Blood Transfusion Policy

Version: 2

Summary: Blood transfusions are an essential support to many medical treatments and stringent procedures must be followed to ensure that the correct blood is always given and that any adverse reactions are dealt with promptly and efficiently.

Keywords (minimum of 5): Blood, Transfusion, Intravenous infusions sample taking

Target Audience: All Trust staff involved in the transfusion process

Next Review Date: September 2017

Approved & Ratified by: Quality Improvement and Development Forum  
Date of meeting: 14 October 2014

Date issued: August 2014

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# Version Control

## Change Record

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<td>8/8/14</td>
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<td>1</td>
<td></td>
<td>Review and Update</td>
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<tr>
<td>July 2015</td>
<td>Louise Hartland</td>
<td>2</td>
<td>20</td>
<td>Updated TNA (Appendix 1)</td>
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Guidelines for Administration of Blood Components and Management Of Transfused Patients

1 Introduction

To ensure “the right blood to the right patient at the right time”

1.1 Appropriate blood transfusion is an essential support to many medical treatments and is lifesaving. Problems with the safety of blood transfusion are highlighted through the Serious Hazards of Transfusion (SHOT) scheme. This scheme has shown that avoidable, serious hazards of blood transfusion continue to occur in Trusts, the most common being giving the wrong blood to patients. There are many risks to the patient and these include acute haemolytic reactions and transfusion transmitted infections. Blood transfusion has been associated with poor outcomes in a dose-dependent manner in trauma patients, after major surgery and in an intensive care unit. Stringent procedures must be followed to ensure that the correct blood is always given and that any adverse reactions are dealt with promptly and efficiently.

1.2 This clinical policy on blood transfusion is supported by procedures for ordering, storage, prescribing and administration of blood components, as well as the management of any complications. Procedures for the documentation of transfusions in nursing, medical and laboratory records are also provided, including the procedure for the reporting of any adverse reactions or events occurring in relation to transfusions.

1.3 This clinical policy incorporates core standards to be applied within the community hospital clinical environment in relation to all aspects of blood transfusion in adults.

2 Scope

2.1 This policy applies to all staff involved in requesting, sampling, prescribing, storing, collecting, transporting and administering of human blood and blood components. This includes:

- Medical staff, who assess patients, prescribe and order the product
- Any staff involved in the sampling of blood from patients
- Laboratory staff, who receive the order and prepare the product, ensuring that the blood is compatible with the patient
- Any staff involved in the collection, transport, storage and handling of blood products
- Nurses / midwives/Operating department practitioners (ODP) and other clinicians, who carry out the appropriate checks prior to administering blood products and who observe the patient during and after the transfusion.

3 Definitions

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<th>Term</th>
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<td>Adult</td>
<td>Person aged over 18 years</td>
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<td>Child</td>
<td>Person under the age of 18 years</td>
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<td>Transfusion</td>
<td>Consists of whole blood or any of its components to correct or</td>
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treat a clinical abnormality

Blood components
Red cells, fresh frozen plasma (FFP), cryoprecipitate, and platelet concentrates

Blood Products
Any drug which is manufactured using human blood components

Special Products
Where the product supplied has to have special characteristics such as CMV negative, irradiated blood or any other specific requirement

Hb
Haemoglobin

MBOS
Maximum Blood Ordering Schedule

Identity band
Handwritten or electronically generated band confirming minimum dataset

MEWS
Modified Early Warning Score

NMC
Nursing and Midwifery Council

ODP
Operating Department Practitioner

NPSA
National Patient Safety Agency

SHOT
Serious hazards of Transfusion reporting system

SABRE
MHRA reporting scheme SABRE – Serious Adverse Blood Reactions & Events

Registered practitioner
Medically qualified personnel or Nursing Staff who have specialist certification enabling them to request blood products

'Suitably trained'
Where the relevant staff can meet trust policy requirements as documented in the Trust Phlebotomy policy and meet NPSA competency requirements, or any successor requirements

4 Duties / Responsibilities

4.1 **The Chief Executive** has overall responsibility and is accountable for ensuring that the Trust complies with Blood Quality and Safety Regulations, 2005 and the conservative approach to the use of blood components as set out by the National Blood Transfusion Committee.

4.2 **The Director of Nursing** is responsible for ensuring that health care professional are informed and follow the Trust Blood Transfusion Policy for patient safety.

4.3 **The Medical Director** is responsible for ensuring all medical personnel adhere to the Trust Blood Transfusion Policy.
4.4 **Area Directors** are responsible for ensuring all staff that administer blood transfusions and take blood samples comply with the Trust Blood Transfusion Policy. They are also responsible for the implementation of recommended actions arising from investigations of incidents and audits conducted to monitor compliance with this policy.

4.5 **Matrons** are responsible for working with ward managers to make it possible for all staff that administer blood transfusions and take blood samples to be trained and updated to the standards set out in the Trust training needs analysis. They will also be responsible for implementing actions arising from investigations of incidents and audits conducted to monitor compliance with this policy.

4.6 **All staff** involved in transfusions are responsible for maintaining and updating their knowledge, competency and practice.

4.7 **Medical staff** are responsible for prescribing blood components and/or blood products appropriate to the needs of the patients.

4.8 **Nursing staff** are responsible for requesting, the collection of blood and carrying out pre transfusion checks to ensure the right blood is transfused. They are also responsible for the administering of blood components and products, monitoring the patients during the transfusion and reporting of transfusions reactions or other incidents to the blood transfusion laboratory, documenting in patients’ medical notes.

4.9 **Phlebotomists and other staff taking blood samples** are responsible for checking the identity and written information on the request form of the patient before taking any blood samples. Using a safe technique for obtaining blood and correctly labelling the blood sample tubes and reporting any incidents on the Trust risk reporting system.

4.10 **Health Care Support Workers** are able to collect blood from the blood fridge and completing the vital signs of the patient, reporting any changes to the nurse in charge and documenting them.

4.11 **The Blood Transfusion Laboratory** is responsible for the compatibility testing and issuing of blood products, monitoring blood requests and usage. They also manage blood stocks and liaise with the National Blood service. They are also responsible for investigating adverse events and reporting them to the Serious Hazards of Transfusion Scheme and the Medicines and Healthcare products Regulatory Authority.

5 **Main policy content**

5.1 **Collection of Blood Samples for Pre-transfusion testing**

**Blood taken from one patient and labeled with another patient’s details may result in the laboratory issuing ABO incompatible blood. This may have a fatal outcome. The following guidelines are designed to prevent such errors.**

5.1.1 Only suitably trained and competent medical, nursing or phlebotomy staff may take blood samples for cross matching. NPSA regulations state that anyone who takes blood samples for cross matching must repeat competency training every 3 years. They must use an aseptic non touch technique (Aseptic Technique) and must have completed Aseptic technique competency package.
5.1.2 An approved blood transfusion request form must be completed for each request. The request form is either completed on E Quest or by hand, no addressograph labels are permitted. Depending on the request form used, the top copy of the request form should be sent to the transfusion laboratory, along with the sample, and the copy kept in the patients notes. It is important to have a current Hb prior to a blood transfusion.

5.1.3 Requests for Group and Save may be made by medical staff only.

5.1.4 Requests for cross match may be made by medical staff only.

- Request Forms – Patient Identity
- Request forms must contain FOUR points of identification – surname, forename, date of birth and hospital, NHS, district or A&E number
- If there is no patient number available the first line of the patient’s address can be used as the fourth point of identification with the postcode and house number.

5.1.5 Blood should only be taken from patients who are either able to identify themselves or are wearing an identity bracelet. A system exists to provide an unconscious unidentified patient with an identity bracelet bearing a new hospital number and NHS number to ensure continuity of identification.

5.1.6 Alert patients should be asked to identify themselves verbally. Do not ask closed questions such as “Are you Mrs. Smith?” Ask the patient to state their full name and date of birth.

5.1.7 The decision to transfuse is made following consideration of the potential risks and benefits of, and the alternatives to, transfusion. Where possible this is discussed between the clinician and patient (or someone authorised to do so – refer to the Trust consent policy and mental capacity act policy, where the person lacks capacity) in advance of the transfusion. The patient records should contain evidence that the reason for transfusion has been explained and discussed with the patient. This includes discussion of the risk, valid alternatives to transfusion and the option to refuse. In an emergency there should be a system, compatible with the patient clinical needs; to investigate and act in accordance with the patient’s treatment preferences this includes compliance with an advance decision document. Following emergency transfusion there should be documentary evidence in the patient records that there has been information provided to the patient post transfusion.

5.1.8 Inpatients and day case patients should be checked for the presence of an identity bracelet. If absent this should be reported to the nurse in charge and blood should only be taken if the patient is clearly able to identify him/herself.

5.1.9 For each patient, blood should be taken, containers filled and labelled in one uninterrupted operation. Do not use pre-labelled sample tubes. The sample must be labelled, by hand, at the patient’s bedside.

5.1.10 Patient receiving pre planned transfusions or patients who receive regular transfusions must have specimen taken no more than 48 hours before the transfusion.
5.2 Labelling the Sample

The sample must be taken into an EDTA tube and immediately labelled (by person taking sample) with FOUR identifying points (as above), the time/date taken and ward / source. The tube label must also be signed.

All of this must be done at the side of the patient – do not walk away.

5.2.1 Full patient identification details (the patient's surname, forename, date of birth and hospital number and NHS number) must be stated on the form and sample containers.

5.2.2 The person taking the sample must state date and time sample taken and sign the sample bottle and form.

5.2.3 Inadequately labeled samples and forms will be rejected completely and the requesting doctor or ward will be notified, whenever possible. The laboratory will keep a record of such incidents and present them to the Hospital Transfusion Committee for investigation, as it deems necessary.

5.3 Provision of Blood in a Life Threatening Situation

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

5.3.2 Flying squad blood (Emergency O negative blood) may not be suitable for patients in an emergency. If a patient has known antibodies they should receive cross matched blood wherever possible.

