Policy for the Administration of Blood and Blood Components

(Red cells, fresh frozen plasma, platelets and Cryoprecipitate and the management of transfused patients)

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TARGET AUDIENCE:
All staff involved in the prescription, collection and administration of blood and blood components

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1 Introduction

Transfusion medicine in a hospital setting is focused on ensuring that a patient receives the correct blood component support which is clinically indicated, in a safe, timely and cost efficient manner. Specialists in all branches of medicine and surgery are involved in the prescribing of blood components and the transfusion process itself involves multiple steps and the cooperative action of several groups of staff. Errors in the requesting, supply and administration of blood components presents significant clinical risk to the patient.

This policy is aimed at all staff involved in the prescription, collection, labelling and administration of blood and blood components within Southend University Hospital NHS Foundation Trust.

1.1 Guiding principles

A patient may need to receive a blood transfusion for one of the following reasons:

- To maintain haemoglobin levels in severe anaemia
- Restore blood loss following haemorrhage
- Replace specific blood components

1.2 Blood products can both benefit and harm the patient.

Good clinical practice depends upon understanding both the benefits that the treatment can provide for each patient and the risks that the treatment may carry for that patient.

NOTE: Most errors occur out of routine hours when staff are few and workload is heavy.

Transfusion at night and at weekends should be restricted to urgent clinical need.

2 Purpose

The purpose of this policy is to minimise the risks associated with the transfusion process by setting clear procedures for all staff involved in the transfusion process from the decision to transfuse to the documentation of the fate of all transfused blood components.

The policy adheres to:

Blood Quality and Safety Regulations, 2005

Dept. of Health Service Circular 2007/001 Better Blood Transfusion


NPSA Safe Practice Notice 14

3 Definitions

All Staff: All staff involved in the transfusion process
BCSH: British Committee for Standards in Haematology
BMS: Biomedical scientist
CMV: Cytomegalovirus
DATIX: Hospital Incident reporting system
DIC: Disseminated intravascular coagulation
EDTA: Ethylene Diamine Tetra Acetic acid (anticoagulant)
FBC: Full blood count
Hb: Haemoglobin
HLA: Human leucocyte antigen
HPA: Human platelet antigen
ICE: Pathology request and reporting system
IV: Intravenous
ODP: Operating department practitioner
ODA: Operating department assistant
NPSA: National patient safety agency
MHRA: Medicines and Healthcare Products Regulatory Agency
RN: Registered nurse
RM: Registered midwife
Renographer: Renal diaysis technician
ODA: Operating department assistant
Rh D: The Rh D red cell antigen
SABRE: Serious Adverse Blood Related Events (incident reporting system)
SHOT: Serious Hazards of Transfusion (national transfusion incident data collecting agency)
TA – GVHD: Transfusion associated graft versus host disease
TRALI: Transfusion related acute lung injury
4 Duties

4.1 Duties within the Trust

Hospital Transfusion Committee (HTC) – has the responsibility to:

- Advise Trust Management in matters relating to clinical transfusion practice in the Trust.
- Advise hospital staff regarding safe and appropriate use of blood products according to established national guidelines and provide appropriate local guidelines for the Trust.
- Develop and implement a strategy for the education training and competency assessment for all clinical, laboratory and support staff involved in the transfusion process.
- Ensure protocols are in place and reviewed for all aspects of the transfusion process.
- Review, endorse and approve blood transfusion policies, guidelines, protocols, standards and audit tools, in line with the Trust “policy for the development, approval, implementation and management of all Trust policy documents”.
- Modify and improve blood transfusion protocols and clinical practice based on new guidance and evidence.
- Decide an annual audit programme to monitor compliance with Trust policies and report back to staff.
- Review the investigation report for all serious transfusion incidents and make appropriate recommendations to improve transfusion practice in the Trust.

The Hospital Transfusion Team (HTT) consists of:

- Chair of the HTC
- Consultant Haematologist
- Lead BMS Blood Transfusion Laboratory
- Transfusion Practitioner
- Haematology Laboratory Manager

See appendices 6 and 7 for the HTC and HTT Terms of Reference

The HTT has a collective responsibility for:

- Drafting and reviewing blood transfusion guidelines / policies
- Review and recording of transfusion incidents/reactions
- Where appropriate to report serious incidents to SHOT/MHRA, DATIX, and the Hospital Transfusion Committee
- Induction training programs for all healthcare workers involved in the transfusion process
- Auditing of the Trust blood transfusion service
- Managing blood transfusion training and supporting competency assessments for healthcare workers
- Ensuring regular staff training, reviews and updates are completed
4.2 **Duties of individuals within the Trust**

**The Executive Director** – is responsible for ensuring the highest standards of clinical performance throughout the Trust.

**Blood Transfusion Laboratory staff** - are responsible for:

- Development and maintenance of systems to facilitate compliance with good manufacturing practice to ensure appropriateness, safety and quality of blood products.
- Ensuring that the labelling of request forms and blood samples comply with published guidelines.
- Blood grouping, antibody screening and investigation and compatibility testing.
- Ensuring requests for patient special requirements for blood products are met.
- Ensuring blood products are in date and labelled to the required standard to facilitate accurate checking at the patient’s bedside.
- Investigation and reporting of transfusion incidents related to the transfusion laboratory.

**The Hospital Transfusion Practitioner** - is responsible for:

- Investigation and reporting of transfusion related incidents and adverse events.
- Audit of transfusion policies and guidelines.
- To assist the Haematology Consultant in the preparation of transfusion policies.
- Freedom to act in situations of non-compliance to hospital transfusion policies.
- Point of contact for health care professionals regarding blood administration.
- Transfusion training at induction and annual mandatory training.
- Trust administration of transfusion e-learning and escalation of non-compliance to the educational supervisors

**Medical staff** - are responsible for:

- Being competent in blood transfusion procedures and having a sound, up to date knowledge base.
- Explaining the risks and benefits of blood transfusion to patients (informed consent)
- Requesting blood products using the appropriate request forms and prescribing blood products on approved documentation.
- Ensuring prescription and request of any patient special requirements for blood products i.e. irradiated, CMV negative
- Providing sufficient information on request forms as defined in this document
- Correctly identifying the patient before blood sample collection and before transfusion as specified in this document.
- Obtaining blood samples for cross match following procedures detailed in this document
- Reviewing cross match and compatibility information prior to transfusion
- Management of transfusion reactions
- Clinical investigation and reporting of any transfusion reactions or other clinical incidents relating to transfusion
- Completing required documentation in the patients notes
Matrons/ward managers - are responsible for:

