	
Test Name Abbreviation	cfDNA Lung T790M mutation	
Sample Type	Whole Blood	
Container	White - Cell-free DNA collection tubes (White (K3EDTA plus a cell preservative)	
Volume	Draw Volume 8 ml x 2	
TAT (Turn Around Time)	Routine 2 weeks; Urgent 3 weeks	
Special Requirements & Instructions	After collection invert 8-10 times. Deliver to laboratory immediately via Shute or by Hand.	
Chimerism Studies		
Laboratory	Haematology – Referral Laboratory	
Test Name Abbreviation	Chimerism studies (PRE)	Chimerism studies (POST
Sample Type	Plasma	Plasma
Container	Purple Top EDTA x 2	Purple Top EDTA x 2
Volume	Draw Volume 4 ml x 2	Draw Volume 4 ml x 2
TAT (Turn Around Time)	Routine 3 weeks; Urgent 4 weeks	Routine 3 weeks; Urgent 4 weeks
Special Requirements & Instructions	Collected between Mon-Wed 08.00- 16.30 and Thurs up to 12pm ONLY Deliver to laboratory within one hour via Shute or by Hand	Collected between Mon-Wed 08.00- 16.30 and Thurs up to 12pm ONLY Deliver to laboratory within one hour via Shute or by Hand
Coagulation Factor Assays (incl Factors – II, V, VII, VIII:C, IX, XI, XII, and FX)		
Laboratory	Haematology – Referral Laboratory	
Test Name Abbreviation	Coagulation Factor Assay	
Sample Type	Plasma	
Container	Blue top Sodium- Citrate x 2	

Volume	Draw Volume 2.7ml x 2
TAT (Turn Around Time)	Routine 1 week; Urgent same day
Special Requirements & Instructions	Sample must be filled to the mark. Must be received in the Laboratory by 12.00 Mon-Fri ONLY. Deliver to laboratory immediately via Shute or by Hand
Coagulation screen	
Laboratory	Haematology
Test Name Abbreviation	Coagulation screen
Sample Type	Plasma
Container	Blue top Sodium- Citrate
Volume	Draw Volume 2.7ml
TAT (Turn Around Time)	Routine 4 hours; Urgent 1.5 hours
Sample must be filled to the mark. Deliver immediately if Patient is on Heparin.	Sample must be filled to the mark. Deliver immediately if Patient is on Heparin. Deliver to laboratory within one hour via Shute or by Hand
Cold Agglutinins	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Cold Agglutinins
Sample Type	Whole blood
Container	Purple Top EDTA
Volume	Draw Volume 4 ml x 2
TAT (Turn Around Time)	Routine 2 weeks; Urgent 1 week
Special Requirements & Instructions	Only available Mon- Wed up to 12 due to sample transport restrictions. Deliver to laboratory within one hour via Shute or by Hand
Cryoglobulins (screening or identification)	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Cryoglobulins
Sample Type	Serum
Container	Red Top no additive - clotted sample
Volume	Draw Volume 4 ml x 3
TAT (Turn Around Time)	Routine 2-3 weeks; Urgent 2 weeks

Special Requirements & Instructions	DO NOT USE PHASE SEPARATOR TUBES. Patient must be fasting. Contact Laboratory in advance. Specialist conditions during collection and process for this test. Deliver to laboratory immediately via Shute or by Hand
Cytogenetic Analysis Peripheral Blood {Fish analysis (BCR-ABL)}	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Peripheral Blood Cytogenetic Analysis
Sample Type	Whole blood
Container	Green top lithium Heparin
Volume	Draw Volume 4 ml
TAT (Turn Around Time)	Routine/Urgent 6 weeks
Special Requirements & Instructions	Sample must be received in laboratory before 12 pm Monday to Thursday ONLY. Deliver to laboratory within one hour via Shute or by Hand
D Dimer	
Laboratory	Haematology
Test Name Abbreviation	D-Dimer
Sample Type	Plasma
Container	Blue top Sodium- Citrate
Volume	Draw Volume 2.7ml
TAT (Turn Around Time)	Routine 4 hours; Urgent 1.5 hours
Special Requirements & Instructions	Sample must be filled to the mark Deliver to laboratory within one hour via Shute or by Hand
Eosin 5'-maleimide test (Hereditary spherocytosis)	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Minkowski - Chauffard disease
Sample Type	Plasma
Container	Purple Top EDTA x 2
Volume	Draw Volume 4 ml x 2
TAT (Turn Around Time)	Routine/Urgent 3 weeks
Special Requirements & Instructions	Collect Mon or Tues ONLY. Sample must reach lab in France within 48 hours of collection. Patient must not be

	transfused within the last 3 months. ALWAYS attach the specific clinical information form. See (R39-INTGB :EMA) form from Biomnis website or contact the laboratory. Deliver to laboratory immediately via Shute or by Hand
Erythropoietin	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	EPO
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Volume 6 ml
TAT (Turn Around Time)	Routine/Urgent 2 weeks
Special Requirements & Instructions	Collect sample the morning between 7.30 and 12am recommended. Deliver to laboratory immediately via Shute or by Hand
ESR (Erythrocyte Sedimentation Rate)	
Laboratory	Haematology
Test Name Abbreviation	ESR
Sample Type	Whole Blood
Container	Black top sodium citrate
Volume	Draw Volume 2 ml
TAT (Turn Around Time)	Routine 2 hours; Urgent 4 hours
Special Requirements & Instructions	Must be received in the Laboratory by 7.00pm (Mon-Fri) Test not performed outside routine hours or at weekends. Deliver to laboratory within one hour via Shute or by Hand
Exon 9 Mutation	
Laboratory	**Refer to MPN Panel**
Test Name Abbreviation	
Sample Type	
Container	
Volume	
TAT (Turn Around Time)	

Special Requirements & Instructions	
Exon 12 Mutation	
Laboratory	**Refer to MPN Panel**
Test Name Abbreviation	
Sample Type	
Container	
Volume	
TAT (Turn Around Time)	
Special Requirements & Instructions	
Extrinsic Factor Assay Screen (II, V, VII, X)	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Extrinsic Factor Assay Screen (II,V,VII,X)
Sample Type	Plasma
Container	Blue top Sodium- Citrate x 3
Volume	Draw Volume 2.7ml x 3
TAT (Turn Around Time)	Routine 1 week; Urgent same day
Special Requirements & Instructions	Sample must be filled to the mark. Must be received in the Laboratory by 12.00 Mon-Fri ONLY. Deliver to laboratory immediately via Shute or by Hand.
Factor Assays I-XII	
Laboratory	**Refer to Coagulation Factor Assay (Single) or Extrinsic Factor Assay Screen or Intrinsic Factor Assay Screen**
Test Name Abbreviation	
Sample Type	
Container	
Volume	
TAT (Turn Around Time)	
Special Requirements & Instructions	
Factor XIII	

Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Factor XIII
Sample Type	Plasma
Container	Blue top Sodium- Citrate x 3
Volume	Draw Volume 2.7ml x 3
TAT (Turn Around Time)	Routine/Urgent 5 weeks
Special Requirements & Instructions	Sample must be filled to the mark. Must be received in the Laboratory by 12.00 Mon-Thurs ONLY. Deliver to laboratory immediately via Shute or by Hand
Factor VIII Inhibitor	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Factor VIII Inhibitor
Sample Type	Plasma
Container	Blue top Sodium- Citrate x 3
Volume	Draw Volume 2.7ml x 3
TAT (Turn Around Time)	Routine/Urgent 5 weeks
Special Requirements & Instructions	Sample must be filled to the mark. Must be received in the Laboratory by 12.00 Mon-Fri ONLY. Deliver to laboratory immediately via Shute or by Hand
Factor IX Inhibitor	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Factor IX Inhibitor
Sample Type	Plasma
Container	Blue top Sodium- Citrate x 3
Volume	Draw Volume 2.7ml x 3
TAT (Turn Around Time)	Routine/Urgent 5 weeks
Special Requirements & Instructions	Sample must be filled to the mark. Must be received in the Laboratory by 12.00 Mon-Fri ONLY. Deliver to laboratory immediately via Shute or by Hand
Factor VIII C	
Laboratory	Haematology – Referral Laboratory

Test Name Abbreviation	Factor VIII C
Sample Type	Plasma
Container	Blue top Sodium- Citrate x 2
Volume	Draw Volume 2.7ml x 2
TAT (Turn Around Time)	Routine/Urgent 1 week
Special Requirements & Instructions	Sample must be filled to the mark. Must be received in the Laboratory by 12.00 Mon-Fri ONLY. Deliver to laboratory immediately via Shute or by Hand
Factor Xa levels (Low M.W Heparin Assay)	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	**Factor Xa levels**
Sample Type	Plasma
Container	Blue top Sodium- Citrate x 2
Volume	Draw Volume 2.7ml x 2
TAT (Turn Around Time)	Routine/Urgent 2 weeks
Special Requirements & Instructions	Sample must be filled to the mark. Samples to be taken 4-6 hours post dose of Low Molecular Weight Heparin (LMWH). Samples must be filled to the mark and delivered to laboratory immediately. Must be received during routine hours Mon -Fri ONLY. Please include type of LMWH. Provide a request form to state the time of the last heparin dose and always state sampling time on the sample bottles. Deliver to laboratory immediately via Shute or by Hand
Fanconi Anaemia (Chromosome breakage screen)	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Fanconi's Anaemia (Chromosome breakage screen)
Sample Type	Whole Blood
Container	Green top lithium heparin x 2
Volume	Draw Volume 4ml x 2
TAT (Turn Around Time)	Routine/Urgent 3 weeks
Special Requirements & Instructions	Attach clinical data and consent form. According to regulation, each request must ALWAYS be accompanied by a consent form signed by the patient and

	the prescribing pathologist. See Biomnis website for Genetic test Request, Info and Consent Form (B13: cytogenetic). Deliver to laboratory within one hour via Shute or by Hand
Fibrin Degradation Products (FDP)	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	FDP
Sample Type	Plasma
Container	Blue Top Sodium- Citrate
Volume	Draw Volume 2.7ml x 2
TAT (Turn Around Time)	Routine/Urgent 1 week
Special Requirements & Instructions	Place the sample on ice and deliver to the lab immediately via Shute or by hand.
Fibrinogen	
Laboratory	Haematology
Test Name Abbreviation	Fibrinogen
Sample Type	Plasma
Container	Blue top Sodium- Citrate
Volume	Draw Volume 2.7ml
TAT (Turn Around Time)	Routine 4 hours; Urgent 1.5 hours
Special Requirements & Instructions	Sample must be filled to the mark. Deliver to laboratory within one hour via Shute or by Hand
FISH (FIP1L1-PDGFR)	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	FISH (FIP1L1-PDGFR)
Sample Type	Whole Blood
Container	Purple Top EDTA x 2
Volume	Draw Volume 4 ml x 2
TAT (Turn Around Time)	Routine/Urgent 6 weeks
Special Requirements & Instructions	Always fill the bottle. Please provide relevant clinical details. Reason why patient is being tested/what haematological disease is present, etc. Deliver to laboratory immediately via Shute or by Hand

FISH Analysis (e.g., CLL panel)	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	FISH Analysis (e.g., CLL panel)
Sample Type	Whole Blood
Container	Green top lithium heparin x 2
Volume	Draw Volume 4ml x 2
TAT (Turn Around Time)	Routine/Urgent – Please contact the laboratory
Special Requirements & Instructions	Always fill the bottles. Please provide relevant clinical details. Reason why patient is being tested/what haematological disease is present, etc. Always indicate what panel is required. Deliver to laboratory immediately via Shute or by Hand
Flow Cytometry	
Laboratory	**Please see Immunophenotyping for details**
Test Name Abbreviation	
Sample Type	
Container	
Volume	
TAT (Turn Around Time)	
Special Requirements & Instructions	
Friedreich genes (part of SCA 1-6 test)	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Friedreich genes
Sample Type	Whole blood
Container	Purple Top EDTA x 2
Volume	Draw Volume 4 ml x 2
TAT (Turn Around Time)	Routine/Urgent Contact the laboratory
Special Requirements & Instructions	Mon- Thurs 12pm or Friday by Taxi due to logistic restrictions at the weekend. Consent form required (Crumlin website). Deliver to laboratory within one hour via Shute or by Hand

Full Blood Count (FBC)	
Laboratory	Haematology
Test Name Abbreviation	FBC
Sample Type	Whole blood
Container	Purple top EDTA
Volume	Draw Volume 4 ml
TAT (Turn Around Time)	Routine 2 hours; Urgent 1 hour
Special Requirements & Instructions	None Deliver to laboratory within one hour via Shute or by Hand
Glucose -6 - PD (Glucose-6-Phosphate Dehydrogenase)	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	G6PD
Sample Type	Whole blood
Container	Purple top EDTA
Volume	Draw Volume 4 ml x 2
TAT (Turn Around Time)	Routine/Urgent 3 weeks
Special Requirements & Instructions	None Deliver to laboratory within one hour via Shute or by Hand
Haemachromatosis screen	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Haemachromatosis screen
Sample Type	Whole blood
Container	Purple top EDTA
Volume	Draw Volume 4 ml x 2
TAT (Turn Around Time)	Routine/Urgent 3 weeks
Special Requirements & Instructions	MON-THURS up to 12 pm each day. Complete Special Consent and Request forms (Biomnis website)-required for testing. Deliver to laboratory within one hour via Shute or by Hand
Haemoglobinopathy Screen	
Laboratory	Haematology – Referral Laboratory

Test Name Abbreviation	HGBPY Screen (≥16 year-old)	HGBPY Screen (<16 year-old)
Sample Type	Whole Blood	Whole Blood
	Serum	
Container	Purple top EDTA x 1	Purple top EDTA x 1
	Red top - no additive x 1	
Volume	Draw Volume 4ml x 1EDTA	Draw Volume 4ml x 1EDTA
	Draw Volume 5ml x 1 serum	
TAT (Turn Around Time)	Routine 2 weeks; Urgent same day	
Special Requirements & Instructions	Send samples to laboratory immediately. Only Mon-Thurs up to 12.00pm ONLY. Always provide clinical details. As per St James' website, External requests must be accompanied by a Haemoglobinopathy Request Form. Deliver to laboratory within one hour via Shute or by Hand	
Haemoglobinuria		
Laboratory	Haematology – Referral Laboratory	
Test Name Abbreviation	Haemoglobinuria	
Sample Type	Urine	
Container	Sterile white top container - no additive	
Volume	30 ml	
TAT (Turn Around Time)	Routine/Urgent-Contact the laboratory	
Special Requirements & Instructions	Morning sample required. MON-FRI up to 12 pm each day. Contact laboratory prior to sending Deliver to laboratory within one hour via Shute or by Hand	
Haemosiderin		
Laboratory	Haematology – Referral Laboratory	
Test Name Abbreviation	Urine	
Sample Type	Sterile white top container - no additive	
Container	30 ml	
Volume	Routine/Urgent- 1 week	
TAT (Turn Around Time)	Urine	
Special Requirements & Instructions	Morning sample required. MON-FRI up to 12 pm each day. Contact laboratory prior to sending	

	Deliver to laboratory within one hour via Shute or by Hand
Haptoglobin	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Haptoglobin
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Volume 6 ml
TAT (Turn Around Time)	Routine/Urgent 3 weeks
Special Requirements & Instructions	None Deliver to laboratory within one hour via Shute or by Hand
HIT (Heparin induced thrombocytopenia Screen)	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	HIT
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube x 2
Volume	Draw Volume 6 ml x 2
TAT (Turn Around Time)	Routine 1 week; Urgent 2-3 days
Special Requirements & Instructions	HIT SCREEN FORM available on SJH website. Sections A, B & C to be completed and sent with blood samples. This form must be completed in full. Clinical details must be provided including most recent platelet count. If patient is on heparin include type and dosage. Deliver to laboratory within one hour via Shute or by Hand
HLA Typing (HLA-B27)	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	HLA-B27
Sample Type	Whole blood
Container	Purple top EDTA
Volume	Draw Volume 4 ml x 1
TAT (Turn Around Time)	Routine/Urgent 3 weeks
Special Requirements & Instructions	REQUEST AND CONSENT FORM REQUIRED. Must be completed with clinical information and signed by patient and consultant.

