
	Unique Identifier	MI-BB-CPP-Transfusion User Guide	Version No.	1.0	The Christie Pathology Partnership A joint venture with synlab	
	Approval	Ei Tint	Date of Issue	25/05/2018		
	Author	D Seals	Frequency	Annually		

Date of Review	Signed By	Date of Review	Signed By	Date of Review	Signed By	Date of Review	Signed By

Transfusion User Guide



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Contact details of key members of staff

Medical Staff	Name	Telephone	E-mail
Blood Transfusion Laboratory manager	Debbie Seals	446 3167	Deborah.Seals@christie.nhs.uk
Senior BMS Transfusion	Ei Tint	446 3287	Ei.tint@christie.nhs.uk
Transfusion Practitioner	Sharon Jackson	446 3055 (Bleep 12575)	Sharon.jackson@christie.nhs.uk
Deputy Transfusion Practitioner	Lorna Diggory	446 3055 (Bleep 12832)	Lorna.diggory@christie.nhs.uk
Consultant Haematologist (Transfusion Lead)	Dr Samar Kulkarni	446 3228	Samar.kulkarni@christie.nhs.uk
Blood Sciences Service Manager	Mrs Sylvia Blake	446 3316	Sylvia.blake@christie.nhs.uk

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The location of the laboratory

The Transfusion laboratory is situated within the Pathology Department (Department 45) located at the Wilmslow Road end of the 1st floor corridor, above main out-patients. Follow signs for Pathology.

The contact number for the department is 0161 446 3287.

Times of opening of the laboratory

Mon – Fri

07:00 – 08:30 – limited service

08:30 – 17:00 – routine service

17:00 – 21:00 – limited service

21:00 – 07:00 – Out of hours (urgent requests for the immediate management of the patient only)

Sat/Sun

08:00-17:00 - limited service

17:00 – 08:00 – Out of Hours (urgent requests for the immediate management of the patient only)

Details of out of hours service



The out of hour's service is for urgent work required for the immediate management of the patient. The following services are available:

- Group and Save (G & S) – for patients where group is unknown who require blood products (except albumin)
- Crossmatching - **ONLY** performed for those patients undergoing emergency surgery, who are bleeding or are emergency cases with haemoglobin < 8.0.
- Routine crossmatches for theatre the following day and routine top up transfusions with haemoglobins of >9.0 will **NOT** be performed.
- Provision of blood products (platelets, FFP, cryoprecipitate) for urgent cases in line with current guidelines.

The Biomedical Scientist **MUST** be contacted on 07823 536085 if Blood/Blood Products are required between 21:00 – 07:00. Requests that are sent for provision of products outside of this time do not require pre-notification.

Please send blood transfusion samples via the pneumatic tube system to reception number 111 or 222; in urgent cases it is advisable to hand deliver the sample to pathology reception.



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Services offered by Blood Transfusion laboratory

BLOOD TRANSFUSION TEST	SPECIMEN REQUIRED	SPECIAL INSTRUCTIONS	KEY FACTORS AFFECTING TEST PERFORMANCE OR INTERPRETATION
Group and Screen	4.5 ml EDTA Light Blue top	Refer to section 'Instruction for requesting tests'	Haemolysed, clotted and lipaemic samples are unable to be tested
Antibody Panel Interpretation	4.5 ml EDTA Light Blue top	If confirmation is required by NHSBT an extra 2 x 4.5ml EDTA samples will be required	
Direct Coombs Test and Monospecific Direct Coombs Test	4.5 ml EDTA Light Blue top Or 3.4 ml Red top EDTA		Sample less than 24 hours old required
Issue of red cells	Sample within 72 hours of planned transfusion	New patients will require an additional confirmation group and screen sample	
Transfusion Reaction Investigation	Implicated unit with giving set attached 2 x post transfusion group and screen (4.5ml EDTA Blue top) 1 x 3.4 ml Red top EDTA (for FBC – use a separate haematology request form) 1 x 4.9ml serum (clotted) sample (White top) Microbiology samples if required	Telephone laboratory to inform them prior to sending Transfusion reaction form can be downloaded from the intranet	
Issue of platelets	No sample required UNLESS the patient is new and 2 x separate group and screen samples required		
Issue of HLA platelets	Patient requires HLAAB screen/type prior First request must be made by medic	24 hours' notice is required	Note: Cannot guarantee that platelet will be available on the same day (especially if short notice)
Issue of FFP and Cryoprecipitate	No sample required UNLESS the patient is new and 2 x separate group and screen samples required		
Issue of Albumin	No sample required		
Issue of specialised blood products (named patients only)		Discuss with blood transfusion laboratory	