- Ensuring staff under their supervision have the necessary skills, training and competency to perform blood transfusion procedures safely as detailed in this document
- Disseminating this policy within their area of responsibility and ensure that staff receive appropriate training as detailed in section 4
- Ensure the implementation of the policy within their area of responsibility and assist in monitoring its compliance and effectiveness

Registered Nurses and Registered Midwives - are responsible for:

- Being competent in blood transfusion procedures and having a sound, up to date knowledge base
- Providing sufficient information on request forms as defined in this document
- Correctly identifying the patient before blood sample collection and before transfusion as specified in this document.
- Obtaining blood samples for cross match following procedures detailed in this document
- Reviewing cross match and compatibility information prior to transfusion
- Using the appropriate procedures for cannulation (following completion of cannulation training) and preparation of the patient
- Monitoring of the patient during transfusion
- Immediate action following recognition of a transfusion reaction
- Reporting any transfusion reactions or other incidents related to transfusion
- Requesting collection and collecting blood products for transfusion as detailed in this document

Health Care Assistants and Maternity Care Assistants - are responsible for:

- Collecting blood products from the blood bank and delivering to the clinical area
- Observing and monitoring the patient whilst receiving a transfusion

Phlebotomists - are responsible for:

- Correctly identifying the patient before blood sample collection and before transfusion as specified in this document.
- Checking accuracy of information on the request form with the patient
- Obtaining blood samples for cross match following procedures detailed in this Document.

Porters - are responsible for being competent in collection of blood products and having a sound, up to date knowledge base.

All staff - are responsible for being competent and familiar with the practices within this policy as part of their professional practice and not undertaking the task unless trained and competent to do so.
5 Consent

Except in circumstances where the person’s condition is life threatening, the patient must be informed of the indication for blood transfusion, its risks and benefits, and have the right to refuse to receive it. Information about alternatives to blood transfusion must be given.

Signed consent is not required.

For patients who refuse treatment with blood products please refer to CG242 Guideline for the Management of Patients who Refuse Blood and Blood product Transfusion and complete the appropriate form (appendix 1 of CG242 and available on ICE)

Patients should, where possible, be given a transfusion information leaflet outlining the risks and benefits of blood transfusion (National Blood Service patient information leaflet). Leaflets can be obtained from the Transfusion Practitioner and are available in other languages.

6 Positive patient identification

The majority of transfusion “wrong blood events” that occur are due to the failure of staff to correctly identify the patient at some stage during the transfusion process. It is essential for patient safety that the patient identification procedures described in this policy are followed for the request, prescription, collection and administration of blood and blood components.

Whenever possible, the unique patient identification number should be a national unique identification number, such as the NHS number

6.1 Unidentified / unknown patients

In emergency situations, or situations where the patient cannot be immediately identified, the patient’s core identifiers may be unknown.

- Where the patient’s core identifiers are unknown, at least one unique identifier, usually a temporary identification number (e.g. accident and emergency or trauma number), and the patient’s gender (i.e. unknown male/female) must be used.
- The use of temporary numbers increases the risk of confusion and errors in patient identification and should only be used when absolutely necessary.
- Local organisational policies and guidelines should be in place to ensure safety in all aspects of patient identification including the issue of unique identification numbers, the issue and withdrawal of temporary identification numbers, and the merging of patient clinical and transfusion laboratory records.

7 Procedure for the request of blood product transfusion

The request for transfusion can be made electronically on the ICE system or via the telephone to the transfusion laboratory
7.1 Request by an ICE transfusion request form
Transfusion must be requested by completing the ICE transfusion request form either electronically or on a pre-printed ICE form (available in some areas). The form must be completed accurately and the following details must be supplied:

- Surname, First name
- Date of birth
- The gender of the patient
- Patient identification number e.g. hospital number/ NHS number, accident and emergency number or major incident number

Other necessary information must be recorded including:

- Number and type of blood component(s) required
- Patient diagnosis and reason for the request (indication codes)
- Date and time required
- Special requirements – if these are required please contact the laboratory
- Location of the patient
- Past obstetric and transfusion history

The requesting medical practitioner officer must sign the request form.

7.2 Telephone requests:
The identity of the doctor making the request and the person receiving it must both be recorded. When requests for blood/ blood products are made by a nurse coordinator or theatre practitioner details of the authorising consultant must be given and documented. Telephone requests should only be made to the transfusion laboratory in certain circumstances which include:

- Ordering blood components
- Converting a group and save/ serum saved request into a cross match
- Urgent requests

The transfusion staff:

- Will verbally confirm patient identity, the name of the requestor, the reason for the request and ask for current relevant haematology results. All details given will be recorded in writing.
- May refer component requests outside of guidelines to a consultant haematologist

7.3 Blood components and special requirement products
The need for blood components and special requirement products should be made known to the transfusion laboratory as early as possible as certain components, particularly platelets and irradiated products which have to be ordered from the National Blood Service.
8 Procedure for obtaining a transfusion blood sample

Obtaining a blood sample should be performed by the medical practitioner generating the request or a delegated member of nursing, phlebotomy or clinical support staff who is competent and has undergone phlebotomy training.

8.1 Patient identification:
The patient requiring the transfusion must be positively identified before taking the blood sample. This procedure involves;

1. Questioning the patient by asking them to state their name and date of birth
2. Checking that the details given by the patient match those on the wristband and the request form
3. Check the hospital number/ NHS number on the wristband is the same as on the request form

Particular care is required in the identification and sampling of an unconscious patient

Sample requirements are:

Adults: 7 mls of blood into a pink top EDTA bottle for adults.

Children: 3mls of blood in either an adult sample bottle or a purple top paediatric EDTA

Neonates: 500microlitres in a neonate EDTA sample bottle (FBC). Pink transfusion labels are available on SCBU to use on these bottles. The labels have a place for the signature of the person taking the sample

8.2 Policy for sample timing

Transfusion of red cells and platelets or pregnancy may cause an immune response in the patient and samples for cross matching must take account of this. Therefore the following sample times must be adhered to:

<table>
<thead>
<tr>
<th>Patient last transfused</th>
<th>Sample to be taken a maximum of</th>
</tr>
</thead>
<tbody>
<tr>
<td>within 3 – 14 days</td>
<td>24 hours before start of transfusion</td>
</tr>
<tr>
<td>within 15 days – 28 days</td>
<td>72 hours before start of transfusion</td>
</tr>
<tr>
<td>29 days – 3 months</td>
<td>7 days before start of transfusion</td>
</tr>
</tbody>
</table>

8.3 Sample labelling:

Only one patient must be bled at a time and sample tubes must be labelled at the patients’ side immediately after the blood has been taken to minimise the risk of error. Sample tubes must be completed legibly and accurately with full patient
identification and other necessary information and then **signed by the person taking the sample.** The details must include

- Surname, first name
- Date of birth
- Gender of patient
- Patient identification number(s)
- Location
- Date and time sample taken

On receipt of the request form and blood sample the transfusion laboratory will check that all detailed information is correct.

