Adult Blood Transfusion Policy

Profile	
Version:	15.0
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Executive/Divisional sponsor:	*Professor Andrew Rhodes- Medical Director*
Applies to:	*All staff involved in the transfusion process*
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Approval	
Approval person/Committee:	Patient Safety Quality Board
Date:	21.02.2018

Contents

Policy Gateway

Please complete the checklist and tables below to provide assurance around the policy review process.

☒ I have involved everyone who should be consulted about this policy/guidance
☒ I have identified the target audience for this policy/guidance
☒ I have completed the correct template fully and properly
☒ I have identified the correct approval route for this policy/guidance
☒ I have saved a word version of this policy/guidance for future reviews and reference

Please set out what makes you an appropriate person to conduct this review:
Lead transfusion practitioner with responsibility for updating policy on behalf of the Hospital Transfusion Committee

Please set out the legislation, guidance and best practice you consulted for this review:
BSQR (2005) NICE guidance NG24 – (November 2015) British Society for Haematology guidance Better blood transfusion (2007) Patient blood management (2014) Serious Hazards of Transfusion report 2016/2017 DoH CAS safety notice CEM/CMO/2017/005 (November 2017)

Please identify the key people you involved in reviewing this policy why, and when:
Hospital Transfusion team – 2/02/18 Hospital Transfusion Committee – 05.02.2018 Practice educators – deliver transfusion training and competency assessment ALL 05.02.2018 SWLP Transfusion laboratory manager – 20/02/2018 Dr Khalid Syeed – HTC chair 05.02.2018 Dr Renate Wendler – consultant anaesthetist (obstetric and cardiothoracic anaesthesia) 05.02.08 Dr Anthony Hudson – ED consultant (ED/Trauma) 05.02.2018 Dr Hanif Meeran – consultant anaesthetist (Cardiac) 05.02.2018 Dr Jonathan Ball – ITU consultant 05.02.2018 Dr Justin Richards – Neonatal consultant (removal of appendices relating to neonatal transfusion) 05.02.2018 Professor Andrew Rhodes – Medical Director 05.02.2018

Summarise the key changes you have made and why:
Removed appendices relating to neonatal transfusion due to development of a separate fetal, neonatal and paediatric transfusion policy (These are available to review on blood transfusion intranet page until new policy published) Removed appendices relating to transfusion reaction investigations as these are now available on the dedicated blood transfusion intranet page General reorganisation of document to clarify points and make policy more concise Updated with key recommendations from 2015 NICE (NG24) guidelines Updated and clarified training requirements for all staff involved in transfusion process

Executive Summary

The Hospital Transfusion Committee is concerned with establishing and maintaining excellence in the provision of a high standard of transfusion practice.

Blood transfusions can be life-saving in some situations, such as massive blood loss due to trauma, or can be used to replace blood lost during surgery. Blood transfusions may also be used to treat a severe anaemia or thrombocytopenia caused by a blood disease.

This policy contains practical guidelines for all staff involved with transfusion on the proper and safe use of blood transfusion in the treatment of patients at St George's University Hospitals NHS Foundation Trust. It provides practical information on how and when to order blood products, how to safely administer blood and how to care for a patient receiving a transfusion.

This policy should be used as a reference guide to supplement regular blood transfusion safety training. All members of staff directly involved in the transfusion process must have regular blood transfusion training updates and assessment of competency, as relevant to their job role.

This policy supports the organisation's compliance with current legislation and external guidance.

1. Introduction

Appropriate blood transfusion is an essential support to numerous treatments and is lifesaving. This policy is based on current British Society for Haematology guidelines; changes to legislation brought in 2005 by the European Directive 2002/98 EC as enacted by HM Government in the Blood Safety and Quality Regulations (50) 2005 and best clinical practice. Problems with the safety of blood transfusion are highlighted through the Serious Hazards of Transfusion (SHOT) scheme. The 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.

St George's University Hospitals NHS Foundation Trust understands that blood transfusion is a potentially hazardous procedure and that blood should only be given when the clinical benefits to the patient outweigh the potential risks. The Trust will ensure that stringent procedures are developed and followed to ensure that the correct blood is given and that any adverse reactions are dealt with promptly and efficiently.

This policy has been revised to clarify terminology and incorporate core standards in transfusion practice in adults. It applies to all Trust staff involved in any part of the transfusion process.

2. Status and Purpose

This document is part of the Trust's policies and is applicable to all staff involved in the transfusion process.

This document forms supporting guidance and is applicable to all staff involved in the transfusion process to ensure:

- Safe and appropriate use of blood components are given to all patients who may require a blood transfusion
- To provide guidance for staff actively involved in the transfusion pathway on the management of the transfusion process.

3. Definitions

Transfusion: Any component derived from a whole blood donation (or apheresis donation) used to correct or treat a clinical abnormality

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

Blood Products: Any drug which is manufactured using human blood components

Cold chain: The legal requirements to monitor transport and storage conditions of blood, from donor to receipt

Medicines and Healthcare Products Regulatory Agency (MHRA): An executive agency of the Department of Health which aims to enhance and safeguard the health of the public by ensuring that medicines and medical devices work and are acceptably safe

Serious Hazards of Transfusion reporting system (SHOT): The United Kingdom's independent, professionally-led haemovigilance scheme; responsible for recording and monitoring all blood component/product adverse reactions and events
Massive Haemorrhage: Loss of one blood volume within a 24-h period, 50% blood volume loss within 3 h, loss of 150 ml/min (BSH 2015)

Blood fridge: Refers to a refrigerator which complies with British Standard BS 4376 (part 1 1991) for the storage of red cells only

Patient core identifiers: All patients must be identified by last name, first name, date of birth and unique patient identification number

Positive patient identification: Wherever possible this is achieved by asking the patient to state their full name and date of birth. This must match exactly the information on the patient's identification band and the key item being checked, i.e. request form, prescription and the blood component/product.

Special Requirements: Any special requirement (e.g. irradiated or CMV negative or HEV negative) which is a patient- specific clinical requirement (defined by the patient's underlying clinical condition). Or a special requirement for components issued for a particular age group (e.g. Methylene Blue treated FFP for any patient born after 1st January 1996).

Traceability: BSQR (2005) requires that all components are traceable from donor to recipient; records of the final fate must be retained for a minimum of 30 years.

LIMS: Laboratory information management system

Abbreviations:

SWLP – South West London Pathology
HTT – Hospital transfusion team
HTC – Hospital transfusion committee
TP – Transfusion practitioner
PSQB – Patient safety and Quality board
HLC – Hospital liaison committee for Jehovah's Witnesses
PCC – Prothrombin complex concentrate
MDT – Multi disciplinary team
EDM – Electronic document management
NMC – Nursing Midwifery Council
NBTC – National Blood Transfusion Committee
DoH – Department of Health
BSH – British Society for Haematology

4. Scope

This policy applies to all Trust staff (Including South West London Pathology and Trinity Hospice staff) involved in the requesting, sampling, prescribing, storing, collecting, transporting and administration of human blood and blood components, except CSW staff.

The Blood Safety and Quality (Amendment) Regulations 2006 (SI 2006/2013) introduced a new category of blood sites called "Facilities". In this context Queen Mary's Hospital is classed as a facility as it receives blood from Kingston Hospital transfusion laboratory; it has no transfusion laboratory or blood storage facilities on site.

All staff at QMH should refer to the blood transfusion policy of Kingston Hospital for all aspects of transfusion until the provider of blood and blood products to QMH changes.

Following the merger of Community Services Wandsworth (CSW) it has now become the responsibility of St George's University Hospitals NHS Foundation Trust to provide transfusion training and education to staff at Queen Mary's Hospital.