5.4 Blood Bank Patient Records

5.4.1 The blood bank must verify the patient's ABO and RhD group against previous computer (and/or manual) records. Any discrepancies should be resolved before blood components are issued.

5.5 Telephoned requests

5.5.1 A written record will be kept by the laboratory of all telephoned requests for blood components. This will be replaced by the request form on arrival.

5.5.2 The identity of the person making the request and the person receiving the request should be recorded.

5.5.3 The following information should be provided:
- the patient's surname and forename
- hospital and NHS number
- the patient’s location
- the number and type of blood components required
- the date and time required
- any special requirements (e.g. irradiated blood)
5.6 **Storage and Collection of Blood from Blood Refrigerator**

*NPSA report that Collection of blood is identified as a major source of errors leading to the transfusion of the wrong blood.*

5.6.1 Blood is to be stored only in designated blood fridges or blood box, and NEVER placed in a ward fridge.

5.6.2 The blood fridge must be secured to prevent unauthorised access and it must be alarmed to the switchboard / ward in the event of malfunction.

5.6.3 Blood must be stored between 2 - 8°C. Temperatures in domestic and drug fridges are not suitable for correct storage of products. Local guidelines should be in place to ensure temperature of fridge is monitored daily and recorded.

5.6.4 Only medical, nursing, health care assistants, porters, and midwives trained in the correct procedures are authorised to collect blood.

5.6.5 The staff member collecting blood must bring to the blood refrigerator documentation (prescription chart and blood issue note,) bearing full patient identification details - surname, first name, date of birth, hospital number and NHS/hospital number.

5.6.6 Health care assistants or porters should use the MR120 form when collecting blood (see Appendix 4), which should be filled out by the ward/department staff with full patient details. If no MR120 form is available the HCA or porter should not go and collect blood.

5.6.7 If a member of staff receives a telephone request to collect blood, he / she must write down the patient identification details and items required, as well as being given the patient’s location and degree of urgency and read back to ensure information is correct.

5.6.8 The person collecting blood must check the patient identification details on the documentation against the unit(s) being collected.

5.6.9 Only one unit of blood should be removed at any one time. If more than one unit is required they must be collected and placed in a cool box, which the Transfusion laboratory will supply. N.B. All units of FFP or platelets should be collected as they are transfused at a different rate to blood.

5.6.10 Do not remove blood from the refrigerator if the alarm sounds; inform the Blood Transfusion Laboratory immediately.

5.6.11 The delivery of blood to a ward should be brought to the attention of a senior member of staff to avoid undue delay in starting the transfusion. A unit of blood should not be left out of the refrigerator or blood box for more than 30 minutes (see section 10.1). Blood must never be stored in a ward refrigerator.

5.6.12 Platelet concentrates should be kept at room temperature at all times. Do not place in a blood refrigerator.
5.6.13 Fresh frozen plasma should be collected and transfused as soon as possible (or within four hours) after thawing by the Blood Transfusion Laboratory. (If not used, return to the issuing blood bank for disposal)

5.6.14 If there is no blood fridge available, blood can only be stored in a blood box with cool packs for a maximum 4 hours.

5.7 The Prescription of Blood Components

The safest blood transfusion is no blood transfusion – does the patient really need it?

5.7.1 Blood components must be prescribed in writing on a prescription chart by a registered doctor.

5.7.2 The prescription must specify:-

- The patient’s full identity details
- The blood component(s) to be administered, including any special requirements (e.g. irradiated blood)
- The quantity to be given (usually stated as number of units or volume in mls)
- The duration of transfusion for adults as follows:
  - Red cell concentrate usually 2-3 hours for each unit, No longer than 4 hours
  - Slow infusion causes bacterial growth
- Unless the patient has an underlying cardiac or respiratory condition, transfusion should be 2 hours – be aware of the volume you are giving.
- Platelets usually 30 minutes for one adult dose
- Fresh Frozen Plasma (FFP) usually given stat
- Any special instructions e.g. medication required before start or during transfusion.
- If blood is required to be warmed during transfusion this must be prescribed on the prescription chart.

There must be a clear entry in the case notes detailing

- the indication for the use of blood/components (to include current Hb result)
- number of components to be transfused
- date to be transfused

5.7.3 Transfusing at Night

Transfusions should not be given at night unless the patient is actively bleeding

Patients who are asymptomatic will benefit from not having disturbed sleep; transfusion should be stopped at the end of a unit and can be restarted 08.30hrs. It is safer to transfuse during the day, in case of an acute reaction to the blood or blood product.

5.8 Patient procedures

NPSA report that the administration of blood /blood components is consistently identified as the major source of errors leading to the transfusion of the wrong blood.
Clinical Area where transfusion can occur
Transfusions should be given in clinical areas where frequent visual and verbal contact can take place.

Positive identification of the patient at the bedside is essential and MANDATORY to prevent a transfusion error. Remote checking away from the patient is unacceptable and unsafe

5.8.1 Only registered doctors and registered nurses who are authorised may carry out the patient bedside checks and start the transfusion. This member of staff must be a suitably trained and competent doctor, nurse holding current registration of the N.M.C. professional register or ODP. To ensure the correct patient receives the correct unit of blood.

5.8.2 Two members of staff must carry out this check. Both should have attended blood transfusion training within the previous year.

5.8.3 The patient check must be performed for each unit of blood component administered, and must be carried out within 30 minutes of removing the unit of blood from the fridge.

5.8.4 Only prime the blood administration set after all checks have been carried out and are found to be correct. Do not use the same giving set to continue administering fluids following transfusion of a blood component. The integral filter is to collect any waste from the blood component, flushing IV fluids through will cause this waste to be administered to the patient

5.8.5 The patient’s identity details on the blood issue note should be checked against the unit of blood component, the patient’s identity bracelet and the prescription. If the patient is conscious they must be asked to identify themselves as a check on the veracity of the identity bracelet. Every patient receiving a product/component should have an identity band and there should be no exceptions.

NO Identity Band - NO transfusion!

5.8.6 The blood group of each unit must be checked against the patient’s previously recorded blood group in the medical notes and issue note.

5.8.7 The serial number of each unit must be checked against those listed on the blood issues note.

5.8.8 The units of blood must be checked for compliance with any special requirement on the prescription (e.g. irradiated blood), integrity of the pack, expiry date and expiry time if appropriate.

5.8.9 If any of the items listed in 5.1.3-5.1.8 are discrepant, the transfusion should not proceed. The Blood Transfusion Laboratory who has supplied the blood or blood products should be contacted immediately in this instance.

5.9 The Blood Issue Note

5.9.1 The blood issue note should be collected from the blood refrigerator with the first unit.
5.9.2 It should be taken back, along with the prescription chart, to the blood refrigerator to assist in collection of subsequent units.

5.9.3 The blood issues note should be signed in full by both persons performing the bedside check each time a unit is started.

5.9.4 The date, start and stop time of each unit should be entered onto the blood issue note.

5.9.5 The blood issue note should be kept with the prescription chart until the transfusion is completed. The top copy should then be filed in the patient’s records and the bottom copy returned, in an envelope, to blood bank. This will assist blood bank in the traceability of blood components.

5.9.6 If the blood issue note is missing for any reason the transfusion cannot proceed; return blood to the blood refrigerator and contact the laboratory for further advice.

5.10 Administration of Blood

5.10.1 A unit of blood/blood components should be commenced immediately on arrival to the ward/department or within 30 minutes of removal from the blood fridge, after the checking procedures have been carried out.

5.10.2 The transfusion of each unit of red cells must be completed within a maximum of 4 hours from removal from the blood fridge.

5.10.3 If the transfusion cannot start within 30 minutes the unit should be returned to the blood refrigerator before the 30 minutes is exceeded. The unit of red cells must be signed back into the fridge on the issue note, giving a clear indication of the date and time returned.

5.10.4 If 30 minutes is exceeded, and the patient still requires the blood, the unit should be administered to the patient and transfused within four hours.

5.10.5 If 30 minutes is exceeded and the blood is no longer required for the patient it must be returned to the Transfusion Laboratory stating time removed from the fridge and why it is no longer required. The senior nurse on duty on the ward should also complete a Trust adverse incident report.

5.10.6 Blood should be transfused through a standard blood administration set incorporating a 170 - 200µm filter. The administration set should be changed every 12 hours. A new administration set should be used if other infusions are to follow the blood transfusion. Do not use the same giving set to continue administering fluids following transfusion of a blood component. The integral filter is to collect any waste from the blood component, flushing IV fluids through will cause this waste to be administered to the patient.

5.10.7 Platelets may be transfused through a platelet administration set or a blood administration set but not after it has been used for blood.

5.10.8 There is no set minimum or maximum cannula gauge for blood transfusion. Larger gauges will allow more rapid transfusion and are preferred in cases of
major haemorrhage, No other fluids or IV additives can be administered at the
same time, into the same peripheral cannula.

5.10.9 Only infusion pumps specifically approved by the manufacturer for infusion of
blood may be used. A blood administration set, with a 170 - 200µm filter, as
approved by the manufacturer of the pump must be used.

5.10.10 Only blood warmers specifically approved by the manufacturer for infusion of
blood may be used. Improvised methods (e.g. placing unit on a radiator) must
not be used. Blood warmers are indicated in patients with cold agglutinins or if
an adult flow rate of >50mL/kg/hr is required. If blood is to be given warmed it
must be prescribed on the prescription chart.

5.10.11 Under no circumstances shall any drug be added to blood components.

5.11 Care and Monitoring of Patients during Transfusion

The prime aim of monitoring a patient during a transfusion is patient safety. Most severe
reactions occur within 15 minutes of starting a unit. Medical cover must be on site for the
first 30 minutes of commencement of each unit. If the unit does not have medical cover
on site, the local GP surgery should be made aware that a transfusion is taking place.