**Inadequately labelled samples and discrepancies between the information provided on the request form and sample will not be accepted**

### 8.4 Transfusion laboratory patient computer records

Laboratory staff must check patient records before initiating a new set to avoid duplication and essential transfusion requirements being overlooked. The patient’s ABO and Rh D group must be checked against previous records. Any discrepancies must be resolved before blood or blood components are issued.

If one or more of the patient identifiers is not provided on the sample in a life-threatening situation, group O blood must be issued until a correctly labelled sample is provided. If the patient is a pre-menopausal female, O Rh D-negative blood must be issued.

### 9 Procedure for the prescription and documentation of transfusion by medical staff

#### 9.1 Prescription of blood and blood components

The prescription is the responsibility of a doctor and must be prescribed on a prescription sheet for IV fluids. The prescription must contain the patient identification details: (surname, first name, date of birth, gender and identification/NHS number)

The prescription must specify:

- The blood or blood component to be administered, including any special requirements e.g. γ -irradiated, CMV- seronegative.
- The quantity to be given
- The duration of the transfusion – see chart below.
- Any special instructions e.g. any medication to be given before or during the transfusion.
- The signature of the prescribing doctor

Recommended adult transfusion rates:
<table>
<thead>
<tr>
<th>Blood component</th>
<th>Duration of transfusion per unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red cells</td>
<td>Usually 2-3 hours. Maximum duration must not exceed 4 hours after removal from controlled storage.</td>
</tr>
<tr>
<td>Platelets</td>
<td>30 to 60 minutes</td>
</tr>
<tr>
<td>Fresh frozen plasma</td>
<td>10-20ml/Kg/hr</td>
</tr>
</tbody>
</table>

9.2 **Documentation in the patient medical notes**

The indication for transfusion, whether or not it achieved the desired effect, and the occurrence and management of any adverse events must be documented in the patient notes. Patient verbal informed consent to the transfusion must also be recorded.

10 **Procedure for the collection, return and transport of blood and blood components within the hospital**

All blood and blood products must be signed for upon removal from the blood bank fridge as there are legal requirements concerning the traceability and final fate of all blood products. (BSQR 2005)

10.1 **Request for blood product collection**

Blood and blood components must be collected by a member of staff who has attended approved documented training.

If a telephone request is given to a porter to collect blood, identification details must be given so that he/she can write these onto a blood collection slip (form 1496). Also the location of the patient and the degree of urgency must be given.

10.2 **Collection of blood products**

All staff sent to collect blood products MUST bring with them either blood collection slip or the patient prescription chart. This must contain the following full legible patient identification details either in written form or a printed PAS label:

- Surname
- First name
- Date of birth
- Hospital unit number / NHS number

**Note:** Staff will be unable to collect blood products unless given sufficient patient details.

10.3 **Identification checks of collection documentation with blood register**

Locate the blood issue form for your patient in the blood bank register and check the patient ID details match with the information you have brought with you. If details do not match STOP and inform the transfusion laboratory and the ward.
If details are correct remove the blood product from the blood fridge. **Note:** Platelets and cryoprecipitate are stored at room temperature in the transfusion laboratory. For these products contact the laboratory during core hours by ringing the bell. Out of hours contact the on call haematology BMS via switchboard.

**CARE:** there may be more than one patient’s blood per shelf. The first unit for transfusion will have the transfusion record sheet attached to it.

10.4 **Identification checks of the blood component with blood register**

Check all the patient identity details on the label attached to the blood component match those on the patient’s form in the register. Check the blood group and donation number on the blood component match the details on the label attached to the blood and the form in the register. Check the expiry date of the blood component. If all correct sign the form in the register against the donation number you are collecting. Record date and time of removal.

If two or more units of blood are required to be taken at the same time for a patient (usually an urgent situation) a blue blood transport cold box must be used. Please write “taken in box” (or use the stamp provided) on form in register.

Blood must only be transported in boxes designated for this purpose and which have been verified as satisfactory for transporting blood, including the time for which storage is satisfactory. Within this Trust Dometic MT4 blue cold boxes have been validated for transportation of up to six units of blood and have a safe storage time of 1 hour when used according to instructions.

10.5 **Receipt of blood component in the clinical area**

When blood and blood components are delivered to a ward or operating theatre, a member of appropriately trained staff must check that the correct blood has been delivered and if a collection slip is used this must be signed with the time of receipt. The blood collection slip must be returned to and retained by the transfusion laboratory for one month.

10.6 **Return of blood components to the blood bank**

The laboratory must be informed of the return of blood components. Part used blood products and platelets must never be returned to the blood bank fridge. Contact the laboratory by ringing the bell or telephoning 5196 during core hours. Out of hours contact the on call haematology BMS via switchboard.

**Documentation for the return of blood components**

- Find the patient’s form in the register
- Find the donation number of the unit you are returning on the issue form
- Enter the time (24 hour clock), date and your signature in the RETURNED section of the form (right hand side)
- Place the blood component on the returns shelf of the fridge bottom right hand side.

Inform laboratory staff that you have returned blood products and / or a blood box.
EMERGENCY BLOOD (FLYING SQUAD)

Location: bottom right hand side of blood fridge

Five units of O negative (for females under 60 years old)

Five units of O Positive (for males and females over 60). Procedure for the removal and return of emergency uncrossmatched (flying squad blood) is as above, however there will be no patient details to check with the blood form in the register. The laboratory MUST be informed when removing flying squad blood as they need to replace it immediately.

Please use the blue blood transport box marked “flying squad” to transport blood back to the clinical area.

11 Procedure for the transfer of blood products with patient to another hospital

When a patient is to be transferred to another hospital and blood products are required to accompany them the following procedure must be followed. A member of the team caring for the patient must inform the transfusion laboratory on ext 5196 (out of hours bleep the laboratory on call haematologist via switchboard).