	Samples accepted MON - FRI by 1200pm each day ONLY. Deliver to laboratory within one hour via Shute or by Hand
Infectious Mononucleosis Screen (FBC included)	
Laboratory	Haematology
Test Name Abbreviation	IM Screen
Sample Type	Whole Blood
Container	Purple Top EDTA
Volume	Draw Volume 4 ml
TAT (Turn Around Time)	Routine 4 hours; Urgent 1 hours
Special Requirements & Instructions	None Deliver to laboratory within one hour via Shute or by Hand
Immunophenotyping (Flowcytometry)	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Immunophenotyping (Flowcytometry)
Sample Type	Whole blood
Container	Purple top EDTA x 2
Volume	Draw Volume 4 ml x 2
TAT (Turn Around Time)	Routine/Urgent 3 weeks
Special Requirements & Instructions	Always contact the Haematology Laboratory in advance. Must indicate the panel required on the Request Form. Provide as many clinical details as possible for both known and new cases. Deliver to laboratory immediately via Shute or by Hand
Intrinsic factor Assay screen (Factors VIII, IX, XI, XII)	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Intrinsic factor Assay screen
Sample Type	Plasma
Container	Blue top sodium citrate x 3
Volume	Draw Volume 2.7 ml x 3
TAT (Turn Around Time)	Routine 1-2 weeks; Urgent – contact the lab
Special Requirements & Instructions	Sample must be filled to the mark. Must be received in the Laboratory by 13.00. Deliver to laboratory immediately via Shute or by Hand

JAK 2 Mutation PCR	
Laboratory	**Refer to MPN Panel**
Test Name Abbreviation	
Sample Type	
Container	
Volume	
TAT (Turn Around Time)	
Special Requirements & Instructions	
Lupus Inhibitor/Lupus anticoagulant (also part of 'Thrombophilia Screen')	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Lupus
Sample Type	Plasma
Container	Blue Top Sodium Citrate
Volume	Draw Volume 2.7 ml x 2
TAT (Turn Around Time)	Routine/Urgent 6 weeks
Special Requirements & Instructions	Clinical details to include details of current or recent anticoagulation therapy. Samples to be received in laboratory before 12pm. Testing should not be done during thrombotic period or while patient is on anticoagulants. Patients must be off DOACs for a minimum of 72hrs, and off LMWH for a minimum of 12 hrs prior to sample collection. Bottles must be filled to the mark. Deliver to laboratory immediately via Shute or by Hand
Lymphocyte Subsets	
Laboratory	See CD3/CD4/CD8 B & T Lymphocyte Subsets
Test Name Abbreviation	
Sample Type	
Container	
Volume	
TAT (Turn Around Time)	
Special Requirements & Instructions	

Malaria Screen	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Malaria
Sample Type	Whole blood
Container	Purple top EDTA
Volume	Draw Volume 4 ml
TAT (Turn Around Time)	Routine 2 days; Urgent 1 day
Special Requirements & Instructions	Contact laboratory in advance. Testing ONLY available 9-4 pm MON to FRI. Send samples to laboratory immediately. Travel history and clinical details must be provided. Deliver to laboratory immediately via Shute or by Hand
Myeloproliferative Neoplasm Panel (MPN panel includes: JAK2 V617F/JAK2 Exon 12/CALR exon 9/ MPL exon 10)	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	MPN panel
Sample Type	Whole blood
Container	Purple top EDTA x 3
Volume	Draw Volume 4 ml x 3
TAT (Turn Around Time)	Routine/Urgent 6 weeks
Special Requirements & Instructions	Contact Laboratory in advance. REQUEST AND CONSENT FORM REQUIRED. Must be completed with clinical information and signed by patient and consultant. Samples accepted MON - FRI by 1200pm ONLY. Deliver to laboratory immediately via Shute or by Hand
Morphology (FBC included)	
Laboratory	Haematology
Test Name Abbreviation	Morph/Blood Film
Sample Type	Whole Blood
Container	Purple top EDTA
Volume	Draw Volume 4 ml x 1
TAT (Turn Around Time)	Routine: 7 days; Urgent: Same Day
Special Requirements & Instructions	None Deliver to laboratory within one hour via Shute or by Hand

Natural Killer cells (CD 16)	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	NK cells
Sample Type	Whole blood
Container	Purple top EDTA
Volume	Draw Volume 4 ml x 2
TAT (Turn Around Time)	Routine/Urgent Contact the lab
Special Requirements & Instructions	Contact laboratory in advance. Send samples to laboratory immediately. Mon-Thurs up to 12.00pm ONLY. Always provide clinical details. Deliver to laboratory within one hour via Shute or by Hand
Plasma viscosity	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Plasma viscosity
Sample Type	Whole blood
Container	Purple top EDTA x 3
Volume	Draw Volume 4 ml x 3
TAT (Turn Around Time)	Routine 1 week; Urgent 1 day
Special Requirements & Instructions	Contact laboratory prior to taking sample. Can only be collected up to 1pm daily Mon-Fri for dispatch to referral lab. Send sample immediately after phlebotomy. Deliver to laboratory immediately via Shute or by Hand
Paroxysmal nocturnal haemoglobinuria (PNH)	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	PNH
Sample Type	Whole Blood
Container	Purple top EDTA x 2
Volume	Draw Volume 4 ml x 2
TAT (Turn Around Time)	Routine/Urgent 2 weeks
Special Requirements & Instructions	Complete PNH FORM (from SJH website). Sample can be received in laboratory Mon - Thurs up to 12 pm ONLY. Deliver to laboratory within one hour via Shute or by Hand
Protein C (Part of 'Thrombophilia Screen')	

Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Protein C
Sample Type	Plasma
Container	Blue top sodium citrate
Volume	Draw Volume 2.7 ml x 1
TAT (Turn Around Time)	Routine/Urgent 6 weeks
Special Requirements & Instructions	Clinical details to include details of current or recent anticoagulation therapy. Samples to be received in laboratory before 12pm. Testing should not be done during thrombotic period or while patient is on anticoagulants. Bottles must be filled to the mark. Deliver to laboratory immediately via Shute or by Hand
Protein S (Part of 'Thrombophilia Screen')	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Protein C
Sample Type	Plasma
Container	Blue top sodium citrate
Volume	Draw Volume 2.7 ml x 1
TAT (Turn Around Time)	Routine/Urgent 6 weeks
Special Requirements & Instructions	Clinical details to include details of current or recent anticoagulation therapy. Samples to be received in laboratory before 12pm. Testing should not be done during thrombotic period or while patient is on anticoagulants. Bottles must be filled to the mark. Deliver to laboratory immediately via Shute or by Hand
Prothrombin Gene Mutation	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	Prothrombin Gene Mutation
Sample Type	Whole blood
Container	Purple top EDTA
Volume	Draw Volume 4 ml x 1
TAT (Turn Around Time)	Routine/Urgent 3 weeks
Special Requirements & Instructions	Coagulation Genetic Testing Consent form to be filled out by Dr (St James Thrombophilia and coagulation testing form) Deliver to laboratory within one hour via Shute or by Hand

PT/INR (Pro-thrombin Time / INR Also done as part of coagulation screen)		
Laboratory	Haematology	
Test Name Abbreviation	PT/INR	
Sample Type	Plasma	
Container	Blue top sodium citrate	
Volume	Draw Volume 2.7 ml	
TAT (Turn Around Time)	Routine 4 hours; Urgent 1.5 hours	
Special Requirements & Instructions	Fill bottle to mark.	
TAT (Turn Around Time)	Routine/Urgent 3 weeks	
Special Requirements & Instructions	None Deliver to laboratory within one hour via Shute or by Hand	
Red Cell Folate (Erythrocyte Folic Acid)		
Laboratory	Haematology – Referral Laboratory	
Test Name Abbreviation	Red Cell Folate	
Sample Type	Whole Blood	Serum
Container	Purple top EDTA	Yellow Top bottle SST Tube
Volume	Draw Volume 4 ml	Draw Volume 6 ml x 1
TAT (Turn Around Time)	Routine/Urgent 3 weeks	
Special Requirements & Instructions	Patient must be fasting. Deliver to laboratory immediately via Shute or by Hand	
Reticulocyte Count (Retic) - (FBC test included)		
Laboratory	Haematology	
Test Name Abbreviation	Retic	
Sample Type	Whole blood	
Container	Purple top EDTA	
Volume	Draw Volume 4 ml x 1	
TAT (Turn Around Time)	Routine 4 hours; Urgent 1 hour	
Special Requirements & Instructions	None Deliver to laboratory within one hour via Shute or by Hand	
RT-PCR for BCR ABL		

Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	BCR-ABL
Sample Type	Whole blood
Container	Purple top EDTA x 3
Volume	Draw Volume 4 ml x 3
TAT (Turn Around Time)	Routine/Urgent 3-4 weeks
Special Requirements & Instructions	Clinical details must be provided. Deliver to laboratory immediately via Shute or by Hand
RT-PCR for PML RARa	
Laboratory	Haematology – Referral Laboratory
Test Name Abbreviation	PML RARa
Sample Type	Whole blood
Container	Purple top EDTA x 3
Volume	Draw Volume 4 ml x 3
TAT (Turn Around Time)	Routine/Urgent 3-4 weeks
Special Requirements & Instructions	Clinical details must be provided. Deliver to laboratory immediately via Shute or by Hand
SCA 1-6 (incl. Friedreich genes)	
Laboratory	**Refer to Friedreich genes**
Test Name Abbreviation	
Sample Type	
Container	
Volume	
TAT (Turn Around Time)	
Special Requirements & Instructions	
Sickle cell	
Laboratory	Haematology – referral laboratory
Test Name Abbreviation	Sickle Cell
Sample Type	Whole blood
Container	Purple top EDTA

Volume	Draw Vol - 4mL	
TAT (Turn Around Time)	Routine/Urgent: 1 day to screen, 4 weeks to confirm.	
Special Requirements & Instructions	Clinical details must be provided. Deliver to laboratory immediately via Shute or by Hand	
T-Cell subsets		
Laboratory	See CD3/CD4/CD8 B & T Lymphocyte Subsets	
Test Name Abbreviation		
Sample Type		
Container		
Volume		
TAT (Turn Around Time)		
Special Requirements & Instructions		
Thromboexact		
Laboratory	Haematology	
Test Name Abbreviation	Thromboexact	
Sample Type	Whole blood	
Container	Thromboexact tube magnesium sulphate	
Volume	Draw Vol – 2.74 mL	
TAT (Turn Around Time)	Routine 4 hours; Urgent 1 hour.	
Special Requirements & Instructions	Contact Haematology laboratory in advance. Used only in the case of EDTA induced platelet clumping. Deliver to laboratory within one hour via Shute or by Hand	
Thrombophilia screen (includes PT, INR. APTT, FIB, Anti Thrombin III, Protein C+S, APC Resistance, Lupus Inhibitor Screen & {Factor V Leiden})		
Laboratory	Haematology – referral laboratory	
Test Name Abbreviation	PT, INR. APTT, FIB, Anti Thrombin III, Protein C+S, APC Resistance, Lupus Inhibitor Screen	Factor V Leiden
Sample Type	Plasma	Whole blood
Container	Blue top sodium citrate x 4	Purple top EDTA 2
Volume	Draw Vol – 2.7 mL x 4	Draw Vol – 4 mL x 2

TAT (Turn Around Time)	Routine/Urgent: 6 weeks	3 weeks from time of referral
Special Requirements & Instructions	Clinical details to include details of current or recent anticoagulation therapy. Samples to be received in laboratory before 12pm. Testing should not be done during thrombotic period or while patient is on anticoagulants. Patients must be off DOACs for a minimum of 72hrs, and off LMWH for a minimum of 12 hrs prior to sample collection. Bottles must be filled to the mark. (For general testing guidelines, refer to Thrombophilia Testing Guidelines SJH: *LabMed005*, available from SJH website.) Deliver to laboratory immediately via Shute or by Hand	All Factor V Leiden must be accompanied by an APCR result from an external source. Factor V Leiden tests are only done if APCR is abnormal. A signed genetic consent form and completed request form must be obtained on sample receipt. Deliver to laboratory immediately via Shute or by Hand
Von Willebrands Screen		
Laboratory	Haematology – referral laboratory	
Test Name Abbreviation	Von Willebrand's Screen	
Sample Type	Plasma	
Container	Blue top sodium citrate x 2	
Volume	Draw Vol – 2.7 mL x 2	
TAT (Turn Around Time)	Routine/Urgent: 5 weeks	
Special Requirements & Instructions	CONTACT LABORATORY IN ADVANCE. Sample should be received in referral laboratory within 8 hours of phlebotomy. Bottles must be filled to the mark. Deliver to laboratory immediately via Shute or by Hand	

20.1.3. Appendix 1.3: Microbiology Test Repertoire

1-3 Beta-d-glucan

Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Beta-d-glucan
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
16S Bacterial PCR	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	16S PCR
Sample Type	Tissue/Fluid
Container	Sterile white top container - no additive
Volume	N/A
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Only by request from Consultant Microbiologist. Deliver to the laboratory immediately via chute or by hand.
18S Fungal PCR	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	18S PCR
Sample Type	Tissue/Fluid
Container	Sterile white top container - no additive
Volume	N/A
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Only by request from Consultant Microbiologist. Deliver to the laboratory immediately via chute or by hand.
Acanthamoeba (Molecular Analysis)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Acanthamoeba
Sample Type	Swab/Corneal scraping/Fluid/biopsies

Container	Blue top dry swab/sterile container - no additive Sterile dry swabs available on request.
Volume	N/A
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Please contact the Microbiology Lab before ordering this test. Sterile dry swabs available on request. Deliver to the laboratory immediately via chute or by hand.
Adenovirus Serology	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Adenovirus Serology
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Adenovirus PCR	
Laboratory	Microbiology
Test Name Abbreviation	Adenovirus PCR
Sample Type	Faeces
Container	Blue Top Stool Container - no additive
Volume	2-5 grams
TAT (Turn Around Time)	2-4 days
Special Requirements & Instructions	Part of **Gastrointestinal Panel PCR** Deliver to the laboratory immediately via chute or by hand.
Adenovirus PCR (Respiratory Specimens)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Adenovirus PCR
Sample Type	Nasopharyngeal Aspirate/Sputum/BAL
Container	Sterile white top container - no additive
Volume	N/A

TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Respiratory viruses are extremely thermolabile and should be transported to the laboratory without delay. Deliver Nasopharyngeal Aspirate/Sputum to the laboratory immediately via chute or by hand. Deliver BAL samples to the laboratory immediately **by hand.**
Anti-tetanus Antibodies	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Tetanus Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Anti-Streptolysin O Titre	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	ASOT
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Aspergillus titre (Aspergillus fumigatus IgG/IgM titre)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Aspergillus Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks

Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Atypical Pneumonia/Respiratory Serology	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Atypical Pneumonia Serology
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Chlamydia pneumonia IgG/IgM, Mycoplasma IgG/IgM, Legionella Abs Deliver to the laboratory immediately via chute or by hand.
Atypical Pneumonia/respiratory Screen PCR (BAL)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Atypical Pneumonia PCR
Sample Type	BAL
Container	Sterile BAL container - no additive
Volume	Minimum 2ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	RSV, Legionella, Chlamydia pneumoniae, Mycoplasma pneumoniae Deliver to the laboratory immediately **by hand.**
Avian precipitins (Bird Fancier's Disease)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Avian Precipitins
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Please specify bird type if possible Deliver to the laboratory immediately via chute or by hand.

