Torbay and South Devon NHS
NHS Foundation Trust

TORBAY AND SOUTH DEVON NHS FOUNDATION TRUST

Department of Transfusion Medicine User Manual

Torbay and South Devon NHS
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Blood Transfusion User Manual

Contents

Aim of User Manual

This user guide is designed to inform all service users of the Transfusion Department the services that are available through this Department.

All departments within Torbay and South Devon NHS Foundation Trust Pathology Directorate aim to provide high quality, efficient, transparent and cost-effective service.

Feedback on this document and all aspects of the services offered are always welcome, please contact a member of the management team which can be found in the contacts section of this document.

Please do not print or duplicate this document as it is a controlled document maintained in accordance with ISO 15189:2022 accreditation standards.

Please be aware that it is not appropriate for patients to contact the Laboratory directly for test results or advice. All patient enquiries for these should be made through a Healthcare professional such as your registered General Practitioner.

General Information

The Transfusion Department offers a full analytical and robust advisory service for the Acute Trust and service users in the Trusts Local area. Where possible testing will be performed in house by Qualified and competent HCPC registered Biomedical Scientists and advice on Clinical Results is available from the Medical Team.

Location & Address

Blood Transfusion Department
Torbay Hospital
Lowes Bridge
Torquay
TQ2 7AA

Working Hours

Normal Working Hours: 0900 – 2000

Out of Hours: 2000 – 0900

Lab Availability and Out of Hours				
Sample type	**Time of Day**	**Form**	**Contact**	**Notes**
Non-Urgent/Routine Samples	9am – 5.30pm	OrderComms or Blood Transfusion Request form.	No need to contact	Products available ASAP
Urgent Samples/Requests	9am – 5:30pm	• OrderComms – please use red bag sticker with red border. • Emergency Transfusion Form.	For urgent cross-match phone 55241	ASAP
Urgent Samples/Requests	5.30pm – 9am	• OrderComms – please use red bag sticker with red border. • Emergency Transfusion Form.	Bleep 67 219 or phone 55261	ASAP

*Please note that all requests for Blood Components/Products must be on paper or telephoned.

Sample type	**Time of Day**	**Form**	**Notes**
Urgent Requests-Available investigations	9am – 5:30pm	1. Blood Group and Save Plasma. 2. Blood cross-matching PHONE LAB.	Other investigations are available as emergencies only in special circumstances. Discuss with laboratory. Phone Torbay Hospital Switchboard for Duty Haematologist phone number
	5.30pm – 9am		Mon to Fri 09:00 to 17:30hrs: Phone 55241; Out of hours 67 219

Please be aware that it is not appropriate for patients to contact the Laboratory directly for test results or advice. All patient enquiries for these should be made through a Healthcare professional such as your registered General Practitioner.

Key Contacts

Contacts:

- Senior Specialist Practitioner of Transfusion (SSPOT): Jules Pinder julia.pinder@nhs.net mobile 07717 800861
- Consultant Haematologist: Dr Patrick Roberts patrick.roberts2@nhs.net
- Blood Transfusion Technical Manager: Steve Mills steve.mills@nhs.net
- Blood Transfusion Section Manager: Tanya Mitchell t.mitchell2@nhs.net
- Hospital Transfusion Team: tsdft.htt@nhs.net
- Blood Transfusion Laboratory 01803 655241 or out of hours please bleep 219
- Blood Tracking enquiries: tsdft.bloodtrack@nhs.net (including new barcodes and PIN reset)

Haematology Secretaries

- Secretarial Team – 01803 655237

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Quality Assurance

Accreditation

The Blood Transfusion Department is a UKAS accredited Medical Laboratory No. 8917. Which is accredited to ISO15189:2022. The full scope of this accreditation and the tests accredited can be found on the UKAS Website.

On occasion some of the tests offered by the Laboratory may not be included in the scope for accreditation, this is due to the Laboratories commitment to keeping testing methods up to date and in line where possible with testing standards both at National and International level. Where a test is not UKAS accredited it will be noted in the result report.

The Laboratory has an in-house Pathology Quality Department which monitors the QMS and Governance key performance indicators.

External Quality Assurance (EQA)

The Laboratory also takes part in high quality External Quality Assessment Schemes such as NEQAS.

