Whittington Health NHS

BLOOD POLICY

Prescription to Administration

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Version Control Sheet

Version	Date	Author	Status	Comment
3	March 2011	Abdul Adamu	Transfusion Practitioner	
4	Jan 2012	Abdul Adamu	Transfusion Practitioner	Policy moved to new ICO template and the name *Whittington Health* inserted as required, monitoring section reviewed to reflect NHSLA requirements, more detailed documentation of staff training requirements, additional appendices otherwise no material changes to content

1. Introduction

This policy outlines the responsibilities of 'qualified practitioners' with regard to the care of patients receiving transfusion of blood components and products. Negligence in checking procedures and incorrect storage of blood components can lead to serious consequences for the patient.

Appropriate blood transfusion is an essential support to many clinical treatments and may be life-saving. However donated blood is a limited resource which should be transfused only when the benefits to patients exceed the risks.

The Department of Health Circular HSC 2007/001 (14), *"Better Blood Transfusion"* requires that every Trust should have an assurance framework for blood transfusion including a Transfusion Committee and Transfusion Team. The National Patient Safety Agency (NPSA) Safer Practice Notice 14 *Right Patient – Right Blood* also requires that all staff involved in the administration of blood components should be trained and competency assessed every 2 years.

It is therefore essential that all staff involved in the transfusion process should undertake and pass the Safe Transfusion Practice competency assessment on correct procedures for the collecting of blood samples, prescribing, requesting, collecting, administration of blood components and patient monitoring (*see transfusion-training programme Appendix 5)*. Failure to do so will result in non-compliance with regulatory requirements, national guidelines and good clinical practice.

The term 'qualified practitioner' is used throughout this document for ease of reading. 'Qualified practitioner' applies only to staff who have successfully completed their competency assessment and includes Facilities Staff Assistant (FSA), Health Care Assistants (HCA), nurses/midwives, operating department practitioners (ODPs) and doctors.

In emergency situations, or situations where the patient cannot be immediately identified, the patient's core identifiers may be unknown. At least one unique identifier (hospital number or major incident number), plus gender and approximate age MUST be used.

Uncomprehending patients

- **An accompanying capable adult must answer on behalf of patients who are incapable of confirming their own identity (too young, unconscious, incoherent, language difficulties).**

- **An interpreter must be used if there is a language problem.**

	Please see Whittington Health Guidelines: **Patient Identification Policy**

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2 Purpose

Blood components are potentially hazardous and should only be given when clinical benefit to the patient outweighs the potential risks. The reports of the Serious Hazards of Transfusion (SHOT) committee show that by far the largest numbers of hazards , around 80%, are associated with incorrect blood component transfused. This has led to several deaths and many more near misses. The purpose of this policy is to establish safe working practice based on up to date clinical information to ensure that blood transfusions are only administered when there is a clinical need, that blood transfusions are administered to the correct patient, at the right time and that any adverse reaction is dealt with promptly and effectively. The Blood Safety and Quality Regulations (BSQR) 2005 put additional requirements on transfusion services for transfusion safety and quality,

Whittington Health has an obligation to ensure that the standard for transfusion practice meets the requirements of these regulations and recommendations and is in line with National Clinical Guidelines.

3. Duties

Chief Executive

The Chief Executive will be aware of their legal duties as the responsible person for meeting the requirements of the Health Circular HSC 2007/001 (14), *"Better Blood Transfusion"* requires that every Trust should have an assurance framework for blood transfusion. To designate the safe and effective use of blood as a core part of the Trust's clinical governance and patient safety programme. To be aware of the performance of the Trust in meeting all regulations and recommendations and will ensure that adequate resource is provided for appropriate action to be taken.

Consultant Haematologist Lead for Blood Transfusion

A Consultant Haematologist Lead for Blood Transfusion must be designated and will:

• Oversee the production of clinical blood transfusion policies and procedures

• Provide clinical direction for the transfusion laboratories

• Ensure that serious adverse events and reactions related to blood transfusion are reported to the MHRA and/or the SHOT Scheme

• Be responsible for the Transfusion Team within the Trust

• Have the authority to challenge inappropriate clinical practice

• Report repeated non-compliances with BSQR to the Service Director

• Be responsible for ensuring that all complaints are handled in a timely fashion

The Trust Transfusion Team

The Trust Transfusion Team will comprise the Haematologist with responsibility for blood transfusion, the Transfusion Practitioner and the Lead Biomedical Scientist (BMS) of the Transfusion Laboratory. The Team will report to the Transfusion Committee. The functions of the Team are:

• Formulation of an annual programme of work to meet the requirements of National regulations and recommendations, and the priorities agreed by the Transfusion Committee

• Assisting in the implementation of any other Trust Transfusion Committee's objectives

• Policy/guideline formulation

• Provision of training materials and standards for competency assessment in line with NPSA requirements

• Being a resource to support the training of all hospital staff involved in the process of blood transfusion

• Monitoring the implementation of the transfusion policy

• Monitoring compliance with the policy and clinical care protocols

• Promoting and providing advice and support to clinical teams on the appropriate and safe use of blood

• Advisory in relation to all clinical practices in the Trust

• Maintaining a regular clinical audit program, including participation in National or Regional audits

• Liaison with clinical teams on the development of standards and audit

• Investigating and providing corrective action for clinical incidents

• In the event of a blood shortage, co-ordinate meetings of the Emergency Blood Management Group.

The Trust Transfusion Committee

This multidisciplinary committee reports to the Trust Operational Governance Committee
The Chair of the Committee will normally be one of the major clinical users of blood rather than a haematologist.
The membership of the committee is as follows:

• Transfusion Team

• Orthopaedic Surgeon

• Critical care representative

• Emergency Department Physician

• Anaesthetist

• Elderly Care Physician

• Paediatrician

• Haematology Heads of Department

• Director of Nursing or representative

• Trust Risk Manager or representative

The functions of the Transfusion Committee are:

• To advise and support the Transfusion Team

• To escalate issues of concern relating to blood transfusion to the Operational Governance Committee, the Director of Operations, and Chief Executive as appropriate and advise on any necessary remedial action

• To produce a quarterly report on the compliance of the Trust with relevant regulations and recommendations for the Operational Governance Committee

• To review and recommend transfusion policies for approval by the Executive Committee. To approve underlying transfusion procedures and guidelines

• To review the performance of the Trust in the following areas and to agree any recommendations for change:
  - Serious transfusion adverse events or reactions reported to MHRA and SHOT) scheme.
  - National and Regional audits of clinical transfusion practice
  - Blood usage and wastage, including comparison with peers
  - Laboratory performance, including turnaround, external quality assessment and compliance with CPA
  - Compliance with MHRA, National Health Service Litigation Authority (NHSLA), NPSA, Care Quality Commission (CQC)
  - Compliance with National Guidelines
  - Compliance with HSC 2007/001

• To agree an ongoing programme of local audit of clinical practice

• To make recommendations on the structure and content of local training programmes

• To advise on the implementation of new national recommendations and regulations

• To make any other recommendations for change in practice in the interest of improved patient care

Minutes are sent to all members of the committee.

