

TITLE: LABORATORY USER MANUAL

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Effective Date: 21/10/2009 **Supersedes:** Version 2

Change Control No. :

DOCUMENT REVIEW HISTORY

Next Review Date: 21/10/11

Date	Reviewed By	Document Amended YES/NO	Page/s Amended	Next Review Date
19/02/2008	Hugh Brennan	New	Version 1, Created	01/08/08
28/07/2008	Hugh Brennan	Yes	See change control no. : CC08020	01/08/10
21/10/2009	Jonathan Harris	YES	See Change Ctrl no:	21/10/2011

Change Description: 2nd Version of Pathology User Manual
 (new staff/contact details/typing errors/new in house tests/mission statement/quality policy)

Reason for Change: Implementation of ISO15189 and JCI standards.

CONTACT DETAILS

Medical and scientific advice on issues within the laboratory's range of interest and competence is available. Information for patients explaining the clinical procedure and any preparation required is available from the relevant clinical areas. For a direct line please prefix the extension number with (01) 645 -.

Position	Name	Extension	Deck
Clinical Director	Dr Patrick Thornton	Switch	
Laboratory Manager	Mr John O Loughlin	9232	9965
PATHOLOGY OFFICE - 9233			
Results/Enquires	Laboratory Office	9233	
BIOCHEMISTRY – 9224			
Consultant Haematologist	Dr Patrick Thornton	9233	Switch
Senior Medical Scientist	Mr. Jonathan Harris	9223/24/25	9891
HAEMATOLOGY – 9222 & BLOOD TRANSFUSION - 9225			
Consultant Haematologist	Dr Patrick Thornton	9223/9224	Switch
Consultant Haematologist	Dr Philip Murphy	9223/9224	Switch
Haemovigilance Officer	Mrs. Brid Tuite	9231	9854
Senior Medical Scientist	Mr Eoin O Rourke	9223/24/25	9966
HISTOPATHOLOGY			
Consultant Histopathologist	Prof Mary Leader	2064358	
Inquiries	Laboratory Office	9233	
MICROBIOLOGY			
Consultant Microbiologist	Dr. Anne Gilleece	9233	Switch
Infection Control	Lorraine Larkin		9791
Microbiology Inquiries	Laboratory Office	9233	
PHLEBOTOMY			
Senior-in-Charge	Ms Anne Carey	9037	9978
	Ms Anne Donnolly	9037	9991
	Ms Imelda Hinz	9037	9992
MISCELLANEOUS			
Meditech (Laboratory only)	Mr Eoin O'Rourke	9223/24/25	9966
ICT support	ICT Department	6457777	7777

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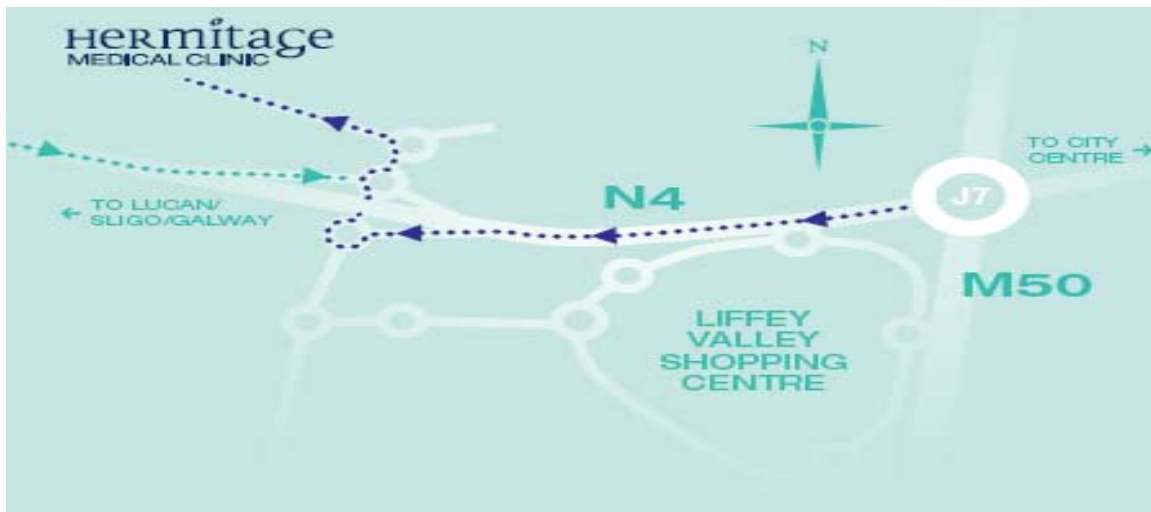
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INTRODUCTION