5. Roles and Responsibilities

5.1 Chief Executive
The Chief Executive has overall responsibility for ensuring that the Trust complies with relevant legal and statutory requirements surrounding Blood Transfusion Practice; this responsibility is delegated to the Medical Director and the Hospital Transfusion Committee.

5.2 Trust Board
The Trust board is responsible for ensuring full support for the implementation of the Blood Safety and Quality Regulations 2005 and the National Patient Blood Management recommendations (2014).

5.3 Medical Staff
Medical staff are responsible for prescribing blood components and blood products appropriate to the needs of the patient and obtaining consent.

5.4 Assistant Directors of Nursing/Matrons/Consultants/Practice educators
Are responsible for:

- Ensuring staff attend educational sessions/complete e-learning as appropriate to their role
- Ensuring competency is observed and documented
- Ensuring compliance with MHRA guidance
- Ensuring any transfusion related incidents are reported and investigated, in line with incident and reporting policy and ensuring resultant organisational learning through the divisional structure and more widely across the Trust.

5.5 All staff
It is the responsibility of all registered nurses/midwifes and staff involved with the transfusion process to:

- Attend regular transfusion training updates and 3 yearly competency assessments as relevant to their job role
- Comply with the requirements of this policy regarding patient identification, which is essential for safe transfusion practice.
- Maintain accurate records and complete documentation required for audit trail of the transfusion.
- Monitor the patients and comply with the policy, reporting any suspected transfusion reactions to a member of the medical staff.

5.6 Agency Staff (to include; Doctors, Nurses and Midwives, ancillary staff such as phlebotomists)

- Agency nurses and midwives are only permitted to be the second checker for blood and blood products but are not permitted to take samples for cross match or for group and save.
- Exceptions to this rule apply for agency nurses and midwives working in maternity and intensive care units only.
- In these cases, the following rules must be applied:
    - They have been assessed as competent by their employing agency and can provide evidence (this should be verified by the Trust line manager)
    - They undertake regular shifts in the Trust (more than one per week on a regular basis) in which case they should have their competency assessed locally by a designated individual such as a Practice Educator.

5.7 Portering staff

- To provide an effective blood delivery service in a major incident or code red emergency.
- Emergency collection of blood, blood components and blood products after a training programme organised by the blood transfusion team.
- To provide collection of blood components for wards/theatres as per local

agreement

5.8 Hospital Transfusion Committee
The HTC is responsible for ensuring the safe, secure and economic use of blood transfusions and blood products and compliance with legislation and best practice.

5.9 Hospital transfusion team
The HTT is responsible for reviewing and monitoring the Trust's compliance with BSQR, Patient Blood Management and NICE (NG24), associated policies and guidelines, reporting to MHRA and SABRE as appropriate.

6. Transfusion process

Note: whilst the same principles apply to all patients, regardless of age, there are some very specific issues related to neonates. Please refer to Neonatal transfusion documents located on the blood transfusion intranet page:

http://stginet/Units%20and%20Departments/Emergency%20Department/Homepage.aspx

6.1 Massive blood transfusion: ALL clinical areas including Trauma and Obstetrics

6.1.1 Refer to MHP protocols, located on the Blood Transfusion intranet page:

http://stginet/Units%20and%20Departments/Haematology/BLOOD%20TRANSFUSION.aspx

- Trauma MHP protocol (1:1 ratio)
- General MHP protocol (4:6 ratio)
- Obstetrics MHP protocol (pack A contains packed red cells only)

6.1.2 Ensure adequate venous access and try to maintain blood volume with normal saline/plasma expanders.

6.1.3 Inform transfusion laboratory immediately of **CODE RED** using the dedicated extension number - **6789** (this number must not be used for general enquiries) giving patient's name, ward/area, and date of birth and hospital number.

6.1.4 If there is an immediate need to transfuse then collect emergency group O units from the nearest satellite blood fridge.

6.1.5 The following blood fridges are stocked with emergency group O negative units:

- ED Resus (Ground floor SJW) – 6 O negative units; 6 O positive units (for use in male trauma patients)
- St James' Theatre (1st Floor SJW) – 2 O negative units
- Lanesborough Theatre (1st Floor LW) – 2 Adult O negative; 2 pedipacks
- Neuro theatre fridge (2nd Floor AMH) – 2 O negative units
- Pre-thawed FFP is available 24/7 from the blood transfusion laboratory
- These units should only be used in extreme emergency and should be scanned out using the emergency blood button on the Blood Track kiosks.

6.1.6. If O negative blood is used, notify the blood transfusion laboratory immediately, so that the fridges can be restocked.

6.1.7 Patient demographics should be added to the emergency group O blood traceability tag; the tag should be signed, dated, and returned to the transfusion laboratory ASAP.

6.1.8 Notify the transfusion laboratory as soon as the need for the massive transfusion is over. Return any unused blood components to the transfusion laboratory immediately.

6.1.9 Potential hazards of massive blood transfusion include hypokalaemia, hyperkalaemia, hypothermia, hypocalcaemia, and acidosis. Monitor U&E, Ca2+, ECG, arterial ph.

6.1.10 Major incidents – please refer to policy located on Emergency department intranet page:

http://stginet/Units%20and%20Departments/Emergency%20Department/Homepage.aspx

6.2 Patient blood management

6.2.1 Patient blood management (PBM) is a multidisciplinary, evidenced based approach to optimising the care of patients who might need blood transfusion.

6.2.2 PBM puts the patient at the heart of the decisions made about blood transfusion to ensure they receive the best treatment and avoidable, inappropriate use of blood and blood components is reduced.

6.2.3 National, regional and local audits in England consistently show inappropriate use of all blood components; 15-20% of red cells and 20-30% of platelets/plasma. Evidence shows that the implementation of PBM improves patient outcomes by focusing on measures for the avoidance of transfusion and the reduction of inappropriate use of blood.

6.2.4 Blood transfusion is potentially hazardous and should only be undertaken when the benefit to the patient outweigh the risks. Transfusion should only be given when there is no alternative.

6.2.5 Alternatives include:

- Iron supplements
- IV iron
- Erythropoietin injections
- Cell salvage
- Tranexamic acid

6.2.6 The single unit initiative is part of Patient Blood Management (PBM), an evidenced based, patient centred strategy to improve patient outcomes by minimising blood transfusions and is endorsed by NHS England (2014) and NICE (NG24):

'Transfuse one dose of blood component at a time e.g. one unit of red cells or platelets in non-bleeding adult patients (or equivalent volumes calculated based on body weight for

children or adult with low body weight) and reassess the patient clinically with a further blood count to determine if further transfusion is needed.'

6.2.7 See the 'Single Unit Blood Transfusion Clinical Guideline', located on the blood transfusion intranet page

http://stginet/Units%20and%20Departments/Haematology/BLOOD%20TRANSFUSION.aspx

6.3 Consent

6.3.1 Obtaining consent for a blood transfusion is a Department of Health requirement and it is the responsibility of the doctor prescribing the blood component(s) to obtain and document that consent (verbal/written), in accordance with Trust Policy on Consent. If the patient is unable to provide consent, this must also be documented (GMC 2008).

6.3.2 **For ALL patients** requiring blood transfusion, consent **MUST** be sought and documented in the patient's medical notes using the 'consent for transfusion' form (located on the blood transfusion intranet page). For surgical patients, consent is documented as part of the surgical consent form.

- Where possible, retrospective consent should be sought for any transfusions given in an emergency setting or for unconscious patients

6.3.3 The SGH blood transfusion consent form and NHS patient information leaflets regarding blood transfusion are available on the blood transfusion intranet page:

http://stginet/Units%20and%20Departments/Haematology/BLOOD%20TRANSFUSION.aspx

6.3.4 Patients should be informed of the indication for transfusion, its risks and benefits.

6.3.5 Patients should be given information about alternatives to allogeneic blood transfusion. They should also be informed of their right to refuse the transfusion but must then be advised of the risks of doing so.