Service and Corporate Directors and their Teams

Directors and their teams are responsible for ensuring that all aspects of the transfusion policy are implemented within their area.

Clinical Area Managers (e.g. Matrons, Clinical leads)

This group of staff are responsible for:

• Defining the required transfusion competencies for each staff member and keeping records of achievement

• Designating appropriate personnel to competency assess staff within their service directorate

• Overseeing staff attendance at training sessions

Medical Staff

Medical staff are responsible for:

• Ensuring that patients (or their relatives/carers) have understood why they may need a blood transfusion when they are consented for a surgical procedure, or are embarking upon their first episode for haemato-oncology support, or for other medical reasons. Information leaflet NHS Blood and Transplant version 'Receiving a blood transfusion' must be offered to the patient (or relative/carer) either at the consent stage or prior to the transfusion.

• Ensuring that patients who refuse blood transfusion are counselled and consented in accordance with Trust protocols

• Authorising the use of blood components taking into account any specialist components or any age-related requirements

• Ensuring that there is adequate information documented within the case notes to justify the use of blood components

• Reporting to the transfusion laboratory any transfusion reaction of sufficient severity to cease transfusing that unit.

• Undertaking training and observation based competency assessments in accordance with the NPSA requirements, if involved in taking blood samples or administering blood transfusions

• When administering blood to a patient, strictly following the Trust's procedures

Registered Practitioners

Registered practitioners are responsible for the management of transfusion episodes other than those being directly supervised by a doctor. In doing so they must:

- Undertake training and competency assessment in accordance with the NPSA requirements and as requested by the Clinical Area Manager, to perform the functions of collecting blood from designated refrigerators and administering blood transfusions.

- At all times follow the Trust procedure for patient identity checks prior to administering blood

- At all times complete the documentation to provide an audit trail of the transfusion

- At all times monitor the patient in accordance with the Trust procedure and report all suspected transfusion reactions to a member of the medical staff

Senior nursing and midwifery staff may be designated by clinical leads to request blood components following the relevant training and competency assessment. ODPs and qualified midwives can phone for blood on behalf of medical staff in theatre.

Other staff responsibilities

Blood can be collected from satellite and main issue fridges by any grade of staff provided they have been trained and competency assessed.

The Transfusion Laboratories

The laboratories have a responsibility:

- To manage the stock of blood components and products to meet the needs of patients within the Trust whilst minimising wastage, bearing in mind national supplies. This activity must be reported to the Blood Stocks Management Scheme

- To ensure that the laboratory practices meet the standards required by Clinical Pathology Accreditation (CPA UK Ltd) and the MHRA, and to inform the Consultant responsible of any non-compliances

- To participate in UK National External Quality Assessment exercises of Blood Transfusion Laboratory Practice

- To meet clinical requests for blood in a timely fashion

- To challenge clinical requests which do not meet the Trust guidelines, referring the requester to a Consultant Haematologist as necessary

- To collate evidence of transfusion from the clinical areas and to keep a 30 year record of all patients' transfusion activity within the Trust

- To respond, given the required resources, to changes in the clinical workload and case mix.

4 Definitions

Allogenic Blood: Blood components collected from one individual and intended for transfusion to another individual.

Blood component: A statement that refers to the common types of blood that are transfused. E.g. red blood cells (RBC), platelets, fresh frozen plasma(FFP) or cryoprecipitate.

Crossmatch: A request for a number of red cell units to be available for an individual patient.

Group Specific: Red cell units made available for an individual patient, without being fully crossmatch, (this type of request is done during emergency situation).

Group and Save: A blood sample that is sent to the Transfusion Laboratory for blood grouping and antibody screening and cross-matching should it become necessary. It is valid for 7 days unless the patient is transfused. Once transfused, the sample is valid for 72 hours from start of transfusion.

Core identifiers: Patients last name, full name, date of birth and Hospital number

Qualified Practitioner: The term is used throughout this document for ease of reading. 'Qualified practitioner' applies only to staff who have successfully completed their competency assessment and includes Facilities Staff Assistant (FSA), Health Care Assistants (HCA), nurses/midwives, operating department practitioners (ODPs) and doctors.

Registered Practitioner: A registered member of the General Medical Council (doctors) or a registered member of the Nursing and Midwifery Council (nurses and midwives)

5 Development of the Policy

5.1 Prioritisation of Work

The justification for developing this policy is to establish safe working practice based on up to date clinical information to ensure that blood transfusions are only administered when there is a clinical need, that blood transfusions are administered to the correct patient, at the right time and that any adverse reaction is dealt with promptly and effectively. The Blood Safety and Quality Regulations (BSQR) 2005 put additional requirements on transfusion services for transfusion safety and quality,

5.2 Responsibility for Document Development

Key individuals involved in developing this document (main authors) are:-

Abdul Adamu Transfusion Practitioner, Whittington Health
James Dalton, Blood Transfusion Laboratory Manager Whittington Health

5.3 Equality Impact Assessment

Uncomprehending patients

• An accompanying capable adult must answer on behalf of patients who are incapable of confirming their own identity (too young, unconscious, incoherent, language difficulties).

• An interpreter must be used if there is a language barrier

See appendix 8 for EIA details.

6. Requests for Blood Components

Medical staff and authorised specialist practitioners (see Appendix 5) are solely responsible for prescribing blood components and for ensuring that there is adequate documentation in the patient notes. The prescription **MUST** contain all the core data elements (Also see section 7. *Collection of blood samples for pre-transfusion compatibility testing* and any other clinical special instructions.

The rationale for the decision to transfuse and the specific components to transfuse **MUST** be documented in the patient's clinical records. Patients must be informed of the indication for blood transfusion, its risk and benefits and an information leaflet should be offered. All information given, written and verbal, and consent to proceed, should be clearly documented in the patient's clinical records.

Medical staff must alert the blood transfusion laboratory (ext 5766) if there are special transfusion requirements (e.g. Irradiated components, CMV negative components etc.) to ensure that the patient's laboratory record is flagged accordingly.