The Hermitage Medical Clinic comprises 39 Consulting Suites and a 101 bed hospital complex together with service areas, access roads, surface car parking for 360. This state-of-the-art Hospital in Lucan, West Dublin provides medical, surgical and advanced radiotherapy care to patients by using the latest cutting edge systems. The Treatment facilities include 7 operating rooms, an 8 bedded ICU / HDU, Emergency Department, Day Surgery and Endoscopy, Oncology Treatment Areas and Therapeutic Radiotherapy. The most up to date radiology equipment is available including MRI, PET / CT, Nuclear Medicine, 64 slice CT, Mammography, Ultrasound, X-ray and Fluoroscopy. We will have full Cardiological services including a Cardiac Catheterisation Suite and Clinical Laboratory services. A fully comprehensive physiotherapy unit, pharmacy, shop, chapel, restaurant and ancillary facilities are also available.

LOCATION

The Pathology Laboratory is situated on the first floor beside the canteen and Administration offices. The phlebotomy department is situated on the ground floor beside the day surgery unit.



Directions from the City Centre:

1. From O'Connell Street Bridge in the city centre drive along the quays (westbound) and follow signs for The West / N4 / M50.
2. Take the exit for the N4 and when on the N4 move to left hand lane and follow signs for Liffey Valley Shopping Centre (this will be the first exit off the N4). Stay on the right side of the slip road.
3. Once you have reached the end of the slip road you will arrive at a roundabout. Take a right, bringing you under the N4. Please note that once you arrive at the first set of lights the immediate left is not accessible as it will bring you against emerging traffic.
4. Take the next left off the roundabout and gain access to the facility by taking a left at the next entrance.

Buses from Pearse St 25A, 66, 67A

Directions from the North side of the city e.g Blanchardstown:

1. Take the M50 Motorway southbound.
2. Drive through Toll Booth and take next exit signposted Exit 7 for N4 Sligo / The West / Lucan.
3. Take the exit for the N4 and when on the N4 move to left hand lane and follow signs for Liffey Valley Shopping Centre (this will be the first exit off the N4). Stay on the right side of the slip road.
4. Once you have reached the end of the slip road you will arrive at a roundabout. Take a right, bringing you under the N4. Please note that once you arrive at the first set of lights the immediate left is not accessible and it will bring you against emerging traffic.

Buses from Blanchardstown Centre 76A

Directions from the South side of the city e.g Dunderum:

1. Take the M50 Northbound. Take the exit for the N4 (signposted The West)
2. Keep to the left hand lane of the N4 and follow signs for Liffey Valley Shopping Centre (this will be the first exit off the N4). Stay on the right side of the slip road.
3. Once you have reached the end of the slip road you will arrive at a roundabout. Take a right, bringing you under the N4. Please note that once you arrive at the first set of lights the immediate left is not accessible as it will bring you against emerging traffic.
4. Take the next left off the roundabout and gain access to the facility by taking a left at the next entrance.

Directions from the Red Cow Roundabout:

1. Take the M50 exit Northbound (Airport exit also)
2. Take the first exit off the M50 Motorway, the N4 exit (signposted The West). Keep to the left side of the exit.
3. Follow signs for Liffey Valley Shopping Centre (this will be the first exit off the N4). Stay on the right side of the slip road.
4. Once you have reached the end of the slip road you will arrive at a roundabout. Take a right, bringing you under the N4. Please note that once you arrive at the first set of lights the immediate left is not accessible as it will bring you against emerging traffic.
5. Take the next left off the roundabout and gain access to the facility by taking a left at the next entrance.