Bartonella serology IgG (Cat scratch disease)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Bartonella Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Blood cultures (Aerobic and Anaerobic)	
Laboratory	Microbiology
Test Name Abbreviation	Blood Culture
Sample Type	Blood
Container	Blood Culture Bottles X 2 (1 Aerobic, 1 Anaerobic)
Volume	10mls per bottle
TAT (Turn Around Time)	5 days
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand. If out of hours (after 8pm) contact the night sister. Ensure samples are labelled with collection time and collector's name.
Bordetella pertussis PCR (Whooping cough)	
Laboratory	Microbiology
Test Name Abbreviation	B.pertussis PCR
Sample Type	Nasopharyngeal swab
Container	UTM
Volume	3ml
TAT (Turn Around Time)	24-48 Hrs
Special Requirements & Instructions	Test included in **Respiratory Panel PCR** Deliver to the laboratory immediately via chute or by hand.
Bordetella pertussis DNA (Whooping cough)	
Laboratory	Microbiology – Referral laboratory

Test Name Abbreviation	B.pertussis DNA
Sample Type	Skin Biopsy, joint biopsy, synovial fluid, pericardial fluid, CSF, EDTA whole blood
Container	Sterile universal container - no additive / EDTA
Volume	Minimum 0.5ml CSF, 2ml EDTA whole blood
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver Skin Biopsy, joint biopsy, synovial fluid, pericardial fluid, EDTA whole blood to the laboratory immediately via chute or by hand. Deliver CSF to the laboratory immediately **by hand.**
Bordetella pertussis antibodies serology (Whooping cough)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	B.pertussis Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Borrelia titre (Lyme titre)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Lyme Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Relevant clinical information must be provided i.e., recent history of tick bites. IgG assay only will be performed Deliver to the laboratory immediately via chute or by hand.
Borrelia burgdorferi PCR	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Lyme PCR

Sample Type	CSF/whole blood
Container	Sterile universal container - no additive / EDTA
Volume	Minimum 150ul CSF
TAT (Turn Around Time)	4 weeks
Special Requirements & Instructions	Only to be sent following discussion with RIPL microbiologist Deliver CSF to the laboratory immediately **by hand.**
Borrelia burgdorferi CSF (neuroborreliosis) ELISA and Immnuoblot	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Lyme CSF
Sample Type	CSF AND serum
Container	Sterile universal container - no additive & Yellow top bottle Gel -SST Tube (serum)
Volume	Minimum 600ul (CSF) & 0.5ml (Serum)
TAT (Turn Around Time)	4 weeks
Special Requirements & Instructions	Must be accompanied with a serum sample collected the same day and RIPL Lyme Request form Deliver to the laboratory immediately **by hand.**
Bronchoalveolar lavage (BAL) Culture and Sensitivity	
Laboratory	Microbiology
Test Name Abbreviation	BAL Culture
Sample Type	BAL
Container	Sterile BAL container - no additive
Volume	10ml
TAT (Turn Around Time)	2-4 Days
Special Requirements & Instructions	Deliver to the laboratory immediately **by hand.**
Brucella IgG, IgM and Total Antibodies	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Brucella Abs
Sample Type	Serum

Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Candidiasis (Candida Albicans Serology Screen)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	C.albicans Serology
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Catheter Tip Culture and Sensitivity	
Laboratory	Microbiology
Test Name Abbreviation	Tip Culture
Sample Type	Catheter tip
Container	Plain Sterile White Capped Universal - no additive
Volume	N/A
TAT (Turn Around Time)	2-4 Days
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Chikungunya IgG/IgM	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Chikungunya Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks

Special Requirements & Instructions	Clinical details required. Contact the laboratory for the required request form. Deliver to the laboratory immediately via chute or by hand.
Chlamydia pneumoniae (see also Atypical Pneumonia Screen)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	C.pneumoniae Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Chlamydia psittaci IgG/IgM	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	C.psittaci Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Chlamydia trachomatis PCR (Swab)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Chlamydia PCR
Sample Type	Swab (conjunctiva, cervical, urethral)
Container	ABBOTT MULTI COLLECT SYSTEM ONLY
Volume	N/A
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	ABBOTT MUTLI COLLECT SYSTEM ONLY. Viral swabs are available from the Microbiology Dept. Please phone 5669 between 8-16.30 /after hours on 5699.

	Neisseria gonorrhoeae and Chlamydia trachomatis PCR included in test. Deliver to the laboratory immediately via chute or by hand.
Chlamydia trachomatis and Neisseria gonorrhoeae PCR	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	CT/NG PCR
Sample Type	Urine, Swab (conjunctiva, cervical, urethral)
Container	ABBOTT MULTI COLLECT SYSTEM ONLY
Volume	N/A
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Collect urine sample in a normal universal container (no additive). Send to lab with test label attached. Viral swabs MUST be collected in ABBOTT MULTI COLLECT SYSTEM ONLY. Available from the Microbiology Dept. Please phone 5669 between 8-16.30 /after hours on 5699. Deliver to the laboratory immediately via chute or by hand.
Clostridioides difficile Antigen and Toxin	
Laboratory	Microbiology
Test Name Abbreviation	C.diff
Sample Type	Faeces
Container	Blue Top Stool Container - no additive
Volume	2-5 grams
TAT (Turn Around Time)	4 hours (urgent) / 1 day (routine)
Special Requirements & Instructions	Please provide relevant clinical details. Not performed on formed stools. Deliver to the laboratory immediately via chute or by hand.
Cytomegalovirus IgG/IgM	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	CMV Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml

TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Cytomegalovirus IgG	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	CMV IgG
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Cytomegalovirus IgM	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	CMV IgM
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Cytomegalovirus PCR	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	CMV PCR
Sample Type	EDTA Whole Blood
Container	Purple Top bottle x 1 with EDTA
Volume	Draw Vol- 4ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Colistin	

Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Colistin
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Sample must be collected pre dose Deliver to the laboratory immediately via chute or by hand.
Coxiella burnetti Serology (Q fever)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Q Fever
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Coxsackie Virus (Picornavirus) Serology	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Coxsackie Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
CPE Screen (Carbapenemase Producing Enterobacterales)	
Laboratory	Microbiology
Test Name Abbreviation	CPE screen
Sample Type	Rectal swab
Container	Blue topped swab with transport medium

Volume	N/A
TAT (Turn Around Time)	48 hours
Special Requirements & Instructions	Please ensure faecal matter is visible on rectal swab Refer to current infection control guidelines Test included in Rectal Screen or may be requested individually Deliver to the laboratory immediately via chute or by hand.
Cryptococcal Antigen	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Cryptococcal Ag
Sample Type	CSF
Container	Plain White top Universal - no additive
Volume	Minimum 100µl
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Please note this test is only available by special request from the Consultant Microbiologist to the Consultant Microbiologist at GUH. Deliver to the laboratory immediately **by hand.**
Cryptosporidium PCR	
Laboratory	Microbiology
Test Name Abbreviation	Cryptosporidium PCR
Sample Type	Faeces
Container	Blue Top Stool Container - no additive
Volume	2-5 grams
TAT (Turn Around Time)	2-4 Days
Special Requirements & Instructions	Please include relevant clinical details Included as part of **Gastrointestinal panel** on Film Array. If specific request for Cryptosporidium, discuss with Consultant Microbiologist Deliver to the laboratory immediately via chute or by hand.
Cerebrospinal Fluid Culture	
Laboratory	Microbiology

Test Name Abbreviation	CSF culture
Sample Type	CSF
Container	Plain White Capped Universal X 3 - no additive
Volume	3 bottles x 1-2 ml
TAT (Turn Around Time)	1-4 Days / Initial result < 2 Hrs.
Special Requirements & Instructions	Deliver to the laboratory immediately **by hand.** Please mark samples 1,2 or 3 in the order in which they were collected
Cerebrospinal Fluid PCR Panel	
Laboratory	Microbiology
Test Name Abbreviation	CSF PCR
Sample Type	CSF
Container	Plain White Capped Universal - no additive
Volume	Minimum 200ul
TAT (Turn Around Time)	2 hours (urgent) / 1 day (routine)
Special Requirements & Instructions	Escherichia coli K1, Haemophilus inflenuzae, Listeria monocytogenes, Neisseria meningitides, Streptococcus agalactiae, Streptococcus pneumoniae, Cytomegalovirus, Enterovirus, Herpes simplex virus 1+2, Human herpesvirus 6, Human parechovirus and Varicella zoster virus, Cryptococcus neoformans/gattii Contact Laboratory to order this test. Deliver to the laboratory immediately **by hand.**
Dengue Fever IgG/IgM	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Dengue Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Only to be performed in the immune phase, i.e., from Day 5 after the onset of clinical signs. Clinical details required. Contact the laboratory for the required request form.

	Deliver to the laboratory immediately via chute or by hand.
Epstein Barr Virus IgG	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	EBV IgG
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Epstein Barr Virus IgM	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	EBV IgM
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Epstein Barr Virus Serology (IgG & IgM)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	EBV Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Enterovirus PCR	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Enterovirus PCR

Sample Type	CSF or Viral swab
Container	Plain White top Universal - no additive or Viral Swab
Volume	Minimum 500µl (CSF)
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Viral swabs available in Microbiology Department Deliver to the laboratory immediately via chute or by hand.
ESBL Screen (Extended Spectrum Beta-Lactamase)	
Laboratory	Microbiology
Test Name Abbreviation	ESBL screen
Sample Type	Rectal swab
Container	Blue topped swab with transport medium
Volume	N/A
TAT (Turn Around Time)	48 hours
Special Requirements & Instructions	Please ensure faecal matter is visible on rectal swab Refer to current infection control guidelines Test included in Rectal Screen Deliver to the laboratory immediately via chute or by hand.
Faeces PCR (FilmArray Gastrointestinal Panel)	
Laboratory	Microbiology
Test Name Abbreviation	Faeces PCR
Sample Type	Faeces
Container	Blue Top Stool Container - no additive
Volume	2-5 grams
TAT (Turn Around Time)	2-4 Days
Special Requirements & Instructions	Please provide relevant clinical details. Faeces PCR Panel (includes Campylobacter (jejuni, coli, upsaliensis), Clostridium difficile toxin A/B, Plesiomonas shigelloides, Salmonella, Vibrio (parahaemolyticus, vulnificus, cholerae), Yersinia enterocolitica, Enteraggregative Escherichia coli, Enteropathogenic Escherichia coli, Enterotoxigenic Escherichia coli lt/st, Shiga-like toxin producing Escherichia coli(stx1/stx2), Shigella/Enterovasive Escherichia coli, Cryptosporidium,

	Cyclospora cayetanensis, Entamoeba histolytica, Giardia lamblia, Adenovirus F 40/41, Astrovirus, Norovirus GI,GII, Rotavirus A and Sapovirus. Deliver to the laboratory immediately via chute or by hand.
Faeces for Ova Parasites PCR (In-house)	
Laboratory	Microbiology
Test Name Abbreviation	FOP PCR
Sample Type	Faeces
Container	Blue Top Stool Container - no additive
Volume	2-5 grams
TAT (Turn Around Time)	2-4 days
Special Requirements & Instructions	Included as part of **Gastrointestinal panel** on Film Array. Cryptosporidium, Cyclospora, Giardia lamblia, Entamoeba histolytica ONLY. Please provide relevant clinical details. Only performed on persistent Diarrhoea and foreign travel. Deliver to the laboratory immediately via chute or by hand.
Faeces for Ova and Parasites	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	FOP
Sample Type	Faeces
Container	Blue Top Stool Container - no additive
Volume	2-5 grams
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Please provide relevant clinical details Only performed on persistent Diarrhoea and foreign travel Deliver to the laboratory immediately via chute or by hand.
Faecal Occult Blood (FOB)	
Laboratory	Microbiology
Test Name Abbreviation	FOB
Sample Type	Faeces
Container	Blue Top Stool Container - no additive
Volume	2-5 grams

TAT (Turn Around Time)	2 hours (urgent) / 1 day (routine)
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Farmers Lung Antibodies (Microplyspora faeni)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Farmers Lung Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	If screening positive confirmation will be automatically performed Deliver to the laboratory immediately via chute or by hand.
Fluid Culture & Sensitivity	
Laboratory	Microbiology
Test Name Abbreviation	Fluid culture
Sample Type	Fluid
Container	Plain White Capped Universal - no additive
Volume	5ml
TAT (Turn Around Time)	Gram Stain and Microscopy can be performed within 2 hours. Culture: 5-10 days
Special Requirements & Instructions	Fluid culture may be performed on a range of fluids including Pleural, peritoneal, drainage aspirates and joint fluids. An aliquot of fluid in an EDTA container may also be sent for cell count if required. Deliver to the laboratory immediately via chute or by hand.
Fungal Culture	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Fungal Culture
Sample Type	Skin scrapings/Nail clippings/swabs for fungal analysis
Container	DERMAPAK (Fungal envelope)

Volume	N/A
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	All samples for fungal investigation must be received in DERMAPAK fungal envelopes. Deliver to the laboratory immediately via chute or by hand.
Galactomannan	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Galactomannan
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Haemophilus influenzae B Antibodies	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	HIB Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	This test is reserved for post-vaccination testing. Deliver to the laboratory immediately via chute or by hand.
HARI/SIMS Unit Blood Tests	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	HARI Blood Tests
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks

Special Requirements & Instructions	Please note these samples are not tested on site. Requirement that they be tested in NVRL due to European Legislation. **Laboratory MUST be contacted prior to taking samples for HARI/SIMS unit (Pre-Harvesting).** Deliver to the laboratory immediately via chute or by hand.
Helicobacter pylori Antigen (Stool)	
Laboratory	Microbiology
Test Name Abbreviation	H.pylori Ag
Sample Type	Faeces
Container	Blue Top Stool Container - no additive
Volume	1-5 grams
TAT (Turn Around Time)	4 hours (urgent) / 1 day (routine)
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Helicobacter pylori Culture and Sensitivity	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	H.pylori Culture
Sample Type	Gastric biospy (antral and/or fundal biopsies)
Container	Plain white top container - no additive
Volume	N/A
TAT (Turn Around Time)	Contact laboratory
Special Requirements & Instructions	**NO LONGER TEST OF CHOICE. PLEASE SEE H.PYLORI PCR**. Dispatch biopsy in sterile CE marked container with a small amount (approx. 100µl) of sterile isotonic saline to prevent desiccation. Provide request form and relevant clinical details. Deliver to the laboratory immediately **by hand.**
Helicobacter pylori PCR	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	H.pylori PCR
Sample Type	Gastric biospy (Antral and/or fundal biopsies)
Container	Specialist Portogerm H.pylori Agar Bijou
Volume	N/A

TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	ALWAYS PROTECT FROM LIGHT & keep covered in tinfoil. Contact lab to obtain the specialist agar bijou and clinical information form. Sample should be ideally taken directly into media, inoculated deeply and protected from light, sent to the lab as soon as possible (within 6 hrs). Helicobacter pylori and clarithromycin, fluoroquinolones resistance genes, detection by PCR Deliver to the laboratory immediately **by hand.**
Helicobacter pylori Serology (IgG)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	H.pylori IgG
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Hepatitis A Antibodies (IgG and IgM)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Hep A Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Hepatitis A Antibodies (IgM)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Hep A IgM
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube

Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Hepatitis B Core Antibody (Anti HBc)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Hep B core
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Hepatitis B Antibodies (Anti-HBs) (Immunity)	
Laboratory	Microbiology
Test Name Abbreviation	Hep B Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	2 hours (urgent) / 1 week (routine)
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Hepatitis B DNA (viral load)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Hep B DNA
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml, Minimum 2ml serum required
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.