Extra caution is advised with shared care patients.

If in doubt seek advice from the blood transfusion laboratory (ext 5766)

	Please see Whittington Health Guidelines: **Special requirements for blood transfusion: Irradiated products / CMV negative products**

6.1 Non Medical Staff Prescribing Blood/Blood Components

See **Appendix 5** For more information and guidance

7. Collection of blood samples for pre-transfusion compatibility testing

SPECIMEN REQUIREMENTS

Correct patient identification is of paramount importance in all aspects of Blood Transfusion. To ignore this fact could prove fatal to the patient being transfused. All specimens received, within the Blood Transfusion Laboratory, must meet the following criteria.

1. All specimens must be labelled with the full name, date of birth and hospital number (NHS number for requests from GP's) and these must match the request form.

2. All specimens must be legible and not contain any amendments or crossings out.

3. The date and time the specimen was taken along with the signature of the phlebotomist is also required.

4. A clinical diagnosis or reason for the request must be on the request form.

5. For requests of blood components and products you MUST indicate any Special Transfusion Requirements (e.g. Irradiated, CMV negative etc.) on the request form.

6. Any specimen failing the above criteria will be rejected and the appropriate healthcare team informed as soon as possible especially if there are early requirements for blood components.

7. Any specimen that contains **clots** will be rejected and the appropriate healthcare team informed as soon as possible especially if there are early requirements for blood components.

8. All rejected specimens will be logged on to the LIMS and answered out with an appropriate comment.

IMPROVING THE SAFETY OF BLOOD TRANSFUSION: ABO CONFIRMATORY TESTING

Wrong Blood In Tube (WBIT) incidents continue to occur at the Whittington Hospital owing to failures during phlebotomy of patients. To protect patients from a potentially fatal transfusion reaction the following protocol has been adopted for those patients where there is no historical blood group record (30%).

1. A sample on admission, or from a pre-clerking clinic, will be followed by a laboratory request for a confirmatory sample, but only from those patients that have no previous blood group record. In these cases the following will be added to the blood transfusion laboratory report:

"ABO confirmatory sample required ASAP or upon hospital admission"

2. Telephoned requests will be vetted against the laboratory record and a second independent sample will only be requested for those cases requiring ABO verification.

3. Cross-matched blood units will not be released, **except in emergencies**, until ABO verification against a second independent blood transfusion sample has been performed. A confirmatory ABO group should only take 10 minutes to perform after receipt of the second sample.

4. **Two samples taken at the same time do not constitute a second confirmatory sample**. This will not protect the patient if identified wrongly during phlebotomy.

5. Infants on the Neonatal Intensive Care Unit are exempted from this protocol because they receive group O Rh(D) Negative red cell transfusions.

Only 'qualified practitioners' (see Introduction) are authorised to take blood samples. The individual who takes the blood sample is responsible for labelling and signing the sample at the patient's side. Ensure positive patient identification, **preferably verbally**, by getting the patient to state their **full name and date of birth** to avoid identification error. Also, check the patient's wristband. All blood transfusion samples must be clearly hand written. The following information is required before proceeding with sample testing or issue of blood components.

Request form:	**Sample tube:**
Hospital Number	Hospital Number
Full name, sex	Full name, sex
Date of birth	Date of birth
Collection date	Collection date and time
Name of consultant	Signature of phlebotomist
Ward/destination	
Reason for request/clinical details	
Quantity and type of blood component	
Date and time required	
Name and bleep number of prescriber	
Name and signature of phlebotomist	

The **absolute minimum** is a **full name, hospital number and date of birth**

Clinical details, date and time of requirements and number of units required must be stated if we are to provide an efficient service.

	Please see Whittington Health Guidelines: ***Blood (Red cells), Fresh Frozen Plasma & Cryoprecipitate, Platelets,*** **Extended use of recombinant factor VIIa,** ***Prothrombin Complex Concentrate (PCC).***

The **Group, antibody Screen and Save (GSS)** is the most important test in the laboratory relating to compatibility testing. It is more sensitive than the cross-match technique.

For the **GSS** with or without a cross-match request, an **anti-coagulated** blood sample is required.

Short specimens defeat the object of a GSS policy by leaving too little plasma for compatibility testing should it become necessary.

Adult: at least **3ml** in 6ml specimen bottle pink top

Neonatal at least **0.75ml** in 1ml red top specimen bottle

Paediatric: at least **3ml** in 6ml specimen bottle pink top

Cross-matched blood (red cells) should only be requested:

- for those cases indicated *(see clinical management guideline 'Blood (Red Cells) Clinical Use).*
- where the delay in provision of blood (red cells), owing to atypical antibodies, is unacceptable.
- where clinical circumstance dictate.

Deviations from the guidelines must be justified by giving the clinical indications.

Failure to do so will result in the Blood Transfusion Laboratory contacting the clinician responsible. This is time consuming for all concerned but necessary if we are to run an effective service.

Blood transfusion specimens are held for **7 days** (longer if indicated on the request form but only up to a maximum of 42 days).

If a **valid GSS sample** is held in the laboratory, red cells for transfusion can be supplied within **5-10 minutes** of request if there are no atypical antibodies present. To avoid a potential **transfusion reaction,** once a patient has been transfused, a new sample is required to check for

antibody development after 72 hours. This and subsequent samples are only **valid for up to 3 days (72 hours)** because this is considered the most practicable and safest interval between sampling and transfusing.

Less than 3% of patients have **atypical antibodies**. These take longer to provide compatible red cells for but in most instances this will add no more than **2 hours**.

However, **complex antibody** cases can take **hours and even days** to provide red cells for. For this reason consideration should be given to using **pre-clerking clinics** to identify those patients where there may be some difficulty in providing compatible red cells.

Cross-matched red cells are processed for the date and time indicated on the request form. The units are **re-claimed** and returned to stock at 9am on the next but one working day if un-used (unless the laboratory is otherwise informed).

A GSS request can be altered to a cross-match request by **telephone**. The full name, hospital number, date of birth, clinical details, date, time and number of units required must be given.

While on the phone the laboratory will check sample availability and antibody status and alert the requesting clinician to any problems or delays.

Neonatal requirements:

An initial **Group, antibody Screen and Save (GSS)** is valid for up to **4 months** of age providing the antibody screen and Direct Antiglobulin Test (DAT) are negative and there are no maternal antibodies.

There is an increased risk of development of antibodies to transfused red cells after the first 4 months post natal. For this reason all infant testing is the same as adults after 4 months from birth.