NORMAL OPENING HOURS

Laboratory Routine

Monday - Friday: 0830hrs – 1730hrs

An Emergency

On-Call laboratory service is provided as follows:

Monday - Friday: 17.30 – 09.00 (next morning)
Saturday: 09.00 – 09.00 (Sunday morning)
Sunday & Bank Holidays: 09.00 – 09.00 (next morning).

The Medical Scientist 'on-call' is contactable through the hospital switch (01 6459000).

Phlebotomy

In-patient phlebotomy

An in-patient phlebotomy service is provided to each ward Monday to Friday. Request labels must be requested on 'pool' in Meditech. The Phlebotomists visits each ward once in the morning at 07.00hrs and again in the evening at 14.00hrs. Urgent requests for non-ambulatory patients are available from 07.00hrs to 17.00hrs Monday through Friday.

Out-patient phlebotomy

The phlebotomy room is adjacent to Day Surgery Department on the same level as the main foyer. Phlebotomy is open during the following times:
Monday – Friday: 0700-1700

* No appointments are required. The department operates on a 'drop in' basis.

OUT OF HOURS SERVICE

Calls are referred by the requesting clinician to the pathology department between the times listed above.

The scientist(s) on-call can be contacted through the switch (Ext: 9002).
Clinician/consultant advisory support is available through switch.

Only those tests that will alter patient management should be requested out of hours. Clinicians may be asked to contact the relevant Consultant Pathologist on-call before the specimen is accepted in the laboratory.

Tests Available on-call

Biochemistry, Haematology and Blood Transfusion

- Renal profile
- LFT's
- Bone profile
- Glucose
- Full Profile (Renal/Liver/Bone)
- Lipid profile
- Troponin I
- Cardiac Profile
- Magnesium
- CRP
- Pro-BNP
- Vancomycin
- Gentamycin
- FBC
- INR
- D-dimers
- Monospots
- Type and Screen
- Crossmatch
- Malaria Screen (rapid screen)

*Other tests may be available on consultation with Consultant Pathologist and Laboratory staff.

Microbiology/ Histopathology

- A limited service is available through the Blackrock Clinic.
- Limited order entry is performed.
- A limited Microbiology service is available until 7pm.
- Please contact the laboratory reception for further details.

COLLECTION AND TRANSPORT OF SPECIMEN








Incoming inspection process

HMC specimens

Specimens must be collected in appropriate plastic leak proof containers with a screw top lid. The containers must be clearly labelled with the Meditech patient details and **MUST** be initialled and timed. They must then be placed inside the secondary Biohazard bag. Glass containers must not be used. Sample volume should reach the line on each sample type if possible.

The table below indicates the appropriate tube for specimen collection. **Sarstedt S-Monovette** System. Blood Samples should be taken in the following order:

Blood Samples should be taken in the following order:

Colour Code	Tube type / Order	Investigations	OD
Blood Culture Bottles	Blood Culture Bottles	Blood Cultures	1 st
 Coagulation	Sodium Citrate (Green)	PT, APTT, D-Dimers, Fibrinogen, all Coagulation testing.	2 nd
 Serum	Serum (Clotted) (White)	Serology, Tumour Markers, Iron Studies, Electrophoresis, Lithium. All endocrinology except Red Cell Folate. All immunology except CD4 or cryoglobulins. Hepatitis screening, HIV, Viral Screens.	3 rd
 Lithium Heparin	Lithium Heparin (Orange)	All Biochemistry Profiles, antibiotics, Troponin I, proBNP Phenytoin, Phenobarbitone, Valproate, Carbamazapine, Digoxin and Theophylline.	4 th
 Blood Transfusion	7.5ml EDTA for Blood Transfusion (Red and White)	Type and Screen ± Crossmatch, DCT	5 th
 FBC	2.7ml EDTA 6 TH (Red)	FBC, haptoglobins, malaria screen, IM, HbA1C, Red Cell Folate, CD4 counts, Cyclosporin, Hep C, HIV viral load. (Separate tubes required for each test.)	6 th
 Glucose	Sodium Flouride 7 TH (Yellow)	Glucose, lactate and alcohol.	7 th
 ESR	ESR (Long tube) 2 ND (Mauve)	ESR	8 th

Specimens ordered into Meditech must reach the laboratory with **minimum delay**.

