

## Sample Collection and Blood Transfusion Requests

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<b>Target Organisation(s)</b>	Worcestershire Acute Hospitals NHS Trust	
<b>Target Departments</b>	All	
<b>Target staff categories</b>	All	

### Key amendments to this policy

Date	Amendment	Approved by:
June 2018	Minor amendment to the sample acceptance criteria to bring into line with laboratory SOP	Gill Godding
July 2019	Minor amendment to sample acceptance criteria for neonates and minor grammatical corrections.	Gill Godding
July 2020	Document extended for 6 months whilst review and approval process takes place	Gill Godding

The process of taking a sample for blood group and antibody screening is described in this procedure.

There are 3 key components to taking samples for transfusion, these are; Patient identification, documentation and communication.

Appropriate identification of the patient is an essential part of delivering a safe transfusion. All patients requiring a transfusion sample must wear an ID band with the 4 key identifiers present (first name, surname, and date of birth and NHS number).

Samples must **never** be pre-labelled. They must always be labelled by hand, at the patient's side immediately post venepuncture.

This procedure applies to **all** patients who may require a blood transfusion and covers all specialities.

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## **Introduction**

This procedure covers the issue of obtaining a venous blood sample from a patient for transfusion. The key tasks include correctly identifying the patient, completing and understanding the minimum requirements on the blood sample request form and knowing how to correctly label a blood sample.

Misidentification at Blood sampling may lead to fatal ABO-incompatible blood transfusions, especially if the patient has not previously been tested by the transfusion laboratory.

## **Blood Transfusion Request Form**

All areas should have a supply of Transfusion requests forms (WR1718), replacement stock can be obtained from service point.

The cards must be fully completed and signed by a health care professional before the sample is obtained. An addressograph label is acceptable on the request form.

The minimum patient identification details are:

- family name
- first name
- gender
- Date of Birth
- NHS number or unique A&E number if unidentified patient. Blood Bank **must** be informed when additional identification details become available.

The form **MUST** also state:

- If the sample is for Group and Screen only or if products/ components are required. For component requests the quantity and date required must also be given.
- Any additional special requirements: e.g. whether irradiated or CMV negative products are required. If there is uncertainty about whether these special requirements are indicated, please contact the Blood Bank. It is the responsibility of the clinician completing the request form to ensure the special requirements are requested.
- The name and contact details of the person completing request card
- The name, signature and licence number of the sample taker
- Date and time when the sample has been taken

The request form should also indicate:

- The clinical details and reason for transfusion
- The patient's ward and Consultant
- Any relevant transfusion history: e.g. prior transfusion reactions.
- Location of intended procedure for which blood is required

The patient should be asked if they are carrying an antibody information card, or know if they have any antibodies which may delay the provision of blood.

For infants the maternal details must also be included on the request.

For infants less than 4 months of age it is essential to obtain a maternal blood sample for group and antibody screening. This will be used if the maternal sample is found to contain antibodies. A sample is also required from the infant for blood grouping and a direct coombs test (DCT).

If a maternal sample is not available for this age group 2 mls from the infant is required for blood grouping, DCT and crossmatch.

Over 4 months 2-6mls blood is required depending on the age and size of the child.

### **Requests for Blood Components**

Red blood cells will only be issued to patients when a current and historical blood group is available.

To ensure safe transfusion practice the laboratory operates a two sample policy.

The only exception to this rule is for Neonates (under 6 weeks).

There is a zero tolerance policy to mislabeled transfusion samples.

### **Sample acceptance criteria for Blood Group / Antibody Screening**

NO Amendments or Additions to form or sample are allowed by the staff member who took the sample.

Patients who require Red Cells should receive Group O Blood until an acceptable Sample / Request has been received.

The sample MUST have:

- First Name
- Surname
- Date of birth
- NHS Number ( Hospital Number only if NHS Number not available ) see below
- Date Taken
- Signature of person taking the sample

The request form MUST have:

Patient details on request form MUST match the Patient details on the sample:

- First Name
- Surname
- Date of Birth
- NHS Number ( Hospital Number only if NHS Number not available ) see below
- Gender
- Location
- Sample Taken by
- Date Taken
- Licence Number in the form Year Month / Unique Number ( GMC numbers are not acceptable )

The time taken MUST be present on either the sample or the request form, if present on the sample it can be transcribed onto the form. This is the only addition allowed to the request form.

If two samples arrive at the same time or very close together and are clearly taken by the same person, one of them will be rejected.

Any objections to the laboratory acceptance criteria will be referred to a senior member of laboratory staff, Transfusion Practitioner or Consultant Haematologist on call.

## **Transfusion requests**

The request for blood components or products must be made on a transfusion request form for everything except major haemorrhage activation. The type of component/ product must be clearly indicated along with the volume required in units, mls or IU.

Electronic cross-matching is available for patients who have **no** antibodies or history of transfusion reactions. A valid sample (<72 hours old) along with a historic sample (from any date) is required. Blood can be provided within 5-10 minutes of request via this method.