8. Storage of blood components

Red Cells (RC) have a shelf life of up to 35 days while stored at $4^{o}C$ (+/- $2^{o}C$) in an approved blood bank refrigerator. This is to maintain red cell viability up to the expiry date of the unit and to minimise the multiplication of chance bacterial contaminants.

The main blood refrigerator is outside the Blood Transfusion department on Level 5, Diagnostic block. Only '**qualified practitioners'** (see Introduction) are allowed access to the approved blood bank refrigerators.

Subsidiary approved blood bank refrigerators are located at:

Operating theatres, Great Northern Building.

Labour ward, St Mary's wing

Thalassaemia unit, Great Northern Building

These are for use by their respective departments only.

If a pack of red cells is allowed to reach a higher temperature for an extended period (i.e. more than 30 minutes) its functional life span will deteriorate rapidly.

Red cells being actively transfused into a patient are not affected by this time limit as once the donor cells pass into the recipient's circulation they will have an ample supply of nutrients.

If a unit of red cells has been out of the blood bank for more than 30 minutes and there is no longer the intention to transfuse then inform the blood transfusion laboratory (ext 5766), label the unit '**Out of temperature control'** and return it to the laboratory for documentation purposes and disposal.

Fresh Frozen Plasma (FFP) and Cryoprecipitate (CP) have a shelf life of up to 2 years while stored below -30oC (in the blood transfusion laboratory).

They are thawed in a controlled manner (45 minutes) within the blood transfusion laboratory and then are for immediate infusion (within 4 hours)

Platelets Have a shelf life up to 7 days at 22^{o}C on an agitator (in the blood transfusion laboratory) for optimum clinical benefit. Prompt commencement of transfusion must take place once the platelets are removed from this storage environment.

Human Albumin Solutions (HAS) have a shelf life of up to 3 years and are stored between 2^{o}C and 25^{o}C (in the blood transfusion laboratory). They must be stored out of sunlight.

Recombinant Factor 7a (rVIIa) has a shelf life of up to 3 years stored between 2^{o}C and 25^{o}C (in the blood transfusion laboratory).

Prothrombin Complex Concentrate (PCC) has a shelf life of up to 3 years stored between 2^{o}C and 25^{o}C (in the blood transfusion laboratory).

9. Collection and delivery of blood components to the clinical area

Only '**qualified practitioners'** (see Introduction and Definitions) are authorised to request the collection or collect and deliver blood components for transfusion.

The person collecting blood components will require a collection form (see Appendix 1 – Blood and Blood Products Single Collection Form) with written details of the patient's **SURNAME, FIRST NAME, DATE OF BIRTH and HOSPITAL NUMBER**, in order to identify the correct unit to be collected. The collection form must also contain the name and extension number of the requesting staff.

The blood bank fridges are now secured by digital locks and only '**qualified practitioners**' are authorised to have access.

Locate the unit of blood in the blood bank by matching the patient details on the Traceability Tag (see Appendix 2 – Traceability Tag) with those on the **Blood and Blood Products Single Collection Form** (see Appendix 1 – Blood and Blood Products Single Collection Form).

9.1 Inspection of blood component pack

The blood component pack should be inspected before administration and returned to the blood transfusion laboratory if any abnormalities are found. Particular attention should be paid to the integrity of the pack, checking for leaks at the ports and the seams; and evidence of unusual colour or turbidity which may indicate bacterial contamination.

9.2 Checking Procedures

Only '**qualified practitioners'** (see Introduction and Definitions) are authorised to check and administer blood components to the patient.

Transfusion should only take place if there are sufficient staff to monitor the patient and the patient can be readily observed. See appendix

The '**qualified practitioner'** who administers the blood component must perform the final administration check at the patient's side immediately prior to transfusion.

The vast majority of transfusion errors are caused by giving blood to the wrong patient

The bedside check is a vital step in preventing a transfusion error

One 'qualified practitioner' has overall responsibility for this checking and must sign the blood unit Tag and relevant prescription chart

Students within clinical practice are only permitted to check blood components under supervision of a 'qualified practitioner'.

Patient identity – Immediately prior to administration of the blood component, the '**qualified practitioner'** must check the following on the Traceability Tag against the patient, preferably verbally by getting the patient to state their name and D.O.B. (positive patient identification) and also by checking the patient's wristband (**No wristband – no transfusion**).

Surname

First Name

Hospital Registration Number

Date of Birth

Unit identity - The '**qualified practitioner'** must also cross-check the following on the blood pack label against the Traceability Tag:

Unit number

Group (that it is compatible)

Expiry date

Component type - The prescription sheet must be checked by the '**qualified practitioner**' against the Traceability Tag to ensure that the correct blood component is being given.

REDCELL

PLASMA (Fresh Frozen Plasma)

CRYO (Cryo-precipitate)

PLATELET

ANTI-D (anti-D immunoglobulin)

ALBUMIN

NOVO7 (recombinant factor 7a)

BERIPLEX (Prothrombin Complex Concentrate)

Special requirements - The prescription sheet must be checked by the '**qualified practitioner**' against the blood pack label (not the traceability tag) to ensure that any special requirements are met e.g. Irradiated products, CMV negative products etc.

10. Administration of blood components

Only 'qualified practitioners' **(see Introduction and Definitions)** are authorised to check and administer blood components to the patient.

Overnight Transfusion: Patients without urgent clinical need SHOULD NOT be transfused overnight

Qualified practitioners who are responsible for patients receiving blood component transfusions must ensure that the **Transfusion Record** (see Appendix 3) is completed and that each peel off label on the Traceability Tag (see Appendix 2) is signed as required and stuck into the Transfusion Record. Use a ball point pen and press firmly on the peel off label so that a copy of the date, start time and signature is visible when the label is peeled off.

Blood components must be infused through a blood administration set that has an integral filter to trap large aggregates. This does not apply to ANTI-D (anti-D immunoglobulin), ALBUMIN, NOVO7 (recombinant factor 7a) and BERIPLEX (Prothrombin Complex Concentrate).

Blood administration sets must be changed at least 12 hourly OR after 3 units of red cells, sooner if large aggregates are slowing the required rate of transfusion (see Clinical Management Guidelines on the use of the various blood components e.g. Red Cells, Platelets, etc.)

Top up' transfusions for neonates, of up to 40mls red cells from a neonatal blood pack, are to

	Please see Whittington Health Guidelines: ***Blood (Red cells), Fresh Frozen Plasma & Cryoprecipitate, Platelets,*** **Extended use of recombinant factor VIIa,** ***Prothrombin Complex Concentrate (PCC).***

be drawn in to a syringe via a specified blood filter, especially for paediatric use, prior to administration to the neonate.