Providing Feedback

The Laboratory is committed to the continuous improvement of services and welcomes all feedback on its performance and services offered. Through a robust quality policy, we aim to deliver service improvements where possible.

If you wish to provide feedback, including compliments or complaints please contact a member of the Management Team. The contact details can be found in the Contacts section.

Complaints and Compliments

On occasion there may be the requirement for a service user to lodge a complaint against the Laboratory or a service offered. In this situation we would encourage this complaint to be raised with the Laboratory Manager (or SSPOT) in the first instance. Complaints can be an important improvement opportunity and a way to better patient care.

The Trust has Local policies and procedures for complaints which can be found on the Trust intranet pages.

In the event of a serious incident please liaise with the Laboratory management/SSPOT and if it is required a DATIX can be raised.

If a patient would like to raise a concern or complaint these can be raised via the Patient Advice and Liaison Service (PALS) and the most up to date advice and contact details can be found on the Trust Internet site.

Protection of Personal Information (Confidentiality)

The Laboratory adheres to legislation relating to data processing and the handling of sensitive clinical information. We work in line with the Trust local policies to ensure that the correct information is available to those who need it to improve patient care. The Department does not release information on patient results or samples to non-authorised requestors.

Requesting Tests

Request forms and Specimen Labelling

The Laboratory uses Laboratory Information Management Systems (LIMS) to manage patient samples, Blood transfusion samples must be hand written onto each tube ensuring readability and accuracy.

When filling out the Pathology Request Forms, please ensure you have provided the patient information listed below. These are the minimum demographics that Blood Transfusion have requested to be provided on the forms depending on where the sample has come from.

Requestor type	First identifier	Second identifier	Third identifier	Fourth identifier
In-patient / Out-patient	NHS number Or Hospital number	Forename	Surname	DOB
GP	NHS number	Name	Surname	DOB

Blood Transfusion follows strict guidelines from the BSH and the BSH Transfusion taskforce.

As a minimum, the sample details should include the following:

- Patient core identifiers
- Date and time sample taken and
- The ID of the member of staff taking the sample.

The core patient identifiers on the sample tube must match those on the request form and the patient ID band. In the outpatient or community setting, patient ID bands may not always be used at the time of sampling. However, patients must still be positively identified using a risk-assessed alternative.

Sample tubes must never be pre-written or pre-labelled. Pre-printed labels (pre-printed away from the patient or taken from the patient's notes, e.g. '*addressograph*' labels) must not be used to label transfusion blood sample tubes for compatibility testing.

- *The administration of blood components: a British Society for Haematology Guideline*

Please Note: Failing to provide enough information on the Request Form or sample will result in the sample you have provided being rejected.

It is the responsibility of the Healthcare professional bleeding the patient to confirm the identity of the patient.

Rejection Criteria

Unacceptable Samples

Unlabelled and inadequately labelled samples will not be accepted in the interest of patient safety.

Leaking samples will usually be rejected unless they can be safely retrieved

Specimen Containers and Sample Collection

Sample collection is conducted by the wards and service users of the Laboratory. When using electronic requesting the system will advise on what sample container to use but if you have any doubts users are encouraged to check the intranet pages, this guide and if the information needed is not obviously available to contact the Laboratory for assistance.

- Pink Top - Contains Potassium EDTA anticoagulant

Paediatric Samples

Smaller versions of the EDTA used for adult patients are available, please ensure that the fill volume indicated on the container is followed.

High Risk Samples

Departments MUST supply all relevant clinical details as is reasonable and practical at the time of initial clinical assessment to the receiving Laboratory.

If you have any concerns about the transportation of High Risk samples please contact the Laboratory directly.

Requesting Urgent Tests

If a test is urgent, it is the responsibility of the requesting department and requesting healthcare professionals to pre alert the Laboratory where possible. The sample should be hand transported and given to a member of the Laboratory staff with the full details of the test requested and the contact details, so staff know who to contact with the results.

Requesting Additional Tests

Where an additional test is required for a sample that the Laboratory has already received, please contact the Laboratory by telephone to discuss adding additional tests on. Please be aware that due to the high-volume nature of many of the Laboratories tests it may not always be possible to add on to an existing sample. And sample validity will be considered when add on requests are received. If a sample is too old to give a reliable analytical result the add on request will be denied.