6.3.6 For patients who refuse transfusion of blood components and/or products please refer to the policy 'Management of patients who refuse transfusion of blood and blood products (Including Jehovah Witnesses)' located on the trust intranet policy hub and on the Blood transfusion intranet page.

http://stginet/Units%20and%20Departments/Haematology/BLOOD%20TRANSFUSION.aspx

6.4 Prescribing Blood components/products

6.4.1 Before prescribing please refer to NBTC guidance for the use of blood components linked on the blood transfusion intranet page.

http://stginet/Units%20and%20Departments/Haematology/BLOOD%20TRANSFUSION.aspx

6.4.2 The prescription of blood and blood components is the responsibility of a medical doctor. A nurse who has undertaken a NHSBT blood components authorisation course may also prescribe blood and blood components.

6.4.3 Blood and blood components must be prescribed on prescription sheets for intravenous fluids or on special transfusion prescription sheets.

6.4.4 It is essential that the prescription sheet must contain full patient identification details as well as the following information:

- The blood component to be administered including any special requirements (e.g. irradiation, CMV negative)
- Date of transfusion
- Any specific protocol for the patient e.g. during / following bone marrow transplantation
- The volume/number of units to be transfused
- The rate of transfusion (packed red cells are usually transfused over 2-3 hours).
- The transfusion must be completed within 4 hours of removal from blood storage (Blood fridge)
- The rate of transfusion for an adult therapeutic dose of platelets/bag of FFP or Cryoprecipitate is 30 minutes.

6.4.5 All non-bleeding, haemodynamically stable patients requiring a top-up transfusion should be considered for a single unit transfusion. See blood transfusion intranet page for the single unit clinical guidance document.

http://stginet/Units%20and%20Departments/Haematology/BLOOD%20TRANSFUSION.aspx

6.5 Requesting blood

6.5.1 Only registered medical practitioners can request blood and blood components

6.5.2 Requests for pre-operative blood to cover surgical procedures MUST be ordered in line with the Maximum Blood Ordering Schedule, located on the blood transfusion intranet page

http://stginet/Units%20and%20Departments/Haematology/BLOOD%20TRANSFUSION.aspx

6.5.3 Request forms must contain the following information:

- Full patient identification details:
- Patient's surname, forename, date of birth gender and a patient identification number i.e. hospital number, NHS number or major incident number.
- The location of the patient at the time of request and where the blood component should be sent to, if different
- The number and type of blood or blood components and the date and time they are required.
- Any special requirements e.g. irradiated blood, CMV negative.
- A special requirement form (located on blood transfusion intranet page) **MUST** be completed and returned to the blood bank for all new patients requiring special requirement, so the correct information can be transcribed on the patient's record on the transfusion LIMS.
- Bone Marrow Transplant Protocol (where applicable)
- Past transfusion and obstetric history (where applicable)
- The patient's diagnosis and reason for request.

6.5.4 Any sample or form received in Blood Bank not fulfilling the above criteria will not be accepted and a repeat sample and form will be requested.

6.5.5 Requests for ALL other components/products (e.g. Platelets, FFP, Cryoprecipitate) **MUST** be requested by telephoning the blood transfusion laboratory on extension 5471.

6.6 Positive identification of patients

6.6.1 **Positive identification of the patient is essential and is based on:**

- Direct questioning of the patient by asking them to state their surname, first name and date of birth. This must always be done where the patient is judged capable of giving an accurate, reliable response. Staff should never lead the patient; the answer "yes" is not sufficient identification.

- Checking the details on the patient's identification wristband match those on the request form. (All inpatients and all patients undergoing a transfusion must have an ID band).

6.6.2 All patients, including unconscious patients, must have a patient identification number and an ID wristband with this number.

6.6.3 A system has been devised to allow an MRN to be immediately available for trauma admission or major incident.

- All major trauma patients are pre-registered on iCLIP on receipt of the pre-hospital notification.

- The receptionist will allocate an assigned phonetic hyphenated surname followed by a hyphenated first name according to age.

- A generic date of birth is used regardless of the age of the patient, for example:
  MRN UNKNOWN-ADULT Alpha-AA M 01/01/1900 Major Trauma
  MRN UNKNOWN-ADULT Bravo-AA F 01/01/1900 Major Trauma
  MRN UNKNOWN-CHILD Charlie-AA M 01/01/1900 Major Trauma

- Patients will appear on iCLIP prior to arrival to allow for pre-ordering of investigations, including blood component issue, and imaging.

- Records should be updated and merged as soon as the patient's details are known.

6.6.4 Patient identification labels for unknown patients:

- All name bands for 'unknown' patients are blue so they are easily identifiable.
- If the patients' details become known a new name band will be printed and should be placed on the patient keeping the blue name band in place.
- This includes patients who are deceased and positively identified prior to transfer to the mortuary.

6.6.5 For major incidents a similar approach has been taken with the Cerner (iClip) system being pre populated with 300 'patient' records in the format:

- MRN MajorIncident Alpha AA (sex) 01.01.1900 Major Incident

6.6.6 No wristband – No transfusion

6.6.7 Positive identification of the patient must occur prior to:

- Venepuncture
- Transfusion of blood and blood products

6.7 Venepuncture for transfusion samples

6.7.1 Please note the following important information before taking samples for cross match or compatibility testing:

- ANY patient who does not have a historical blood group at St George's will require TWO discrete phlebotomy samples for grouping before ABO matched blood will be issued.
- In an emergency, group O un-crossmatched blood will be issued until a valid sample has been received and processed in the blood transfusion laboratory.
- Agency Nurses are not permitted to take samples for cross match except for those working in the clinical areas as indicated in section 5.6

6.7.2 Only suitably trained and competent medical, nursing or phlebotomy staff may take blood samples for cross-matching.

6.7.3 Nursing and midwifery staff may be responsible for requesting blood components and products and taking blood samples for compatibility

6.7.4 Staff who take transfusion samples as part of their role must be assessed as competent using the NPSA document. Phlebotomists are only allowed to take blood for compatibility testing after the appropriate staff member has filled out a request form.

6.7.5 All blood samples must be taken in accordance with Trust Policy.

6.7.6 The patient must be positively identified at the time the sample is taken and the tube labelled immediately after the blood has been drawn (at the patient's bedside)

6.7.7 Sample tubes must never be pre-labelled

6.7.8 Addressograph labels must not be used

6.7.9 The sample must be taken into a pink-capped EDTA (anticoagulated) tube and immediately labelled at the bedside by the person who took the sample.

6.7.10 The sample tube must be labelled with the following:

- Full name – surname and forename
- Hospital number
- Date of birth
- Gender
- Signature of personal taking the blood sample
- Ward or clinical area
- Date sample taken
- Time sample taken

6.7.11 Sample validity:

- The validity of a transfusion sample is dependent on whether the patient has received a transfusion or been pregnant in the last 3 months. Blood transfusion may result in a primary or secondary immune response; therefore antibody screening must be carried out more frequently to detect any newly developed antibodies.

- The maximum validity on any sample is 7 days due to storage capacity at St George's.

Transfusion history	Sample validity
No transfusion/pregnancy in last 3 months	Sample valid for 7 days (if transfused during the 7 days, validity is reduced to 72 hours from the day of transfusion)
Has had transfusion in last three months or pregnant.	Sample valid for 72 hours

6.8 Collection of Blood and blood products:

6.8.1 **Good documentation of the blood audit trail is mandatory and a legal requirement**

6.8.2 Before collection, ensure that the patient is ready to start the transfusion, which includes baseline observations and patent venous access.