5.11.1 The responsibility for monitoring the patient during transfusion normally rests with
the registered nurse responsible for the patient’s care. A health care
assistant or student nurse/midwife may carry out this part of the process under
the supervision of the registered nurse who will retain absolute personal
accountability for the delegated task.

5.11.2 Patients should be alerted by the nurse to the importance of reporting
immediately any adverse effects (See Appendix 3)

5.11.3 Patients’ must also be given the Patient Information leaflet (Appendix 6) as soon
as possible prior to the transfusion commencing

5.11.4 The date, start and finish time of each unit should be clearly indicated on the fluid
balance chart, prescription chart and the blood issue note.

5.11.5 The following vital signs should be recorded separately on a Blood transfusion
pathway form (Appendix 8) immediately prior to the start of each unit of blood: -
temperature, pulse rate, respiration rate, blood pressure and oxygen saturation
level. Visual observations of skin condition, cannula site and urine output must
also be maintained.

5.11.5 For all patients: - temperature, pulse rate, respiration rate, blood pressure,
oxygen saturation rate should be recorded 15 minutes after the start of each unit
of blood. If the observations in the 15 minutes are within normal limits and the
patient has no adverse effects from the transfusion a full set of observations need
not be taken until the end of each unit being transfused.

5.11.6 Further observations are at the discretion of the clinical area and need only be
taken if the conscious patient becomes unwell or shows signs of a transfusion
reaction
5.11.7 Throughout the transfusion the patient should be visually observed for any signs of reaction.

5.11.8 Observe for any signs or symptoms that may occur during the first 15 minutes of the transfusion commencing.

5.11.9 **If any of these signs occur stop the transfusion immediately**

- Patient in distress
- Loin pain
- Back ache
- Fever and / or rigors
- Shortness of breath
- Urticaria
- Flushing
- Headaches
- Rash
- Pain at or near transfusion site.
- Haemoglobinuria / Haematuria

5.11.10 Unconscious patients require particular attention. Transfusion reactions should be suspected if the patient’s condition deteriorates or if hypotension, haemoglobinuria or unexplained increased bleeding occurs.

5.12 **Completion of the transfusion**

*If no reaction has occurred dispose of transfusion equipment as follows.*

5.12.1 Remove the giving set and dispose of in the sharps box.

5.12.2 Start and finish times of administration of each unit should be documented on the prescription (Blood transfusion pathway form) and the patient notes. All entries should be signed and dated.

5.12.3 Plug the empty bag using the appropriate plug/spigot and place in the designated receptacles in the dirty utility room on each ward and retain until all units have been transfused and then dispose of in the orange/yellow clinical waste bag. Used blood bags can go into offensive waste (yellow and black stripes) or clinical (orange) if offensive bags are not available.

5.12.4 The top copy of the blood issue note and observation chart should be filed in the patient’s case notes.

5.12.5 The traceability part of the label must be returned to blood bank. This is a statutory (legal) MHRA regulation and therefore the responsibility of the administrator of the transfusion.

5.13 **Clinical Protocol for Management of Adverse Reaction to administrations of blood or blood product**

5.15.1 A severe acute reaction will usually occur within the first 15 – 30 minutes of the commencement of blood or blood components. A patient with a severe reaction can deteriorate very quickly with hypotension, respiratory distress,
collapse and possible death.

5.15.1 If there is pyrexia, shivering, pain, rash, or any sudden change in observations the transfusion MUST be stopped and the nurse in charge and doctor informed.

5.15.1 Do not stop the blood and then restart the same unit of blood if a significant reaction is suspected.

5.15.1 If a significant transfusion reaction is suspected a member of medical staff should be contacted immediately. The blood administration set with attached unit should be disconnected and returned to the Blood Transfusion Laboratory for subsequent testing. It should be transported in a rigid, plastic/cleanable container with secure lid. Venous access should be maintained via a separate cannula site with 0.9% saline infusion.

5.15.1 The doctor should follow the guidance set out in Appendix 4, obtain a venous blood sample and return this, at the time of the suspected reaction, with a completed adverse transfusion reaction form available from the blood Transfusion laboratory. Record event in patient’s notes – accuracy is vital.

5.15.1 Send transfusion unit and attached giving set to the Blood Bank immediately.

5.15.1 If further advice is required on how to manage the suspected reaction the Consultant Haematologist on-call can be contacted via switchboard of relevant acute trust.

5.14 Adverse Event Reporting

It should be noted that there is now a legal requirement to report severe transfusion reactions and events to the Medicines and Healthcare Products Regulatory Agency under “The Blood Safety and Quality Regulations 2005 No 50”

5.14.1 Process for reporting adverse events – Near Miss and Clinical Incidents.

- Documentation of Reactions
- Complete a Trust Adverse Incidence Reporting Form
- Serious Incident (SI) must be reported immediately to senior manager and duty manager on call.
- Complete Adverse Reaction Form available from Blood Bank
- Record event in patient’s notes – accuracy is vital
- Send transfusion unit and attached giving set to the Blood Bank immediately

5.14.2 Recording of incidents involving the transfusion process

- All incidences involving the transfusion process must be documented on the Trust Adverse Incident Reporting form and reported to risk management
- Transfusion Practitioner must be informed immediately of any errors
- Copy of incident form to be sent to the Transfusion Practitioner immediately
- SHOT/SABRE reporting must be completed as soon as possible once incident reported, follow up and actions documented and reports made available to the HTC
• Any “wrong blood component in wrong patient” incidence is recorded as a RED incident and will need to be investigated and a corporate panel held, this will then be followed up by the appropriate Hospital Transfusion Committee

5.14.3 The following blood transfusion related events should trigger a SHOT Incident Report.
• Incorrect blood component transfused (IBCT)
• Anti-D administration
• Acute non-haemolytic transfusion reaction (ATR)
• Haemolytic transfusion reaction: acute and delayed (HTR)
• Transfusion associated graft-versus-host-disease (TA-GVHD)
• Transfusion-related acute lung injury (TRALI)
• Post-transfusion purpura (PTP)
• Transfusion transmitted infection (TTI)
• Transfusion associated circulatory overload
• Near miss’ events
• “Right blood to right patient” (RBRP) events are included in the annual report for interest, but are not counted in the total number of cases.

Guidance and online reporting information available on the website. www.shotuk.org

5.15 Patient Information

5.15.1 All patients must be given both written and verbal information prior to the Transfusion commencing, wherever possible. (appendix 6)

5.15.2 The information given must be given in a timely manner to allow the patient to make an informed choice on whether to accept the transfusion or not. Mental capacity may need to be taken into consideration and further specialist assessment completed.

5.15.3 Inform the patient about the intended transfusion therapy and give a full explanation, give them the opportunity to discuss it and raise any concerns they may have. This is initially the responsibility of the prescribing Dr and followed up by the member of staff administering the product. The risks and benefits of transfusion should be explained and documented; consent should be obtained and documented.

5.15.4 All medical staff must be aware of the beliefs of the Jehovah's Witness in relation to receiving any blood component and medical alternatives, which may be applicable. Also be aware that any Patient may have valid personal reasons or beliefs for not wishing to have a transfusion

5.15.5 In outpatient departments and pre-assessment clinics there should be copies of the National Blood Service “Receiving a Transfusion” leaflet available for patients.

5.15.6 On the wards the patient should be given the Patient Information Leaflet (Appendix 6)
5.15.7 Advice on patient information can be obtained from the Specialist Practitioner of Transfusion, or the duty Consultant Haematologist for the relevant Acute trust.

5.16 **Documentation**

5.16.1 All entries should be signed and dated.

5.16.2 The blood issue note, prescription chart and the nursing observations during transfusion must be kept permanently in the patient’s notes.

5.16.3 There must be a clear entry in the case notes detailing:
- The indication for the use of blood/components (to include current Hb result)
- Number of components to be transfused
- Date to be transfused
- Clinical response and whether the transfusion was effective
- A copy of the request form should be retained in the notes if able
- Complete the compatibility label and return to the blood bank as soon as possible

5.16.4 All documentation related to the administration of blood, including the request form (other than that held in the patient’s records) must be retained by the laboratory for at least one month.

5.16.5 The blood sample for compatibility must be retained by the Blood Transfusion Laboratory for at least one week.

5.16.7 The Blood Transfusion Laboratory must retain worksheets, reagent logs, blood bank registers and refrigerator and freezer charts for at least 30 years.

5.17 **Massive Haemorrhage**

This is for Lymington Hospital only, once it becomes apparent the massive Haemorrhage flow chart needs to be activated (Appendix 8)

6 **Training Requirements**

6.1 Staff should be trained in procedures they are expected to undertake.

6.2 Training in the transfusion process is mandatory for all staff authorised to take part and must be updated yearly.

6.3 All clinical staff required to undertake the transfusion process will be required to undertake an initial training course via a local induction and thereafter a yearly update.

6.4 Training for all nursing staff will be followed by assessment of competency (appendix 5) using the approved competency forms. Competencies must be assessed yearly by an approved assessor.

6.5 Lead has overall responsibility for training within Southern Health

6.6 The functions of the training officer will include:-
- Training of authorised staff in blood transfusion procedures
- recording the names and dates of staff participating in training
- Participation in the Hospital’s Transfusion Committee
- Revision of the Southern Health ‘Blood transfusion Policy’ and other related policies as necessary.
- Staff obtaining blood samples for cross matching must have completed the Aseptic Technique competency package and also undertake the competency training 3 yearly.

7 Monitoring Compliance

7.1 Incident Reporting

7.1.1 All incidents are reported using the Southern Health’s incident reporting procedure. Adverse Incidents are then discussed at the local Governance Groups and Trust Governance Committee. They will also be discussed at the local acute transfusion committee

7.1.2 Incidents are reported to SHOT / SABRE as required

7.2 Training Statistics

7.2.1 The LEAD team, monitor attendance at training and assessment of competence, the process for monitoring compliance with statutory and mandatory training requirements are outlined in section 23.1 of the Trust Learning and Development policy

7.2.2 Areas of concern are discussed with the acute providers Specialist Practitioner of Transfusion and action plans developed accordingly.