Hepatitis C Genotype	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Hep C Genotype
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml, Minimum 1ml serum required
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Hepatitis C Quantitative	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Hep C Quantitative
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Hepatitis C RNA	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Hep C RNA
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml, Minimum 1ml serum required
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Hepatitis E Serology	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Hep E Serology
Sample Type	Serum

Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Herpes Simplex Virus IgG	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	HSV IgG
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Herpes Simplex Virus PCR	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	HSV PCR
Sample Type	Viral Swab or CSF
Container	Swab (in viral transport media) or CSF (sterile universal container - no additive)
Volume	Minimum 500µl (CSF)
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Viral swabs are available from the Microbiology Dept. Ext 5669. Deliver to the laboratory immediately via chute or by hand.
Herpes Virus Type 6 DNA	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Herpes Virus Type 6 DNA
Sample Type	Preferably CSF Whole Blood, Saliva
Container	Sterile universal container - no additive / EDTA Whole Blood

Volume	Minimum 500µl (CSF)
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Influenza A&B PCR	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Influenza A&B PCR
Sample Type	Throat Swab, BAL, Sputum
Container	UTM Viral swab in viral transport media or Sterile container for BAL and Sputum - no additive
Volume	Minimum 1ml BAL/sputum
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	UTM Viral swabs are available from the Microbiology Dept (5699). Deliver to the laboratory immediately via chute or by hand.
Influenza A & B Antibodies	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Influenza A&B Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Intraconazole Levels	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Intraconazole Levels
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks

Special Requirements & Instructions	Sample to be collected pre dose after patient has been on drug for 14 days. Deliver to the laboratory immediately via chute or by hand.
JC Virus DNA	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	JCV DNA
Sample Type	CSF/Urine/Blood/serum
Container	Sterile universal container - no additive (CSF) Blood (EDTA) Serum (Yellow Top Gel -SST Tube)
Volume	Minimum 300ul - CSF/Urine Draw Vol-4/6ml – Blood/Serum
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Legionella Culture	
Laboratory	Microbiology
Test Name Abbreviation	Legionella Culture
Sample Type	Sputum/ BAL
Container	Sterile universal container - no additive
Volume	Minimum 1 ml
TAT (Turn Around Time)	10 days
Special Requirements & Instructions	May be processed as part of Sputum/BAL culture. MUST state that Legionella is required. Deliver sputum samples to the laboratory immediately via chute or by hand. Deliver BAL samples to the laboratory immediately **by hand.**
Legionella Urinary Antigen	
Laboratory	Microbiology
Test Name Abbreviation	Legionella UrAg
Sample Type	Urine

Container	Plain White Capped Universal - no additive or Boric Acid Container
Volume	5ml
TAT (Turn Around Time)	2 hours (urgent) / 1 day (routine)
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Legionella Antibody Serology	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Legionella Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Legionella PCR	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Legionella PCR
Sample Type	BAL
Container	Sterile BAL container - no additive
Volume	Minimum 1ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately **by hand.**
Leptospira Titre	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Leptospira Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks

Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Listeria monocytogenes DNA	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Listeria monocytogenes DNA
Sample Type	CSF or Whole Blood EDTA
Container	Plain White Capped Universal - no additive (CSF) or EDTA purple top
Volume	Minimum 500ul CSF/ Draw Vol 4ml EDTA Whole Blood
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	See also **CSF (Cerebrospinal Fluid) PCR panel** available in house Deliver to the laboratory immediately via chute or by hand.
Lyme Titre (See Borrelia titre)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Lyme Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Measles Antibodies IgG	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Measles IgG
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Measles Antibodies IgM	

Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Measles IgM
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Measles PCR	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Measles PCR
Sample Type	Oral Fluid, Urine, swabs, CSF
Container	Oracol Collection Device / Plain White Capped Universal - no additive
Volume	N/A
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Please contact Microbiology department before ordering this test. Deliver to the laboratory immediately **by hand.**
MRSA Screening	
Laboratory	Microbiology
Test Name Abbreviation	MRSA screen
Sample Type	Nose/Groin/Throat
Container	Blue topped swab with transport medium
Volume	N/A
TAT (Turn Around Time)	1-2 days
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Mumps IgG (immunity)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Mumps IgG

Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Mumps IgM (Query Active Infection)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Mumps IgM
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Mumps PCR	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Mumps PCR
Sample Type	Saliva Buccal swab (Oral fluid)
Container	Buccal swab (Oral fluid)
Volume	N/A
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Buccal swabs available from Microbiology lab. Ext 5669 Deliver to the laboratory immediately via chute or by hand.
Mycoplasma genitalium PCR	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	M.genitalium PCR
Sample Type	Genital swab
Container	Aptima collection device
Volume	N/A
TAT (Turn Around Time)	3 weeks

Special Requirements & Instructions	Genital specimens only. Aptima collection devices available from Microbiology lab. Ext 5669 Deliver to the laboratory immediately via chute or by hand.
Mycoplasma pneumoniae PCR (see also Atypical Respiratory Screen)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	M.pneumoniae PCR
Sample Type	BAL, CSF
Container	Sterile container - no additive
Volume	Minimum 500µl
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately **by hand.**
Mycoplasma pneumoniae Serology (IgG and IgM)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	M.pneumoniae Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Needle Stick Injury - Source	
Laboratory	Microbiology
Test Name Abbreviation	NSI-Source
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	Infection Control Nurse (5698) and Biochemistry (5681) must be informed when any needlestick/blood splash occurs. Deliver to the laboratory immediately via chute or by hand.

Neisseria Gonorrhoeae PCR	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Gonorrhoeae PCR
Sample Type	Urine, Swab (conjunctiva, cervical, urethral)
Container	ABBOTT MULTI COLLECT SYSTEM ONLY
Volume	N/A
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Collect urine sample in a normal universal container (no additive). Viral swabs MUST be collected in ABBOTT MULTI COLLECT SYSTEM ONLY. Available from the Microbiology Dept. Please phone 5669 between 8-16.30 /after hours on 5699. Chlamydia trachomatis and Neisseria Gonorrhoeae PCR both included in test Deliver to the laboratory immediately via chute or by hand.
Norovirus	
Laboratory	Microbiology
Test Name Abbreviation	Norovirus
Sample Type	Faeces
Container	Blue Top Stool Container - no additive
Volume	2-5 grams
TAT (Turn Around Time)	4 hours (urgent) / 1 day (routine)
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Parainfluenzae Antibodies	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Parainfluenza Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks

Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Parasites (Faeces for Ova/Parasites)	
Laboratory	Microbiology
Test Name Abbreviation	FOP
Sample Type	Faeces
Container	Blue Top Stool Container - no additive
Volume	2-5 grams
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Please provide relevant clinical details Only performed on persistent Diarrhoea and foreign travel Deliver to the laboratory immediately via chute or by hand.
Parvovirus IgG (Immunity)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Parvovirus IgG
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Parvovirus IgM (Active Infection)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Parvovirus IgM
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Pneumococcal Antigen (Streptococcus pneumoniae Urinary Antigen)	

Laboratory	Microbiology
Test Name Abbreviation	S.pneumo UrAg
Sample Type	Urine
Container	Plain white capped universal - no additive or Boric Acid container
Volume	1-2ml
TAT (Turn Around Time)	2 hours (urgent) / 1 day (routine)
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Pneumococcal IgG	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	S.pneumo IgG
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Post vaccination testing ONLY. Deliver to the laboratory immediately via chute or by hand.
Pneumocystis carnii (jiroveci) PCR	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	PCP
Sample Type	CSF, BAL, Sputum
Container	Plain white capped universal - no additive
Volume	Minimum 1 ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver sputum samples to the laboratory immediately via chute or by hand. Deliver CSF/BAL samples to the laboratory immediately **by hand.**
Quantiferon Gold TB Test (Interferon Gamma Production)	
Laboratory	Microbiology – Referral Laboratory

Test Name Abbreviation	Quantiferon
Sample Type	Blood
Container	Quantiferon collection kit containing 4 tubes
Volume	Samples must be filled to the line on each tube
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Please fill bottle to between the black mark. Special kit with bottles available from phlebotomy. Test collection must be arranged through Phlebotomy Dept. **Collected Mon-Thurs ONLY during routine hours and Fri until 11am.** Deliver to the laboratory immediately via chute or by hand.
Rectal Screen (Includes CPE, VRE, ESBL and AMPC)	
Laboratory	Microbiology
Test Name Abbreviation	Rectal Screen
Sample Type	Rectal swab
Container	Blue topped swab with transport medium or Blue top universal container - no additive (faeces)
Volume	N/A
TAT (Turn Around Time)	2-4 days
Special Requirements & Instructions	Please ensure faecal matter is visible on rectal swab Refer to current infection control guidelines Test included in Rectal Screen Deliver to the laboratory immediately via chute or by hand.
Respiratory Panel PCR (Full Panel - In House)	
Laboratory	Microbiology
Test Name Abbreviation	Resp Panel
Sample Type	Nasopharyngeal swab
Container	UTM
Volume	3ml
TAT (Turn Around Time)	2 hours (urgent) / 8 hours (routine)
Special Requirements & Instructions	Adenovirus, Coronavirus 229E, Coronavirus HKU1, Coronavirus NL63, Coronavirus OC43, Middle East Respiratory Syndrome Coronavirus (MERS-CoV), Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2),

	Human Metapneumovirus, Influenza A, Influenza A subtype H1, Influenza A subtype H3, Influenza A subtype H1-2009, Influenza B, Parainfluenza Virus 1, Parainfluenza Virus 2, Parainfluenza Virus 3, Parainfluenza Virus 4, Human Rhinovirus/Enterovirus, Respiratory Syncytial Virus, Bordetella pertussis, Bordetella parapertussis, Chlamydia pneumoniae and Mycoplasma pneumoniae. Deliver to the laboratory immediately via chute or by hand.
Respiratory Panel (1st Line Respiratory Panel - In House)	
Laboratory	Microbiology
Test Name Abbreviation	1st Line Resp Panel
Sample Type	Nasopharyngeal swab
Container	UTM
Volume	3ml
TAT (Turn Around Time)	2 hours (urgent) / 8 hours (routine)
Special Requirements & Instructions	COVID-19, RSV, Influenza A & B Deliver to the laboratory immediately via chute or by hand.
Respiratory Screen	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Resp screen
Sample Type	Throat Swab, BAL, Sputum
Container	Viral swab in viral transport media or Sterile container for BAL and Sputum - no additive
Volume	1ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Viral swabs are available from the Microbiology Dept (5699). Send to lab without delay. Please note in-house respiratory testing is available for nasopharyngeal swabs. See Respiratory Screen – in-house Deliver BAL samples to the laboratory immediately **by hand.** Deliver sputum/throat swabs to the laboratory immediately via chute or by hand.
Rickettsia Serology (R.conorii and R. Typhi)	
Laboratory	Microbiology – Referral Laboratory

Test Name Abbreviation	Rickettsia Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Specify which species to test for. See Eurofins Test User Guide for details of tests available Deliver to the laboratory immediately via chute or by hand.
Rubella IgM (Active Infection)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Rubella IgM
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Please contact Microbiology department before ordering this test. Deliver to the laboratory immediately via chute or by hand.
Rubella IgG (immunity)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Rubella IgG
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Rubella PCR	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Rubella PCR
Sample Type	Oral Fluid, Urine, swabs, CSF

Container	Plain White Capped Universal - no additive / Oracol Collection Device
Volume	1ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Please contact Microbiology department before ordering this test. Deliver oral fluid, urine and swabs to the laboratory immediately via chute or by hand. Deliver CSF to the laboratory immediately **by hand.**
SARS-CoV-2 PCR – In House	
Laboratory	Microbiology
Test Name Abbreviation	SARS-CoV-2 PCR
Sample Type	Nasopharyngeal swab
Container	UTM
Volume	3ml
TAT (Turn Around Time)	2 hours (urgent) / 8 hours (routine)
Special Requirements & Instructions	Performed as part of Respiratory panel (1st line) and full Respiratory panel. Deliver to the laboratory immediately via chute or by hand.
SARS-CoV-2 Quantitative IgG	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	SARS-CoV-2 IgG
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	To be ordered for SARS-CoV-2 antibody level. Post vaccination and if on Rituximab Deliver to the laboratory immediately via chute or by hand.
Schistosoma Serology Screening (Bilharzia)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Schistosoma Abs

Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Schistosoma Confirmation (Bilharzia)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Schistosoma Confirmation
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Initial screening done first, If positive, confirmatory test done Deliver to the laboratory immediately via chute or by hand.
Shigella Antibodies	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Shigella Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Sputum for Culture & Sensitivity	
Laboratory	Microbiology
Test Name Abbreviation	Sputum Culture
Sample Type	Sputum
Container	Plain White Capped Universal - no additive
Volume	1ml

TAT (Turn Around Time)	2-4 days
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Staphylococcus & Streptococcus DNA	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Staph Strep DNA
Sample Type	CSF, Aqueous/ vitreous humour/ tissue
Container	Plain White Capped Universal - no additive
Volume	Minimum 1mL required
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver CSF to the laboratory immediately **by hand.** Deliver Aqueous/vitreous humour/tissue to the laboratory immediately via chute or by hand.
Swabs for Culture and Sensitivity	
Laboratory	Microbiology
Test Name Abbreviation	Swab Culture
Sample Type	Swab of wounds/skin etc.
Container	Blue topped swab with transport medium
Volume	N/A
TAT (Turn Around Time)	2-4 days Extended incubation may be needed for up to 10 days
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Swine Flu (H1N1)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Swine Flu
Sample Type	Nasopharyngeal swab
Container	UTM
Volume	3ml
TAT (Turn Around Time)	2 hours (urgent) / 8 hours (routine)
Special Requirements & Instructions	NOTE: Swine Flu (H1N1) is a type of Influenza A virus. Will be detected by Respiratory Screen.