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Referred tests

TESTS REFERRED TO OTHER HOSPITALS TEST	SPECIMEN REQUIRED	SPECIAL INSTRUCTIONS	REFERRED TO
Alloantibody Investigation	2 x 4.5ml EDTA (Blue Top)	Use NHSBT request form 1a (completed by laboratory staff)	Liverpool NHSBT
ABO/Rh grouping problems	2 x 4.5ml EDTA (Blue Top)	Use NHSBT request form 1a (completed by laboratory staff)	Liverpool NHSBT
Extended RBC phenotype	2 x 4.5ml EDTA (Blue Top)	Use NHSBT request form 1a (completed by laboratory staff)	Liverpool NHSBT
NHSBT Crossmatching	2 x 4.5ml EDTA (Blue Top)	Use NHSBT request form 1a (completed by laboratory staff) 24 hours' notice is required	Liverpool NHSBT Note: Cannot guarantee that blood will be available on the same day (especially if short notice)
Autoimmune haemolytic anaemia/positive DAT	2 x 4.5ml EDTA (Blue Top)	Use NHSBT request form 1a (completed by laboratory staff)	Liverpool NHSBT
Investigation of platelet refractoriness	2 x 4.5ml EDTA (Blue Top)	Initial investigation requires an HLA type and antibody screen	Sheffield NHSBT
HLA Type Class I	1 x 4.5ml EDTA (Blue top)	Use NHSBT request form 3A (Contact transfusion laboratory for form if required)	Sheffield NHSBT
HLA specific antibody screen	1 x 4.9ml serum (clotted) sample (White top)	Use NHSBT request form 3A (Contact transfusion laboratory for form if required)	Sheffield NHSBT
TRALI Investigation	Pre-transfusion sample 1 x 4.5ml EDTA (Blue top) 1 x 4.9ml serum (clotted) sample (White top)	Use NHSBT request form 3A (Contact transfusion laboratory for form if required)	Sheffield NHSBT
Platelet refractoriness (due to HPA)	1 x 4.9ml serum (clotted) sample (White top) 1 x 4.5ml EDTA (Blue top)	HLA antibody investigation must be carried out first	Bristol NHSBT
Heparin Induced Thrombocytopenia (HIT)	1 x 4.9ml serum (clotted) sample (White top)		Bristol NHSBT

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Consent

It is the responsibility of the requesting clinician to obtain consent from the patient for the collection of blood specimens. For certain tests (e.g. genetic testing) a consent form may be required in addition to the request form.

Instructions for requesting tests

Patient preparation and blood sampling:

Trust I.V. policies managed by clinical skills team can be found at the following link:
<http://intranet/departments/education/proed/IVTeam/policies.htm>

Request Form

Blood transfusion request forms **MUST** be completed and signed by a qualified medical practitioner, nurse clinician/practitioner or specialist nurse who has received the trust training by the transfusion practitioner.

As a minimum the following information must be completed on the form:

- The use of an addressograph label is mandatory and must show the patients full name, hospital number and date of birth
- Ward/location
- Diagnosis/reason for request
- Indicate product if required
- Date and time when the product is required
- Any special requirements (Irradiated, HLA matched)
- Name of the requesting medical practitioner, nurse clinician/practitioner or specialist nurse
- Contact number
- Haematological disorders (e.g. Sickle Cell Disease, Thalassemia)

The Sample



Details of specimen type and volume required are shown in the services offered and referred test tables.

The use of addressograph labels on specimen bottles is prohibited.

All samples **MUST** be handwritten and labelled with:

- Patient full name spelt correctly
- Hospital number

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- Date of birth
- Date sample taken
- Signature of person taking the sample

In addition:

- Samples should be taken using a 4.5ml EDTA (blue top) tube
- Blood **MUST** only be taken from patient at a time
- The sample **MUST** be labelled at the bedside
- Do **NOT** pour samples taken in an incorrect tube into a correct one
- Do **NOT** use pre-labelled tubes

Non-compliance:

1. Unlabelled specimens will be discarded and the ward informed and a repeat sample requested.
2. There is zero tolerance for mislabelled samples in blood transfusion. Incorrectly or inadequately labelled specimens will be discarded. The ward will be informed and a new sample requested.
4. Haemolysed samples are unable to be tested and will be discarded. The ward will be informed and a new sample requested.

Second Sample Rule

The British Committee for Standards in Haematology (BCSH) Guidelines for pre-transfusion compatibility procedures in blood transfusion recommend a second sample should be requested for confirmation of the ABO group of a first time patient. All new patients will require a second 'independent' group and save sample.

Refer to <http://onlinelibrary.wiley.com/doi/10.1111/j.1365-3148.2012.01199.x/full>
Recommendation

Timing of samples for Crossmatching



In line with the BCSH guidelines, if a patient has been transfused within the last 3 months or is pregnant crossmatching should be performed using a sample no more than 3 days in advance of the actual transfusion. This 3 day rule includes the dereservation period (E.g. if the sample is 1 day old blood would have to be transfused within 2 days).