If an antibody is present this will delay the provision of compatible blood. The transfusion laboratory will liaise with appropriate staff regarding logistics of blood supply. In these circumstances a group and cross match is required. This can take 50 minutes **or more** depending on the availability of compatible blood.

It is possible to “convert” a previous “Group and Screen” sample to a request for transfusion, provided that the sample is still valid.

The initial request can be done by telephone, but this must be followed by a completed request form. Verbal requests will not be released until the form is received in the Blood Bank.

The Blood Bank staff will keep a record of the individual making the telephone request and the person receiving it. The following information will be required:

- Patient identification.
- Identity of person making the request and their contact details.
- Type and volume of components/ products required and any special requirements.
- Reason for transfusion
- Time and date products required

The laboratory staff will review the requests against best practise guidance and any inappropriate requests will be referred to the haematology registrar for approval.

## **Timing of Requests**

The Blood Bank laboratories provide a 24-hour emergency service at WRH. In order to be able to respond promptly to a genuine emergency it is important that routine requests are handled in a controlled manner.

Requests for planned transfusions should be sent during routine laboratory hours (08.00-20.00).

**Urgent cross-match requests should always be directly notified to Blood Bank staff by telephone.**

Urgently requested fully cross-matched blood will normally be available within 45 minutes of receipt of a blood sample in the laboratory, 30 minutes if there is already a “Group and Screen” sample and 5-10 minutes if the patient is eligible for electronic cross-match or group homologous units are required.

## **Sample Requirements**

The blood should be taken in pink-topped 6ml EDTA vacutainer (Patients over the age of 4 months are treated serologically as adults and therefore a sample >2ml is required in a 6ml EDTA vacutainer).

A 1ml sample is acceptable for infants aged < 4 months, accompanied by a maternal sample for the first transfusion. If the mother has antibodies at the time of delivery then a maternal sample will be required on each occasion.

If a patient's name changes (e.g. a neonate), a repeat sample with the correct new details **MUST** be sent to the Blood Bank before any blood can be issued for the patient.

### **Taking the Sample**

- Only staff qualified in venepuncture may take blood
- The staff member must have a valid "License to Practice"

Only one patient at a time should be bled and must be positively identified by asking the patient to state their full name and date of birth (where possible) and by checking the details on the patient identification band.

Check that the details on the patient's identification band match those on the blood transfusion request form.

The request form should be completed before the sample is obtained because it is part of the positive patient identification bedside check.

- In outpatient situations (e.g. pre-assessment clinic) where a patient does not have an Identity band, three methods of identification must be established e.g. full name, date of birth and address. The NHS Number must be established from patient notes or NHS Card.
- Within Accident and Emergency Departments, an unconscious/unknown patient will have been issued with unique A & E phonetic alphabet name, approximate DOB and unique number for use with blood/blood product transfusions, which will be shown on their Identity band. **THIS IS THE ONLY SITUATION WHEREBY AN A&E NUMBER MAY BE USED.** This number may continue to be used after transfer to a ward if no formal identification has been made.

A sample must not be taken from an arm with an infusion in progress as the fluid in the infusion can cause an extraneous result.

Please follow the Venepuncture guidelines for obtaining blood samples:

The sample label **must** be **hand-written** immediately **after** taking the sample, in the presence of the patient by the person who takes the sample.

The sample label must be signed by the individual taking the blood sample and contain the same patient identification information as the request form.

The laboratory operates a **ZERO** tolerance to sample mislabelling and will reject any samples that do not meet the minimum sample acceptance criteria or are illegible.

**Do not pre-label tubes.** This significantly increases the risk of identification errors and is unsafe clinical practice.

Addressograph labels **must not** be used to label samples for blood transfusion.

For Neonatal samples, due to the size of the sample tubes and the information required, a plain sticky label may be completed as per sample acceptance criteria above and affixed to the sample tube. The completion of the label **must be done at the patient's bedside** after the sample has been taken.

### **Procedure If Patient Misidentification Occurs**

In the event of the patient's identity band showing incorrect patient details the following action must be taken:

- Remove incorrect wristband and retain for investigation.
- Identify the patient and apply a correct and verified patient identity band.
- Check patient has not received incorrect drug/treatment.

Complete an online datix incident form; each patient misidentification must be investigated to determine the cause and reasonable action taken to reduce the likelihood of reoccurrence.

### **Delivery of the sample to the Laboratory**

All urgent samples should be hand delivered to the laboratory – informing the laboratory by bleep or telephone that the sample is on its way.

All none urgent samples should arrive in the laboratory as soon as possible after it has been taken. Samples arriving more than 24 hours old will be rejected.

### **Sample Results**

Group and Screen samples are tested for the ABO blood group antigens, the presence of the Rh D antigen and for the presence of clinically significant red cell antibodies. They are kept in Blood Bank for 72 hours.

Other tests performed by the laboratory include screening for immunoglobulins, complement, cold agglutinins, antibody titres and kleihauer tests.

The results will be available on ICE order comms.