	Deliver to the laboratory immediately via chute or by hand.
Syphilis (VDRL/TPHA) (CSF)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Syphilis
Sample Type	CSF and Serum
Container	Plain White Capped Universal and Yellow top Gel -SST Tube
Volume	Minimum 1mL CSF required / Draw Vol-6ml serum
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver CSF to the laboratory immediately **by hand.** Note: a serum sample should be taken same day as the CSF. Deliver serum to the laboratory immediately via chute or by hand. See T. pallidum (TPHA) / VDRL / Syphilis screen for serology.
TB PCR (Mycobacterium tuberculosis)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	TB PCR
Sample Type	CSF, BAL, Sputum, Tissue
Container	Plain White Capped Universal - no additive
Volume	Minimum 1mL required
TAT (Turn Around Time)	Contact Laboratory
Special Requirements & Instructions	Please discuss with Consultant Microbiologist prior to requesting test. Deliver CSF/BAL to the laboratory immediately **by hand.** Deliver Sputum/Tissue samples to the laboratory immediately via chute or by hand.
TB (Mycobacterium tuberculosis) Culture and Microscopy	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	TB Culture
Sample Type	Sputum/ BAL / pleural fluid
Container	Plain White Capped Universal - no additive
Volume	Minimum 1mL required. 2-5ml required for pleural fluids
TAT (Turn Around Time)	2-3 weeks for microscopy, 9 weeks for culture

Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
TB Culture (Urine)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	TB Urine
Sample Type	100ml of early morning urine over 3 consecutive days - specimen containers available from Microbiology
Container	Specimen containers available from Microbiology
Volume	100ml of early morning urine over 3 consecutive days
TAT (Turn Around Time)	Contact Laboratory
Special Requirements & Instructions	Please note this test is NOT available except in very rare occasions by special request from the Consultant Microbiologist to the Consultant Microbiologist at GUH. Urine samples are unreliable specimens for the diagnosis of renal TB. Please discuss with the Consultant Microbiologist before sending samples. 100ml of early morning urine collected over 3 consecutive days required - specimen containers available from Microbiology Deliver to the laboratory immediately via chute or by hand.
Tissue for Culture and Sensitivity	
Laboratory	Microbiology
Test Name Abbreviation	Tissue Culture
Sample Type	Tissue/biopsy
Container	Plain White Capped Universal - no additive
Volume	N/A
TAT (Turn Around Time)	5-10 days
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Toxocara Serology	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Toxocara Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube

Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Toxoplasmosis Antibody Screen (IgG/IgM)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Toxoplasma Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
T. pallidum (TPHA) / VDRL / Syphilis Serology	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Syphilis
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	See Syphilis (VDRL/TPHA) (CSF) for CSF samples. Deliver to the laboratory immediately via chute or by hand.
Urea Plasma / Mycoplasma Culture	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Urea Plasma/ Mycoplasma Culture
Sample Type	Urine sample, vaginal swab, urethral swab, semen sample, gastric fluid sample or coelioscopy
Container	Sigma Transwab available in Microbiology ext 5669
Volume	N/A
TAT (Turn Around Time)	3 weeks

Special Requirements & Instructions	Contact lab to request appropriate swab for testing. Sigma Transwab available in Microbiology ext 5669 Deliver to the laboratory immediately via chute or by hand.
Urine for Culture and Sensitivity	
Laboratory	Microbiology
Test Name Abbreviation	Urine Culture
Sample Type	Urine/ Random sample
Container	Plain white capped universal - no additive or Boric Acid container
Volume	2ml
TAT (Turn Around Time)	Microscopy in 2 hours, Culture 2-4 days
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Varicella Zoster Virus PCR	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	VZV PCR
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Varicella Zoster Abs IgG (immunity)	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	VZV IgG
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Varicella Zoster Abs IgM	

Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	VZV IgM
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Test no longer available Please discuss with Consultant Microbiologist
Viral Culture	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Viral Culture
Sample Type	Viral swab
Container	Viral transport media or Sterile container - no additive
Volume	N/A
TAT (Turn Around Time)	Contact Laboratory
Special Requirements & Instructions	Please specify virus on request form. Viral swabs are available from the Microbiology Dept. Contact to collect on 5669 during routine hours. Deliver to the laboratory immediately via chute or by hand.
Viral Haemorrhagic Fever	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Viral Haemorrhagic fever
Sample Type	Whole Blood
Container	Purple Top bottle - EDTA
Volume	Draw Vol - 4mL
TAT (Turn Around Time)	Contact Laboratory
Special Requirements & Instructions	Contact lab before sending any suspected VHF sample. Viral Haemorrhagic fever (VHF) testing is only done by prior arrangement with clinical team and as per guidelines. Deliver to the laboratory immediately **by hand in specialist box.**
Viral Eye Screen	

Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Viral Eye
Sample Type	Viral eye swab
Container	Viral swab in viral transport media or Sterile container - no additive
Volume	N/A
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Viral swabs (UTM) are available from the Microbiology Dept. Contact 5699 or 5669 to request a swab during routine hours. HSV 1 DN/A, HSV 2 DNA, VZV PCR & Adenovirus DNA Deliver to the laboratory immediately via chute or by hand.
Voriconazole	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Voriconazole
Sample Type	Serum
Container	Red Top Bottle, No additive - clotted sample
Volume	Draw Vol-6ml
TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	RED TOP TUBE ACCEPTABLE ONLY. Sample to be collected pre dose. Deliver to the laboratory immediately via chute or by hand.
VRE Screen	
Laboratory	Microbiology
Test Name Abbreviation	VRE Screen
Sample Type	Rectal swab
Container	Blue topped swab with transport medium or Blue top universal container (faeces) - no additive
Volume	N/A
TAT (Turn Around Time)	2-4 days
Special Requirements & Instructions	Please ensure faecal matter is visible on rectal swab Refer to current infection control guidelines

	Deliver to the laboratory immediately via chute or by hand.
Water Culture	
Laboratory	Microbiology
Test Name Abbreviation	Water Culture
Sample Type	Water
Container	Plain sterile 250ml container - no additive
Volume	Minimum Vol 200-250mls
TAT (Turn Around Time)	5-7 days
Special Requirements & Instructions	Deliver to the laboratory immediately **by hand.**
Xanthochromia	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Xanthochromia
Sample Type	CSF
Container	Plain sterile container protected from light - no additive
Volume	Minimum 1mL required
TAT (Turn Around Time)	Contact Laboratory
Special Requirements & Instructions	PROTECT FROM LIGHT - TINFOIL. Laboratory must be notified before the sample is collected. It must be kept in the dark at all times. Note: a plasma blood sample (yellow top) should be taken at the same time as the Lumbar Puncture for plasma bilirubin and total protein analysis. GC-LAB-MIC-F-132 CSF Xanthochromia-Referral Request Form for Spectrophotometry is required to be completed by the Consultant Deliver to the laboratory immediately **by hand.**
Yersinia Serology	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Yersinia Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml

TAT (Turn Around Time)	3 weeks
Special Requirements & Instructions	Deliver to the laboratory immediately via chute or by hand.
Zika Virus Serology	
Laboratory	Microbiology – Referral Laboratory
Test Name Abbreviation	Zika Abs
Sample Type	Serum
Container	Yellow Top bottle Gel -SST Tube
Volume	Draw Vol-6ml
TAT (Turn Around Time)	5 weeks
Special Requirements & Instructions	Clinical details required. Contact the laboratory for the required request form. Deliver to the laboratory immediately via chute or by hand.

20.1.4. Appendix 1.4: Histology/Cytology Test Repertoire

Breast FNA/ Fluid	
Laboratory	Cytology- Referral Laboratory
Test Name Abbreviation	Breast FNA/Fluid
Sample Type	Slides and/ or Fluid
Container	2 Samples - 1. Coplin Jar containing Ethanol for slides prepared and/or 2. Plain WHITE CAPPED UNIVERSAL container
Volume	Min 1ml of fluid
TAT (Turn Around Time)	Routine 5-10 days; Urgent 3 days
Special Requirements & Instructions	CONTACT LABORATORY IN ADVANCE To obtain the coplin jar from the Histology Lab - containing Ethanol. Adhere to Health & Safety instructions on the Coplin jar. Contact Histology/Cytology Lab for the WHITE CAPPED UNIVERSAL container. Samples must be delivered by hand with a completed Histo/Cyto request form. To be received & signed for in the laboratory in a timely manner.
Breast Tissue	
Laboratory	Histology- Referral Laboratory
Test Name Abbreviation	Breast
Sample Type	Tissue
Container	10% Formalin container
Volume	N/A
TAT (Turn Around Time)	Routine 5-10 days; Urgent 3 days
Special Requirements & Instructions	Samples must be delivered by hand with a completed Histo/Cyto request form, with logbook. To be received & signed for in the laboratory in a timely manner.
Cervical Smears with HPV Testing	
Laboratory	Cytology- Referral Laboratory
Test Name Abbreviation	Cervical Smears with HPV Testing
Sample Type	Cervical Smear

Container	Thin Prep Container & Cervix Brush
Volume	N/A
TAT (Turn Around Time)	20 days
Special Requirements & Instructions	CONTACT LABORATORY IF REQUIRE CONTAINER OR BRUSH. Samples must be delivered by hand with a completed GC Histo/Cyto request form and Eurofins Biomnis request form. To be received & signed for in the laboratory in a timely manner.
Colonoscopic Biopsies	
Laboratory	Histology
Test Name Abbreviation	Colonoscopic Biopsies
Sample Type	Tissue
Container	10% Formalin container
Volume	N/A
TAT (Turn Around Time)	Routine 7-10 days; Urgent 48 hrs
Special Requirements & Instructions	Samples must be delivered by hand with a completed Histo/Cyto request form, with logbook. To be received & signed for in the laboratory in a timely manner.
Fresh lymph Node	
Laboratory	Histology
Test Name Abbreviation	Fresh Lymph Node
Sample Type	Lymph Node
Container	Plain White Top Container WITHOUT 10% Formalin (non-sterile)
Volume	N/A
TAT (Turn Around Time)	Routine 7-15 days; Urgent 48 hrs
Special Requirements & Instructions	CONTACT LABORATORY IN ADVANCE Specimens from patients with Tuberculosis, HIV, Hepatitis B or C infection, or Radioactive Specimens should not be sent fresh. Fresh Lymph Node samples must be scheduled and phoned/ booked in with the Histology Lab in advance. Samples must be delivered by hand with a completed Histo/Cyto request form. To be received & signed for in the laboratory by 4.30pm.

Frozen Sections	
Laboratory	Histology
Test Name Abbreviation	Fresh Tissues / Frozen Sections
Sample Type	Fresh Tissue
Container	Plain White Top Container WITHOUT 10% Formalin (non-sterile)
Volume	N/A
TAT (Turn Around Time)	20 mins from receipt
Special Requirements & Instructions	CONTACT LABORATORY IN ADVANCE Specimens from patients with Tuberculosis, HIV, Hepatitis B or C infection, or Radioactive Specimens should not be sent fresh or for frozen section. Frozen section samples must be scheduled and phoned/ booked in with the Histology Lab in advance. Samples must be delivered by hand with a completed Histo/Cyto request form. To be received & signed for in the laboratory by 4.30pm.
GI Endoscopic Biopsies	
Laboratory	Histology
Test Name Abbreviation	GI Biopsies
Sample Type	Tissue
Container	10% Formalin container
Volume	N/A
TAT (Turn Around Time)	Routine 7-10 days; Urgent 48 hrs
Special Requirements & Instructions	Samples must be delivered by hand with a completed Histo/Cyto request form, with logbook. To be received & signed for in the laboratory in a timely manner.
Gynae and Non Gynae Exfoliative /Serous Fluid	
Laboratory	Cytology
Test Name Abbreviation	Gynae and Non- Gynae Exfoliative/Serous Fluid (BAL/Pleural Fluid/Cyst Fluid/Ascites fluid/Ovarian cyst Fluid/CSF)
Sample Type	Fluid
Container	Red Top 50ml Centrifuge Tube

Volume	Min 1ml of fluid
TAT (Turn Around Time)	Routine 5-10 days; Urgent 24 hrs
Special Requirements & Instructions	Contact Histology/Cytology Lab for the red top 50ml containers. SAMPLES MUST BE HAND DELIVERED TO LAB STAFF with a completed Histo/Cyto request form IMMEDIATELY AFTER BEING TAKEN to allow cytology fixative solution to be added for cellular preservation.
Muscle Biopsies	
Laboratory	Histology – Referral Laboratory
Test Name Abbreviation	Muscle biopsies
Sample Type	Muscle Tissue
Container	Lightly Saline Dampened Gauze (Sterile container)
Volume	N/A
TAT (Turn Around Time)	7 days
Special Requirements & Instructions	CONTACT LABORATORY IN ADVANCE 24-hour notice must be given. SAMPLES MUST BE HAND DELIVERED TO LAB STAFF with a completed Histo/Cyto request form IMMEDIATELY AFTER BEING TAKEN/ BEFORE MIDDAY.
Molecular Tests	
Laboratory	Histology – Referral Laboratory
Test Name Abbreviation	Molecular Tests (e.g., lung panel, colon panel, melanoma panel, Oncomine, PD-L1, HER2)
Sample Type	Tissue
Container	N/A
Volume	N/A
TAT (Turn Around Time)	Routine 14 days; Urgent 7 days
Special Requirements & Instructions	Molecular Tests must be requested via email to lab.sec@galwayclinic.com or via a Consultant Pathologist or via discussion at MDM
Non-Biopsy Cancer Resection Specimens	
Laboratory	Histology
Test Name Abbreviation	Non-Biopsy Cancer Resection Specimens (e.g. Prostate gland)

Sample Type	Tissue
Container	10% Formalin container
Volume	N/A
TAT (Turn Around Time)	Routine 7-15 days; Urgent 7 days
Special Requirements & Instructions	Samples must be delivered by hand with a completed Histo/Cyto request form, with logbook. To be received & signed for in the laboratory in a timely manner.
Non-Biopsy Specimens	
Laboratory	Histology
Test Name Abbreviation	Non-Biopsy Specimens (e.g., appendix/gall bladder etc)
Sample Type	Tissue
Container	10% Formalin container
Volume	N/A
TAT (Turn Around Time)	Routine 7-15 days; Urgent 2 days
Special Requirements & Instructions	Samples must be delivered by hand with a completed Histo/Cyto request form, with logbook. To be received & signed for in the laboratory in a timely manner.
Non Gynae FNA Fluid (Head/Neck FNA)	
Laboratory	Cytology
Test Name Abbreviation	Non-Gynae FNA Fluid (Head/Neck)
Sample Type	Fluid
Container	Red Top 50ml Centrifuge Tube containing 30 mls of Cytolyt Fluid
Volume	Min 1ml of fluid
TAT (Turn Around Time)	Routine 5-10 days; Urgent 24 hrs
Special Requirements & Instructions	CONTACT LABORATORY IN ADVANCE Contact Histology/Cytology Lab for the Red Top 50ml Centrifuge Tube containing 30 mls of Cytolyt Fluid.Samples must be delivered by hand with a completed Histo/Cyto request form. To be received & signed for in the laboratory in a timely manner.
Renal Biopsies for IMF and EM Studies	

Laboratory	Histology- Referral Laboratory
Test Name Abbreviation	Renal Biopsies for IMF and EM
Sample Type	Renal Tissue
Container	Plain White Top Container filled with Saline Solution
Volume	N/A
TAT (Turn Around Time)	Routine 10 days; Urgent 3 days (EM report will take longer)
Special Requirements & Instructions	CONTACT LABORATORY IN ADVANCE. 24-hour notice must be given. Samples must be delivered by hand with a completed Histo/Cyto request form, received & signed for in laboratory by 3.30pm.
Skin Immunofluorescence Specimens	
Laboratory	Histology- Referral Laboratory
Test Name Abbreviation	Skin Immunofluorescence
Sample Type	Tissue
Container	2 Samples - 1. 1 in 10% Formalin Fixative and 2. 1 in Zeus Transport Solution.
Volume	N/A
TAT (Turn Around Time)	14 days
Special Requirements & Instructions	CONTACT LABORATORY IN ADVANCE Containers of Zeus Fluid (and) 10% Formalin must be obtained from the laboratory. Samples must be delivered by hand with a completed Histo/Cyto request form. To be received & signed for in the laboratory in a timely manner.
Small Biopsy Specimens	
Laboratory	Histology
Test Name Abbreviation	Small Sample/Biopsy Specimens
Sample Type	Tissue
Container	10% Formalin container
Volume	N/A
TAT (Turn Around Time)	Routine 5-15 days; Urgent 2 days
Special Requirements & Instructions	Samples must be delivered by hand with a completed Histo/Cyto request form, with logbook. To be received & signed for in the laboratory in a timely manner.