6.8.3 It is a statutory obligation that all staff collecting blood /blood products must have bi-annual update training.

6.8.4 Before collecting blood /blood components/products from the blood bank, staff must check that a prescription has been correctly and fully completed. All blood components must be properly requested and prescribed; patient details must be correct.

6.8.5 Any member of the ward team or the specimen porters, who have undertaken blood track training, is competent to collect blood products from transfusion laboratory or from designated satellite blood fridges.

6.8.6 The person collecting the blood from the transfusion laboratory or the peripheral blood fridge must bring written documentation containing the patient's identification details with them. This can be the patient's hospital notes, prescription chart or demographics front sheet from iCLIP on which the patient's name and identification appears.

6.8.7 Handwritten/scribbled patient demographics are **NOT** a permitted form of identification for collection of blood components/products and staff will be asked to collect a permitted form of ID before being allowed to collect.

- Porters must collect patient identification from ward area BEFORE collecting blood

6.8.8 Staff must scan their validated ID card and enter their PIN to gain access to the blood track system for all products.

6.8.9 Packed red blood cell units are available from the issue fridge; all other components and blood products are issued by laboratory staff.

6.8.10 Scan the product(s) required and confirm that the details on the traceability label correspond with the ID for patient. Ensure that all products are scanned out through the Bloodtrack system.

6.8.11 On arrival to the ward/theatre/unit, the blood must be immediately handed to the person responsible for administering the transfusion. The component must not be left on the nurses' station.

6.8.12 All packed red blood cell units should be stored in a satellite blood fridge, if the transfusion is not due to commence within 30 minutes of them being removed from storage.

6.8.13 All other products should be returned to the transfusion laboratory if transfusion is not commenced within 30 minutes of them being removed from the blood fridge.

6.9 Checking of blood components/products (including Anti-D) prior to administration:

6.9.1 Staff should check each unit of blood /blood product prior to administering it with attention to the following:

- Check packs for leaks at ports and seams
- Check for unusual discoloration or turbidity
- Check for the presence of large clots

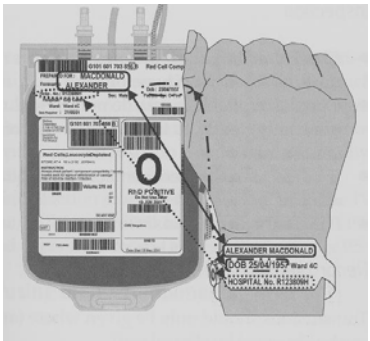
If there is evidence of any of the above, do not transfuse the component, but return it to the transfusion laboratory urgently.

6.9.2 The final bedside check is a VITAL step in the process for preventing transfusion errors.

6.9.3 The transfusion traceability tag (see appendix A for example) lists the steps required for the final bedside check. Signing the tag indicates that these steps have been completed correctly in line with DOH CAS Alert – CEM/CMO/2017/005 (November 2017) (See appendix B)

6.9.4 The final bedside check should include the labelled blood component and the patient's identity band ONLY.

6.9.5 The final bedside check procedure must include positive identification of the patient to verify details on the patient's identification wristband and the compatibility/traceability label attached to the blood pack and the prescription chart.



6.9.6 For each unit of blood, the following must be checked:

- Patient forename and surname
- Hospital number
- Date of birth
- Prescription for the blood
- Blood bag unit number:
- ABO blood group and Rh type of both the patient and the unit

- Expiry date of unit
  - Expiry time is always 23:59 on date of expiry, the unit cannot be used after this time and must be taken down and discarded as in line with normal procedures
- Special requirements:
  - CMV negative
  - Irradiated blood
- Special antigen negative blood
- For patients undergoing/ post bone marrow transplant please refer to the patient specific protocol; if in doubt contact the transfusion laboratory and / or patients medical team for advice

If any discrepancies or abnormalities are found, the unit of blood must NOT be transfused and the transfusion laboratory must be informed immediately.

6.9.7 POSITIVE patient identification is essential

6.9.8 If appropriate to do so **ASK** the patient to confirm their:
- First name
- Surname
- Date of birth

6.9.10 **CHECK** that the details on the identification wristband and on the traceability tag attached to the bag/unit match their responses to the questions.

6.9.11 For unconscious patients, check the following:
- Patient identification number on hospital notes
- Wristband on patient with identical identification number
- Date of birth
- Gender of the patient
- Consider asking a carer (e.g. nurse or family member) to positively identify the patient.

6.9.12 Two members of authorised staff (two registered nurses or a registered nurse and a doctor) must carry out the final identity check of the patient and the unit of blood/blood component to be transfused.

6.9.13 Those staff who are designated as being responsible for checking blood and blood components must have completed the NPSA “Administration of Blood competency”

6.10 Process for administering blood or blood products

6.10.1 Ensure patent venous access before collection of the blood product from the blood bank

6.10.2 Ensure the patient has a full set of baseline observations (Temp, Pulse, BP and respirations) recorded and documented at least 30 minutes PRIOR to the commencement of the transfusion

6.10.3 Ensure the traceability tag and fluid prescription chart are completed at the start and end of the transfusion

6.10.4 Blood should be transfused through a sterile giving blood administration set either peripherally or centrally

6.10.5 The correct giving set must be used for the appropriate blood component/produce and its availability must be confirmed prior to collecting blood from the blood bank

Type of component/product	Type of set
Packed Red Cells	Blood giving set with integral filter
Platelets	Standard blood or platelet administration set
Fresh Frozen Plasma (FFP)	Blood giving set: no need to filter
Albumin	Blood giving set: no need to filter

6.10.6 Preparation of the appropriate giving set will prevent any unnecessary delay in starting the transfusion

Packed Red Cells: should begin within 30 minutes of removing from blood fridge and should be administered within 4 hours from the time the unit was removed from storage (blood fridge). Two hours is ideal, as slow infusion encourages bacterial growth in the unit. However, those patients with underlying cardiac or respiratory conditions may require the transfusion to be given within a 4-hour period in order to prevent overload.

Platelets: start immediately after receipt into clinical area (never put platelets in a refrigerator) and administer within 30 minutes. Ideally ABO compatible platelets are used; in practice, any ABO group can be safely given if there is a shortage of ABO compatible platelets. RhD compatible platelets should be given to females of child-bearing age. If this is not possible, anti-D immunoglobulin (available from Blood Bank) should be given (50 IU anti-D per adult bag of platelets)

FFP: start immediately on receipt into clinical area and administer within 20-30 minutes. ABO compatible FFP is used; group O should only be given to group O recipients. RhD matching is not necessary for FFP. Females of child bearing age do not need anti-D immunoglobulin when receiving FFP.

Cryoprecipitate: start immediately on receipt into clinical area and administer within 20-30 minutes. ABO compatible FFP is used; group O should only be given to group O recipients. RhD matching is not necessary for cryoprecipitate. Females of child bearing age do not need anti-D immunoglobulin when receiving Cryoprecipitate.

6.10.7 If a unit of blood has been out of the refrigerator for more than 30 minutes, it should be returned to the transfusion laboratory for disposal because of the risk of bacterial growth.

6.10.8 Blood should only be warmed when specifically indicated and by using dedicated commercial devices (not by placing the pack in hot water, on a radiator or in a microwave).

6.10.9 Drugs must not be added to blood under any circumstance.

6.10.10 A new giving set should be used after the transfusion has run for more than 12h (to prevent bacterial growth) or if another infusion is to continue after transfusion. It is not necessary to prime the line with normal saline either at the beginning or end of the transfusion.