Samples can be transported to the laboratory via the pneumatic tube system. The pneumatic tube system is acceptable for the transport of all samples except 24hr Urines, Blood Gases. Samples must be transported in a biohazard bag. Blood and Blood products cannot be transported via the pneumatic tube system.

Other Containers

- | | |
|-----------------------|---|
| Acid | 24 h urine container with 10 mL concentrated Hydrochloric Acid |
| Brown plain | 24 h urine brown plain container with no preservatives |
| Universal | Universal container |
| Faeces (brown) | Sterile (brown) container, or container covered in Aluminium foil |
| 24Hour Urine | A collection of all urine passed over a 24-hour period of time. After getting up in the morning, empty your bladder and discard that urine. Note the time. For the next 24 hours, save all urine passed in the container provided. When 24 hours are over, empty your bladder and ADD this urine to the container. Note the time. Bring the all the urine collected to the lab or doctor's surgery.
<u>Do not over fill container.</u> |

Containers

The minimum patient data required on a specimen container is the Meditech label with:

- Hospital Number
- Surname
- Forename
- Date of Birth
- Date/Time of Sampling
- Initials of person taking the blood.

The use of Meditech labels is essential. However, specimens for analysis in the Blood Transfusion Department must be HANDWRITTEN.

Specimens sent to HMC from outside hospitals

Pathological specimens must be packaged in accordance to the Packaging Instructions P650.

1. The packaging shall be of good quality, strong enough to withstand the shocks and loadings normally encountered during transport. Packaging shall be constructed and closed to prevent any loss of content that might be caused under normal conditions of transport.
2. The packaging shall consist of three components
 - a. a primary receptacle
 - b. a secondary packaging, and
 - c. an outer packaging
3. Pathology material must be placed in a securely closed, watertight primary container such as a test tube, vial, etc.
4. The primary container(s) must be enclosed in durable, watertight, secondary container. Several primary containers may be enclosed in a single secondary container. If multiple fragile primary receptacles are placed in a single secondary container, they shall be either individually wrapped or separated so as to prevent contact between them.

HERMITAGE MEDICAL CLINIC

5. The primary container(s) shall be packed in secondary packaging in such a way that under normal conditions of transport, they cannot break, be punctured or leak their contents into the secondary packaging.
6. A label indicating danger of infection is attached to the rigid secondary container. The label is not visible on the outer cover of the postage package but is visible to whoever unpacks it before the rigid protective secondary container is opened. Clinical information/patient details must be concealed from view.
7. The secondary container shall be secured in outer packaging with suitable cushioning material. Any leakage of contents shall not compromise the integrity of the cushioning material or of the outer packaging.
8. Labels indicating a danger of infection must only be used for specimens which are suspected of containing a hazard pathogen so that all such specimens can be easily identified and transported directly to the appropriate laboratory department.
9. The name and address of the sender is put on the back of the licensed container in case of damage or leakage.
10. For transport the mark UN 3373 shall be displayed on the external surface of the outer packaging in a diamond on a background of a contrasting colour and shall be clearly visible and legible. The width of the line shall be at least 2 mm; the letters and number shall be at least 6 mm high.

REQUEST FORMS

It is the responsibility of the requesting clinician and person collecting patient specimens to ensure that samples are correctly labelled with a Meditech label or in the case of blood transfusion correctly hand written.

The requesting clinician must request the tests on Meditech or fill out the request form for Blood Transfusion, Microbiology or Histopathology. Most routine in-house bloods are taken by Phlebotomists, the Meditech labels must be set to print in the Phlebotomy pool. If Meditech is down or if the test does not exist on Meditech then, the request form must contain the **Eight** data items listed.