Synovial Fluid for Crystal Analysis	
Laboratory	Cytology
Test Name Abbreviation	Synovial Fluid for crystal analysis
Sample Type	Synovial Fluid
Container	Plain WHITE CAPPED UNIVERSAL container
Volume	Min 1ml of fluid
TAT (Turn Around Time)	Routine 5 days; Urgent 24 hrs
Special Requirements & Instructions	Contact Histology/Cytology Lab for the WHITE CAPPED UNIVERSAL Container. SAMPLES MUST BE HAND DELIVERED TO LAB STAFF IMMEDIATELY AFTER BEING TAKEN accompanied with a completed Histo/Cyto request form.
Thyroid FNA Fluid	
Laboratory	Cytology- Referral Laboratory
Test Name Abbreviation	Non-Gynae Thyroid FNA Fluid/Smear
Sample Type	Slides and/or Fluid
Container	2 Samples - 1. Coplin Jar containing Ethanol for slides prepared and/or 2. Plain WHITE CAPPED UNIVERSAL container
Volume	Min 1ml of fluid
TAT (Turn Around Time)	Routine 5-10 days; Urgent 3 days
Special Requirements & Instructions	CONTACT LABORATORY IN ADVANCE To obtain the coplin jar from the Histology Lab - containing Ethanol. Adhere to Health & Safety instructions on the Coplin jar. Contact Histology/Cytology Lab for the WHITE CAPPED UNIVERSAL container. Samples must be delivered by hand with a completed Histo/Cyto request form. To be received & signed for in the laboratory in a timely manner.
Template Guided Trans-Perineal Prostate Biopsies	
Laboratory	Histology
Test Name Abbreviation	Template Guided Prostate Biopsies
Sample Type	Prostate Tissue
Container	10% Formalin container
Volume	N/A

TAT (Turn Around Time)	Routine 5-15 days; Urgent 2 days
Special Requirements & Instructions	Samples must be delivered by hand with a completed Histo/Cyto request form, with logbook. To be received & signed for in the laboratory in a timely manner.
Urine	
Laboratory	Cytology
Test Name Abbreviation	Urine
Sample Type	Urine
Container	Red Top 50ml Centrifuge Tubes containing 10mls of PreservCyt
Volume	Min 20mls of fluid
TAT (Turn Around Time)	Routine 5-10 days; Urgent 24 hrs
Special Requirements & Instructions	Contact Histology/Cytology Lab for the red top 50ml containers containing 10mls of PreservCyt. Samples must be delivered by hand with a completed Histo/Cyto request form. To be received & signed for in the laboratory in a timely manner.

20.1.5. Appendix 1.5: Biochemistry Near Patient Testing Repertoire

A	B	C	D	E	F	G	H	I	J
K	L	M	N	O	P	Q	R	S	T
U	V	W	X	Y	Z				

Index:

Anti	0 - 10	Dynamic Function Tests	Near Patient Testing

Referral Site Name	Link
Eurofins laboratories	https://www.eurofins.ie/biomnis/test-information/test-guide/
Eurofins Dublin	https://cdnmedia.eurofins.com/european-west/media/m5enxqbv/chemistry-psm.pdf
Saolta Galway University Hospital	LM MDOC 0009 3 14 Final.pdf

Transport of Specimens to the Biochemistry Laboratory is by hand delivery or by the use of the pneumatic tube system unless otherwise stated.

0 - 10	
1,25-dihydroxyvitamin D	
Laboratory	Referred to Eurofins laboratories
Test Name Abbreviation	Vitamin D3
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	7 working days
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/ Protect from light
(25-OH) Vitamin D [Cholecalciferol]	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	Batch Tested Weekly
Special Requirements & Instructions	
5-hydroxyindoleacetic acid [5-HIAA]	
Laboratory	Referred to Eurofins laboratories
Test Name Abbreviation	5HIAA / Serotonin metabolite
Sample Type	Acidified Urine
Container	24 hour urine (Acidified) **
Volume	N/A
TAT (Turn Around Time)	7 working days
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/ Specific Dietary requirements ** Collection Container supplied by the laboratory.

	Please arrange with lab in advance [within opening hours].
Dynamic Function Tests	
Dynamic Function tests are timed procedure that may require special patient preparation and pre-requisite stages to be for filled prior to testing. Please contact the relevant laboratory for details of these tests	
Dynamic Function Test: Dexamethasone Suppression Test	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	Same Day Monday - Friday
Special Requirements & Instructions	Sample drawn in the morning post an administered Dexamethasone dose the evening before
Dynamic Function Test: Glucose Tolerance Test	
Laboratory	Biochemistry
Test Name Abbreviation	GTT
Sample Type	Plasma
Container	Fluoride Oxalate / Sodium Fluoride blood tube x 3
Volume	Draw Volume 4mL
TAT (Turn Around Time)	Same Day Monday - Friday
Special Requirements & Instructions	Reference to Q Pulse Instructions GC-LAB-BIO-I-002 Dynamic Function Test Oral Glucose Tolerance Test 2 hour
Dynamic Function Test: Synacthen Test	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Plasma
Container	Lithium Heparin blood tube x 3
Volume	Draw Volume 4mL

TAT (Turn Around Time)	Same Day Monday - Friday
Special Requirements & Instructions	Reference to Q Pulse Instructions GC-LAB-BIO-I-005 Dynamic Function Test Synacthen Test
A	
ACR	See Urine ACR
Acetaminophen (Paracetamol)	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	14 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf Only performed for Medical Reasons
Acetylcholine Receptor Antibodies	
Laboratory	Referred to Eurofins laboratories
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	7 working days
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/
Adrenocorticotrophic Hormone	
Laboratory	Referred to Eurofins laboratories
Test Name Abbreviation	ACTH
Sample Type	Plasma
Container	EDTA + Aprotonine
Volume	Draw Volume 4mL
TAT (Turn Around Time)	14 working days

Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/
Alanine Aminotransferase	
Laboratory	Biochemistry
Test Name Abbreviation	ALT
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	
Aldolase	
Laboratory	Referred to Eurofins laboratories
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	7 working days
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/ Blood draw preferentially after a 30-min resting period
Aldosterone Aldosterone : Renin Ratio	
Laboratory	Referred to Eurofins laboratories
Test Name Abbreviation	
Sample Type	Plasma Frozen
Container	k-EDTA blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	7 working days
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/ Optimal sampling conditions :

	In the morning, 1-more than 2 hours after waking up, Or 2-in a sitting position after 5 to 15 minutes, with normal dietary salt intake, normal kalemia, and without antihypertensive drugs that significantly interfere with the renin-angiotensin-aldosterone system. Antihypertensive medications that can be maintained during exploration include alpha-blockers and calcium channel blockers. DIET INFORMATION: our reference ranges are only valid for a normal salt intake (80-250mEq/24hrs natriuresis)
Albumin	
Laboratory	Biochemistry
Test Name Abbreviation	Alb
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	
Alkaline Phosphatase	
Laboratory	Biochemistry
Test Name Abbreviation	Alk Phos
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	
Allergen Specific IgE Tests – Allergen Dependent	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	RAST

Sample Type	Serum	
Container	Gel-STT blood tube	
Volume	Draw Volume 6mL	
TAT (Turn Around Time)	14 working days	
Special Requirements & Instructions	Utilise Meditech Ordering to search through comprehensive list of common allergens (RAST's) requested. LM MDOC 0009 3 14 Final.pdf Refer to the National Laboratory Handbook - Total and Specific IgE (located on www.hse.ie) for provision of indications for allergy testing	
Alpha Feto Protein		
Laboratory	Referred to Eurofins Dublin	
Test Name Abbreviation	AFP	
Sample Type	Serum	Fluid
Container	Gel-STT blood tube	Sterile Universal (No Additive)
Volume	Draw Volume 6mL	> 1 mL
TAT (Turn Around Time)	14 working days	
Special Requirements & Instructions	https://cdnmedia.eurofins.com/european-west/media/m5enxqbv/chemistry-psm.pdf	
Amikacin		
Laboratory	Biochemistry	
Test Name Abbreviation		
Sample Type	Serum	
Container	Gel-STT blood tube	
Volume	Draw Volume 6mL	
TAT (Turn Around Time)	2 hours	
Special Requirements & Instructions		
Ammonia		

Laboratory	Referred to Eurofins laboratories	
Test Name Abbreviation	NH3	
Sample Type	Plasma Frozen	
Container	k-EDTA blood tube	
Volume	Draw Volume 4mL	
TAT (Turn Around Time)	7 working days	
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/ Fasting patient SPECIAL OR DELICATE SAMPLE: The tubes must be filled completely and remain perfectly sealed. Immediately place the blood on ice and transport to laboratory	
Amylase		
Laboratory	Biochemistry	
Test Name Abbreviation		
Sample Type	Plasma	
Container	Lithium Heparin blood tube	
Volume	Draw Volume 4mL	
TAT (Turn Around Time)	2 hours	
Special Requirements & Instructions		
Anaphylaxis	See Tryptase	
Angiotensin Converting Enzyme		
Laboratory	Referred to Eurofins Dublin and Eurofins Laboratories	
Test Name Abbreviation	ACE	
Sample Type	Serum	CSF
Container	Gel-STT blood tube	Sterile Universal (No Additive)
Volume	Draw Volume 6mL	Min 1 mL
TAT (Turn Around Time)	14 working days	

Special Requirements & Instructions	Serum: https://cdnmedia.eurofins.com/european-west/media/m5enxqbv/chemistry-psm.pdf CSF: https://www.eurofins.ie/biomnis/test-information/test-guide/
Anti	
Anti – Cardiolipin Antibodies	See Cardiolipin Antibodies
Anti-cyclic citrullinated peptide [Anti – CCP]	See Rheumatoid Factor
Anti-Endomysial Antibodies	See Coeliac Serology
Anti-dsDNA Antibody	See ANA - Only performed in the context of positive ANA
Anti-Diuretic Hormone	
Laboratory	Referred to Eurofins laboratories
Test Name Abbreviation	ADH / Arginine – Vasopressin / HAD / Vasopressin
Sample Type	Plasma Frozen
Container	EDTA + Aprotonine
Volume	Draw Volume 4mL
TAT (Turn Around Time)	14 working days
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/
Anti-Gliadin Antibodies	See Coeliac Serology
Anti-glomerular basement membrane antibodies	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	Anti GBM
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	7 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf
Anti-Infliximab	See Infliximab
nti - LKM	See Antinuclear antibodies

Anti-neutrophil Cytoplasmic Antibody [ANCA]		
Laboratory	Referred to Saolta Galway University Hospital	
Test Name Abbreviation	ANCA / P-ANCA / C-ANCA / MPO / PR3 / myeloperoxidase / proteinase-3	
Sample Type	Serum	
Container	Gel-STT blood tube	
Volume	Draw Volume 6mL	
TAT (Turn Around Time)	7 working days	
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf	
Antinuclear Antibodies / Antinuclear Antibodies + Tissue Antibodies / ANA		
Laboratory	Referred to Saolta Galway University Hospital	
Test Name Abbreviation	ANA	
Sample Type	Serum	
Container	Gel-STT blood tube	
Volume	Draw Volume 6mL	
TAT (Turn Around Time)	7 working days	
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf	
Anti-Neuron Antibodies		
Laboratory	Referred to Eurofins laboratories	
Test Name Abbreviation	Anti-cerebellum antibodies/ anti PCA2 antibodies / Anti CRPM5/CV2 antibodies / Anti-amphiphysin antibodies / Anti-CV2 antibodies / Anti-Hu antibodies / Anti-Ma2 antibodies / Anti-Ri antibodies / Anti-Yo antibodies / Hu - anti-antibodies	
Sample Type	Serum	CSF
Container	Gel-STT blood tube	Sterile Universal (No Additive)
Volume	Draw Volume 6mL	
TAT (Turn Around Time)	14 working days	14 working days
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/	

Anti - Phospholipid	See Cardiolipin Antibodies
Anti-TPO antibodies	See Thyroperoxidase
Anti-TSH Receptor antibodies	
Laboratory	Referred to Eurofins laboratories
Test Name Abbreviation	TRAB / TSH Receptor
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	14 working days
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/
quaporin 4 antibodies	
Laboratory	Referred to Eurofins laboratories
Test Name Abbreviation	Anti-Aquaporin 4 antibodies / Anti-AQP4 antibodies / Anti-NMO antibodies / Neuromyelitis optica - anti-antibodies / NMO - anti-antibodies
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	14 working days
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/
Arterial Blood Gas	
Laboratory	NPT / Biochemistry
Test Name Abbreviation	ABG
Sample Type	Whole Blood
Container	Heparinised Syringe (Safe Pico Blood Gas Syringe)
Volume	Minimum 1mL required
TAT (Turn Around Time)	Immediately
Special Requirements & Instructions	Analyse the sample immediately after collection (within 30 minutes of collection) on the nearest available blood gas Analyser.