6.11 Transfusion observations:

6.11.1 The importance of reporting any adverse effects should be stressed to the patient (e.g. shivering, rashes, flushing, shortness of breath, pain in the extremities or in the loins).

6.11.2 Visual observation of the patient is often the best way of assessing the condition of the patient during transfusion.

6.11.3 Transfusions should be given in clinical areas where patients can be readily observed by members of the clinical staff. Patients should be able to alert staff if they experience any adverse effects.

6.11.4 The start and finish time of the transfusion must be recorded on the peel off sticker from the traceability tag and attached to the prescription chart.

6.11.5 Vital signs – temperature, pulse, blood pressure, respirations and oxygen saturation MUST be measured and recorded before the start of each blood component transfusion, and at the end of each transfusion episode.

6.11.6 During the first 15 minutes of the transfusion of each unit the patient MUST be regularly observed (most reactions will occur in this time and will require immediate attention) and the patient's vital signs MUST be monitored and recorded.

6.11.7 Any deviation in the observations should be noted and escalated as necessary.

6.11.8 Vital signs related to transfusion should be recorded separately from routine observations and clearly dated.

6.11.9 Further observations during the transfusion of each unit of blood or blood product are at the discretion of each clinical area and need only be taken should the patient become unwell or show signs of a transfusion reaction or if advised by the transfusion laboratory.

6.11.10 It is more difficult to monitor **Unconscious patients** for signs of transfusion reactions and therefore it is recommended that routine observation patterns should continue.

- Record the patients' temperature, pulse, respirations and blood pressure
- Repeat the observations every 15 minutes for the first hour and hourly thereafter
- Visual observations of skin condition, cannula site and urine output must also be undertaken regularly; and recorded

6.11.11 Observations for platelet/FFP/Cryoprecipitate: As these components are transfused at a faster rate than red cells, the observations should be taken at the following intervals: 30 minutes pre-transfusion; 5 minutes post-transfusion and at the end of the unit/bag.

6.12 Overnight transfusions

6.12.1 As per Serious Hazards of Transfusion (SHOT) recommendations 2014: Transfusions at night must proceed where there is a clear clinical indication and may be given if the staffing is sufficient to permit transfusion according to the standards defined in the BCSH guideline on administration of blood components 2009 (BSH Harris et al. 2009).

6.12.2 These standards include adequate pre-transfusion assessment, observations at 15 minutes after the start of each component and regular visual observation throughout the transfusion.

6.12.3 Overnight transfusions should NOT be commenced if observations cannot be undertaken within 15 min of the start of the transfusion or if there is inadequate staff to allow for the patient to be adequately monitored.

6.13 Traceability

6.13.1 It is a legal requirement to trace the fate of every blood component that is issued from the blood transfusion laboratory. Therefore it is imperative that the details on the traceability tag are completed and it is returned immediately to the transfusion laboratory in order to ensure that we can maintain this requirement.

6.13.2 The peel off sticker from the blood tag label should then be attached to the prescription chart if a paper copy is used; if the patient has an electronic record then the blood component unit number and the transfusion start and finish times should be recorded on the patient's file)

6.13.3 The completed detachable blood tag **MUST** be returned to the transfusion laboratory immediately following transfusion to enable full traceability and ensure the Trust fulfils its legal requirements as defined by BSQR 2005. The return of the tags is mandatory.

6.13 Completion of transfusion episode

6.13.1 If a further blood component unit is required:

- Repeat the administration/identify check with each unit, including positive patient identification procedures

6.13.2 If no further units are prescribed:

- Remove the blood administration set.
- Ensure all transfusion documentation is completed and the traceability tag is signed, dated and returned immediately to the transfusion laboratory

6.13.3 On completion of the transfusion, the empty bag/unit can be discarded immediately (BSH guidelines 2012) if there is **NO** evidence of a transfusion reaction.

6.14 Rapid infusion and blood warmers

6.14.1 The routine warming of blood is not necessary

6.14.2 Blood warmers increase the risk of bacterial proliferation, so should not be used except in the following circumstances:

- Transfusion at a rate of greater than 50 millilitres per kilogram per hour
- Patients who have clinically significant cold agglutinin antibodies

6.14.3 If blood warming is required, this must only be done using a specifically designed commercial device, with a visible thermometer and audible alarm that ensures the blood is not warmed over 41°C.

6.14.4 The device must be monitored and validated every 12 months as blood warmers are extremely dangerous if they malfunction.

6.15 Storage

6.15.1 Blood is to be stored only in a purpose built, alarmed, temperature mapped, blood bank at between 2-6°C to prevent the risk of bacterial growth.

6.15.2 Blood must NEVER be stored in a ward fridge, as the temperatures in these fridges are not monitored as part of the cold chain.

6.15.3 Blood must be stored in a designated satellite Blood Fridge located in the following areas:

- St James Theatre (1st Floor)
- Accident & Emergency Dept.
- Lanesborough Theatre (1st Floor)
- AMW Cardiac Theatre (1st Floor)
- AMW Neuro Theatre (2nd Floor)
- Ruth Myles Day Unit (2nd Floor)

6.15.4 Cross-matched blood units are stored for a maximum of 24 hours in the issue fridge. All units will be returned to stock at 8am on the day of de-reservation.

6.15.5 Platelets must not be refrigerated but transfused as soon as possible to ensure products are at optimum quality. If a delay in starting the transfusion is anticipated, the units/bags should be returned to blood bank for correct storage ASAP.

6.15.6 FFP can be refrigerated for 24 hours at 4^0C, but should be returned to the blood transfusion laboratory if not transfused within 4 hours, so that they can be recycled to prevent wastage.

6.16 Transportation

6.16.1 Blood components/products must be transported between areas in a verified and validated blood bag, designated for this purpose.

6.16.2 Bags for transporting blood components around the site are available from the blood transfusion laboratory

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6.17 Irradiated blood and blood products to prevent Transfusion associated graft versus host disease (TAGvHD)

6.17.1 TA-GvHD is a rare but usually fatal complication of transfusion. It is due to engraftment of viable T-lymphocytes, which cause widespread tissue damage. Risk factors are (1) Immuno-suppressed patients, (2) HLA haplotype sharing between donor and recipient.

6.17.2 TA-GvHD is prevented by irradiating blood products (red cell, platelet and white cell transfusions) that are to be transfused. Leucodepletion of blood products is inadequate for this purpose.

6.17.3 Irradiation when indicated (see below) applies only to red cells, platelets and white cell transfusions. It is not necessary to irradiate fresh frozen plasma, cryoprecipitate or fractionated plasma products.

6.17.4 The effects of new regimens of chemotherapy and immunotherapy are being monitored. Please see blood transfusion intranet page for the NHSBT irradiated fact sheet:

http://stginet/Units%20and%20Departments/Haematology/BLOOD%20TRANSFUSION.aspx

6.17.5 It is not necessary to irradiate blood components for patients with solid tumours, solid organ transplants, HIV and aplastic anaemia, (unless also in one of the categories above).

6.17.6 It is the responsibility of the clinical team looking after the patient to inform the transfusion laboratory of any changes in the patient's transfusion management (e.g. irradiated requirement).

6.18 Transfusion documentation

6.1.8.1 In line with other clinical governance initiatives, good documentation of transfusions is essential.

6.18.2 A permanent record of the transfusion MUST be kept in the hospital notes (physical or electronic) including:

- Consent form
- An entry in the notes describing the indication for the request for blood and the type and number of components requested
- The prescription sheets/drug charts
- Nursing observation sheets
- Assessment of effectiveness of the transfusion
- Any adverse effects and their management

6.18.3 NICE guidelines (NG24) recommend that all discharge summaries include details of any transfusions the patient may have received during that episode of care.