Specimen Transport

The Torbay Hospital courier service collects samples from GP surgeries and local hospitals from Monday - Friday. Most sites are visited at least twice a day.

It is the responsibility of the clinician/nurse taking the sample from the patient to arrange transport of the specimen to the laboratory.

For an urgent sample the Laboratory would advise Healthcare professionals to contact the laboratory prior to transport and ensure that the sample is handed to a member of the Laboratory staff. Please see the High-Risk sample section for more information.

For more information on Specimen Transport please see the Trust document 0589 Transport of Specimens.

Out of hours Testing

The Laboratory operates an out of hours testing service for urgent requests and clinical advice is available from the on-Duty Haematology Consultant.

Patient Consent

Please note that the laboratory may be required to disclose clinical information and family history to relevant healthcare professionals, where referral is required.

For Genetic testing: Where consent is required the requesting clinician will discuss requirements for consent and the patient and appropriate consent forms should be completed and signed.

Consent for Blood Transfusion

Recommendations from SaBTO (Safety of Blood, Tissues and Organs), BSH (British Society for Haematology) and NICE (National Institute for Health and Care Excellence) all require that we provide verbal and written information to patients who may have or who have had a transfusion, and their family members or carers (as appropriate), explaining:

- the reason for the transfusion
- the risks and benefits
- the transfusion process
- any transfusion needs specific to them
- any alternatives that are available, and how they might reduce their need for a Transfusion
- that they are no longer eligible to donate blood
- that they are encouraged to ask questions

The Trust Consent for Transfusion form is part of the Blood Transfusion record and can also be found on the Document Library

Results

Validity of Results

While all assays are processed using extensive internal and external quality assurance procedures to ensure accuracy and precision,

Very occasionally random errors may occur and escape detection. If your clinical opinion doubts the validity of a result, please contact the relevant pathology Consultant immediately.

Communication of critical results

It is Department policy that ABO blood groups are not telephoned, (they are available on ICE). Rh (D) groups, Direct Anti-Globulin, Kleihauer and antibody screening test results can be telephoned as required.

Diagnoses, which may necessitate the telephoning of results, are as follows

- Miscarriage / inevitable abortion
- E.R.P.O.C. (Evacuation of Retained Products of Conception)
- P.V.B. (During pregnancy)
- A.P.H (Ante Partum Haemorrhage)
- T.O.P (Termination of Pregnancy)
- Cord and Maternal post-delivery samples.
- Clinically significant alloantibody titres and quantities

Clinical Advice

Interpretation of Results

Senior clinical staff in all departments are available to discuss the choice of tests appropriate for a particular patient, interpretation of the results and advice on further investigations.

Comments aiding in Interpretation

Each result generated by the Laboratory may include comments as an aid to interpretation, if these are unclear or you require more guidance please contact the Laboratory.

Investigations, Turnaround Times & Sample Requirements

Turnaround Times

The Laboratory considers the Turnaround Times of samples (TAT) to begin at the point the Laboratory receive the sample. Once within the Laboratory setting a full audit trail should be available from the point of receipt to the result being released for each sample.

Measurement of Uncertainty

In laboratory testing there are potential uncertainties that may affect test results (for example, specimen not collected correctly, presence of therapies, biological variation) Additionally, factors within the laboratory may lead to variation (for example time from arrival to processing). Laboratories have measures in place to minimize the level of uncertainty and this is reflected by the Quality Assurance processes in place.

Results provided by the laboratory are representative of the sample tested and must be considered against clinical presentation. There are several factors that may affect the quality and validity of a result that are outside of the laboratories control.

Please not this list is generalised and is not exhaustive.

Factors that may affect results	Mitigating actions
Transport of sample/Delays	• Contact the laboratory in the event of any delays. • Inform the laboratory of any urgent samples. • Clearly label the date and time of collection where possible.
Underfilled	• Refer to user guide and check labels on collection bottles. • Contact laboratory if unsure of requirements
Out of Date Container	• Check stock regularly. • Check containers prior to collection. • Do not over stock.
Insufficient Clinical Details	• Complete clinical details and ensure tests are requested, without appropriate clinical details samples may be delayed.