Blood components may be administered through an approved infusion pump provided that it is with a blood component giving set that is approved for use with that pump.

A pressure cuff or Rapid infuser may be used to enable rapid transfusion, when requested by a **qualified practitioner**.

The blood component must be administered at the rate specified on the prescription chart (*see Clinical Management Guidelines on the use of the various blood components e.g. red cells, platelets, etc.)* and each unit should be completed **within 4 hours** of its arrival from the blood refrigerator. If a blood unit has not been completed within this time, medical advice should be sought.

Medication must not be added to blood components as this may cause an adverse reaction. In the event of an adverse reaction it would not be possible to determine whether this was due to the blood component, the medication or an interaction of the two. Any infusion other than normal saline should be discontinued and the cannula flushed with normal saline before commencing the transfusion.

Blood components must never be heated by any method other than by the use of a special blood warmer. The blood warmer must regulate its temperature between 37^{o}C - 43^{o}C and must contain a visible thermometer and an audible warning device.

Blood components are only warmed in specific circumstances such as:

i. Transfusion at a rapid rate

   (50 ml/kg/hour for an adult)

   (15 ml/kg/hour for a child)

ii. Exchange transfusion

11. Care of Patients Receiving a Transfusion

11.1 Observations

Regular visual observations of the patient **MUST** be performed and documented appropriately so that early diagnosis of adverse reactions and complications may be made.

Transfusion observations must be clearly distinguishable from other routine observations and filed in the patient's clinical notes. (See appendix 7).

Vital signs (Blood Pressure, Temperature, Pulse and Respiration Rate) **MUST** be recorded less than 60 minutes before the **start of each unit** of blood component and then at **15 minutes**, 45 minutes and hourly during the transfusion unless otherwise indicated (see Appendix 3 Blood and Blood Products Transfusion Observation Chart)

More frequent observations may be required for patient undergoing rapid transfusions or where the patient is unable to complain of symptoms that would raise suspicion of a developing transfusion reaction.

The time that each unit was completed should be recorded in the patient's clinical record.

Post transfusion vital signs should be recorded 15 minutes after each unit of blood component. Upon completion of the transfusion all used bags/containers should be disposed of locally as clinical waste unless there is an **adverse reaction or incident**.

An indication of whether or not the transfusion achieved the desired effect and the details of any reactions must be documented in the patient's clinical record.

Inpatients should be observed for late reactions during the subsequent 24 hours. **Day case and short stay transfusion patients should be counselled about the possibility of delayed transfusion reactions and given a contact telephone number of the clinical team for access to immediate clinical advice should it become necessary.**

11.2 Action to be taken if problems arise during administration

In each of the following situations, the doctor responsible for the patient must be informed immediately *(see Appendix 4 - Procedure for Blood Component Administration Incident).*

Should the patient show any signs of an adverse reaction to the blood component or should any visible change in the appearance of the blood component be noted, administration must cease immediately and advice sought *(See the Clinical Management Guideline - Acute transfusion reactions – Management and investigation* plus *Sources of immediate help – see 11.3* below*).* Where advised the pack and giving set should be returned to the blood transfusion laboratory with an Acute Transfusion Reaction Report form (found on the intranet under Blood Transfusion).

	Please see Whittington Health Guidelines: **'Acute transfusion reactions – Management and investigation'**

Records of the amount of blood component administered and the amount of any intravenous fluid administered following the discontinuation of the transfusion must be entered on to the fluid chart.

If an error in administration occurs the head/senior for the area OR the site manager covering the hospital must be informed. Guidance must also be sought from the clinical haematologist. A Trust Incident Report must be submitted and details of the error must be recorded in the nursing notes and medical notes.

The blood transfusion department **must** be informed immediately of any such error.

11.3 Sources of immediate help

- Blood Transfusion Laboratory ext 5766
- Out of hours duty haematologist – bleep 2686
- Clinical haematologists – bleeps 3037, 3060
- Transfusion Practitioner – bleep 2953

12. Preservation of records

The Department of Health require a record of every transfusion to be available in the patient's case notes. Qualified practitioners who are responsible for patients receiving blood component transfusions must therefore ensure that the **Transfusion Record** (see Appendix 3) is completed and that each peel off label on the Traceability Tag *(see Appendix 2)* is signed as required and stuck into the Transfusion Record. Use a ball point pen and press firmly on the peel off label so that a copy of the date, time and signature is visible when the label is peeled off.

The Blood Safety & Quality Regulations (2005) require positive verification of all transfused units. To meet this regulatory requirement the appropriate part of the completed Traceability Tag (left side) should be separated and placed in the clear plastic boxes labelled "Traceability Bag Tags" found in each clinical area. These Tags are routinely collected by the transfusion practitioner or deputy and returned to the laboratory for processing.

The following details must be recorded:

i. The time and date at which each unit commenced transfusion must be entered onto the Traceability Tag and prescription sheet, together with the signature of the '**qualified practitioner'** who checked the blood component

ii. Any deviations from normal ranges of temperature, pulse, respiratory rate or blood pressure and any other signs of adverse reaction. These must be recorded

on the **Transfusion Observation Chart** (see appendix 3) and also in the nursing/medical notes together with details of the action taken.

The Blood Safety & Quality Regulations (2005) stipulates that the traceability of all blood components, from donor to the patient (or disposal), is essential and that this information must be retained for 30 years. Paper, microfiche film, IT systems or a combination of these is acceptable for the purposes of these regulations.

13. Training and Assessment of Competence

In accordance with the training needs analysis matrix for Whittington Health, it is a statutory requirement that all groups of staff involved in any part of blood transfusion process must take part in transfusion training and pass the required competency assessment. This is recommended by The National Patient Safety Agency (NPSA) Safer Practice Notice14 (9 November 2006) and is necessary for NHSLA compliance. Additional training in blood transfusion is included in FY1/FY2 doctors' training programmes.

In line with the NPSA Safer Practice Notice 14, all members of staff who take samples for pre-transfusion testing, who collect blood or who administer blood must have been trained and passed the required competency assessment every two years. The criteria for competency must be based on the NPSA requirements. Any differences must be risk assessed and the documents approved by the appropriate Trust Committees.
The transfusion competency assessment is available on the Trust intranet which is monitored regularly by the Transfusion Team.

See Appendix 6 for further details.