6.19 Reporting of adverse events/reactions during or following a transfusion

6.19.1 Careful observation of the patient is needed in case any signs or symptoms of an adverse reaction occur, particularly during the first 15 minutes of the start of each unit.

6.19.2 Severe reactions are most likely to occur within the first 15 minutes and the patients should be most closely monitored during this period. Patients with a severe reaction can deteriorate very quickly with hypotension, respiratory distress, collapse and possible death.

6.19.3 Transfusions must be stopped, pending a medical assessment, whenever a transfusion reaction is suspected i.e. the patient develops new signs or symptoms or there is a significant change in their observations.

6.19.4 The patient's vital signs must be recorded, and a check made to ensure venous and arterial access is patent.

6.19.5 If a transfusion reaction is suspected at any time, the doctor in charge of the patient should be contacted by the nurse responsible for the patient immediately.

6.19.5 It is the doctor's responsibility to ensure the adverse event is reported to blood transfusion laboratory and the transfusion practitioner team

6.19.6 It is the responsibility of the transfusion practitioner team to report the event to SABRE (Serious Adverse Blood Reactions and Events) and/or SHOT if appropriate.

6.19.7 All suspected transfusion reactions MUST be reported via DATIX and documented in the patient's notes.

6.19.8 **If a severe reaction is suspected:**

- The transfusion must be stopped immediately.
- The blood administration set should be changed, and venous access maintained using sodium chloride 0.9% running slowly to keep the vein open.
- The patient's physician must be informed.
- The haematology registrar on call (bleep 6068 or via switchboard) must be informed.
- The reaction should be reported immediately to the transfusion laboratory, who will request that a Transfusion Reaction Investigation form is completed (located on blood transfusion intranet page)
    - The completed form should be returned to the transfusion laboratory as instructed.
- Nursing observations should be carried out at regular intervals.
- The volume and colour of any urine passed should be recorded in the patient's notes

6.19.9 Many of the serious adverse events following blood transfusion are unpredictable. The most important are:

- Acute and delayed haemolytic transfusion reactions
- Febrile (non-haemolytic) transfusion reactions
- Urticaria and anaphylaxis
- Transfusion-related acute lung injury (TRALI)
- Post-transfusion purpura (PTP)
- Transfusion-associated graft-versus-host disease (TA-GvHD)
- Transfusion transmitted infection (TTI)
- Transfusion associated circulatory overload (TACO)

6.19.10 All adverse events, including 'near misses', should be reported to the hospital transfusion laboratory and to the Trust Risk & Safety Management Department via DATIX.

6.19.11 These incidents will be managed as part of the Trust's Adverse Incident reporting policy & procedures.

6.19.12 The Transfusion practitioners are responsible for investigating the incident further, filling out the incident report forms and reporting to SABRE (Serious Adverse Blood Reactions and Events) and the Serious Hazards of Blood Transfusion (SHOT) scheme where appropriate.

6.19.13 Suspected cases of TTI should be reported immediately to the local NHSBT Transfusion Centre (via the blood transfusion laboratory).

6.19.14 The HTT and HTC will review all adverse events relating to blood transfusion.

6.19.15 'Wrong blood in tube' (WBIT) occurs when the blood sample has been taken from the wrong patient but labelled with the intended patient's details, or when blood is taken from the intended patient but the tube is labelled with the wrong details. Misidentification at blood sampling may lead to fatal ABO-incompatible blood transfusion.

6.19.16 All WBITs are reported to PSQB and MUST be managed/investigated using the 'Protocol for the investigation & management of Wrong Blood in Tube (WBIT) incidents' located on the blood transfusion intranet page.

6.19.17 The full guide to the management and investigation of suspected transfusion reactions can be found on the blood transfusion intranet page.

http://stginet/Units%20and%20Departments/Haematology/BLOOD%20TRANSFUSION.aspx

6.20 Guidelines for the transfusion of blood and blood products at Trinity hospice

6.20.1 The Blood Safety and Quality (Amendment) Regulations 2006 (SI 2006/2013) introduced a new category of blood sites called “Facilities”

6.20.2 In this context Trinity Hospice is classed as a facility as it receives blood components from St George’s transfusion laboratory. A facility is not required to submit a Blood Compliance report to the MHRA, providing there is a documented service level agreement in place.

6.20.3 Currently St George’s Hospital and Trinity Hospice have a signed ‘Service level agreement’ in place.

6.20.4 The signed technical agreement fulfils the requirement of the amended regulation and St George’s Hospital is responsible for the following:

- The reporting of serious adverse events and reactions to SABRE
- The maintenance of traceability records
- The provision of training and education to Trinity Hospice staff

6.21 The responsibility of Trinity Hospice is as follows:

- Adoption of St George’s Blood Transfusion Policy
- Full compliance with traceability
- Immediate reporting of any transfusion related error or incident
- Compliance with the procedure for the transportation of Blood and Blood components to Trinity Hospice
- Ensuring ALL staff involved in the transfusion process have received education and training and have their competency assessed in line with transfusion policy requirements

6.22 Trinity Hospice Staff should refer to St George’s Blood Transfusion Policy which covers all aspects of the transfusion process except for the collection /delivery of blood which is detailed below.

6.23 Collection / Delivery of Blood and Blood products to Trinity Hospice

6.23.1 Blood and Blood products will be delivered by an SWLP approved courier service upon receiving a request.

6.23.2 The driver will sign a document at St George’s to accept responsibility for the delivery to Trinity Hospice.

6.23.3 One unit of a blood component will be delivered at a time in a sealed transportation box. If any further units are required please notify the blood transfusion laboratory at St George’s (0208 725 5477) one hour before the first unit is completed.

6.23.4 Upon delivery the member of staff receiving the delivery must:

- Sign the document to accept the delivery
- Check the blood has not exceeded safe temperature storage conditions by checking the temperature tag (not the traceability tag) that is attached to the blood

- State the time the transfusion was started and then fax back the document to the blood transfusion lab at St George's – 0208 725 3917

6.23.5 The blood transfusion must be completed within 4 hours of the blood being removed from the validated storage box.

6.23.6 Upon completion, the pink traceability tag should be signed, dated and timed and returned to the blood transfusion laboratory at St George's within 24 hours

6.24 Training and education

6.24.1 **All** staff groups involved in any part of the transfusion process must receive training on blood transfusion safety. This includes staff that performs phlebotomy or collection and/or administration of blood products.

6.24.2 Mandatory training for registered nurses and HCAs involved in the transfusion process must be updated yearly. This can be delivered by the practice educators or organised with the transfusion practitioner team.

6.24.3 Ward managers / practice educators in each area must keep a record of who has attended training and the electronic staff record should also include a record of transfusion training and competency assessments undertaken.

6.24.4 Face-to-face training will be delivered by the Transfusion Practitioner/ practice educators at local/ward nursing induction, medical induction and *ad hoc* sessions organised by individual wards and departments.

6.24.6 E-learning is delivered using the LearnPro NHS blood transfusion learning modules.

- Staff members must register with http://nhs.learnprouk.com to access the transfusion modules

6.24.7 Role specific training for all staff groups (as appropriate) is identified during local induction and subsequently through the annual appraisal/review process.

6.24.8 **Mandatory training for ALL staff collecting blood components using BloodTrack to collect blood components:**

- All staff collecting blood MUST attend a BloodTrack training session with the transfusion practitioner team, which will include the blood collection competency assessment.
- All staff must attend a refresher BloodTrack training session every two years and complete a competency assessment.
- Training records will be held on the BloodTrack administration database and updated and monitored by the HTT
- If a staff member has not accessed BloodTrack in more than a year, their access will be disabled and they will be required to attend a refresher training session. The staff member will be informed of this action, via email, by the TP team.
- Blood collection competency should be carried out every three years (sooner if further training needs are identified).