Asparate Aminotransferase	
Laboratory	Biochemistry
Test Name Abbreviation	AST
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	
B	
B12	See Vitamin B12
Bence Jones Protein	See Electrophoresis (Urine)
Beta 2 Microglobulin	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	7 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf
Beta Human Chorionic Gonadotropin Hormone	
Laboratory	Biochemistry
Test Name Abbreviation	β-HCG
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	1 hour
Special Requirements & Instructions	
Blood Gas	See Near Patient Testing

Bilirubin - Total	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	Protect from Light
Bicarbonate	
Laboratory	Biochemistry
Test Name Abbreviation	CO^2
Sample Type	Whole Blood
Container	Heparinised Syringe (Safe Pico Blood Gas Syringe)
Volume	Minimum 1mL required
TAT (Turn Around Time)	Immediately
Special Requirements & Instructions	Analyse the sample immediately after collection (within 30 minutes of collection) on the nearest available blood gas Analyser.
Brain natriuretic peptide [BNP]	See NT-ProBNP
C	
CA 125 Tumour Marker	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	Same day Monday - Friday
Special Requirements & Instructions	
CA 15.3 Tumour Marker	

Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	Same day Monday - Friday
Special Requirements & Instructions	
CA 19.9 Tumour Marker	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	Same day Monday - Friday
Special Requirements & Instructions	
Calcium- Total	
Laboratory	Biochemistry
Test Name Abbreviation	CA^{2++}
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	
Calcium adjusted for Albumin	Calculated using a Calcium and Albumin Measurement to a Modified Payne formula.
Calcium - Ionized	
Laboratory	Biochemistry
Test Name Abbreviation	CA^{2++}

Sample Type	Whole Blood	
Container	Heparinised Syringe (Safe Pico Blood Gas Syringe)	
Volume	Minimum 1mL required	
TAT (Turn Around Time)	Immediately	
Special Requirements & Instructions	Analyse the sample immediately after collection (within 30 minutes of collection) on the nearest available blood gas Analyser.	
Capillary Creatinine	See Near Patient Testing	
Capillary Glucose	See Near Patient Testing	
Capillary Ketone	See Near Patient Testing	
Carcioembrionic Antigen		
Laboratory	Biochemistry	
Test Name Abbreviation	CEA	
Sample Type	Plasma	
Container	Lithium Heparin blood tube	
Volume	Draw Volume 4mL	
TAT (Turn Around Time)	Same day Monday - Friday	
Special Requirements & Instructions		
Catecholamines [CATS]		
Laboratory	Referred to Eurofins laboratories	
Test Name Abbreviation	Adrenaline / Dopamine / Epinephrine / Noradrenaline / Norepinephrine	
Sample Type	Plasma Frozen	Acidified Urine
Container	Lithium Heparin blood tube	24 hour urine (Acidified) **
Volume	Draw Volume 2 x 4mL	
TAT (Turn Around Time)	14 working days	
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/	
	Fasting Sample	Specific Dietary requirements

		** Collection Container supplied by the laboratory. Please arrange with lab in advance [within opening hours].
Calprotectin		
Laboratory	Referred to Eurofins laboratories	
Test Name Abbreviation		
Sample Type	Stool	
Container	Faeces tube with spoon	
Volume	Minimum 20 g (or discrete stool fragment).	
TAT (Turn Around Time)	14 working days	
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/ Clinical Details required: Inflammatory bowel disease (Crohn's, ulcerative colitis): YES NO IBD treatment in progress: YES NO If yes, what is treatment:	
Cardiolipin Antibodies		
Laboratory	Referred to Saolta Galway University Hospital	
Test Name Abbreviation	Anti-Cardiolipin / Anti-Phospholipid	
Sample Type	Serum	
Container	Gel-STT blood tube	
Volume	Draw Volume 6mL	
TAT (Turn Around Time)	14 working days	
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf	
Cholesterol		
Laboratory	Biochemistry	
Test Name Abbreviation		
Sample Type	Plasma	
Container	Lithium Heparin blood tube	

Volume	Draw Volume 4mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	
Chloride	
Laboratory	Biochemistry
Test Name Abbreviation	Cl^-
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	
Chromogranin A&B	
Laboratory	Referred to Eurofins laboratories
Test Name Abbreviation	
Sample Type	Plasma Frozen
Container	EDTA + Aprotonine
Volume	Draw Volume 4mL
TAT (Turn Around Time)	14 working days
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/
Coeliac Serology	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	TTG IgG ,IgA / Endomycial / Gliadin
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	14 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf

Complement C3 and C4	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	14 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf
Cortisol	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	Same day Monday - Friday
Special Requirements & Instructions	
Creatinine	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	
C-Reactive Protein	
Laboratory	Biochemistry
Test Name Abbreviation	CRP
Sample Type	Plasma

Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	
Creatine Kinase	
Laboratory	Biochemistry
Test Name Abbreviation	CK / CPK
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	
CSF Chemistry	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	CSF
Container	Sterile Universal Container
Volume	Minimum 500µL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	Refer to Microbiology CSF for full list of requirements
D	
DPD Deficiency Testing [Dihydropyrimidine dehydrogenase deficiency]	Contact the laboratory directly
Dehydroepiandrosterone [DHEA]	
Laboratory	Referred to Eurofins laboratories
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL

TAT (Turn Around Time)	14 working days
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/ CircadianRhythm This biological molecule has a circadian rhythm (maximum concentration in morning), with a sufficiently significant amplitude to have an important influence on the clinical interpretation
Dehydroepiandrosterone Sulfate [DHEAS]	
Laboratory	Referred to Eurofins laboratories
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	14 working days
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/ ATTENTION: interference possible in patients treated with biotin (vitamin B7, B8 or H) or taking any food supplement containing biotin. Essential to STOP treatment 8 days before taking the sample.
Digoxin	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	Urgent – Same Day
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf Take specimen six hours post dose, Hypokalaemia is associated with an enhanced response to digoxin. Potassium should always be measured when digoxin toxicity is suspected.
E	
Elastase	

Laboratory	Referred to Eurofins laboratories	
Test Name Abbreviation		
Sample Type	Stool	
Container	Faeces tube with spoon	
Volume	Minimum 20 g	
TAT (Turn Around Time)	14 working days	
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/ Specific clinical information form (R29-INTGB : Functional Coprology) Liquid stools are accepted but the dilution may result in underestimation of elastase levels.	
Electrophoresis		
Laboratory	Referred to Saolta Galway University Hospital	
Test Name Abbreviation	SPEP	BJP / Bence Jones Protein
Sample Type	Serum	Urine
Container	Gel-STT blood tube	Universal / 24 hour ** (No Additive)
Volume	Draw Volume 6mL	N/A
TAT (Turn Around Time)	14 working days	
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf **Urine: Early morning specimens are preferred. For disease monitoring a 24-hour collection is preferred	
Estimated Glomerular Filtration Rate		
Laboratory	Biochemistry	
Test Name Abbreviation	eGFR	
Sample Type	Plasma	
Container	Lithium Heparin blood tube	
Volume	Draw Volume 4mL	
TAT (Turn Around Time)	2 hours	
Special Requirements & Instructions	Results are Calculated using the CKD-EPI formula (with creatinine assay traceable to ID-MS)	

Extractable Nuclear Antigens (ENA)	
See ANA : *If the ANA is negative ENAs are rarely indicated, unless the clinical picture is strongly suggestive of a connective tissue disease.*	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	ENA Panel : Sm, RNP, Ro, La, Scl-70, Jo-1 Extended ENA Panel: Ro (SSA), Ro 52 , La (SSB) , Sm (Smith), RNP , Scl-70 (antitopoisomerase-1) Jo-1 , PL-7 , PL-12, EJ , OJ , PM-Scl (75 & 100) , Fibrillarin
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	14 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf If positive. An extended ENA profile is available for patients with connective tissue diseases, scleroderma and myositis.
F	
Ferritin	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	Same day Monday - Friday
Special Requirements & Instructions	
Fluid Biochemistry	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Misc

Container	Sterile Universal Container
Volume	N/A
TAT (Turn Around Time)	Same Day
Special Requirements & Instructions	Clearly state the type of fluid on the specimen bottle and or request form.
Folate	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	Same day Monday - Friday
Special Requirements & Instructions	
Free Catecholamines	See Catecholamines
Free Light Chains	See Light Chains
Free Metanephrines	See Metanephrines
Free Triiodothyroine [FT3]	
Laboratory	Referred to Eurofins Dublin
Test Name Abbreviation	Free T3
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	14 working days
Special Requirements & Instructions	https://cdnmedia.eurofins.com/european-west/media/m5enxqbv/chemistry-psm.pdf
Free Thyroxine [FT4]	
Laboratory	Biochemistry
Test Name Abbreviation	FT4
Sample Type	Plasma
Container	Lithium Heparin blood tube

Volume	Draw Volume 4mL
TAT (Turn Around Time)	Same Day
Special Requirements & Instructions	
Follicle Stimulating Hormone [FSH]	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	FSH
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	7 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf
G	
Gentamicin	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	
Glucose	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Plasma
Container	Fluoride Oxalate / Sodium Fluoride blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	2 hours

Special Requirements & Instructions	For Fasting Glucose levels blood sample should be drawn after an overnight fast. Water is allowed
Glucose (CSF)	See CSF Biochemistry
Glucose Tolerance Test	See Dynamic Function Tests
Growth Hormone	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	21 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf Delivered immediately to the laboratory It should only be requested as part of a dynamic function test. In general, a random growth hormone measurement has very little diagnostic value
H	
Haemoglobin A1c	
Laboratory	Biochemistry
Test Name Abbreviation	HbA1c
Sample Type	Whole Blood
Container	k-EDTA blood tube
Volume	Draw Volume 4ml
TAT (Turn Around Time)	Batch Tested Weekly
Special Requirements & Instructions	Fasting is NOT required Not to be used for Diagnosis
Hepatitis B Antigen	
Laboratory	Serology
Test Name Abbreviation	HBsAg
Sample Type	Serum
Container	Gel-STT blood tube

Volume	Draw Volume 6mL
TAT (Turn Around Time)	Batch Tested Weekly
Special Requirements & Instructions	
Hepatitis B Antibody	
Laboratory	Serology
Test Name Abbreviation	HBsAb
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	Batch Tested Weekly
Special Requirements & Instructions	
Hepatitis C Antibody	
Laboratory	Serology
Test Name Abbreviation	HCV / Hep C
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	Batch Tested Weekly
Special Requirements & Instructions	
HIV 1&2 Antigen and Antibody	
Laboratory	Serology
Test Name Abbreviation	HIV
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	Batch Tested Weekly
Special Requirements & Instructions	

High-Density lipoprotein	
Laboratory	Biochemistry
Test Name Abbreviation	HDL
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	
Homocysteine	
Laboratory	Referred to Eurofins Dublin
Test Name Abbreviation	
Sample Type	Plasma Frozen*
Container	k-EDTA blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	14 working days
Special Requirements & Instructions	https://cdnmedia.eurofins.com/european-west/media/m5enxqbv/chemistry-psm.pdf Deliver sample immediately (on ice if possible) to the laboratory
I	
IgG Subclasses – [IgG 1, 2, 3] + [IgG 4]	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	14 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf
Immunoglobulin G [IgG]	

Immunoglobulin A [IgA] Immunoglobulin M [IgM]	See Electrophoresis
Immunoglobulin E [IgE]	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	IgE
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	14 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf
Insulin	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	7 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf Fasting blood Delivered immediately to the laboratory
Insulin Like Growth Factor [IGF1]	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	IGF-1 / Somamedin-C
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	21 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf Fasting
Infliximab Level	

Laboratory	Referred to Eurofins laboratories
Test Name Abbreviation	anti-Infliximab antibodies / Anti-Remicade antibodies / Inflectra / Remsima
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	14 working days
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/ Always draw blood at the same time before another administration Specific clinical information sheet required
Iron	
Laboratory	Biochemistry
Test Name Abbreviation	Fe
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	Same day Monday - Friday
Special Requirements & Instructions	
J	
K	
Kappa Light Chains	See Light Chains
L	
Lactate / Lactic Acid	
Laboratory	NPT- Biochemistry
Test Name Abbreviation	
Sample Type	Whole Blood
Container	Heparinised Syringe (Safe Pico Blood Gas Syringe)
Volume	Minimum 1mL required

TAT (Turn Around Time)	Immediately	
Special Requirements & Instructions	Analyse the sample immediately after collection (within 30 minutes of collection) on the nearest available blood gas Analyser.	
Lactate Dehydrogenase		
Laboratory	Biochemistry	
Test Name Abbreviation	LDH	
Sample Type	Plasma	
Container	Lithium Heparin blood tube	
Volume	Draw Volume 4mL	
TAT (Turn Around Time)	2 hours	
Special Requirements & Instructions		
Lambda Light Chains	See Light Chains	
Light Chains		
Laboratory	Referred to Saolta Galway University Hospital	
Test Name Abbreviation		BJP / Bence Jones Protein
Sample Type	Serum	Urine
Container	Gel-STT blood tube	Universal / 24 hour ** (No Additive)
Volume	Draw Volume 6mL	N/A
TAT (Turn Around Time)	14 working days	
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf **Urine: Early morning specimens are preferred. For disease monitoring a 24-hour collection is preferred	
Lipoprotein a		
Laboratory	Referred to Eurofins laboratories	
Test Name Abbreviation	Lp(a)	
Sample Type	Serum	
Container	Gel-STT blood tube	
Volume	Draw Volume 6mL	

TAT (Turn Around Time)	14 working days
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/
Lithium	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	Urgent – Same Day
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf Sample 12 hours post dose
Low-Density lipoprotein [LDL]	
Laboratory	Biochemistry
Test Name Abbreviation	LDL
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	
Luteinizing Hormone [LH]	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	LH
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	7 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf
M	

Magnesium		
Laboratory	Biochemistry	
Test Name Abbreviation	Mg	
Sample Type	Plasma	
Container	Lithium Heparin blood tube	
Volume	Draw Volume 4mL	
TAT (Turn Around Time)	2 hours	
Special Requirements & Instructions		
Microalbumin	See Urine ACR	
Metanephrines [METS]		
Laboratory	Referred to Eurofins laboratories	
Test Name Abbreviation	Methoxylated derivatives of catecholamines	
Sample Type	Plasma Frozen	Acidified Urine
Container	Lithium Heparin blood tube	24 hour urine (Acidified) **
Volume	Draw Volume 2 x 4mL	
TAT (Turn Around Time)	14 working days	
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/	
	Fasting Sample	Specific Dietary requirements ** Collection Container supplied by the laboratory. Please arrange with lab in advance [within opening hours].
Myositis Antibody Screen		
Laboratory	Referred to Saolta Galway University Hospital	
Test Name Abbreviation	Anti Jo1, Anti KU, Anti EJ, Anti MI2 α / β / TIF, Anti NXP2, Anti OJ, Anti PL12, Anti PL7, Anti PM100, Anti PM75, Anti SAE, Anti SRP, MDA5, RO52	
Sample Type	Serum	
Container	Gel-STT blood tube	

Volume	Draw Volume 6mL
TAT (Turn Around Time)	14 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf
N	
NT-Pro BNP	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	
Near Patient Testing	
Activated Clotted Time	
Laboratory	NPT - Haematology
Test Name Abbreviation	ACT
Sample Type	Whole Blood
Container	N/A
Volume	Capillary
TAT (Turn Around Time)	< 5 Minutes
Special Requirements & Instructions	Refer to GC-LAB-NPT-P-014 Hemochron Signature Elite Activated Clotting Time (ACT)
Blood Gas	
Laboratory	NPT - Biochemistry
Test Name Abbreviation	ABG
Sample Type	Whole Blood Venous / Arterial
Container	Heparinised Syringe (Safe Pico Blood Gas Syringe)
Volume	65ul (required for analysis) but syringe must be filled to the min volume line