7.3 National

- The Southern Health, in conjunction with the Acute Trust complies and takes part in both National and Regional Audits
- Incidents are reported to SHOT / SABRE as required
- Alerts from the National Patient Safety agency are acted upon accordingly
- A representative from the Hospital Transfusion Committee attends the Regional Transfusion Committee

8 Policy Review

8.1 This policy will be reviewed and updated every three years, as clinically needed or when further evidence of consensus suggests revision is required

9 Supporting References

Advisory committee on the safety of blood, tissue and organs, consent for blood transfusions (Oct 2011)

Better blood transfusion tool kit - DOH
British Committee for Standards in Haematology, Blood Transfusion Taskforce
“Guidelines for the Administration of Blood and Blood Components and Management of Transfused Patients” Transfusion Medicine 1999; 9, 227-239.

Blood Transfusion Services of the United Kingdom

Frimley Park Hospital NHS Foundation Trust
“Management of Acute Transfusion Reaction Policy” 2005

Portsmouth Hospitals NHS Trust
Blood and Blood Products Clinical Policy (2009)

Gray, J. Illingworth. 2004 Right blood, Right patient, Right time. RCN guidance for improving transfusion practice


The Blood Safety and Quality Regulations 2005 No. 50 and The Blood Safety and Quality (Amendment) (No.2) Regulations 2005 No. 2898

National Patient Safety Agency: www.npsa.nhs.uk/pleaseask

National Blood Service www.blood.co.uk

Administering Blood Transfusion C. Buckwell CETL 2008

UK Blood Transfusion and Tissue Transplantation Services
Better Blood Transfusion Toolkit DOH 2009

NPSA ‘Right Patient Right Blood’ Clinical Competency framework

SHOT Toolkit www.shotuk.org

Administering Blood Transfusion C. Buckwell www.CETL.org.uk
APPENDIX 1

Training Needs Analysis

If there are any training implications in your policy, please complete the form below and make an appointment with the LEaD department (Louise Hartland, Quality, Governance and Compliance Manager or Sharon Gomez, Essential Training Lead on 02380 874091) before the policy goes through the Trust policy approval process.

<table>
<thead>
<tr>
<th>Training Programme</th>
<th>Frequency</th>
<th>Course Length</th>
<th>Delivery Method</th>
<th>Facilitators</th>
<th>Recording Attendance</th>
<th>Strategic &amp; Operational Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood Transfusion</td>
<td>Face to Face - Initial and 3 yearly E-assessment - intermittent years</td>
<td>Face to Face 3.5 hours</td>
<td>Face to Face</td>
<td>Clinical Trainers</td>
<td>LEaD</td>
<td>Strategic – Director of Nursing Operational - Toni Scammell, Area Matron</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Directorate</th>
<th>Service</th>
<th>Target Audience</th>
</tr>
</thead>
<tbody>
<tr>
<td>MH/LD/TQ21</td>
<td>Adult Mental Health</td>
<td>Not Applicable</td>
</tr>
<tr>
<td></td>
<td>Specialised Services</td>
<td>Not Applicable</td>
</tr>
<tr>
<td></td>
<td>Learning Disabilities</td>
<td>Not Applicable</td>
</tr>
<tr>
<td></td>
<td>TQtwentyone</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

| ISD's | Older Persons Mental Health | Not Applicable |

| ISD's | Adults | Sister/charge nurses, staff nurses and specialist nurse practitioners working at Longbeach, Deerleap and Wilverly Wards, the Medical Assessment Unit, Medical Day Unit and Endoscopy Unit at Lymington Community Hospital; Sultan Ward and the Rapid Assessment Unit and at Gosport War Memorial Hospital; Rowan Ward and Laurel Assessment Unit at Petersfield Community Hospital; Anstey Ward at Alton Community Hospital and Havant Rapid Assessment Unit at the Oak Park Community Base. |

| ISD's | Childrens Services | Not Applicable |

| Corporate | All | Not Applicable |
Equality Impact Assessment (or ‘Equality Analysis’) is a process of systematically analysing a new or existing policy/practice or service to identify what impact or likely impact it will have on different groups within the community.

For guidance and support in completing this form please contact a member of the Equality and Diversity team on 01256 376358

<table>
<thead>
<tr>
<th>Name of policy/service/project/plan:</th>
<th>Blood transfusion policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy Number:</td>
<td>SH CP 42</td>
</tr>
<tr>
<td>Department:</td>
<td></td>
</tr>
<tr>
<td>Lead officer for assessment:</td>
<td>Toni Scammell</td>
</tr>
<tr>
<td></td>
<td>Area Matron, Gosport War Memorial Hospital</td>
</tr>
<tr>
<td>Date Assessment Carried Out:</td>
<td>18/9/14</td>
</tr>
</tbody>
</table>

1. Identify the aims of the policy and how it is implemented.

<table>
<thead>
<tr>
<th>Key questions</th>
<th>Answers / Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Briefly describe purpose of the policy including</td>
<td>SHFT staff employed or contracted has a responsibility to eliminate or mitigate risks associated with administration of Blood product.</td>
</tr>
<tr>
<td>- How the policy is delivered and by whom</td>
<td>Intended outcomes: Provide a clear framework and guidance for safe transfusion practice, ensuring a consistent safe approach to the prescribing, handling and administration of blood and blood components throughout the Trust. Staff will be required to undertake an initial training course which are assessed then a yearly update followed by assessment of competencies which are assessed on a yearly basis. Comply with national standards and assessments in relation to administrations of blood products</td>
</tr>
<tr>
<td>- Intended outcomes</td>
<td></td>
</tr>
<tr>
<td>Provide brief details of the scope of the policy being reviewed, for example:</td>
<td>Southern Health NHS Foundation Trust (SHFT) is registered with the Care Quality Commission to operate as provider of health care services. Compliance with the code is a prerequisite of registration.</td>
</tr>
<tr>
<td>- Is it a new service/policy or review of an existing one?</td>
<td>This is a review of an existing policy and follows national requirements for blood transfusions</td>
</tr>
<tr>
<td>- Is it a national requirement?</td>
<td></td>
</tr>
</tbody>
</table>
2. Consideration of available data, research and information

Monitoring data and other information involves using equality information, and the results of engagement with protected groups and others, to understand the actual effect or the potential effect of your functions, policies or decisions. It can help you to identify practical steps to tackle any negative effects or discrimination, to advance equality and to foster good relations.

Please consider the availability of the following as potential sources:

- Demographic data and other statistics, including census findings
- Recent research findings (local and national)
- Results from consultation or engagement you have undertaken
- Service user monitoring data
- Information from relevant groups or agencies, for example trade unions and voluntary/community organisations
- Analysis of records of enquiries about your service, or complaints or compliments about them
- Recommendations of external inspections or audit reports

<table>
<thead>
<tr>
<th>Key questions</th>
<th>Data, research and information that you can refer to</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>What is the equalities profile of the team delivering the service/policy?</td>
</tr>
<tr>
<td>2.2</td>
<td>What equalities training have staff received?</td>
</tr>
<tr>
<td>2.3</td>
<td>What is the equalities profile of service users?</td>
</tr>
<tr>
<td>2.4</td>
<td>What other data do you have in terms of service users or staff? (e.g results of customer satisfaction surveys, consultation findings). Are there any gaps?</td>
</tr>
<tr>
<td>2.5</td>
<td>What engagement or consultation has been undertaken as part of this EIA and with whom? What were the results?</td>
</tr>
<tr>
<td>2.6</td>
<td>If you are planning to undertake any consultation in the future regarding this service or policy, how will you include equalities considerations within this?</td>
</tr>
</tbody>
</table>
In the table below, please describe how the proposals will have a positive impact on service users or staff. Please also record any potential negative impact on equality of opportunity for the target:

In the case of negative impact, please indicate any measures planned to mitigate against this.

<table>
<thead>
<tr>
<th>Positive impact (including examples of what the policy/service has done to promote equality)</th>
<th>Negative Impact</th>
<th>Action Plan to address negative impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong>&lt;br&gt;Applies to anyone over the age of 18</td>
<td>No Adverse or potentially adverse impacts have been assessed</td>
<td></td>
</tr>
<tr>
<td><strong>Disability</strong>&lt;br&gt;Patient having a blood transfusion are provided with appropriate information to allay concerns. This information can be provided face to face or as a leaflet</td>
<td>Service users with learning disabilities may find it difficult to understand the process and reasons for the transfusion. The Trust will respond to requests to provide information in the most appropriate format.</td>
<td>Information leaflet in words and pictures to be designed</td>
</tr>
<tr>
<td>Gender Reassignment</td>
<td>No adverse or potentially adverse impact have been assessed for this characteristic</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Marriage and Civil Partnership</td>
<td>No adverse or potentially adverse impact have been assessed for this characteristic</td>
<td></td>
</tr>
<tr>
<td>Pregnancy and Maternity</td>
<td>Trust staff will liaise with appropriate services for advice. No adverse or potentially adverse impact have been assessed for this characteristic</td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>Patients and visitors to the trust must be provided with appropriate information to allay concerns. This information can be provided in the form of leaflets. Staff are available at the bedside in all clinical areas to discuss face-to-face issues with patients, relatives and visitors. Language barriers and/or ethnicity may make it difficult for service users/clients to understand or gain access to guidelines and procedures necessary to understand the reason and process for blood transfusions. The Trust will respond to requests to provide information in the most appropriate format. Information leaflet in words and pictures to be designed. Support from the LD / communication team to design. Toni Scammell Dec 14</td>
<td></td>
</tr>
</tbody>
</table>
| Religion or Belief          | The Trust will adopt the Equality Delivery System with a focus on:  
|                            |   • Better health outcomes for all  
|                            |   • Improved patient access and experience | Some religious beliefs prohibit the use of blood transfusions  
|                            |                                           | Mitigation: The Trust will respond to requests and provide information in the most appropriate format |
| Sex                        | No adverse or potentially adverse impact have be assessed for this characteristic |
| Sexual Orientation         | No adverse or potentially adverse impact have be assessed for this characteristic |
## List in the table below level of engagement / consultation with target groups:

<table>
<thead>
<tr>
<th>Target Group</th>
<th>Engagement/Consultation carried out</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Users &amp; Carers</td>
<td>√ Sent out for consultation to Governance team, matrons, Clinical Leads Infection control, LEaD and staff providing blood transfusions</td>
</tr>
<tr>
<td>Staff</td>
<td>√ Sent out for consultation to Governance team, matrons, Clinical Leads Infection control, LEaD and staff providing blood transfusions</td>
</tr>
<tr>
<td>General Public</td>
<td></td>
</tr>
<tr>
<td>PCT Commissioners</td>
<td></td>
</tr>
<tr>
<td>Local Authorities</td>
<td></td>
</tr>
<tr>
<td>Voluntary Organisations</td>
<td></td>
</tr>
<tr>
<td>Other Stakeholders</td>
<td>Lead Haematology Nurse, SHU</td>
</tr>
</tbody>
</table>

### Sign Off and Publishing

Once you have completed this form, it needs to be ‘approved’ by your Divisional Director or their nominated officer. Following this sign off, send a copy to the Equality and Diversity Team who will publish it on the Trust website. Keep a copy for your own records.