Give the following information:

- Patient details
- Destination hospital
- Quantity and type of blood products required for transfer
- Transfer time (approx)

Please ensure correct patient details are given to the member of staff sent to the blood bank to collect the required products.

Do not send for the blood until the transfer is imminent

The person sent to collect the blood products must contact laboratory staff upon arrival. A member of laboratory staff will sign for the removal of the blood products and pack the blood products for transfer in the correct cold box. The blood box will be sealed with a plastic tag which can easily be broken if the patient requires transfusion on route.

A “transfer of blood product form” (form 2211) will be issued by the laboratory with the blood products for transfer with the patient. This form contains important information for the receiving hospital. The transfer team must ensure the blue copy of the form is signed upon receipt by the receiving hospital and this copy must be given to Southend transfusion laboratory upon return. The white copy of the form, the blood box and blood products are left at the receiving hospital.

NOTE: Any blood transfused during transfer is the responsibility of the transfer team and the traceability tag must be signed and returned to Southend transfusion laboratory.
12 Procedure for the administration of blood and blood components

A flowchart outlining the safe administration of blood components is included as appendix 4. This is the responsibility of either a registered doctor or an IV trained and competent nurse holding one of the following registrations:

RN1, RN2, RNA, RN8, RNC, RN7, RM - midwifery

It is good practice for staff administering blood or blood components to visually inspect each unit. If there is any suspicion that the contents of the pack appear abnormal the unit must not be transfused and must be returned to the blood transfusion laboratory immediately.

Two registered practitioners are responsible for carrying out the identity check of the patient and the unit of blood at the patients’ bedside. The first must be a doctor or trained registered nurse and the second must be one of the following:

- Registered nurse
- ODP/ODA in theatres
- Renographer

**The following bedside checks must be performed AT THE BEDSIDE before connecting the giving set:**

The patient must be positively identified by asking the patient to confirm their name and date of birth and checking the wristband.

**No wristband – no transfusion**

For unconscious patients be extra vigilant

Both members of staff must each independently complete the following steps prior to administration. All of the following details:-

- Surname
- First name
- Date of birth
- Patient identification number(s)
- Gender

**Must be checked and found identical on all of the following:**

- The wristband
- The prescription chart
- The traceability label attached to the blood component.

The blood group and donation number on the unit of blood or blood component must be checked and found identical with the details on the traceability label attached to the blood component. The expiry date of the unit to be transfused must also be checked.
The unit to be transfused must be checked with the prescription for compliance to any special requirements and with the traceability label for any transfusion time limits.

If any discrepancies are found the unit must not be transfused and the laboratory informed.

The peel off label on the traceability tag attached to the blood pack and the prescription sheet must be signed by both staff responsible for the pre-administration check with the date and time of the commencement of transfusion of each unit. The peel off label should then be removed and fixed to the transfusion record sheet.

The blood transfusion record sheet must be readily available during the transfusion until completion, when it must be fixed in the patient’s medical notes attached to form 2794.

Nursing staff must ensure the following information is recorded on the prescription chart:

- Batch number of blood component
- Date and time commenced
- Stop time
- Volume transfused
- Signature of both staff members responsible for the identity check.

12.1 Confirmation of transfusion
As soon as the patient has started to receive the transfusion the nurse administering the blood must remove the traceability section of the label attached to the pack. This section must be signed with the date and time and then placed in the red wallet on the ward ready to be returned to the blood transfusion laboratory.

Note: In the event of transfusion of flying squad blood please ensure you enter patient details on this section before placing in the red folder.

12.2 Technical aspects of the administration of blood and blood components
Blood or platelets must be transfused through a sterile giving set designed for the procedure (170 – 200 micron filter). Platelets must not be transfused through a giving set that has previously been used for red cells or other blood component as this may cause aggregation and retention of platelets in the line.

A special paediatric blood giving set must be used for infants, or a screen filter used if transfusion by syringe (see NG-11 guideline for the administration of blood to a neonate).

Electronic infusion pumps verified as safe for transfusion by the manufacturer may be used. Compliance with the correct giving set, pumps maintenance and staff training on the use of the device are also factors in the safe administrative practice of transfusing blood via a pump.
The size of cannula chosen must depend on the size of the vein and the speed at which the blood is to be transfused.

Blood must only be warmed by designed device with a visible thermometer and audible warning. Blood warmers are available from the medical equipment library

**A blood warmer is indicated:**
- At flow rates of >50ml/kg/hr in adults >15ml/kg/hr in children
- Exchange transfusion in infants
- Patients with cold agglutinins

**DRUGS MUST NOT BE ADDED TO BLOOD UNDER ANY CIRCUMSTANCES.**

All staff members must ensure correct infection control procedures are followed

**Priming the line:**

The line must be primed to remove air before attaching it to the patient. It is unnecessary to prime the line with anything other than the blood component, however 0.9% sodium chloride may be used for this purpose.

Dextrose should never be used in a giving set before or after blood as it can cause haemolysis.

Manufacturers’ instructions for priming the line should always be followed.

Maximum duration for the transfusion of one unit of red cells is four hours after removal from controlled storage. Any blood that has not been fully transfused within four hours of removal from the issue fridge should be taken down whether complete or not, and the amount transfused documented on the prescription and fluid balance chart.

**Recommended adult transfusion rates:**

<table>
<thead>
<tr>
<th>Blood product</th>
<th>Transfusion rate per unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red cells</td>
<td>2 to 3 hours</td>
</tr>
<tr>
<td>Platelets</td>
<td>30 to 60 minutes</td>
</tr>
<tr>
<td>Fresh frozen plasma</td>
<td>10 -20 ml/Kg/hour</td>
</tr>
</tbody>
</table>

**Changing the giving set:**
- After 12hrs in order to prevent bacterial growth.
- If another infusion is to continue after the transfusion.
- New giving set is required before platelet transfusion.
- Replace giving set immediately after blood products
On completion of the transfusion

Flushing through the remainder of the blood in the line with 0.9% sodium chloride is unnecessary and is not recommended because it may result in particles being flushed through the filter.

Disposal of used/ part used blood products.

The empty bag must be discarded with the clinical waste, except in the event of an adverse reaction when the bag must be returned to blood bank

13 Procedure for the care and monitoring of transfused patients

Patient safety is the basic principle of patient care during a transfusion. Patients must be monitored for signs of potential complications in order to deal with any problem swiftly and efficiently. The monitoring procedure should be explained to the patient as well as the importance of immediately reporting any adverse effects including:

- Chest pain, shortness of breath
- Rashes, itching
- Pains in the loins or extremities
- Abdominal discomfort
- Shivering
- Feeling restless, anxious or generally unwell

It is important that the patient is visually observed throughout the transfusion.