Laboratory Portfolio & Reference Ranges

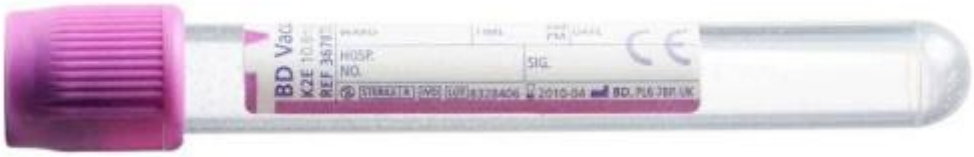
Test Name	Sample Requirement	Onsite/Referral	Turnaround Time
Heparin Induced Thrombocytopaenia(H.I.T) (discuss with Consultant)	Clotted 6ml	Onsite	24 hours
Group and Save (ABO Rh(D) Group + Antibody Screen)	6 ml EDTA	Onsite	24 hours
Direct Antiglobulin Test (D.A.T)	3ml or 6ml EDTA	Onsite	24 hours
Kleihauer	3ml EDTA	Onsite	24 hours
APT Test	3ml or 6ml EDTA	Onsite	24 hours
Antibody Identification	6 ml EDTA	Onsite	24 hours
Transfusion Reaction Investigation	6 ml EDTA, 3 ml EDTA and first urine sample	Onsite	24 hours
Crossmatch	6 ml EDTA	Onsite	24 hours
Red Cell Elution	6 ml EDTA	Onsite	24 hours
Antigen Typing	6 ml EDTA	Onsite	24 hours

Referred Work

Test Name	Sample Requirement	Onsite/Referral	Turnaround Time
Anti-D Quantitation	6 ml EDTA	Referral	5-7 days
Anti-c Quantitation	6 ml EDTA	Referral	5-7 days
HLA Typing	Minimum 6ml EDTA	Referral- use specific request form	Up to 15 days
HLA Antibody Screen (discuss with Consultant)	6ml Clotted	Referral- use specific request form	Up to 15 days
HPA Antibody Screen (discuss with Consultant)	6ml Clotted	Referral- use specific request form	Up to 15 days
Neonatal Alloimmune Thrombocytopaenia Investigation (N.A.I.T)	Maternal: 6ml EDTA and 6ml Clotted. Paternal: 6ml EDTA Neonate or Cord blood: 1ml EDTA	Referral- use specific request form	Up to 15 days
Autoimmune Thrombocytopaenia Investigation (discuss with Consultant)	Contact Laboratory. Sample must be tested in <72 hours of venesection.	Referral- use specific request form	Up to 15 days
Neonatal Alloimmune Neutropaenia (N.A.I.N)	Maternal samples: 6ml EDTA and 6ml clot. Paternal: 6ml EDTA Neonate or Cord blood: 1ml EDTA	Referral- use specific request form	Up to 15 days
Adult Immune Neutropaenia (discuss with Consultant)	6ml Clotted	Referral- use specific request form	Up to 15 days
Drug related Neutropaenia (discuss with Consultant)	6ml Clotted and sample of implicated drug(s)	Referral- use specific request form	Up to 15 days
Platelet Refractoriness (discuss with Consultant)	6ml Clotted and 6ml EDTA	Referral- use specific request form	Up to 15 days
Post Transfusion Purpura (discuss with Consultant)	6ml Clotted and 6ml EDTA	Referral- use specific request form	Up to 15 days

Specimen Guides

Potassium EDTA tube



- **Colour: Pink**
- **Information:** This sample container contains Potassium EDTA which serves as an anticoagulant.
- **Important notes:** The tubes should be filled up to the line indicated on the tube to ensure the correct ratio to blood to anticoagulant is achieved for analysis. The sample should be inverted about six times to ensure the blood and anticoagulant mixes. The samples must not be shaken to mix the blood.

Group and save (G&S): Patient's blood is typed and tested for antibodies, then saved in the Laboratory in case it is required for blood component issue; it DOES NOT get you blood products for transfusion. If you need blood components you have to request a crossmatch using a request form or by telephone.

Crossmatch (XM): Patients blood is typed and tested as above, then matched to specific units of blood.

Please Note:

For details on collection please see the Trust Venepuncture Procedure (Document Number 1535).

Disposal of materials used in collection of patient samples should follow local trust policies.