14. Consultation, Approval and Ratification Process

Stakeholders Consulted

Dr Farrukh Shah, Consultant Haematologist
Dr Marin Kuper, Consultant Anaesthetist
Ms Guy Henson, Consultant Obstetrician
James Dalton, Blood Bank Manager
Dr Sheena Mitchel, Consultant COOP
Mr Pratik Sufi, Consultant Surgeon
Emma Prescott, Thallasaemia Nurse Specialist
Louise Brenan, Midwifery Risk Manager
Steven Packer, Housekeeping/Domestic Service
Mr Charallambus Charallambedis, Consultant Orthopaedics
Wendy King, Paediatric Oncology Nurse Specialist
Matrons group

Approval of Policy

This policy is ratified by the Transfusion Committee and approved by the Clinical Quality, Assurance and Governance Board.

15. Dissemination and Implementation

Once the policy has been ratified the policy will be disseminated via email to the following:-

Divisional Directors
Divisional Matrons
Clinical Directors
Portering Services Manager
Hospital Transfusion Committee Members

The policy will also be available via the Whittington Health intranet.

16. Process for Monitoring Compliance and Effectiveness

16.1 Standards/Key Performance Indicators

There will be annual reviews of all aspects of the blood transfusion process to ensure compliance. These will cover but not be limited to prescription and requesting, Sample collection, Component storage, Collection and delivery of components, bedside checking procedures, Administration and observation, patient clinical records and traceability. Overseeing the implementation of this audit is the responsibility of the hospital transfusion practitioner. The results of the audit are reported on an annual basis to the hospital transfusion committee.

Attendance at training is collected by the Education Department who enter the data on the OLM section of the Electronic Staff record (ESR) and disseminate this information to the Directorates as requested. Attendance is monitored by the Transfusion Team. Details of monitoring mandatory training and reporting accountabilities are also described in the Mandatory Training Policy.

16.2 Responding To Issues Relating to Policy Implementation

The nominated lead and the appropriate committee are expected to read and interrogate any monitoring report presented to identify issues/deficiencies and act upon them. Required actions will be identified and completed within a specified timeframe. All agreed actions pertaining to the above will be recorded in the minutes of the appropriate committee.

Required changes in practice will be identified and actioned within a specific timeframe. A nominated lead will be identified to take each change forward where appropriate. Lessons learnt will be shared with all the relevant stakeholders. All agreed actions pertaining to the above will be recorded in the minutes of the appropriate committee.

17. References

The Administration of blood and blood components and the management of transfused patients: BCSH, BTTF, RCN, RCS.

Handbook of transfusion Medicine: HMSO.

Guidelines for the use of red cell transfusion BCSH

Guidelines for the use of platelets BCSH

Guidelines for the use of fresh frozen plasma and cryoprecipitate BCSH

Guidelines for neonates & older children BCSH

Compatibility testing in hospital blood banks BCSH

Blood Safety & Quality Regulations

National Patient Safety Agency Safer Practice Notice 14 (9 November 2006)

Green J and Pirie E, (2009). A Framework to Support Nurses and Midwives Making the Clinical Decision for Blood Component Transfusion. NHSBT

Nursing and Midwifery Council (2008). Standards of conduct, performance and ethics for nurses and midwives. NMC, London

Department of Health (2007). Better Blood Transfusion – *Safe and Appropriate Use of Blood*. HSC 2007/001 November 2007

18. Associated Documentation

The following Whittington Health guidelines/policies:

'Acute transfusion reactions – Management and investigation'

Blood (Red cells), Fresh Frozen Plasma & Cryoprecipitate, Platelets, Extended use of recombinant factor VIIa,

Prothrombin Complex Concentrate (PCC).

Special requirements for blood transfusion: Irradiated products / CMV negative products

Patient Identification Policy

Appendix 1: Blood and Blood Products Single Collection Form

Blood and Blood Products Single Collection Form

Date: time: ward/department:

Name of requesting Staff: extension number:

Patient details

Full Name: Hospital No: DOB

Request is for: (tick appropriate box)

Blood ☐ Cryo-preciptiate ☐ Platelets ☐ Fresh frozen plasma (FFP) ☐

Received in ward/department by:

Date: time: signature print name

Porter

Date: time: signature print name:

Match the unit selected with the blood transfusion ledger (adjacent to the blood bank fridge) and date, time and sign the ledger.

Only collect **one unit of red cells at a time** unless specifically requested to do otherwise or unless transferring to another approved blood bank *(see section 8 above)*

Red cells transported from the blood transfusion department must be carried in an insulated 'cooler' box specifically provided for this purpose. Ice **must not be added** to these boxes but cool inserts (obtainable from the blood transfusion laboratory) may be used.