Vital signs: Temperature(T), pulse(P) and blood pressure (BP) and respiratory rate(RR) must be taken and recorded on the observation chart at the following times:

- Pre-transfusion T,P,BP and RR should be taken and recorded no more than 60 minutes before starting the transfusion.
- 15 minutes after the start of the transfusion take T,P,BP If these measurements have changed from the baseline values, then RR should also be taken (most serious reactions will occur within 15 minutes)
- Hourly until the end of the transfusion
- After completion of each unit transfused

It is good practice for the nurse responsible for the administration to stay by the patient for the first 5 minutes of the transfusion.

These are the minimum observations required and it may be necessary depending on the clinical condition of the patient to take more frequent observations.

Patients should be observed during the subsequent 24 hours for (or, if discharged, counselled about the possibility of) late adverse reactions. Organisations should ensure that systems are in place to ensure patients have 24-hour access to clinical advice.
14 Procedure for the management of transfusion reactions and adverse events

Many of the serious adverse events following blood transfusion are unpredictable.

If a transfusion reaction is suspected due to:

- Patient becomes symptomatic
- Changes in observations

Stop transfusion, medical staff must be contacted immediately. Patient’s temperature, pulse, blood pressure, oxygen saturations must be recorded. Further management depends on type and severity of reactions. The form’s location is shown in appendix 5.

14.1 Acute haemolytic transfusion reaction

Signs and symptoms may occur after only 5-10ml transfusion of incompatible blood. If the patient has any of the following stop the transfusion and seek urgent medical advice:

**Symptoms:**

- Feeling of apprehension
- Agitation
- Flushing
- Pain at: venepuncture site, abdomen, flank, chest

**Signs:**

- Fever
- Hypotension
- Generalised oozing from wound or puncture site
- Haemoglobininaemia
- Haemoglobinuria
- For unconscious patients only the signs will be evident

**Management:**

- Stop the transfusion and change the giving set
- Maintain venous access with normal saline
- Check compatibility label. If mistake is found, inform Blood Bank immediately, since the unit of blood intended for your patient could be transfused to another patient.
- Nursing observation at regular intervals

**Attending clinician**

- Monitor urine output and colour - consider catheterisation
- IV fluid to maintain urine output >100ml/hr. If less insert CVP line and give fluid challenger
• If urine output still <100ml/hr and CVP adequate give Frusemide® 80-120mg if no diuresis → give Mannitol® 20% 100ml IV and seek renal physicians advice (renal failure is likely) ECG/evidence of hyperkalaemia
• If k⁺ >6.0 mmol/L → give 50ml 50% glucose IV with 10 units of IV Insulin → then 10% glucose infusion containing 10 units Insulin over 4 hours
• Treat DIC according to clinical and coagulation screen result (seek haematologist’s advice)
• Repeat coagulation screen, FBC, biochemistry 2-4 hourly
• Use re-matched blood, if further transfusion is needed

To report the reaction and request the necessary pathology tests go to the blood transfusion request section of ICE and select XM non-surgical. On the screen you will need to select "transfusion reaction". Click on the "more info" tab to download and print the transfusion reaction report sheet. Click the OK tab to order all the appropriate investigative tests and print the forms.

Report the reaction immediately to the transfusion laboratory. Take the necessary samples and return these to the laboratory with the forms and the completed transfusion reaction report sheet (appendix 2). The implicated blood product and the giving set must be returned also be returned to the transfusion laboratory.

**Fluid Overload** - too much fluid transfused or rapid transfusion may lead to pulmonary oedema and acute respiratory failure. *fluid overload is special risk with 20% albumin

**Signs:**
- Dyspnoea
- Tachycardia
- Hypotension

**Management:**
- Transfusion must be stopped or slowed
- Give Frusemide 20mg IV initially and oxygen. Monitor patient and treat accordingly
- Report the reaction to the transfusion laboratory

**Bacterial contamination of blood and blood components:**

This is a serious event, with a high mortality rate and should be considered whenever there is an adverse event associated with transfusion. Any suspected case of bacterial contamination must be thoroughly investigated and documented.

- The hospital blood transfusion laboratory must be contacted when there is a suspicion of bacterial contamination and the patient has a serious reaction to blood or blood components.
- The transfusion laboratory MUST inform the Consultant in charge at the Blood Transfusion centre immediately, in case other components from the same donor require recall.
• Blood culture from the patient must be sent to the Hospital Microbiology Laboratory
• Return any implicated packs to the blood transfusion laboratory. Laboratory staff will take blood cultures from the implicated pack and return the pack to National Blood Service Bacteriology Laboratory for investigation.

The NHBTS will also investigate the pack for defects which could have allowed external contamination to enter the pack.

For further details of types of transfusion reactions and treatment see appendix 3.

15 Procedure for the reporting of serious transfusion reactions (sar) and serious adverse events (SAE)

The Blood Safety and Quality Regulations 2005 require all serious adverse events and serious adverse reactions including 'near misses' to be reported to the MHRA and SHOT. The following events and reactions must be reported to the hospital transfusion department and a Datix incident form generated.

• Incorrect blood or blood component
• Acute and delayed transfusion reaction
• Anaphylaxis
• Transfusion associated circulatory overload
• TA-GVHD,
• Transfusion related acute lung injury,
• Post transfusion purpura
• transfusion-transmitted infection
• Transfusion associated circulatory overload (TACO)
• Anti D incidents
• Any case where the transfusion is stopped and some intervention given

SHOT / MHRA reports are entered via the SABRE website www.mhra.gov.uk by staff authorised and registered to do so, normally the Hospital Transfusion Practitioner (HTP). Should the HTP be unavailable the Laboratory Manager, the Chief BMS and Senior BMS in Transfusion are also registered as SABRE reporters.

16 Transfusion training and competency

16.1 Statutory and mandatory transfusion training requirements

Statutory and mandatory training is training that is essential for someone to undertake a task or role to comply with legislation or Trust policies. For blood transfusion the relevant documents that specify training are:

• The Blood Safety and Quality Regulations 2005(Statutory)
• Better Blood transfusion HSC 2007/001 (Mandatory)
• NPSA Safer practice notice 14 “right blood right patient “(Mandatory)

The NHS Litigation Authority criteria for blood transfusion are based on the implementation of the above.
The Blood Safety and Quality Regulations 2005 (statutory) require that:

- All members of staff that collect blood and blood components must have received training, and be assessed as competent every 2 years.
- Clinical staff must be aware that it is a legal requirement to report any adverse events or reactions to blood and blood components.
- Clinical staff must be aware of the need for 100% traceability of blood and blood components and that the responsibility for achieving traceability lies with the person administering the blood / blood components.