Eight Essential Data Items

1. Hospital Number
2. Surname
3. Forename
4. Date of Birth
5. Ward
6. Consultant/GP
7. Date & Time of Collection (completed by person taking sample)
8. Signature (legible) and contact number of requesting medical officer

Non-Essential Useful Information (important for interpretative reporting):

- Clinical Details
- Medication
- Previous Operations (Histopathology)

Laboratory staff will only accept clinical specimens if these minimum criteria for patient/sample identification are met. Where possible addressograph labels must be used, and these must be placed on the front and back copies of request forms. Incorrectly labelled Blood Transfusion specimens and request forms which do not meet the legal and haemovigilance completion criteria for processing may have to be discarded and repeated in order to be accepted for processing. The laboratory adopts a zero tolerance approach to labelling of Blood Transfusion samples.

Some investigation requests for biochemistry and haematology are listed on the request form and requested by means of a 'tick-box'. Other investigation requests must be noted on this request form.

In the HMC most requests from ICU and ED (Emergency Dept.) are processed as urgent. Other urgent specimen requests must be phoned through to the laboratory on Extn 9233. Putting a red sticker on a sample is not sufficient.

Frozen Sections

We do not presently have the facilities to process frozen sections.

TESTING WILL NOT PROCEED OR THERE WILL BE A SIGNIFICANT DELAY IF THE TESTS ARE NOT PROPERLY REQUESTED IN MEDITECH

SPECIMEN RETENTION POLICY

The following information is in accordance with the guidelines of the 'The Retention and Storage of Pathological Records and Archives' – 3rd Edition Royal College of Pathologists 2005, the National Pathology Accreditation Advisory Council Retention of Laboratory Record and Diagnostic Material 3rd Edition and current INAB standards. The recommendations that follow outline the minimum retention time for various clinical material.

There are separate storage facilities for:

- Clinical material
- Blood and blood products
- Radioactive samples/waste
- Discarded Histology specimens

Storage facilities are in accordance with current legislation, regulations and guidelines.

Specimens and Preparations

Specimens and Preparations	Minimum Retention Time
Biochemistry Samples	
Plasma, serum, urine & body fluids	One week (only aliquot of 24hr Urine retained)
Whole blood & red cells	One week
Haematology & Blood Transfusion Samples	
FBC samples	1 week
Coagulation samples	1 week
Blood transfusion samples	14 Days (can only be used for 7 days, after samples are held for archive reasons only)
Blood films	1 year
Bone Marrow Aspirates	Stained held indefinitely Unstained held for 1 month
EDTA blood for group, antibody screen and/or cross-match	14 Days at 4°C (can only be used for 7 days, after samples are held for archive reasons only)
Serum following a cross-match or antibody screen	14 Days at 4°C (can only be used for 7 days, after samples are held for archive reasons only)
Other specimens :	Minimum Retention Time (Blackrock Clinic)
Histology Samples	Cytology – 4 weeks after sign out Formalin fixed biopsy – 4 weeks after sign out Histology stained slides - permanently
Microbiology Samples	Blood Cultures – 1 week CSFs – 2 weeks Swabs – 2 weeks Urines – 1 week Cultures – 48 hours after final report
Discarded Histology samples	8 weeks in formalin (Hermitage Medical Clinic)
Radioactive samples	24hrs in proper radioactive proof storage before sending sample to the Blackrock Clinic

Residual Samples for Research Purposes

The laboratory must seek explicit consent through the Consultant in charge of the patient, from parents/guardians in order to use residual or surplus samples. In the absence of explicit consent, prior approval must be granted by the hospital Medical Advisory Committee (MAC), which deals with hospital ethical issues or in order that samples may be used for purposes other than the examinations requested e.g. quality control , method development. If used, all samples must be made anonymous.

With certain unique samples e.g. dried blood specimens or biopsies, only a portion of the sample may be used. Sufficient sample must be retained in the event of further investigations being required.

Residual or surplus samples may only be used for research related to a specific disorder or group of disorders provided prior approval is granted by the MAC or appropriate body. Ethical approval must be sought independently for every proposed study. Policy on use of residual samples for research purposes is under constant review by MAC or third party Ethics Committee.