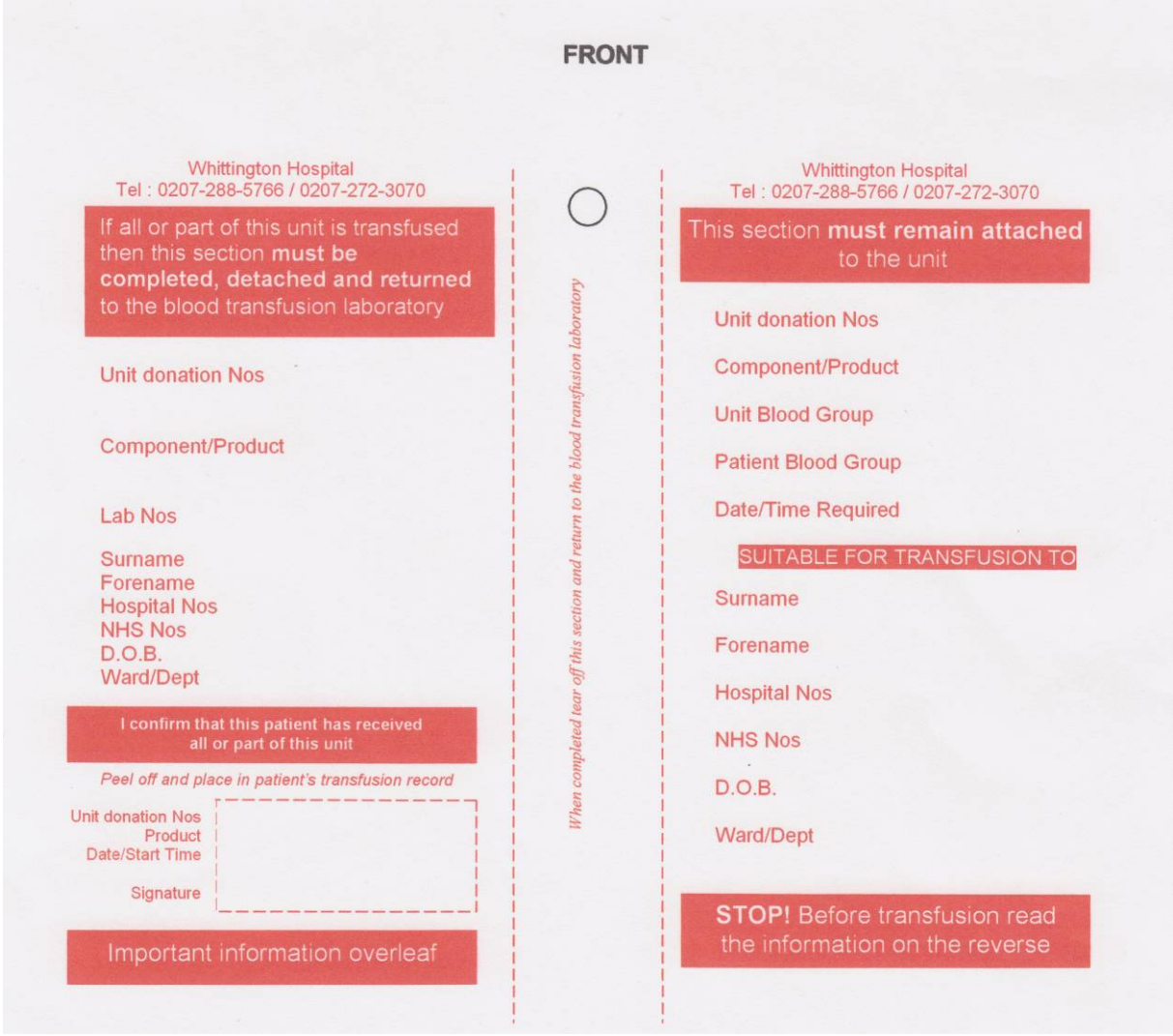
The person collecting the blood component MUST hand it over for immediate checking on reaching the clinical area and wait for receipt of the fully documented collection form *(see above).*

Immediately upon arrival of the blood component in the clinical area, the qualified practitioner responsible for requesting the collection of the blood component from the blood transfusion laboratory must ensure that:

i. Red Cells are removed from the blood bank refrigerator one unit at a time unless transferring the red cells to a subsidiary approved blood bank refrigerator *(see section 8 above)*
ii. The unit is checked immediately against the prescription sheet to ensure that the component received matches that prescribed.
iii. The collection form is dated, signed and timed and handed back to the porter.
iv. Transfusion commences immediately and certainly within 30 minutes of arrival of the blood component for optimum clinical benefit

Red cells that do not commence transfusion within 30 minutes of arrival in the clinical area may still be considered suitable for the named patient PROVIDED that transfusion is completed within 4 hours. If not, the unit **must** be labelled **'Out of temperature control'** and returned to the blood transfusion department for documentation and disposal purposes. The department must also be informed by telephone (ext 5766).

Appendix 2: Traceability Tag Front and Back



BACK

STOP!
ALWAYS PERFORM THE BEDSIDE
PRE TRANSFUSION CHECKS

Check That the patient is wearing a wristband.
No wristband – No transfusion

Check The patient's identification by asking them to state their name and DOB (if able)

Check That the patient's details match on all of the following:
- The verbal details if given
- The wristband
- This label
- The transfusion record
- The prescription chart

Check The blood pack details:
- the pack number must match the **Unit donation Nos** on this label
- the pack must not have exceeded its **expiry date**
- the pack must display the requisite **special requirements** where appropriate for the patient

Check The blood pack for abnormalities such as clots, discolouration or damage.

If there are any discrepancies or abnormalities – DO NOT TRANSFUSE!
Contact the blood transfusion laboratory ext 5766 or bleep 2686

TRANSFUSION REACTIONS

If suspected **STOP** the transfusion
Contact the patient's medical team

See Clinical Guidelines on intranet
– Acute Transfusion Reactions, Management & Investigation

If the reaction is deemed serious then the medical team should contact:
- the duty haematologist via switchboard
- the blood transfusion laboratory ext. 5766 or bleep 2686

IMPORTANT

IT IS A LEGAL
REQUIREMENT

The section overleaf must be checked, completed, detached and returned to the blood transfusion laboratory if all or part of the unit has been transfused.

Returns may be made by placing the completed detached section in to the designated collection box on the ward / department