6.24.9 **Mandatory transfusion training for nurses/midwives/theatre practitioners and HCAs:**

- Will receive face to face training delivered by practice educators or the transfusion practitioner team at trust induction
- Require annual face-to face transfusion updates

- Should complete all transfusion competency assessments as relevant to their role
- Competencies should be recorded on ESR
- Phlebotomy and administration competencies are required as a one off, unless further training needs are identified or the staff member has not participated in transfusion processes for > 1 year
- All staff should be encouraged as part of their CPD, to complete the following blood transfusion e-learning modules available on LearnPro NHS (http://nhs.learnprouk.com), as relevant to their job role.
    - Safe transfusion practice modules 1 & 2 (all staff)
    - Anti-D module (midwives)
- Compliance with training and competency for individuals should be monitored annually by the relevant line manager (for example, at appraisal)

6.24.10 **Mandatory transfusion training for doctors involved in the transfusion process:**

- All doctors will receive a face-face training session at induction
- All doctors should complete the following blood transfusion e-learning modules on Learnpro NHS http://nhs.learnprouk.com
    - Safe transfusion practice module 1 and 2 at least once, unless further training needs are identified
- All doctors should be peer reviewed at least once, for relevant NPSA transfusion competencies, as applicable to job role. (BSH 2016)
- The assessments need not be repeated if staff member has ongoing satisfactory performance, but should be repeated if the staff member has not participated in the transfusion process for >1 year or if further training needs have been identified (i.e. following an transfusion related incident.
    - Competencies should be recorded on ESR
- Compliance with training and competency for individuals should be monitored annually by the relevant line manager (for example at appraisal)

6.24.11 **Mandatory training for Transfusion Practitioners**

- TP's should complete **ALL** LearnPro NHS transfusion modules every two years
- Complete peer reviewed competency assessments for phlebotomy, blood collection and administration every three years
- All records will be kept by the Lead TP

6.24.12 Managers/practice educators and education supervisors will commission this specialist training for individual groups. It will be their responsibility to liaise with the transfusion practitioner team, in terms of booking on and level of training required.

6.24.13 The transfusion practitioner team will record attendance and will liaise with managers/practice educators within the specialist areas.

7. Dissemination and implementation

7.1 Dissemination:

The new policy will be circulated to all relevant line managers/divisional leads for dissemination.

The policy will be advertised (eG news) and held on the Intranet to achieve as wide and audience as possible.

Relevant parts of the policy will be presented at regular training sessions (including nursing and medical induction) for nursing, support and medical staff.

7.2. Implementation

The policy will be available in the blood transfusion laboratory and on the blood transfusion intranet page.

This policy will be promoted by the haematology consultants, haematology specialist registrars, Transfusion Practitioner team and Biomedical Scientists when discussing and advising on transfusion requests.

8. Consequences of Breaching the Policy

Failing to follow this policy could lead to action under the Trust's disciplinary policy.

9. Monitoring compliance

The table below outlines the process for monitoring compliance with this document.

Monitoring compliance and effectiveness table					
Element/ Activity being monitored	**Lead/role**	**Methodology to be used for monitoring**	**Frequency of monitoring and Reporting arrangements**	**Acting on recommendations and Leads**	**Change in practice and lessons to be shared**
The process for the request of blood samples for pre transfusion compatibility testing	Lead Transfusion Practitioner The Hospital Transfusion Committee	Quarterly Internal audit Monthly audit of DATIX incidents relating to sampling National Comparative Audits of the transfusion process	Reporting quarterly to the PSQB and the Hospital Transfusion Committee The above named Groups / Committees are expected to read and interrogate the report to identify deficiencies in the system and act upon them.	The PSQB will act upon the results of any internal / external audit and any blood transfusion errors or incidents relating to all aspects of the blood transfusion process that require external reporting Required actions will be identified and completed in a specified timeframe.	Any changes in practice or legislation will be communicated through the Medical Directors and Nursing Directorate for implementation. Any such changes in practice will be monitored by the Transfusion team Required changes to practice will be identified and actioned within a specific timeframe. A lead member of the team will be identified to take each change forward where appropriate. Lessons will be shared with all the relevant stakeholders.

Process for the administration of blood and blood products	Kelly Feane Lead Transfusion Practitioner The Hospital Transfusion Committee	Quarterly Internal audit Monthly audit of DATIX incidents relating to the administration of blood and blood products	Reporting quarterly to the PSQB and the Hospital Transfusion Committee The above named Groups / Committees are expected to read and interrogate the report to identify deficiencies in the system and act upon them.	The PSQB will act upon the results of any internal / external audit and any blood transfusion errors or incidents relating to all aspects of the blood transfusion process that require external reporting Required actions will be identified and completed in a specified timeframe.	Any changes in practice or legislation will be communicated through the Medical Directors and Nursing Directorate for implementation. Any such changes in practice will be monitored by the Transfusion team Required changes to practice will be identified and actioned within a specific timeframe. A lead member of the team will be identified to take each change forward where appropriate. Lessons will be shared with all the relevant stakeholders.
Care of patients receiving a transfusion	Kelly Feane Lead Transfusion Practitioner The Hospital Transfusion Committee	Quarterly internal audit National comparative Audits	Reporting quarterly to the PSQB, and the Hospital Transfusion Committee The above named Groups / Committees are expected to read and interrogate the report to identify deficiencies in the system and act upon them.	The PSQB will act upon the results of any internal / external audit and any blood transfusion errors or incidents relating to all aspects of the blood transfusion process that require external reporting Required actions will be identified and completed in a specified timeframe.	Any changes in practice or legislation will be communicated through the Medical Directors and Nursing Directorate for implementation. Any such changes in practice will be monitored by the Transfusion team Required changes to practice will be identified and actioned within a specific timeframe. A lead member of the team will be identified to take each change forward where appropriate. Lessons will be shared with all the relevant stakeholders.

Staff Training (incl Competency assessment)	Kelly Feane Lead Transfusion Practitioner	Monthly data collection from ESR Achievement of the requirements of NPSA Safe Practice Notice relating to assessment of Competency Quarterly reports from divisions listing trained and competent staff	Reporting quarterly to the PSQB, and the Hospital Transfusion Committee The above named Groups / Committees are expected to read and interrogate the report to identify deficiencies in the system and act upon them.	The PSQB will act upon the results of any internal / external audit and any blood transfusion errors or incidents relating to all aspects of the blood transfusion process that require external reporting Required actions will be identified and completed in a specified timeframe.	Any changes in practice or legislation will be communicated through the Medical Directors and Nursing Directorate for implementation. Any such changes in practice will be monitored by the Transfusion team Required changes to practice will be identified and actioned within a specific timeframe. A lead member of the team will be identified to take each change forward where appropriate. Lessons will be shared with all the relevant stakeholders.