<table>
<thead>
<tr>
<th>Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designation:</td>
</tr>
<tr>
<td>Signature:</td>
</tr>
<tr>
<td>Date:</td>
</tr>
</tbody>
</table>
Flow Chart for the Management of an Adverse Transfusion Reaction in Adults

Symptoms/Signs of Acute Transfusion Reaction
Fever, chills, tachycardia, hyper or hypotension, collapse, rigors, flushing, urticaria, bone, muscle, chest and/or abdominal pain, shortness of breath, nausea, generally feeling unwell, respiratory distress,

Stop the transfusion and call a doctor
Measure temperature, pulse, BP, respiratory rate, O₂ saturation. Check the identity of the recipient, the details on the unit and compatibility form.

1. Febrile non-haemolytic transfusion reaction
   If temp rises less than 1.5°C, observations are stable and the patient is otherwise well give Paracetamol. Restart infusion at slower rate and observe more frequently.

2. Mild Allergic reaction
   Give Chlorphenamine 10 mg slowly i.v. (or i.m.) restart the transfusion at a slower rate and observe more frequently.

3. ABO Incompatibility
   Take down unit and giving set. Return intact to blood bank. Commence i.v. saline infusion – use caution in infants. Monitor urine output/catheterise. Maintain urine output at more than 100 ml/hr. Give furosemide if urine output falls/absent. Treat any DIC with appropriate blood components. Inform Hospital Transfusion Department immediately.

4. Severe Allergic reaction
   Bronchospasm, angioedema, abdominal pain, hypotension. Stop transfusion. Return intact to blood bank along with all other used/unused units. Give Chlorphenamine – slow i.v. Commence O₂. Give salbutamol nebuliser if severe hypotension, give adrenaline i.m. Clotted sample to transfusion laboratory. Saline wash future components. All Drug doses as per the BNF / trust anaesthesia resuscitation guidance.

5. Haemolytic reaction/bacterial infection of unit
   Take down unit and giving set. Return intact to blood bank with all other used/unused units. Take blood cultures, repeat blood group / cross-match / FBC, coag screen, Biochemistry, urinalysis. Monitor urine output. Commence broad-spectrum antibiotics if suspected bacterial infection. Commence oxygen and fluid support.

6. Fluid overload
   STOP INFUSION. Give Oxygen and Furosemide i.v., 40 to 80 mg.

7. Acute dyspnoea / hypotension
   Monitor blood gases perform CXR, measure CVP / Pulmonary capillary Pressure.

8. TRALI
   Dyspnoea, chest x ray, “whiteout” Stop transfusion. Give 100% Oxygen. Treat as ARDS – Ventilate if hypoxia indicates.

Appendix 3

Blood Transfusion Policy
Author: Toni Scammell, Modern Matron
Version: 2
September 2014

- 27 -
Blood products collection form

BLOOD PRODUCTS COLLECTION

Revised MR120 FORM

Blood collection form for use by HCA’s and porters only.
Ward staff are responsible for completing this form.
This form is to be taken to the blood bank/Blood fridge when collecting Blood products
and left in the Box provided

<table>
<thead>
<tr>
<th>Surname</th>
<th>First Name</th>
<th>Date of Birth</th>
<th>Hospital A/E Number</th>
<th>NHS Number</th>
<th>Patients Ward</th>
<th>Blood Product</th>
<th>Number of Units</th>
</tr>
</thead>
</table>

Person Initiating Request (PRINT NAME)

Person Collecting Blood Products (PRINT NAME)

Date and Time of Collection:
Core blood competencies assessment framework

Assessment criteria for obtaining a venous blood sample

This framework is for assessing staff’s ability to obtain a venous blood sample. Staff should be assessed after they have attended a local training course on this core task.

Further information and training materials can be found at: www.npsa.nhs.uk

This framework was developed by the National Patient Safety Agency (NPSA) to assess the core blood transfusion competence, Obtain a venous blood sample.

This workforce competence is linked to the Knowledge and Skills Framework dimensions developed by Skills for Health. The dimensions are Communication, Health and Safety, and Health and Well-being.

How to use this competence assessment framework

The framework should be completed whilst observing a member of staff obtaining a venous blood sample. It is available from the local blood transfusion lead in every trust and is part of the NPSA’s Right patient, right blood initiative.

It is important that the assessor informs the patient that the member of staff’s skills are being assessed as part of a three-yearly process.

<table>
<thead>
<tr>
<th>Name of member of staff:</th>
<th>Name of assessor:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job title:</td>
<td>Job title:</td>
</tr>
<tr>
<td>Grade:</td>
<td>Contact details:</td>
</tr>
<tr>
<td>Contact details:</td>
<td></td>
</tr>
<tr>
<td>Date of assessment:</td>
<td></td>
</tr>
</tbody>
</table>
### Observational assessment

<table>
<thead>
<tr>
<th>Core competency</th>
<th>Please put a tick or a cross to show whether or not the member of staff completed the task</th>
<th>Notes for assessors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> Did the member of staff check for each of the following on the request form:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) full name?</td>
<td></td>
<td>Give a tick or cross for each point separately</td>
</tr>
<tr>
<td>b) date of birth?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) hospital number?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did the member of staff:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) sign and write their contact details to show who had taken the sample?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) print their name to show who had taken the blood sample?</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2</strong> Did the member of staff bleed only one patient at a time?</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3a</strong> Patient identification for conscious patient</td>
<td></td>
<td>Give a tick or cross for each point.</td>
</tr>
<tr>
<td>Did the member of staff ask the patient to state their:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) full name?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) date of birth?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did the member of staff check:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) details on the wristband or other attached identifier?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) The information on the wristband against that on the prescription or transfusion request form?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3b  Patient identification for unconscious patient or patient unable to verbally respond

Did the member of staff check details on the wristband or other attached identifier?

Did the member of staff also check at least their:
   a) full name?
   b) date of birth?
   c) hospital number?

Did the member of staff check the information on the wristband with the prescription or transfusion request form?

Can the member of staff describe the trust’s policy for identifying unconscious patients?

4  Personal checks

Did the member of staff decontaminate their hands?

Did the member of staff use personal protective equipment?

5  Taking the venous blood sample

Did the member of staff:
   a) prepare the skin properly – skin must be cleaned with 2% Chlorhexidine & 70% Isopropyl alcohol wait 20-30 seconds for drying to occur?
   b) use the tourniquet appropriately – single used or cleanable? Staff to use sharps safety device.
   c) minimise discomfort for the patient? Staff must decontaminate/clean their hands
   d) Wear PPE gloves and apron, take blood appropriately if a transfusion is being carried out alongside other sampling procedures?
   e) monitor the patient’s responses?
   f) staff to use sharp safety device to help minimise the risk of sharps injury.
   g) apply a dressing at the end of the procedure?

Staff to remove PPE and then decontaminate/clean their hands.
### 6 Labelling the venous blood sample

Did the member of staff label the venous blood sample as soon as it was taken?

Does the label include the following information:
- a) full name?
- b) date of birth?
- c) hospital number?
- d) gender?
- e) date?
- f) the member of staff’s signature and

### 7 Packaging and documentation

Did the member of staff take the blood sample to the correct collection point?

Did the member of staff record the following information in the patient’s notes:
- a) Why the sample had been taken?
- b) When the sample was taken?
- c) Who took the sample?

Is the staff member familiar with the handling of specimen policy?

---

**All of the above must be achieved to pass the assessment**

**Knowledge assessment**

Does the member of staff know and understand the importance of:

- using open-ended questions for identifying patients?
- not using pre-labelling bottles?
- correct procedure if patient is unconscious or unable to give verbal identification?
- the risks created if more than one patient is bled at a time?
- correct action to take if the information identifying a patient is missing?
Core blood competencies assessment framework

Assessment criteria for collecting blood/blood products for transfusion

This framework is for assessing staffs ability to collect blood/blood products for transfusion. Staff should be assessed after they have attended a local training course on this core task.

Further information and training materials can be found at: www.npsa.nhs.uk

This framework was developed by the National Patient Safety Agency (NPSA) to assess the core blood transfusion competency, BDS18 Collect blood/blood products for transfusion.

This workforce competence is linked to the Knowledge and Skills Framework dimensions developed by Skills for Health. The dimensions are Communication, Health and Safety, and Health and Well-being.

How to use this competence assessment framework

The framework should be completed whilst observing a member of staff who is collecting blood/blood products for transfusion. It is available from the local blood transfusion lead in every trust and is part of the NPSA’s Right patient, right blood initiative.

It is important that the assessor informs the patient that the member of staff’s skills are being assessed as part of a three-yearly process.