The regulations are enforced by the MHRA and breaches of the principal regulations are criminal offences. The Trust is required to submit an annual compliance report to the MHRA. The MHRA also have the authority to inspect hospitals for compliance.

NPSA Safer practice Notice “right blood, right patient” requires that:

All relevant staff should be trained and formally competency assessed. By November 2010 all initial competency assessments should have been undertaken.

The competencies must include:

- Obtaining a venous blood sample (competency 1)
- Collection of blood /blood products from the blood bank (competency 2)
- Administration of blood transfusion (includes preparing to administer and receipt of blood in the clinical area).

To fulfil all the above training and competency requirements the Trust require all staff involved in the transfusion process to attend mandatory training and to complete any relevant competencies every 2 years.

Please refer to CM 46 Risk Management and Training Policy which contains details of the training needs analysis.

17 Policy implementation arrangements

17.1 Dissemination

This policy will be launched via Friday Round up and published in STAFFNet: ensuring all staff with key duties (as detailed in section 4.2 above) receive a personal copy of the policy and that all staff without access to STAFFNet are made aware of the policy, and its contents, by their line manager.

17.2 Training

A training needs analysis has been undertaken to identify staff that require training in the various aspects of blood product transfusion. For further details see section 16.

18 Monitoring compliance

In order to ensure compliance with the strategy, the Trust will undertake the following monitoring.
### Associated documents

This policy should be used in conjunction with the following documents:

- **CG-069** Indication for the use of fresh frozen plasma and cryoprecipitate
- **CG-070** Indication for red cell transfusion
- **CG-071** Guideline for the use of platelet transfusion
- **CG-077** Guideline for the use of irradiated blood and blood components
- **CG-052** Guideline for the management of major haemorrhage
- **CG-242** Guideline for the management of patients who refuse blood product transfusion
- **NG-11** Guideline for the administration of blood to a neonate
- **CM-46** Risk management and training policy
- **CM-58** Policy for the transfer of patients
- **CM-06** Consent Policy
- **RM-11** Patient Identification Policy and Procedure
- **BT-01** Blood Fridge Access Policy

### Equality impact assessment

This policy has been the subject of an Equality Impact Assessment following the template used for all Trust policies. The result of the assessment demonstrates that no one as a consequence of this policy is placed at a disadvantage over others.
21 References

- British Committee for Standards in Haematology Guidelines. (2009), The administration of blood and blood components and the management of transfused patients.
- ABC OF TRANSFUSION, Third Edition edited by Marcela Contreras
- Blood Safety and Quality Regulations 2005
- Blood Transfusion and the Anaesthetist Blood Component Therapy December 2005
- Practical Transfusion Medicine – third edition Michael F. Murphy and Derwood H. Pamphilon
- SHOT recommendations 2010
- Dept of Health Service Circular 2007/001 Better blood transfusion - Safe and Appropriate Use of blood
Appendix 1 – Availability of blood and blood components

Red Cells
Flying squad: uncross matched blood for emergency use in life threatening situations.

5 O Rh Pos and 5 O Rh Neg (reserved for females less than 60 years of age) available in the blood bank fridge at all times.

Group specific: 10 minutes

Urgent: under 1 hour but if a sample has already been processed by the laboratory and is suitable for electronic issue this will be reduced to 5 minutes

Routine: over 2 hours.

FFP and CRYOPRECIPITATE: allow 20 minutes for thawing.

Platelets
Platelets are not kept in stock and have to be ordered on a named patient basis from the transfusion centre - allow 1 to 2 hours for delivery from the NBS.

Note: The laboratory can only order one dose of platelets per patient. If more than one dose of platelets are required, the second dose will need to be authorised by the haematology consultant prior to the laboratory placing the order with the transfusion centre.

ADDITIONAL BLOOD PRODUCTS AVAILABLE and ISSUED ONLY WITH THE AUTHORISATION OF A HAEMATOLOGY CONSULTANT

Prothrombin Complex Concentrate (PCC): for rapid reversal of warfarin in emergency situations

rFV11a (Novoseven): Available for major haemorrhage situations
Appendix 2 - Investigation of a significant transfusion reaction

To be completed and signed by the medical officer responsible for the patient.
Please note: Febrile non haemolytic transfusion reactions are very common (approx 10%) and do not require further laboratory investigations

Please contact Laboratory before sending any samples (x5196 or On Call laboratory Haematologist)
Date and Time of reaction ……………………………

PATIENT DETAILS

<table>
<thead>
<tr>
<th>Unit No.</th>
<th>Surname</th>
<th>Clinical history</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Brief synopsis of history prior to transfusion:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reason for transfusion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pre transfusion Hb.:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First name</th>
<th>Date of Birth</th>
<th>Ward/Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Symptoms of reaction (Please tick)

- [ ] Pyrexia
- [ ] Rigor
- [ ] Lumbar pain
- [ ] Hypotension
- [ ] Oliguria/ Anuria
- [ ] Tachycardia
- [ ] Haemoglobinuria
- [ ] Jaundice
- [ ] Vomiting
- [ ] Rash

Volume of urine passed since reaction

Previous transfusion reactions  Yes/ no  If yes, date and type of reaction

Does the patient have atypical antibodies?  Yes/ no

The donor pack

<table>
<thead>
<tr>
<th>Group</th>
<th>donor no.</th>
<th>Expiry date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Was blood warmed before infusion?

Number of units already infused through giving set

Time infusion commenced

Volume infused

Was anything injected into the pack or giving set?