RESULT REPORTING

Laboratory policy on phoning reports

- Results may be telephoned, when previously arranged or requested , e.g. on urgent samples with prior verbal notification
- Results may be telephoned when asked to do so by the Meditech System (critical results etc)
- Results may be telephoned for a patient from a critical ward e.g. ICU, ED etc
- Results may be telephoned when the results may be of relevance to immediate clinical management
- The laboratory staff member issuing the report will make sure of the patients unique identification by requesting date of birth and/or MRN of the patient prior to issue. After the report has been transmitted, the laboratory staff member in question will ask the receiver to read back the results in order to minimize the risk of transmission errors. The laboratory staff will log the call into the Meditech System or manually log the call.
- Reports will only be issued to clinicians, their secretaries or ward staff. The identity of the receiver must be verbally confirmed to laboratory staff before issuing the report.
- The above method is used to ensure the results only reach an authorised receiver and that results are clear and unambiguous. The security of the personal records is ensured and the risk of error reduced. This is done in accordance with JCI and ISO15189 standards.

Issuing of Reports during Normal Opening Hours

Once authorised the results are entered onto Meditech. Results that have been requested to be phoned, plus any unexpected abnormal results are phoned to the appropriate location as soon as they become available. A copy of the report is printed and sent to the ward and/or consultant suites if requested. External reports are dispatched to their destination on the first working day there after the report is received or may be faxed in accordance with laboratory policy on faxing results.

Issuing of Reports On-Call

Once authorised the results are entered into Meditech. All critical results will be telephoned to the requesting clinician. Results are available on the Meditech system once testing is complete and results are verified by the Medical Scientist.

Where calls originate from external agencies the results are phoned and a written report dispatched on the first working day thereafter or faxed in accordance with laboratory policy on faxing results.

Laboratory policy on faxing reports

Reports cannot be faxed to outside sources that have not confirmed their security to the laboratory. The laboratory has circulated a document entitled : “Confirmation of Fax Security Record” to many of our users so that they can confirm their security. If you wish reports to be faxed to you but you have not received a copy of this document, contact the lab and we will send you one. Faxed reports are sent only to secure locations and when the reporting scientist is satisfied that the report is received immediately. An appropriate fax cover sheet must accompany all results. Results will only be faxed to a suite or external third party when a written request is made by fax to the laboratory. This is to ensure that the correct results are faxed to the correct fax number.

Time Limit for requesting additional TESTS OR EXAMINATIONS

Biochemistry

Requests must be made within 24 hours of specimen collection and only if the plasma/serum has been separated from cells and the sample appropriately stored at 4°C. Discuss all requests for additional testing with senior staff in the Biochemistry Laboratory.

Haematology

Dependent on test being requested. Coagulation samples are very time-sensitive and are not suitable for analysis more than 4 hours after being taken. For other requests, (e.g. monospot, malaria testing, tests sent out for flow cytometry), please discuss individual requests with senior staff of the Haematology and Blood Transfusion Laboratory.

Blood Transfusion

Requests for additional testing is dependent on the particular test being requested and if the patient has been previously transfused or is pregnant. Please discuss individual requests with staff of the Haematology and Blood Transfusion Laboratory

Patient Transfused Within	Sample Not To Be Taken More Than
3-14 days	24 hr before transfusion
15-28 days	72 hr before transfusion
29 days to 3 months	1 week before transfusion
Patient Being Transfused Daily	Repeat sample every 72hrs Daily samples not required

* From BCSH Guidelines 2004

Histopathology

All requests for additional testing and examination(s) must be made within 1 month of original examination request.

HERMITAGE MEDICAL CLINIC**PROBLEMS / COMPLAINTS**

Minor: Please telephone, e-mail or fax the laboratory. Details on page 2 above.

Major: Write or phone the Laboratory Manager at the contact details on page 2.