Collecting blood/blood products for transfusion assessment framework pro forma

<table>
<thead>
<tr>
<th>Name of member of staff:</th>
<th>Name of assessor:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job title:</td>
<td>Job title:</td>
</tr>
<tr>
<td>Grade:</td>
<td>Contact details:</td>
</tr>
<tr>
<td>Contact details:</td>
<td></td>
</tr>
<tr>
<td>Date of assessment:</td>
<td></td>
</tr>
</tbody>
</table>
Observational assessment

<table>
<thead>
<tr>
<th>Core competency</th>
<th>Please put a tick or a cross to show whether or not the member of staff completed the task</th>
<th>Notes for assessors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 Did the member of staff demonstrate effective use of health and safety measures by:</strong></td>
<td></td>
<td>Give a tick or cross for each point separately.</td>
</tr>
<tr>
<td>a) hands are decontaminated?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) using personal protective equipment?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) <strong>use of skin prep</strong> <strong>Clinell skin wipe</strong> <strong>(BLUE)</strong> &amp; <strong>safe disposal of sharps</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2 Patient identification check (NB not applicable for porters)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With a <strong>conscious patient</strong>, did the member of staff:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) collect the patient documentation for blood collection from the member of staff requesting blood?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) ask the patient to state their:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) full name?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) date of birth?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) check the details provided with the information on the blood transfusion collection slip (i.e. patient documentation)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) for inpatients, match the information provided by the patient with information on the wristband or other attached identifier?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3 **Patient identification check (NB not applicable for porters) for unconscious patient or patient unable to verbally respond:**

Did the member of staff check:
- a) details on the wristband or other attached identifier and at least their:
  - full name?
  - date of birth?
  - hospital number or other identification

4 **Blood transfusion collection slip**

Did the member of staff understand the data that should be written on the blood transfusion collection slip by describing that it should contain:
- a) the patient’s full name?
- b) date of birth?
- c) hospital or other identification number?
- d) signature of the person collecting the blood?
- e) contact details of the person who is collecting the blood?

5 **Matching the information on the blood product to the minimum dataset information on the blood collection slip (i.e. patient documentation)**

Did the member of staff correctly check:
- a) the patient’s full name?
- b) date of birth?
- c) hospital number?
- d) gender?
### 6 Documentation

Did the member of staff correctly document the removal of blood from the fridge by:

- a) recording the date and time blood is removed from the fridge?
- b) writing their signature and contact information?
- c) (where an electronic tracking system is in place) demonstrating that they know how to maintain a secure ID throughout and showing this by scanning in and out correctly?

### 7 Transportation and handover of blood products

Did the member of staff:

- a) Transport the blood product immediately to the clinical area?
- b) Not leave the blood unattended at any point?
- c) Hand the blood product over to an appropriate member of staff immediately?
- d) Ensure that receipt of the blood was Recorded?

All of the above must be achieved to pass the assessment

### Knowledge assessment

Did the candidate know and understand the importance of:

- using open-ended questions for patient identification (NB not applicable for porters)
- why information on the blood collection slip must be complete?
- the potential risks in the blood product collection process?
- why information should not be cross-checked against the blood compatibility form attached to the blood product?
- Not carrying clear blood products in a cool box?
Appendix 5 c

Core blood competencies assessment framework

Assessment criteria for organising the receipt of blood/blood products for transfusion

This framework is for assessing staff's ability to organise the receipt of blood/blood products for transfusion. Staff should be assessed after they have attended a local training course on this core task.

Further information and training materials can be found at: www.npsa.nhs.uk

This framework was developed by the National Patient Safety Agency (NPSA) to assess the core blood transfusion competence, BDS17 Organise the receipt of blood/blood products for transfusion.

This workforce competence is linked to the Knowledge and Skills Framework dimensions developed by Skills for Health. The dimensions are Communication, Health and Safety, and Health and Well-being.

How to use this competence assessment framework

The framework should be completed whilst observing a member of staff organising the receipt of blood/blood products for transfusion. It is available from the local blood transfusion lead in every trust and is part of the NPSA's Right patient, right blood initiative.

Please note that when the competence assessment framework is used to evaluate the competence of porters, they do not have responsibility for verbal patient identification, and this aspect of the assessment is not applicable to them.

It is important that the assessor informs the patient that the member of staff's skills are being assessed as part of a three-yearly process.

<table>
<thead>
<tr>
<th>Name of member of staff:</th>
<th>Name of assessor:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job title:</td>
<td>Job title:</td>
</tr>
<tr>
<td>Grade:</td>
<td>Contact details:</td>
</tr>
<tr>
<td>Contact details:</td>
<td></td>
</tr>
<tr>
<td>Date of assessment:</td>
<td></td>
</tr>
</tbody>
</table>
### Observational assessment

<table>
<thead>
<tr>
<th>Core competency</th>
<th>Please put a tick or cross to show whether or not the member of staff completed the task</th>
<th>Notes for assessors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> Confirm that the blood/blood product for transfusion is ready for collection</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2a</strong> Patient identification check (NB not applicable for porters)</td>
<td></td>
<td>Give a tick or cross for each point separately</td>
</tr>
<tr>
<td>Did the member of staff ask the patient to state their:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) full name?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) date of birth?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did the member of staff check:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) the details provided with the information on the blood transfusion collection slip or prescription (i.e. patient documentation)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) match the information provided by the patient to information on the wristband or other attached identifier?</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2b</strong> Patient identification check (NB not applicable for porters)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With an unconscious patient or those unable to verbally comply, did the member of staff check:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) the details on the wristband or other attached identifier were correct?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) the minimum dataset information of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>full name?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>date of birth?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>hospital number or other identification number?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 3 Blood transfusion collection slip/prescription
Did the member of staff understand what information should be written on the blood transfusion data collection slip/prescription by describing that it should contain:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>the patient's full name?</td>
</tr>
<tr>
<td>b)</td>
<td>date of birth?</td>
</tr>
<tr>
<td>c)</td>
<td>hospital or other identification number?</td>
</tr>
<tr>
<td>d)</td>
<td>signature of the person collecting the blood?</td>
</tr>
<tr>
<td>e)</td>
<td>contact details of the person who is collecting the blood?</td>
</tr>
</tbody>
</table>

### 4 Did the member of staff identify an appropriate person to collect the blood/blood products for transfusion and ensure:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>there was clear communication about which blood/blood products to collect?</td>
</tr>
<tr>
<td>b)</td>
<td>there was verbal confirmation on where the blood/blood product should be collected from?</td>
</tr>
<tr>
<td>c)</td>
<td>there was verbal instruction on the procedure to be carried out at the collection point?</td>
</tr>
</tbody>
</table>

### 5 Receipt of blood/blood products
Did the member of staff respond promptly to the delivery of blood/blood products by:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>checking that the details on the delivered blood/blood products match the patient documentation (i.e. blood transfusion collection slip or prescription)?</td>
</tr>
<tr>
<td>b)</td>
<td>ensuring that receipt of the blood was documented with their signature, time and date of receipt?</td>
</tr>
</tbody>
</table>

All of the above must be achieved to pass the assessment

**Knowledge assessment**

Does the member of staff know and understand the importance of:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>using open-ended questions for patient identification (not applicable for porters)?</td>
<td></td>
</tr>
<tr>
<td>why information on the blood collection slip must be complete?</td>
<td></td>
</tr>
<tr>
<td>the potential risks in the blood component collection process?</td>
<td></td>
</tr>
<tr>
<td>why information should not be cross-checked against the blood compatibility form attached to the blood component?</td>
<td></td>
</tr>
</tbody>
</table>
Core blood competencies assessment framework

Assessment criteria for preparing to administer blood/blood products to patients and administering a transfusion of blood/blood products

This framework is for assessing staff’s ability to prepare and administer blood/blood products to a patient. Staff should be assessed after they have attended a local training course on this core task.

Further information and training materials can be found at: [www.npsa.nhs.uk](http://www.npsa.nhs.uk)

This framework was developed by the National Patient Safety Agency (NPSA) to assess the core blood transfusion competencies, BDS19 Prepare to administer blood/blood products to patients and BDS20 Administer a transfusion of blood/blood products.

This workforce competence is linked to the Knowledge and Skills Framework dimensions developed by Skills for Health. The dimensions are Communication, Health and Safety, and Health and Well-being.

How to use this competence assessment framework

The framework should be completed whilst observing a member of staff who is involved in preparing and administering blood and/or blood products. It is available from the local blood transfusion lead in every trust and is part of the NPSA’s *Right patient, right blood* initiative.

It is important that the assessor informs the patient that the member of staff’s skills are being assessed as part of a three-yearly process.

<table>
<thead>
<tr>
<th>Name of member of staff:</th>
<th>Name of assessor:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job title:</td>
<td>Job title:</td>
</tr>
<tr>
<td>Grade:</td>
<td>Contact details:</td>
</tr>
<tr>
<td>Contact details:</td>
<td></td>
</tr>
<tr>
<td>Date of assessment:</td>
<td></td>
</tr>
</tbody>
</table>

Blood Transfusion Policy
Author: Toni Scammell, Modern Matron
Version: 2
September 2014
Observational assessment

<table>
<thead>
<tr>
<th>Core competency</th>
<th>Please put a tick or cross to show whether or not the member of staff completed the task</th>
<th>Notes for assessors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Did the member of staff carry out the four types of pre-transfusion checks correctly:</td>
<td></td>
<td>Give a tick or cross for each point separately.</td>
</tr>
<tr>
<td>a) personal? b) equipment? c) patient? d) blood component?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) personal: decontaminate hands, wear personal protective equipment and adhere to infection control guidelines at all times b) equipment: check that all equipment is clean and available (i.e. prescription chart, observation chart, giving set, disposable bags and a trolley) c) patient: carry out a baseline assessment of the patient; check venous access has been obtained prior to blood being collected from the fridge; read through the prescription; and check that the patient understands they are going to receive a transfusion, d) blood component: check the quality of the blood product, expiry dates, and any special transfusion requirements</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2 Patient identification for the conscious patient

Did the member of staff ask the patient to state their:
- a) full name?
- b) date of birth?