TAT (Turn Around Time)	Immediately
Special Requirements & Instructions	Refer to GC-LAB-NPT-P-005 Radiometer ABL90 Flex Procedure for Pre Analytical Considerations
Capillary Creatinine	
Laboratory	NPT - Biochemistry
Test Name Abbreviation	
Sample Type	Whole Blood
Container	N/A
Volume	Capillary
TAT (Turn Around Time)	< 5 Minutes
Special Requirements & Instructions	Refer to Procedure GC-LAB-NPT-P -003 Nova StatSensor Creatinine Hospital Meter
Capillary Glucose	
Laboratory	NPT - Biochemistry
Test Name Abbreviation	
Sample Type	Whole Blood
Container	N/A
Volume	Capillary
TAT (Turn Around Time)	< 5 Minutes
Special Requirements & Instructions	Refer to Procedure GC-LAB-NPT-P-011 Accu Chek Inform II Glucometer or contact the Diabetes Nurse Specialist
Capillary Ketone	
Laboratory	NPT - Biochemistry
Test Name Abbreviation	
Sample Type	Whole Blood
Container	N/A
Volume	Capillary
TAT (Turn Around Time)	< 5 Minutes
Special Requirements & Instructions	Refer to Procedure GC-LAB-NPT-P-008 Nova StatStrip Ketone Hospital Meter or contact the Diabetes Nurse Specialist

Thromboelestography	
Laboratory	NPT - Haematology
Test Name Abbreviation	
Sample Type	Whole Blood
Container	N/A
Volume	See Operator Manual- sample cup/ pipette required
TAT (Turn Around Time)	< 5 Minutes
Special Requirements & Instructions	(Analysis performed by Clinical Perfusion Scientist) Refer to GC-LAB-NPT-ED-021 ROTEM Delta Operating Manual
Urinalysis (Clinitek)	
Laboratory	NPT - Microbiology
Test Name Abbreviation	Urine Dipstick
Sample Type	Urine
Container	Universal Container No Additive
Volume	5 – 20 mL
TAT (Turn Around Time)	< 5 Minutes
Special Requirements & Instructions	Refer to GC-LAB-NPT-ED-040 Clinitek Status Operator Manual
Urinalysis hCG	
Laboratory	NPT - Biochemistry
Test Name Abbreviation	Urine Pregnancy Test
Sample Type	Urine
Container	Universal Container No Additive
Volume	3 drops using the dropper from the measuring test kit
TAT (Turn Around Time)	< 5 Minutes
Special Requirements & Instructions	GC-LAB-NPT-P-004 LifeSign DXpress Reader and BioSign hCG test Kit Procedure
O	

Oestradiol		
Laboratory	Referred to Saolta Galway University Hospital	
Test Name Abbreviation		
Sample Type	Serum	
Container	Gel-STT blood tube	
Volume	Draw Volume 6mL	
TAT (Turn Around Time)	7 working days	
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf	
Oligoclonal bands and CSF IgG Index		
Laboratory	Referred to Saolta Galway University Hospital	
Test Name Abbreviation		
Sample Type	CSF and Serum	
Container	Gel-STT blood tube	Sterile Universal (No Additive)
Volume	Draw Volume 6mL	0.5mL
TAT (Turn Around Time)	3 weeks	
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf Testing requires CSF and Serum samples taken at the same time	
Osmolality		
Laboratory	Biochemistry	
Test Name Abbreviation	Osmo	
Sample Type	Serum	Urine
Container	Gel-STT blood tube	Universal Container (No Additive)
Volume	Draw Volume 6mL	Min 5 ml
TAT (Turn Around Time)	4 hours	
Special Requirements & Instructions		
P		

Parathyroid Hormone [PTH]	
Laboratory	Biochemistry
Test Name Abbreviation	PTH
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	Batch Tested Weekly
Special Requirements & Instructions	
Pleural Fluid Biochemistry	See Fluid Biochemistry
Procalcitonin	
Laboratory	Biochemistry
Test Name Abbreviation	PCT
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	
Progesterone	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	7 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf
Prolactin	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	

Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	7 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf
Prostate Specific Antigen	
Laboratory	Biochemistry
Test Name Abbreviation	PSA
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	Same day Monday - Friday
Special Requirements & Instructions	
Protein (Total)	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	
Protein Electrophoresis	See Electrophoresis
Q	
R	
RAST	See Allergen Specific IgE Tests
Renin Renin : Aldosterone Ratio	
Laboratory	Referred to Eurofins laboratories

Test Name Abbreviation	
Sample Type	Plasma Frozen
Container	k-EDTA blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	7 working days
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/ Optimal sampling conditions : In the morning, 1-more than 2 hours after waking up, Or 2-in a sitting position after 5 to 15 minutes, with normal dietary salt intake, normal kalemia, and without antihypertensive drugs that significantly interfere with the renin-angiotensin-aldosterone system. Antihypertensive medications that can be maintained during exploration include alpha-blockers and calcium channel blockers. DIET INFORMATION: our reference ranges are only valid for a normal salt intake (80-250mEq/24hrs natriuresis)
Rheumatoid Factor	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	RF
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	7 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf
S	
Sex Hormone Binding Globulin [SHBG]	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	SHBG

Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	7 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf
Stone Analysis	
Laboratory	Referred to Eurofins laboratories
Test Name Abbreviation	
Sample Type	Stone(s) or filtered urinary deposits
Container	Universal
Volume	N/A
TAT (Turn Around Time)	21 working days
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/
T	
Testosterone	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	7 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf
Theophylline (Aminophylline)	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube

Volume	Draw Volume 6mL
TAT (Turn Around Time)	7 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf Take specimen immediately before next dose (trough specimen)
Thyroidperoxidase Antibodies	
Laboratory	Referred to Eurofins laboratories
Test Name Abbreviation	Anti TPO
Sample Type	Serum
Container	Gel-STT blood tube x 3
Volume	Draw Volume 6mL
TAT (Turn Around Time)	14 working days
Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/
Thyroid Simulating Hormone	
Laboratory	Biochemistry
Test Name Abbreviation	TSH
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	Same Day
Special Requirements & Instructions	
Thyroglobulin	
Laboratory	Referred to Eurofins laboratories
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube x 3
Volume	Draw Volume 6mL
TAT (Turn Around Time)	14 working days

Special Requirements & Instructions	https://www.eurofins.ie/biomnis/test-information/test-guide/
Tissue Transglutaminase antibody [TTG]	See Coeliac Serology
Tobramycin Levels	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	Samples Tested for External Laboratories. GUH Micro /Mayo General Hospital
Total Iron Binding Capacity	
Laboratory	Biochemistry
Test Name Abbreviation	TIBC
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	Same day Monday - Friday
Special Requirements & Instructions	Calculated from Serum Transferrin Concentration See Transferrin
Transferrin	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	Same day Monday - Friday
Special Requirements & Instructions	

Transferrin Saturation	
Laboratory	Biochemistry
Test Name Abbreviation	T-Sat
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	Same day Monday - Friday
Special Requirements & Instructions	Calculated using an Iron and Transferrin measurements See Iron (Fe) and Transferrin
Triglycerides	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	
Troponin [High Sensitivity]	
Laboratory	Biochemistry
Test Name Abbreviation	Trop
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	
Tryptase – Timed Test	
Laboratory	Referred to Saolta Galway University Hospital
Test Name Abbreviation	
Sample Type	Serum

Container	Gel-STT blood tube x 3
Volume	Draw Volume 6mL
TAT (Turn Around Time)	7 working days
Special Requirements & Instructions	LM MDOC 0009 3 14 Final.pdf Sample 1 Blood samples for Tryptase (marker of mast cell degranulation) should be taken immediately after resuscitation Sample 2 after 1-2 hours Sample 3 baseline sample at 24 hours post. It peaks within 1 hour but can be raised for up to 6 hours.
U	
Urinalysis hCG	See Near Patient Testing
Urine ACR	
Laboratory	Referred to Eurofins Dublin
Test Name Abbreviation	Albumin Creatinine Ratio
Sample Type	Urine
Container	Universal Container /24 Hr Urine Collection No additive
Volume	N/A
TAT (Turn Around Time)	7 working days
Special Requirements & Instructions	https://cdnmedia.eurofins.com/european-west/media/m5enxqbv/chemistry-psm.pdf
Urine Calcium	
Laboratory	Referred to Eurofins Dublin
Test Name Abbreviation	
Sample Type	Acidified Urine
Container	24 Hr Urine Collection Acidified
Volume	N/A

TAT (Turn Around Time)	7 working days
Special Requirements & Instructions	https://cdnmedia.eurofins.com/european-west/media/m5enxqbv/chemistry-psm.pdf ** Collection Container supplied by the laboratory. Please arrange with lab in advance [within opening hours].
Urine Creatinine / Creatinine Clearance	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Urine
Container	Universal Container /24 Hr Urine Collection No additive
Volume	N/A
TAT (Turn Around Time)	Same Day
Special Requirements & Instructions	24-hour urine Collection Containers are supplied by the laboratory. Please arrange with the laboratory in advance to obtain these containers [within opening hours]. If Creatinine Clearance required, please take a blood sample for Creatinine within the 24 hour collection period.
Urine Osmolality	See Osmolality
Urine Protein / 24 Hr Urine Protein / Protein:Creatinine ratio	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Urine
Container	Universal Container /24 Hr Urine Collection No additive
Volume	N/A
TAT (Turn Around Time)	Same Day
Special Requirements & Instructions	24-hour urine Collection Containers are supplied by the laboratory. Please arrange with the laboratory in advance to obtain these containers [within opening hours].

Urine Sodium	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Urine
Container	Universal Container /24 Hr Urine Collection No additive
Volume	N/A
TAT (Turn Around Time)	Same Day
Special Requirements & Instructions	24-hour urine Collection Containers are supplied by the laboratory. Please arrange with the laboratory in advance to obtain these containers [within opening hours].
Urate / Uric Acid	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	Same Day
Special Requirements & Instructions	Is Patient on Rasburicase? If YES contact the Laboratory about the Uric Acid Rasburicase procedure
Instructions for Laboratory Post Receipt	
Urea	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Plasma
Container	Lithium Heparin blood tube
Volume	Draw Volume 4mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	

V	
Vancomycin Levels	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	2 hours
Special Requirements & Instructions	
Vitamin B12	
Laboratory	Biochemistry
Test Name Abbreviation	
Sample Type	Serum
Container	Gel-STT blood tube
Volume	Draw Volume 6mL
TAT (Turn Around Time)	Same Day Monday - Friday
Special Requirements & Instructions	
Vitamin D3	See 1,25-dihydroxyvitamin D
W	
X	
Y	
Z	

20.2. Appendix 2: Out of Hours Test List-by Laboratory Department

20.2.1. Appendix 2.1. Out of Hours Test List– Biochemistry Department

EMERGENCY On-Call tests available between 20:00 and 08:00 Monday to Friday and 14:00 – 08:00 Saturday, Sunday and Bank Holidays	**Routine tests available between 08:00 and 20:00 Monday to Friday**	**Tests available between 08:00 and 14:00 Sat/Sun and Bank Holidays**
U&E	U&E	U&E
LFT	LFT	LFT
Bone profile	Bone profile	Bone profile
Glucose	Glucose	Glucose
PCT	PCT	PCT
CSF Biochemical analysis	CSF Biochemical analysis	CSF Biochemical analysis
Osmolality	Osmolality	Osmolality
Amylase	Amylase	Amylase
	NT- proBNP	NT- proBNP
hsTroponin-I	hsTroponin-I	hsTroponin-I
βhCG	βhCG	βhCG
	Ca 125	
	Ca 15.3	
	Ca 19.9	
	CEA	
	Lipid profile	Lipid profile
CK (ER requests only)	CK	CK
CRP	CRP	CRP
	Ferritin	
Free T4 (ER requests only)	Free T4	Free T4
TSH (ER requests only)	TSH	TSH
	Vitamin B12	
	Folate	

	Iron profile	
	PSA	
Uric acid	Uric acid	Uric acid
Fluid analysis	Fluid analysis	Fluid analysis
Urine chemistry	Urine chemistry	Urine chemistry
Gentamicin	Gentamicin	Gentamicin
Vancomycin	Vancomycin	Vancomycin
Tobramycin	Tobramycin	Tobramycin
Amikacin	Amikacin	Amikacin
Digoxin (Referred to GUH)	Digoxin (Referred to GUH)	Digoxin (Referred to GUH)
Needlestick injury (Donor sample *only*)	Needlestick injury (Donor sample *only*)	Needlestick injury (Donor sample *only*)

20.2.2. Appendix 2.2: Out of Hours Test List – Haematology Department

EMERGENCY On-Call tests available between 20:00 and 08:00 Monday to Friday	Routine tests available between 08:00 and 20:00 Monday to Friday	Tests available between 08:00 and 14:00 Sat/Sun and Bank Holidays
FBC (Full Blood Count)	FBC (Full Blood Count)	FBC (Full Blood Count)
	Reticulocytes	Reticulocytes
PT/INR	PT/INR	PT/INR
APTT	APTT	APTT
Fibrinogen	Fibrinogen	Fibrinogen
D-Dimer	D-Dimer	D-Dimer
Infectious Mononucleosis Test (IM Test)	Infectious Mononucleosis Test (IM Test)	Infectious Mononucleosis Test (IM Test)
	ESR	
	Malaria*	
* Malaria tests are referred externally and only available Monday to Friday from 09:00-16:00		

20.2.3. Appendix 2.3: Out of Hours Test List – Microbiology Department

Tests available between: 16:30 and 20:00 Monday to Friday and 08:00 – 13:00 Sunday/Bank Holidays	**Emergency On-Call tests 20:00 – 08:00 Monday to Friday and 13:00 – 08:00 Saturday, Sunday and Bank Holidays**
CSF analysis #	CSF analysis #
Positive Blood cultures	Positive Blood cultures (until 21:00)
Urgent Urine Microscopy *	Urgent Urine Microscopy *
Fluid/Tissue culture *	Fluid/Tissue culture *
Urgent *C. difficile* *	Urgent *C. difficile* *
Urgent *Norovirus* *	Urgent *Norovirus* *
Urgent COVID testing	Urgent COVID testing*
Urgent Respiratory Panel PCR	Urgent Respiratory Panel PCR*
* Only if authorised by Consultant Microbiologist # Includes Biochemical analysis (Protein & Glucose). Excludes Cytology (next routine day)	

20.2.4. Appendix 2.4: Out of Hours Test List – Blood Transfusion Department

EMERGENCY tests available between 20:00 and 08:00 Monday to Sunday/Bank Holidays	**Routine tests available between 08:00 and 20:00 Monday to Sunday/Bank Holidays**
Group & Screen	Group & Screen
Confirmatory Group	Confirmatory Group
Crossmatch	Crossmatch
Direct Antiglobulin Test (DAT)	Direct Antiglobulin Test (DAT)
Antigen Phenotyping	Antigen Phenotyping
Antibody Investigation *ONLY if clinically urgent Otherwise processed on the next working day, Unless next working day is not routine, then testing must commence on the same day	Antibody Investigation *Cut off time for processing non urgent antibody investigations is 1600, Unless next working day is not routine, then testing must commence on the same day
Issue of Blood/Blood Products	Issue of Blood/Blood Products
Transfusion Reaction Investigation	Transfusion Reaction Investigation