Signed…………………………………………...  Bleep No……………………..
Date……………………

Please return this form with the ICE requests and samples to the Laboratory
### Appendix 3 - Complications of transfusion/management and causes

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>Cause / timing in relation to transfusion</th>
<th>MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute intravascular haemolysis of transfused red cells</td>
<td>ABO-incompatible transfusion, e.g. Group A blood into Group O recipient. Usually occurs due to simple clerical errors e.g. taking samples for compatibility testing from the wrong patient or transfusing blood to the wrong patient. Reaction may be after as little as 5 to 10mls transfused usually within 15 minutes of commencement of transfusion</td>
<td>Mortality approx 10% due to DIC and acute renal failure. Management: consider possibility of DIC and renal failure. Maintain the blood pressure and renal perfusion. Transfuse compatible red cells.</td>
</tr>
<tr>
<td>Anaphylaxis</td>
<td>In some cases antibodies are found in patient against IgA in the transfused blood; these patients are often deficient in IgA.</td>
<td>Stop the transfusion. May be life-threatening. Management: maintain airway. If hypotensive severe give adrenaline 0.5-1mg im and chlorpheniramine 10-20mg by slow iv injection. Repeat the injection of adrenaline every 10 min until improvement occurs. Give salbutamol nebuliser. (Seek anaesthetist’s advice.) Prevention: use washed red cells and platelets, plasma from IgA-deficient donors, or autologous blood.</td>
</tr>
<tr>
<td>Infective shock</td>
<td>Bacterial contamination of red cells or platelets with e.g. <em>Pseudomonas</em>, <em>Yersinia</em>, <em>Staphylococci</em>. Usually during infusion of first 100mL of the contaminated pack.</td>
<td>Rare: 2 per million blood components transfused. Very high mortality. Treatment: management of septicaemia. Fluids and intravenous antibiotics</td>
</tr>
<tr>
<td>Febrile non–haemolytic transfusion reaction</td>
<td>1) Antileucocyte antibodies in patient, who has been pregnant or previously transfused, reacting against leucocytes in the transfused blood. (2) Cytokines in stored platelet concentrates.</td>
<td>If temperature rise is &lt;1.5 C and observations stable and patient is otherwise well administer Paracetamol 1g(PR/PO) max 4g/24hour Reduce infusion rate and observe every 15 minutes</td>
</tr>
<tr>
<td>Urticaria</td>
<td>Antibodies in patient to infused plasma proteins or infusion of allergens which react with IgE antibodies in the patient. More likely to occur with transfusions of platelets or plasma than with red cells.</td>
<td>Unpleasant but not life-threatening. Treatment: give chlorpheniramine 10-20mg iv/im. Prevention: premedicate with chlorpheniramine 10-20mg before transfusion in patients having recurrent episodes.</td>
</tr>
<tr>
<td>PROBLEM</td>
<td>Cause / timing in relation to transfusion</td>
<td>MANAGEMENT</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Transfusion-related acute lung injury (TRALI). Noncardiogenic pulmonary oedema</td>
<td>Donor plasma (usually from multiparous women) has antibodies to patient leucocytes. Clinically, there is an acute respiratory reaction with fever, cough, shortness of breath and typical appearances on the chest x-ray (numerous mainly perihilar nodules with infiltration of the lower lung field). During or soon after transfusion. Rare.</td>
<td>May be life-threatening. Management: maintain airway. Manage as for acute respiratory distress syndrome. (Seek anaesthetist’s advice.)</td>
</tr>
<tr>
<td>Delayed haemolysis of transfused red cells</td>
<td>Patient has IgG antibodies to red cell antigens such as Rh, Kidd, Kell, Duffy because of previous pregnancies or transfusions. The antibodies are undetectable in the cross match, but further transfusion causes a secondary immune response resulting in delayed haemolysis.</td>
<td>Poorer than expected response to transfusion. Treatment: no treatment needed per se, but antibodies will be a problem for further transfusion. The hospital blood bank should record the presence of red cell antibodies in the patient's records, and this information should be available when compatibility testing is carried out in the future.</td>
</tr>
<tr>
<td>Transfusion-associated graft-versus-host disease (TA-GvHD)</td>
<td>Immune reaction of donor T cells against the recipient who is often immunodeficient, e.g. bone marrow allograft recipient, Hodgkin’s disease, foetus receiving intrauterine transfusion. Clinically, there is fever, skin rash, liver and renal failure, and pancytopenia. During or soon after transfusion. Rare.</td>
<td>Usually fatal. Treatment: seek specialist medical advice. Prevention: gamma-irradiation of cellular blood components for susceptible recipients</td>
</tr>
<tr>
<td>Post-transfusion purpura</td>
<td>Immune-mediated thrombocytopenia, usually occurring in parous women. Antibodies against human platelet antigens (HPAs) are detectable in the patient’s serum, usually anti-HPA-1a. 5-12 days after transfusion. Rare.</td>
<td>Thrombocytopenia is usually severe and may cause bleeding. Treatment: platelet transfusions are ineffective and the treatment of choice is high-dose intravenous immunoglobulin 0.4g kg⁻¹ body weight of the patient for 5 days. Prevention: for future transfusions, use HPA-1a-negative red cell and platelet transfusions. If HPA-1a-negative red cells are unavailable, use leucocyte-depleted red cells.</td>
</tr>
<tr>
<td>PROBLEM</td>
<td>Cause / timing in relation to transfusion</td>
<td>MANAGEMENT</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Iron overload Causes liver and cardiac damage.</td>
<td>One unit of red cells contains 250mg of iron. Patients receiving multiple transfusions are at risk. After several years of frequent transfusions.</td>
<td>Prevention: use desferrioxamine to increase iron excretion in patients likely to receive long-term transfusions.</td>
</tr>
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<td>Transfusion-related acute lung injury (TRALI). Noncardiogenic pulmonary oedema</td>
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</tr>
</tbody>
</table>
Appendix 5 – Safe administration of blood components at Southend Hospital

Step 1.
Pre administration- 2 nurses independently.

Ask the patient to tell you their full name & D.O.B

Check ID details against the patient’s wristband

If there is ANY discrepancy - DO NOT transfuse; if you are interrupted - STOP, and start checking procedure again; do not leave the patient until the transfusion has commenced.

Step 2.
Check traceability label with the Blood pack for donation no. and blood group.

If there is ANY discrepancy DO NOT transfuse

If the checks are satisfactory, sign the peel-off portion of the label before commencing the transfusion.