Where there has been no transfusion within 3 months or pregnancy the sample is valid for 7 days

Urgent Samples

It is recommended that if a sample is urgent or in an emergency situation the samples should be hand-delivered to pathology reception.

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Transfusion Reaction

If an adverse reaction to a blood product is suspected the blood transfusion laboratory should be informed by telephone. The Management of Transfusion Reaction Form should be completed and sent to the transfusion laboratory together with the following:

- The donor pack causing the suspected transfusion reaction with the giving set attached
- Two group and save samples (4.5ml EDTA Blue top)
- One clotted sample (4.9ml White top)
- One FBC (3.4ml Red top)
- Blood cultures if suspected bacterial contamination
- MSU if haematuria detected
- Any other empty bags from the same transfusion episode

Transfusion Reaction Investigation **MUST** be hand delivered to pathology reception.

Instruction for transportation of samples
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Various personnel within the Trust will be involved in transport of specimens to and from the laboratory either by hand or via the POD system. In order to protect theirs and others safety the following guidelines should be followed:

Cover any cuts and grazes with a waterproof dressing. Touch specimen containers as little as possible, washing hands as soon as practicable afterwards. Diagnostic samples must be sealed in the plastic bag attached to the request form. Carry all specimens in the trays or boxes, where provided, never in pockets. If a specimen leaks into a tray or box, tell the laboratory reception staff and ask them to make it safe.



If a specimen is dropped or broken, do not touch it or try to clear up the mess. Stay with the specimen to prevent other people touching it and send someone to the laboratory for help. If you spill the specimen onto your overall, you must remove it at once and then wash your hands and put on a clean overall. Report the accident to a supervisor as soon as possible. Handle specimen containers gently at all times.

The use of the pneumatic tube system for the transport of specimens to the Transfusion laboratory must be performed in accordance with Trust policy. Guidance on the use of the pneumatic tube transfer system can be found at:

http://discover/documents/default.aspx?Details=Y&Doc_ID=80

Do not send blood transfusion reaction investigations via the POD system.

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Reporting of Results

Results are transmitted to the Clinical Web Portal (CWP). Results are not printed on paper form and are not telephoned. Copies of NHSBT referral results are sent to the consultant requesting the test.

Whilst internal and external quality assurance programmes are in operation to ensure accuracy and precision of results, occasionally random errors may occur and escape detection.

Uncertainty of measurement

All biochemical results are subject to a degree of uncertainty of measurement. This may be due to a range of factors, including:

- Biological variation within individuals
- Analytical measurement imprecision
- Pre-analytical factors

If you require more information regarding the effects of these factors on the outcome of an individual test result please contact the lab on ext 3287.

Clinical advice and interpretation

Clinical advice on examinations and interpretation of results is available by contacting the Consultant Haematologist Transfusion Lead (Dr Kulkarni), Senior member of the Blood Transfusion laboratory or Transfusion Practitioners.

Comments/Complaints Procedure



Any complaints or concerns about any aspect of the service should be raised initially with the Blood Sciences Service Manager/Deputy General Manager, Mrs Sylvia Blake, telephone 0161 446 3316.

We are keen to know about any problems arising from the laboratory service. Feedback from our users will help in our constant efforts to improve our service.

Data Protection

All staff comply with The Trust Information Governance Policy for handling of patient confidential information.

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Quality assurance and Accreditation

The department participates in internal quality control (IQC) and external quality assurance (EQA) for all the tests undertaken within the laboratory. Performance is monitored and subject to rigorous control, to ensure that analyses are accurate, precise and results are comparable with other laboratories.

Details of the laboratory UKAS accreditation status can be found at the link below by searching our customer number **8697**:

<https://www.ukas.com/search-accredited-organisations/>

The lab also regularly monitors the accreditation status of the referral laboratories used for specialist testing.

Names and addresses of referral laboratories

Liverpool NHSBT

14 Estuary Banks
The Estuary Commerce Park
Speke
Liverpool
Telephone: 0151 268 7148



Sheffield NHSBT

Longley Lane
Sheffield
S5 7JN
Telephone: 0114 358 4839

Bristol NHSBT

500 North Bristol Park
Northway
Filton
Bristol
BS34 7QH
Telephone: 0117 912 5733

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Useful Links

BSCH Guidelines [BSCH Guidelines](#)
Blood Transfusion Policy [Transfusion Policy](#)

11. Document Locations

Hard copies are issued to the following locations:	1. Blood Transfusion
Electronic Version	1. Blood Transfusion Intranet Site
Any other printed copies of this document are unauthorised.	

12. Procedure Amendments

This replaces all previous versions of the document.

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