Did the member of staff check:
- c) the details on the wristband or other attached identifier were correct?

3 Patient identification for unconscious patients or patients unable to verbally respond:

Did the member of staff check:
- a) the details on the wristband or other attached identifier and at least their:
  - full name?
  - date of birth?
  - hospital number?
- b) the information on the blood or blood product against the patient and wristband details?

4 Did the member of staff record the patient’s vital signs?

- a) blood pressure?
- b) temperature?
- c) pulse rate?
### 5 Administering the blood transfusion

Did the member of staff ensure that the blood transfusion was:

a) completed within four hours of it leaving the fridge, OR
b) within 30 minutes for platelets?

Did the member of staff

c) record the patient’s vital signs prior to starting the transfusion?
d) monitor the patient’s vital signs 15 minutes after starting the transfusion?
e) dispose of equipment safely?
f) monitor the patient’s vital signs on completion of the blood transfusion?

---

### 6) Documentation

Did the member of staff record the following information in the patient’s notes:

a) date?
b) start time?
c) stop time of the transfusion?

Did the member of staff:

d) complete the traceability documentation in accordance with national law?

---

All of the above must be achieved to pass the assessment
Knowledge assessment

Does the member of staff know and understand the importance of:

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>using open-ended questions for patient identification?</td>
<td></td>
</tr>
<tr>
<td>the timescales for administering blood and/or blood product safely after it had been collected from the fridge?</td>
<td></td>
</tr>
<tr>
<td>correct procedure if unconscious patient or unable to give verbal identification?</td>
<td></td>
</tr>
<tr>
<td>the risks associated with checking the blood compatibility form against the blood product instead of the information on the wristband?</td>
<td></td>
</tr>
<tr>
<td>monitoring the patients vital signs throughout the transfusion process?</td>
<td></td>
</tr>
</tbody>
</table>
You are about to have a transfusion of blood or blood products which has been prescribed by a medical doctor.

The transfusion will be given through a small plastic tube or ‘cannula’ which is placed directly into a vein in your hand or arm.

The length of time it takes for each unit/bag to be given can vary. A unit/bag of blood is usually 2-3 hours, but can take up to a maximum, but does not exceed 4 hours in certain cases. A unit/bag of platelets can be given over 10-20 minutes.

Most people do not experience any problems when they have a blood transfusion. However, reactions to blood components can occur, and we will monitor your temperature, blood pressure, pulse, breathing, oxygen levels and urine output closely during and immediately after your transfusion. Most reactions are mild, such as a slight temperature that can be easily treated with Paracetamol, and/or by slowing down the transfusion, which will take a longer to complete.

However, more severe reactions can occur and it is very important to tell a nurse if you experience any of the symptoms listed below.

- Feeling unwell
- Chest pain
- Feeling hot or flushed/rash
- Back pain
- Feeling short of breath
- Abdominal comfort
- Restlessness
- Feeling light-headed or dizzy
- Feeling anxious
- Headache
- Blood in the urine
- Palpitations
- Discomfort at the cannula site

If you have any questions or concerns about your transfusion, please speak to the nurse who is looking after you. We would also like to hear any comments you may have about your visit to hospital.
Will I need a blood transfusion?

IMPORTANT PATIENT INFORMATION
Will I need a blood transfusion?

IMPORTANT INFORMATION FOR ALL PATIENTS WHO MAY NEED A BLOOD TRANSFUSION
Like all medical treatments, a blood transfusion should only be given if it is essential. Your doctor will balance the risk of you having a blood transfusion against the risk of not having one. Ask your doctor, nurse or midwife to explain why you might need a blood transfusion.

Why might I need a blood transfusion?
Most people can cope with losing a moderate amount of blood without needing a blood transfusion and this loss can easily be replaced with other fluids. Your body will make new red blood cells (essential for carrying oxygen throughout the body) over the following few weeks. However, if larger amounts of blood are lost, a blood transfusion may be the only way of replacing blood rapidly.

A blood transfusion may be needed to treat severe bleeding, for example during or after an operation, childbirth or in a major accident. A blood transfusion can also be used to treat severe anaemia (a lack of red blood cells).

Is a blood transfusion my only option?
Blood transfusion is only needed for a small number of patients having an operation. Sometimes it is possible to recycle your own blood during or after an operation. Ask if this is appropriate for you.

Certain medical conditions causing anaemia may be managed by treating the cause rather than by giving a blood transfusion.

If you are told that you might need a blood transfusion, you should ask why it is necessary and whether there are any...
alternative treatments. You do have the right to refuse a blood transfusion, but you need to fully understand the consequences of this before doing so.

Some medical treatments or operations cannot be safely carried out without a blood transfusion being given.

**What can I do to reduce the need for a blood transfusion before an operation?**
If you do not eat enough foods containing iron, you may have low iron levels. A varied and balanced diet should normally provide an adequate iron intake. Your blood count should be checked 6-8 weeks before your operation to see if you are anaemic. A shortage of iron can cause anaemia and correcting this in good time, before your operation, may reduce the need for a blood transfusion.

Some medicines, such as warfarin, aspirin and some anti-inflammatory drugs may increase the risk of bleeding during your operation. Always check with your doctor to find out if you should stop taking these before your operation, and when you should restart them.

**Are blood transfusions safe?**
The biggest risk from receiving a blood transfusion is being given the wrong blood.

You must be correctly identified to make sure that you get the right blood transfusion. Wearing an identification band with your correct details is essential. You will be asked to state your full name and date of birth, and the details on your identification band will be checked before each bag of blood is given.
If you have previously been given a card which states that you need to have blood of a specific type, please show it as soon as possible to your doctor, nurse or midwife and ask them to tell the hospital transfusion laboratory.

Compared to other everyday risks the likelihood of getting an infection from a blood transfusion is very low. All blood donors are unpaid volunteers. They are very carefully selected and tested to make sure that the blood they donate is as safe as possible.

The risk of getting hepatitis from a blood transfusion is currently about 1 in 500,000 for hepatitis B and 1 in 30 million for hepatitis C. The chance of getting HIV or HTLV infection is about 1 in 5 million. Although the risk of getting variant Creutzfeldt-Jakob Disease (vCJD) from a blood transfusion is probably low with a single blood transfusion, the risk of any infection will increase with additional blood transfusions. Each year, approximately 2 million units of blood are transfused in England and there have been just a handful of cases where patients are known to have become infected with vCJD from a blood transfusion.

**How will my blood transfusion be given?**
A blood transfusion is usually given through a tiny tube directly into a vein in the arm. Each bag of blood can take up to four hours, but can be safely given more quickly if needed. You may be given more than one bag of blood during your transfusion.
How will I feel during my blood transfusion?
Most people do not feel anything whilst receiving a blood transfusion.

You will be observed at regular intervals; if you begin to feel unwell during or shortly after your blood transfusion, you should inform a member of staff immediately.

Some people may develop a temperature, chills or a rash. These reactions are usually mild and are easily treated with paracetamol, or by slowing down the blood transfusion. Fortunately, severe reactions to blood are extremely rare. If they do occur, staff are trained to recognise and treat these.

What if I have worries about receiving a blood transfusion?
If you have any concerns you should discuss these with your doctor, nurse or midwife. Most hospitals have specialist staff working in blood transfusion and, if appropriate, they may be able to come and talk to you.
Other Information
If you are interested in finding out more about blood transfusion and have access to the Internet, you may find the following websites useful:

National Blood Service:
www.blood.co.uk

National Patient Safety Agency:
www.npsa.nhs.uk/pleaseask

The National Blood Service (NBS) is part of NHS Blood and Transplant, a Special Health Authority within the NHS, and provides the blood that patients receive.

In order to plan for future blood demands, information about which patients receive blood needs to be gathered. We may ask a Trust or GP to provide limited medical information on a sample of patients who have received blood transfusions.

Any information that is passed on to the NBS is held securely, with the rights of these individuals protected under the Data Protection Act.

Additional copies of this leaflet can be obtained from the NBS Hospital Liaison Office.

Call 01865 440042.

Thank you to Valerie, Mark and Tony for allowing us to photograph them whilst receiving a blood transfusion.
Appendix 7

Patient Pathways

Blood Component Transfusion Care Pathway

(Affix patient label)

Consultant

All members of staff who are using this Pathway must use black ink and complete this section. You can then use initials when recording care

<table>
<thead>
<tr>
<th>Print Name</th>
<th>Designation</th>
<th>Signature</th>
<th>Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

All clinical staff involved with transfusion of blood components should be familiar with the Trust policy.

How to use an Integrated Care Pathway (ICP)

- Firstly, if you are going to write in the ICP you need to state your Name, Job Title and give a sample signature and initials on the front of the ICP cover
- If you are recording an event which is predicted by the ICP, then you just sign against that predicted intervention in the column provided.
- If your intervention is not in line with the pathway, you must record this as a variance in the variance column with the action you will take to try to bring the patient back onto the pathway.
- Care given by health care assistants and student nurses must be countersigned by a registered nurse.