Step 3.
Check the pack for:

Leaks
Discolouration
Clumping
Expiry date

If there is ANY discrepancy DO NOT transfuse

Step 4.
Once the transfusion has started:

Remember to also sign the Prescription to say you have undertaken the patient ID checks

Step 5.
Once the transfusion has started:

Sign and complete the tear-off section of the label place in the RED plastic sleeve provided for return to the Hospital Transfusion Laboratory

For Training: please contact: Lesley Hough, Transfusion Practitioner, Pager no: 07659 151 749
Appendix 5 - Location of transfusion reaction and transfusion refusal forms on ICE

<table>
<thead>
<tr>
<th>Patient Name:</th>
<th>Mr TEST ADULT MALE</th>
<th>Hospital No.:</th>
<th>TAM1111</th>
<th>Sex: Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Birth:</td>
<td>01 January 1970</td>
<td>CRN No.:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td>2 TEST STREET, TEST TOWN, NR13ED</td>
<td>Telephone No.:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Core Tests**
- ABO Type
- Blood Group & Ab Screen
- Hold sample (Save Serum)
- Direct AGT
- Neonatal Blood Group
- Kleihauer

**Cross Match (Adult)**
- Red Blood Cells
- Platelets
- PPP
- Cryo (pooled)
- Transfusion Reaction

**Cross Match (Paed)**
- Red Blood Cells (Paediatric)
- Platelets (Paediatric)
- PPP (Paediatric)
- Cryo (pooled) Paediatric
- Transfusion REFUSED

Click here to print transfusion refusal document
## Appendix 6 – Hospital Transfusion Committee Terms of Reference

<table>
<thead>
<tr>
<th>Committee Status</th>
<th>Mandatory Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting to</td>
<td>The HTC reports to the Clinical Assurance Committee</td>
</tr>
<tr>
<td>Purpose</td>
<td>Trust compliance to national guidelines to ensure safe appropriate use of blood products</td>
</tr>
<tr>
<td>Membership</td>
<td>A majority of the membership should be blood users rather than providers. Membership of the HTC will include as permanent members:</td>
</tr>
</tbody>
</table>
|                  | a) Chair  
|                  | b) Secretary  
|                  | c) Consultant Haematologist  
|                  | d) Consultant Surgeon (representing all surgical sub-specialities)  
|                  | e) Consultant Anaesthetist  
|                  | f) Consultant Physician (representing all medical sub-specialities, including oncology)  
|                  | g) Consultant Paediatrician  
|                  | h) Consultant Obstetrician & Gynaecologist  
|                  | i) Representative from National Blood Service, Brentwood  
|                  | j) Blood Bank Manager (BMS3)  
|                  | k) Hospital Transfusion Specialist  
|                  | l) Nursing Representative  
|                  | m) Trust board member (Medical Director)  
|                  | n) A representative from Clinical Governance / Risk management  
|                  | o) Wellesley Hospital representative.  
|                  | Other NHS staff may be invited to join the HTC or subgroups of the HTC, as required. |
| Quorum           | A quorum is the presence of the HTC chair, 2 members of the HTT and 2 senior clinicians representing major users of BT service |
| Members duties   | To ensure regular attendance and to actively participate in matters relating to clinical transfusion within the Trust |
| Required frequency of attendance by members | Twice yearly |
| Frequency of Meetings | The HTC will meet three times per year (every four months) or more frequently as deemed by the Chair. |
| To receive reports from | Hospital Transfusion Team |
| Public admission | No |
| Meeting administration | The agenda will be prepared by the Chair of the HTC with invited input from committee members as well as the Hospital Transfusion Team members. Items for inclusion in the Agenda should be submitted a minimum of two weeks prior to the meeting. The agenda will be distributed to members of the committee one week prior to the meeting. Minutes of the meetings will be distributed to all members within one month of the meeting.  
|                  | The date for the next meeting will be arranged and distributed to all members with the minutes. |
| Committee’s Duties | Advise Trust Management in matters relating to clinical transfusion practice in the |
Objectives

Trust.
Advise hospital staff regarding safe and appropriate use of blood products according to established national guidelines and provide appropriate local guidelines for the Trust.
Annual review of BT-11 The Blood Administration Policy
Develop and implement a strategy for the education training and competency assessment for all clinical, laboratory and support staff involved in the transfusion process.
Ensure protocols are in place and reviewed for all aspects of the transfusion process.
Review, endorse and approve blood transfusion policies, guidelines, protocols, standards and audit tools, in line with the Trust “policy for the development, approval, implementation and management of all Trust policy documents”.
Modify and improve blood transfusion protocols and clinical practice based on new guidance and evidence.
Audit for compliance with Trust policies and report back to staff.
Review the investigation report for all serious transfusion incidents and make appropriate recommendations to improve transfusion practice in the Trust.
Review and explore the use of effective alternatives to donor blood transfusion.
Review the appropriateness of blood and blood product usage in the Trust and make necessary recommendations.
Audit the quality of service provided by the Regional Transfusion Centre.
Audit the wastage of blood products, identify causes of wastage and introduce changes to avoid unnecessary wastage.
Consider and review legal implications of transfusion practice and provide guidelines for the Trust where appropriate.
Provide input to the Trust’s ‘Major incident plan’.
Local contingency planning and management for blood shortages
Promote patient education and information on blood transfusion including the risks of transfusion, blood avoidance strategies and the need to be correctly identified.
Consult with local patient representative groups where appropriate
Produce an annual action plan and audit programme for implementation of work required.
Agree action to be taken by the HTT and review progress.
Report annually to the Clinical Assurance Committee Board to highlight progress and issues of concern.
To report regularly to Regional Transfusion Committees.

<table>
<thead>
<tr>
<th>Training</th>
<th>None required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring and review</td>
<td>Bi-annually</td>
</tr>
</tbody>
</table>
Appendix 7 - Hospital Transfusion Team Terms of Reference

Membership

The hospital transfusion team (HTT) is composed of:

- Lead consultant for transfusion (chair)
- HTC Chair
- Haematology Manager
- BMS3 blood transfusion laboratory
- Hospital Transfusion Practitioner

Frequency

The HTT will meet a minimum of bi-monthly and more frequently as deemed by the chair.

Responsibilities

- To discuss and review transfusion related incidents, serious adverse events and serious adverse reactions
- To discuss and review the appropriate use of blood/blood products
- To review current regulations and guidelines related to transfusion and make changes as necessary to current practice.
- To implement an audit programme for transfusion.
- To discuss and formulate the agenda for the Hospital Transfusion Committee (HTC).

Accountability

The HTT reports to the Hospital Transfusion Committee

Agenda

The agenda will be prepared by the transfusion practitioner after input from the other team members.

Items for inclusion should be submitted a minimum of one week prior to the meeting.

The agenda will be distributed to members at least three days prior to the meeting.

Minutes will be taken by the transfusion practitioner and will be distributed within three weeks of the meeting.

The date for the next meeting will be arranged within the meeting and distributed with the minutes.