BLOOD BANK POLICY

- It is hospital policy that all patients who require any blood transfusion testing that may require blood or blood component must have a hospital armband on at all times. If the armband is removed then a new Type and Screen and crossmatch sample must be requested. It is therefore not possible to carryout this testing on 'Outpatients'. Ensure patient has received the patient information leaflet for transfusion. Informed patient verbal consent for transfusion is required. Ensure patient has received the patient information leaflet for transfusion. Verbal consent is confirmed by prescribing doctor with a signature and date.
- All units which are required for transfusion must be issued out from the blood fridge by a Medical Scientist. If there is no one available in the laboratory out of hours please contact the on call Medical Scientist through the hospital switchboard. The name of the on call person and their phone number can be found on the notice board of the laboratory reception area if the switchboard is unattended at any time.
- The pink crossmatch compatibility label which is attached to the unit using plastic tags must not be removed until the transfusion is completed otherwise an unlabelled unit will end up being transfused to the patient.
- You must bring a collection slip or preferably the completed prescription on the Blood Transfusion Booklet with a barcode patient sticker to the laboratory when collecting the unit or the unit cannot be issued
- In an emergency, you must leave that collection slip in the assigned box on the issue fridge door to alert that the unit has been collected. All units must be signed out.

ORDERING A BLOOD COMPONENT

1. All orders are entered through Order Entry using the category of BBK and not LAB. During Meditech downtime or in an emergency where using Meditech may result in an undue delay then a Blood Transfusion Request form can be used.
2. You must include the reason for type and screen or transfusion and the number of units required in the clinical details section.
3. There is no label for the specimen bottle which must be hand written at the patients side from their wrist Identification band and details confirmed by the patient.

COLLECTING A BLOOD COMPONENT – Contact laboratory.

1. To collect a unit of blood you must bring a collection slip or preferably the Blood Transfusion Booklet with completed prescription with the patients barcoded sticker on it in order to scan the collection slip and then the unit. Consent for transfusion should be gained prior to collecting blood.

2. Every unit of blood issued from the laboratory for a patient requires a printed pink Issue/transfusion card attached to the unit. This applies even to emergency uncrossmatched units which will have a blank pink label with the unit details and space on it for documenting the patient details. The Medical Scientist must always be contacted prior to taking a unit of blood from the laboratory.
3. Routine transfusions which have units assigned and ready for the patient but collected outside normal laboratory hours will have the pink issue/crossmatch card attached but must be issued by a Medical Scientist or under the guidance of a Medical Scientist.
4. The label replaces the existing written crossmatch form and must be attached, when completed, to the Transfusion Booklet but only following completion of the transfusion. (No unit should be transfusing to a patient without identifiers attached to it)
5. The HMC blood transfusion sticky label used for red cells is unsuitable for platelet units. It is necessary to write the unit number in the transfusion booklet on top of the vital signs section space for that unit to identify that the observations relate to that particular unit.
6. For emergency transfusion out of hours the laboratory scientist on call must be contacted through the switchboard. The name of the on call person and their phone number is also on the window in the reception area of the laboratory

REPERTOIRE OF TESTS

The department provides an extensive list of investigations, many of which are referred on to reference laboratories in Ireland and abroad. For further information clinicians can contact the relevant Pathology Department or Specimen Reception (see contact details section). For many of these referred investigations the Hospital will receive an invoice so clinicians may be requested to justify such investigations and complete a separate individual request form.

Test repertoire includes information relevant sample information, reference ranges and turnaround times. Turnaround time represent the average time between sample receipt and result reporting i.e. validation and availability of results on the LIS. Urgent samples and critical results are handled appropriately and according to departmental procedures. The volume of sample required varies form test to test but each sample should be filled to the line on the sample tube. The volumes required for testing are reviewed at least every 2 years.

The Appendices below list the repertoire of tests and reference ranges available :

- **Appendix A Blood Transfusion Testing**
- **Appendix B Haematology Testing**
- **Appendix C Haematology Reference ranges**
- **Appendix D Biochemistry Testing and Reference ranges**
- **Appendix E Microbiology and Histopathology specimens**
- **Appendix F Quick Guide for ordering Lab Tests on the Meditech System**
- **Appendix G Quality Policy**

HERMITAGE MEDICAL CLINIC

- **Appendix H** **Uncertainty of Measurement for tests carried out in the Hermitage Medical Clinic.**
- **Appendix I** **Immunology Testing**

Also included in the Appendix section is user information relating to the most frequently used referral sites for lab tests not provided here. If you cannot find the information you require, please contact the laboratory (however consult this manual first if possible, before phoning the lab). We hope you find this manual useful.