Abbreviations

<table>
<thead>
<tr>
<th></th>
<th>Blood pressure</th>
<th>Neuts</th>
<th>Neutrophils</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.P</td>
<td>Blood pressure</td>
<td>Neuts</td>
<td>Neutrophils</td>
</tr>
<tr>
<td>E.C.G.</td>
<td>Electrocardiogram</td>
<td>N.O.K</td>
<td>Next of kin</td>
</tr>
<tr>
<td>FBC</td>
<td>Full blood count</td>
<td>PO</td>
<td>Oral</td>
</tr>
<tr>
<td>Gp &amp; save</td>
<td>Group &amp; save</td>
<td>T.P.R</td>
<td>Temperature, Pulse, Respiration</td>
</tr>
<tr>
<td>Hb</td>
<td>Haemoglobin</td>
<td>WBC</td>
<td>White Blood cells</td>
</tr>
<tr>
<td>I.V.</td>
<td>Intra venous</td>
<td>MRSA</td>
<td>Methicillin Resistant Staphylococcus Aureus</td>
</tr>
</tbody>
</table>
### Appendix 7

**Patient Pathways**

<table>
<thead>
<tr>
<th>Component</th>
<th>Observations</th>
<th>Start Time</th>
<th>15min. Time</th>
<th>End Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td><strong>PLEASE MAKE SURE THAT THE START TIME AND END TIME OF THE UNIT HAS BEEN FILLED IN AND SIGNED</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulse</td>
<td><strong>UNIT 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiration/Sats</td>
<td><strong>PLEASE ADHERE LABEL FROM UNIT HERE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Observations</th>
<th>Start Time</th>
<th>15min. Time</th>
<th>End Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td><strong>PLEASE MAKE SURE THAT THE START TIME AND END TIME OF THE UNIT HAS BEEN FILLED IN AND SIGNED</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulse</td>
<td><strong>UNIT 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiration/Sats</td>
<td><strong>PLEASE ADHERE LABEL FROM UNIT HERE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Pulse</td>
<td><strong>UNIT 3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiration/Sats</td>
<td><strong>PLEASE ADHERE LABEL FROM UNIT HERE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blood Pressure</td>
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<td></td>
<td></td>
<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulse</td>
<td><strong>UNIT 4</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiration/Sats</td>
<td><strong>PLEASE ADHERE LABEL FROM UNIT HERE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blood pressure</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Component</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Appendix 7

### Patient Pathways

<table>
<thead>
<tr>
<th>Pre-Transfusion checks</th>
<th>Staff Initials</th>
<th>Reason for variance and action taken.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood component available for transfusion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name band applied</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient demographics checked and correct</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient given written information about blood transfusion and adverse reactions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient told to report any associated symptoms to member of staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient aware of length of time blood transfusion will take</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blood prescribed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional medication prescribed e.g.: frusemide</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hb= Platelets = WBC= Neutrophils =</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 1st unit of blood component

<table>
<thead>
<tr>
<th>Temperature, pulse and BP stable at beginning and 15 minutes into transfusion of each blood component</th>
<th>Staff Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature, pulse and BP stable at end of unit of blood component</td>
<td></td>
</tr>
<tr>
<td>No signs of transfusion reaction</td>
<td></td>
</tr>
</tbody>
</table>

### 2nd unit of blood component

<table>
<thead>
<tr>
<th>Temperature, pulse and BP stable beginning and 15 minutes into transfusion of each blood component</th>
<th>Staff Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature, pulse and BP stable at end of unit of blood component</td>
<td></td>
</tr>
<tr>
<td>No signs of transfusion reaction</td>
<td></td>
</tr>
</tbody>
</table>

### 3rd unit of blood transfusion

<table>
<thead>
<tr>
<th>Temperature, pulse and BP stable beginning and 15 minutes into transfusion of each blood component</th>
<th>Staff Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature, pulse and BP stable at end of unit of blood component</td>
<td></td>
</tr>
<tr>
<td>No signs of transfusion reaction</td>
<td></td>
</tr>
</tbody>
</table>

**IF TRANSFUSION REACTION OCCURS REFER TO BLOOD POLICY FOR FURTHER ACTION.**

Name of doctor informed:

<table>
<thead>
<tr>
<th>Was the laboratory informed</th>
<th>Yes ☐ No ☐</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has passed urine</td>
<td></td>
</tr>
<tr>
<td>Observations completed and within normal limits</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 7

Patient Pathways

Blood Component Transfusion protocol

Observations:

Repeat for every unit
- Before transfusion – temp, pulse and BP
- Temp, pulse and BP at 15 minutes
- During transfusion – visual observation unless unwell when formal observations should continue
- At the end of transfusion episode – temp, pulse and BP

Signs to watch for:

<table>
<thead>
<tr>
<th>Signs to watch for</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chest pain</td>
<td>Most transfusion reactions occur in the first 15 mins – observe closely.</td>
</tr>
<tr>
<td>Flushing</td>
<td>Always call for medical assistance if you are concerned about a patient.</td>
</tr>
<tr>
<td>Fever</td>
<td>If patient has a temp 1ºc above baseline, stop transfusion and call medical staff</td>
</tr>
<tr>
<td>“Feeling of doom”</td>
<td>Blood must be transfused within 4 hours of bag being pierced</td>
</tr>
<tr>
<td>Rigors</td>
<td></td>
</tr>
<tr>
<td>Shortness of breath</td>
<td></td>
</tr>
</tbody>
</table>

Notes:

1. All nurses and doctors should be aware of types and signs of transfusion reactions (as per blood policy)
2. If a reaction is suspected stop transfusion, recheck the unit and call for medical assistance.
3. Medical staff to consider need to administer:
   Paracetamol 1G, accompanied by Piriton 10mgs IV. If no improvement noted, Hydrocortisone 100mgs IV should be considered. If there is still no improvement the on-call Consultant Haematologist must be contacted.
4. Inform blood bank as soon as possible.
5. Change the giving set and maintain venous access (as per blood policy)
6. Retain blood unit and send to blood bank (as per blood policy)
7. Complete an Adverse Incident form

Collection

<table>
<thead>
<tr>
<th>Collection</th>
<th>Checking</th>
<th>Observation</th>
<th>Reaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Only those who have received training in the procedure may collect blood components from the blood bank refrigerator</td>
<td>1. Give patient information sheet and answer questions that arise. Ensure patient understands when to alert staff</td>
<td>1. Baseline set of observations should be done immediately before commencing transfusion and documented.</td>
<td>1. All nurses and doctors should be aware of types and signs of transfusion reactions (as per blood policy)</td>
</tr>
<tr>
<td>2. Collect blood immediately before it is to be commenced. The maximum amount of time a unit of red cells can be out of the blood bank refrigerator before it is transfused is 30 minutes</td>
<td>2. One or Two people to check unit at the bedside with the patient (see Trust policy).</td>
<td>2. A second set must be done at 15 minutes and documented.</td>
<td>2. If a reaction is suspected stop transfusion, recheck the unit and call for medical assistance.</td>
</tr>
<tr>
<td>3. Staff collecting blood components should take some form of patient ID to the blood bank refrigerator – prescription chart/addressograph label</td>
<td>3. Ask patient to state their name and DOB and check the identification band. Patients who are transfused must be wearing an identification band</td>
<td>3. Patients should be regularly observed as much as possible during transfusion to avoid missing transfusion reactions, with fatal consequences.</td>
<td>3. Medical staff to consider need to administer:</td>
</tr>
<tr>
<td>4. Check the unit details carefully against the patient ID and Donor Unit Transfer Report. Sign, date and time the Donor Unit Transfer Report.</td>
<td>4. Check actual transfusion centre label and Compatibility label on unit (front and back) against Blood Transfusion Compatibility Report (Blood Group, Expiry date, Donor unit number)</td>
<td>4. Patients must be advised to inform nurses/doctors if they feel unwell or have any of the above signs immediately.</td>
<td>Paracetamol 1G, accompanied by Piriton 10mgs IV.</td>
</tr>
<tr>
<td>5. Remove one unit at a time.</td>
<td></td>
<td>5. If the patient becomes unwell, stop transfusion and repeat observations. If the observations are abnormal (i.e. temp &gt; than 1ºc above baseline and/or sharp increase or drop in pulse or BP) seek medical assistance. If the observations are within normal limits repeat after 15 minutes. If they are still normal but the patient is still feeling unwell, seek medical advice / assistance.</td>
<td></td>
</tr>
</tbody>
</table>

See also: 1. BCSH Guidelines for the administration of blood and blood components and the management of transfused patients. Transfusion medicine 9.3 p227-39
3. SHOT
**Policy Implementation Plan**

**Massive Haemorrhage Flowchart**

**Lymington Hospital Only**

**Definition**
Sudden, unexpected, continuing, blood loss of at least two litres, in, or a 50% blood volume loss within 3 hours, or a rate loss of 150 ml / minute.

**STEP 1**
Inform surgeon / Consultant on call MASSIVE HAEMMORHAGE occurring
Surgeon / Consultant attempt to achieve haemostasis and expedite surgery. Bleep site/bed manager: Bleep 1, who will contact SUHT / Hampshire Ambulance Service to plan transfer to appropriate team.

**STEP 2**
Establish two large bore IV access
If available on site use cross matched blood, if not 6 units of O Rh D negative blood is available in blood fridge in MAU by assigned porter
Give 1g Tranexamic acid IV
All IV fluids must be warmed and commence forced air warming

**STEP 3**
Phone SUHT blood transfusion service: 023 80 794620
Establish if they hold a current valid G&S sample; send any additional samples requested (urgent courier)
Need to decide if patient can be stabilised and ready for transfer using just blood products available in LNFH. If not request MAJOR HAEMORRHAGE PACK 1 to be rushed to LNFH THEATRE OR WARD.

**STEP 4**
When major haemorrhage pack 1 arrives decide if this will be enough to stabilise for transfer. If not request MAJOR HAEMORRHAGE PACK 2 to be rushed to LNFH THEATRE OR WARD. Send a fresh set of bloods at this point also.

**Aim to Maintain:**
- Hb > 80 g/l
- INR/APTR < 1.5 x mean control
- Fibrinogen > 1 g/l
- Platelets > 75 x 10⁹/L

**Other points to consider:**
- Maintain good communication with SUHT
- 1g Tranexamic acid with every 10⁶ unit of PRBC
- Maintain Ionised Calcium > 0.9 mmol/l (Give 10 mmol CaCl with every 10⁶ unit of PRBC)
- Maintain serum K⁺ < 6.0 mmol/l (check ABG, use glucose/insulin)

**PATIENT SHOULD BE TRANSFERRED TO SUHT AS SOON AS SAFE TO DO SO**