10. Associated documentation

10.1 Policies:

- Policy for the clinical management of patients who refuse blood transfusion (including Jehovah's witnesses)
- Infection prevention and control policy
- Patient Identification Policy
- Serious incident Policy
- Adverse Incident Reporting Policy
- Health & Safety policy
- COSHH
- Obtaining Valid Consent for Treatment Policy
- Corporate Induction Policy
- Major incident plan

10.2 Patient leaflets:

- NHSBT transfusion leaflet
- NHSBT Iron in diet leaflet
- SGH red cells leaflet

10.3 Guidelines

- Wrong blood in tube investigation and management guidance
- Single unit transfusion guidance
- NHSBT blood component indications
- Consent for transfusion form
- Iron deficiency anaemia iron clinic
- Transfusion reaction guidelines
- Neonatal transfusion

11. References

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management of acute transfusion reactions Prepared by the BCSH Blood Transfusion Task Force. British Journal of Haematology, 159 (2): 143-153

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National Blood Transfusion Committee (NBTC): Patient blood management recommendations
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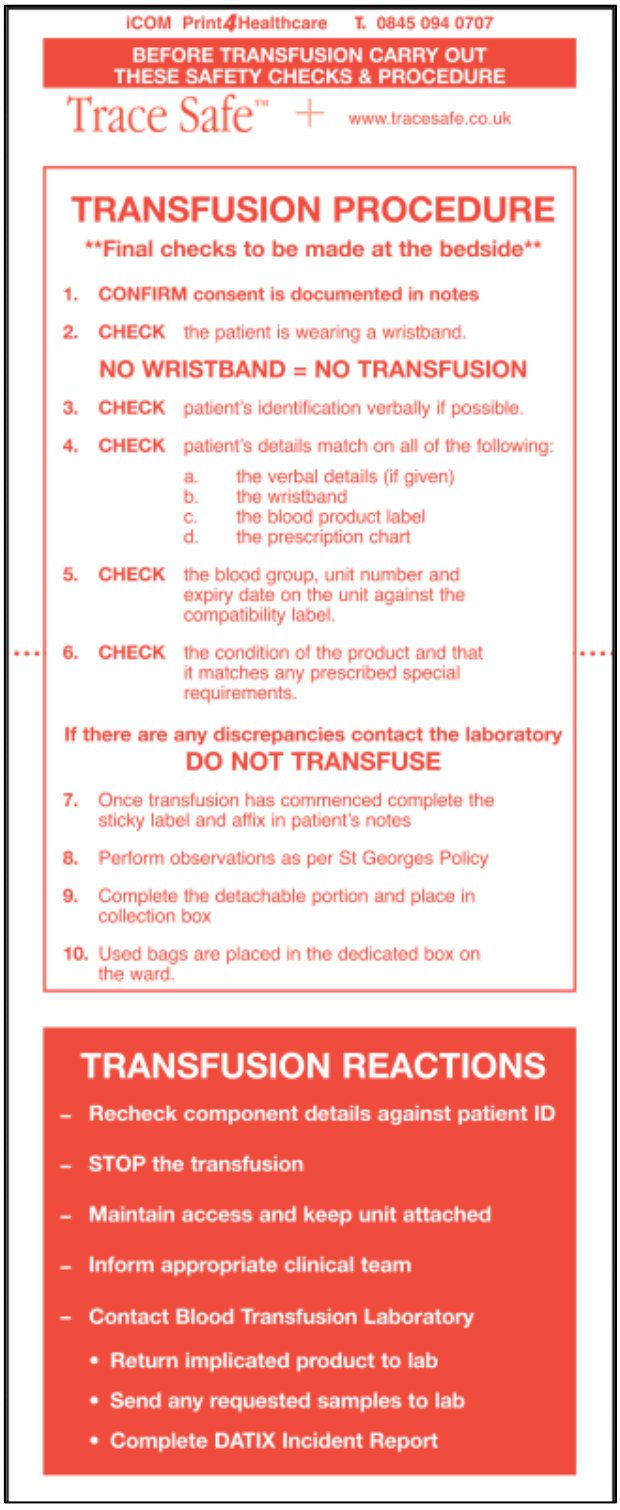
British Committee for Standards in Haematology (BCSH) (2001). Guidelines for the Clinical Use of Red Cell Transfusions. British Journal of Haematology, 113, 24-31.

http://hospital.blood.co.uk/library/pdf/nbtc_2016_04_recs_indication_codes_2016.pdf
http://www.transfusionguidelines.org.uk/transfusion-handbook

NHS Executive (2007) Better Blood Transfusion: Appropriate Use of Blood. Health Service Circular. NHS Executive, London.

Appendix A

Blood transfusion traceability tag showing final bedside checklist:



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BEFORE TRANSFUSION CARRY OUT
THESE SAFETY CHECKS & PROCEDURE

Trace Safe™ + www.tracesafe.co.uk

TRANSFUSION PROCEDURE

****Final checks to be made at the bedside****

1. **CONFIRM** consent is documented in notes
2. **CHECK** the patient is wearing a wristband.

   NO WRISTBAND = NO TRANSFUSION
3. **CHECK** patient's identification verbally if possible.
4. **CHECK** patient's details match on all of the following:
   a. the verbal details (if given)
   b. the wristband
   c. the blood product label
   d. the prescription chart
5. **CHECK** the blood group, unit number and expiry date on the unit against the compatibility label.
6. **CHECK** the condition of the product and that it matches any prescribed special requirements.

If there are any discrepancies contact the laboratory

DO NOT TRANSFUSE

7. Once transfusion has commenced complete the sticky label and affix in patient's notes
8. Perform observations as per St Georges Policy
9. Complete the detachable portion and place in collection box
10. Used bags are placed in the dedicated box on the ward.

TRANSFUSION REACTIONS

- **Recheck component details against patient ID**
- **STOP the transfusion**
- **Maintain access and keep unit attached**
- **Inform appropriate clinical team**
- **Contact Blood Transfusion Laboratory**
  - **Return implicated product to lab**
  - **Send any requested samples to lab**
  - **Complete DATIX Incident Report**

Appendix B

Department of Health CAS Alert – November 2017

Department of Health

CAS Alert

Safe Transfusion Practice: Use a bedside checklist

09 November 2017

Alert reference number: **CEM/CMO/2017/005**

Since the first report in 1997 the UK national haemovigilance surveillance programme, Serious Hazards of Transfusion (SHOT), has repeatedly identified that patients are harmed, and some die, as a result of being given the incorrect type of blood.

In 2014 a patient died as a result of an ABO-incompatible transfusion in a high profile case. The nurse collected, then administered a unit intended for another patient with a similar name. This would have been prevented if the final bedside check had been undertaken correctly.

There were seven ABO-incompatible transfusions reported to SHOT in 2015, and three in 2016. All of these were preventable. In addition to the risk of ABO-incompatible transfusion, patients may have other specific, and sometimes critical, transfusion requirements such as irradiated blood, CMV negative serology blood and extended phenotype blood.

Two critical points occur in preparation for transfusion; the first is to correctly identify the patient and label the sample when taking blood for a pre-transfusion blood sample, and the second is to check the details on the unit of blood and the patient's identity at the point of transfusion.

Evidence from SHOT shows that the bedside check performed at the point of transfusion is not always undertaken correctly and that this puts patients at risk of serious complications or death. SHOT therefore recommends a structured process with a **bedside checklist** which must confirm the following:

- Positive patient identification including first name, family name and date of birth; unless impossible, this should be done by asking the patient to state their names and date of birth
- Unique identification number (hospital number, NHS number or equivalent)
- Check that it is the correct and compatible component (against the prescription and label on the component) for this patient at this time
- Check that the component meets any specific requirements for that patient

This alert encourages organisations to review their blood transfusion processes. There is an appendix of additional information which has been circulated with this alert, and is available at the link provided in the resources section, below.

Professor Dame Sally Davies
Chief Medical Officer,
England

Professor Jane Cummings
Chief Nursing Officer,
England

Actions

Who: All organisations providing NHS funded care which involves the provision of blood transfusions.

When: Immediate

1. Organisations should assess their bedside systems (including electronic systems) to ensure a confirmatory step is in place where the individual performing the checks must sign to say all steps have been followed.

2. This alert (and supporting information) should be circulated to all relevant staff, including to community nursing staff and midwives who may be involved in the transfusion of blood products in the community.