Or

through the internal post

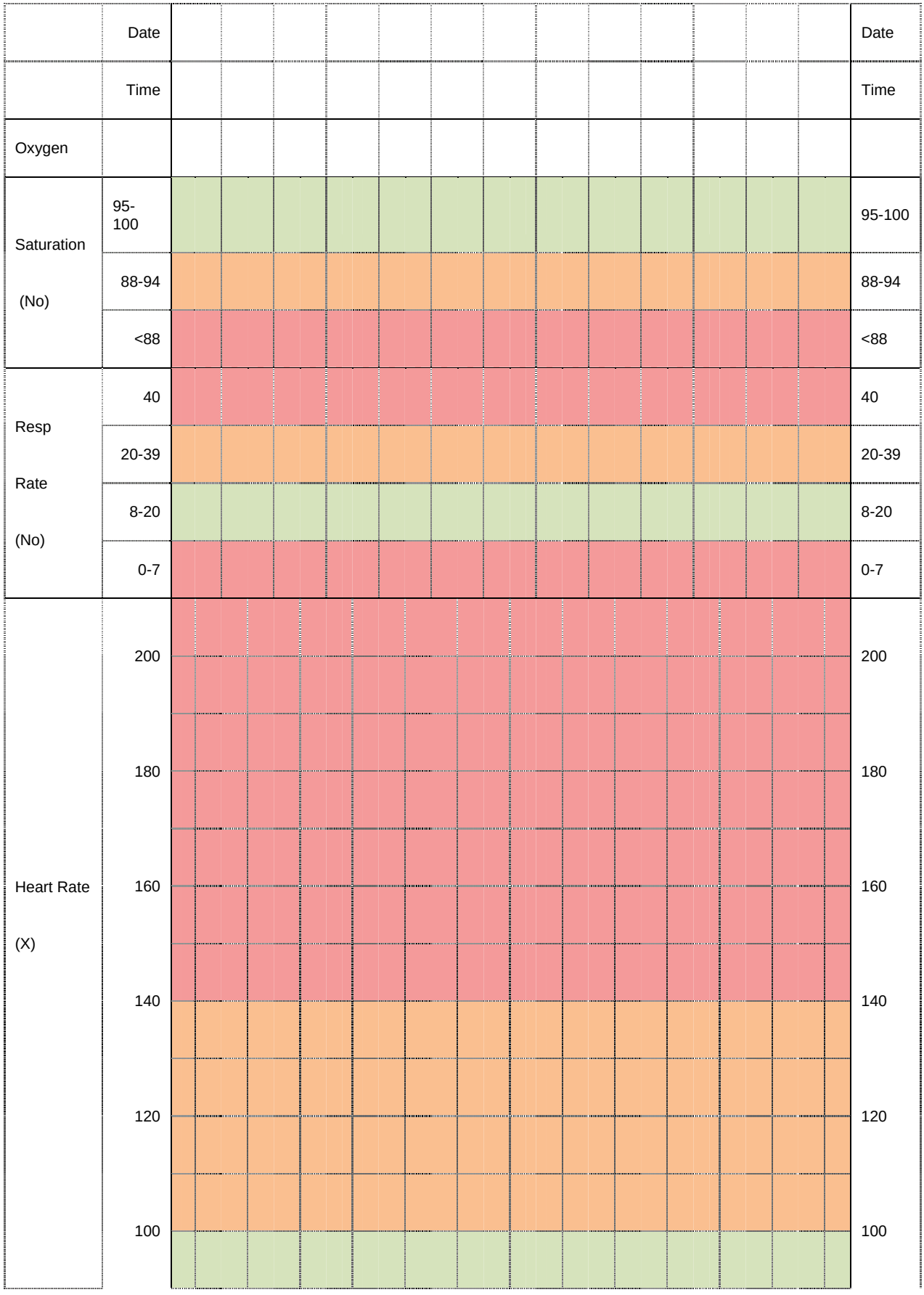
Transfusion Rates

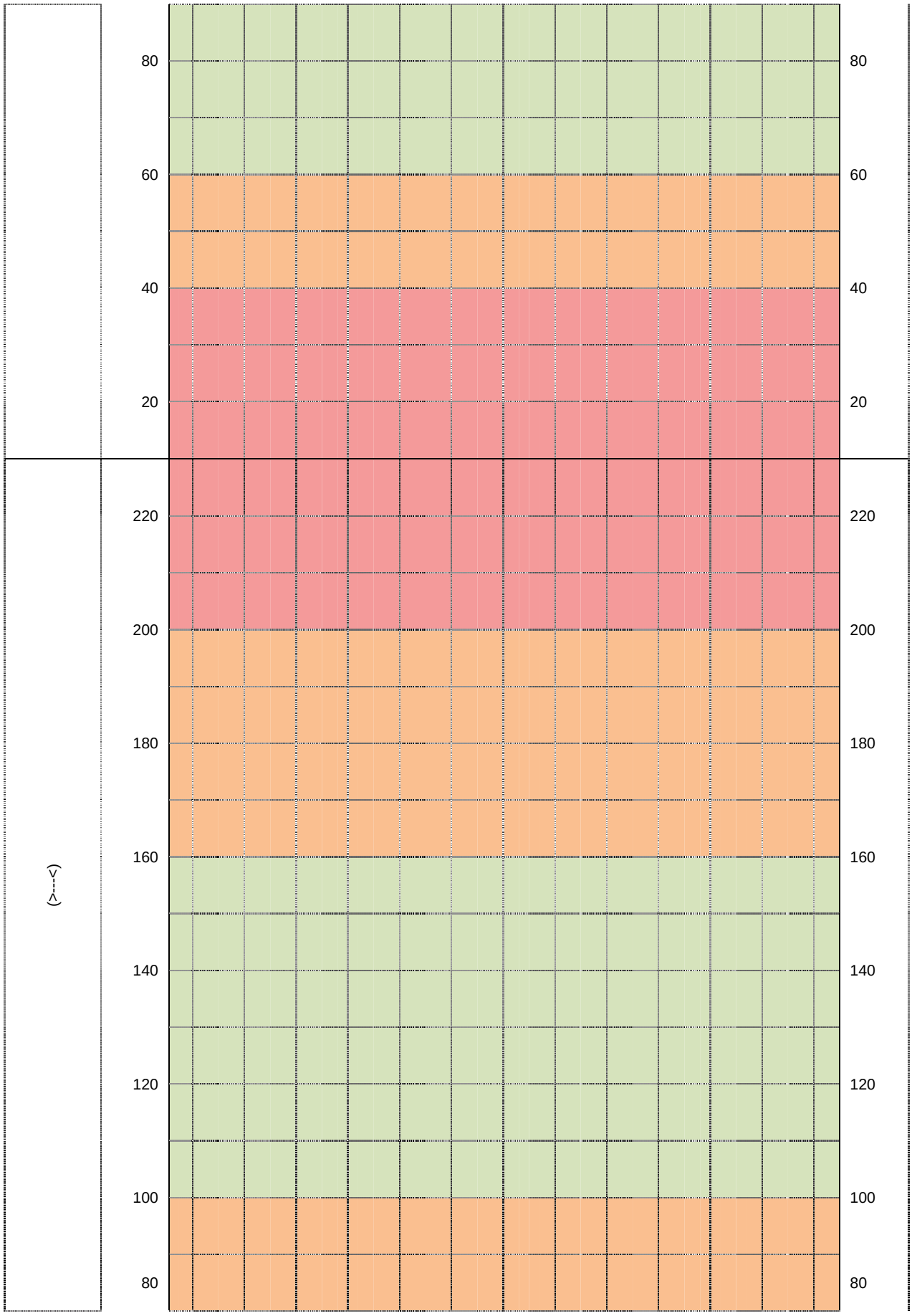
In the absence of cardiovascular disease the following transfusion rates apply. If in doubt discuss with the clinical haematologists.

Red cells 2 – 4 mL/min	
	(maximum of 4 hours/unit)
Fresh Frozen Plasma	5 – 10 mL/min
Cryoprecipitate	5 – 10 mL/min
Platelets	10 mL/min
Human Albumin Solution 4.5%	
1 – 2 mL/min (normal blood volume)	
15 mL/min (low blood volume / shock)	
Human Albumin Solution 20%	
1 – 2 mL/min	

The use of a blood warmer is recommended in the following instances.
Adult transfusion rate of more than 50 mL / kg body weight / hr
Child transfusion rate of more than 15 mL /kg body weight / hr
Infants undergoing exchange transfusion

Appendix 3: Transfusion Record and Observation Chart




80
60
40
20
220
200
180
160
140
120
100
80
(>---<)

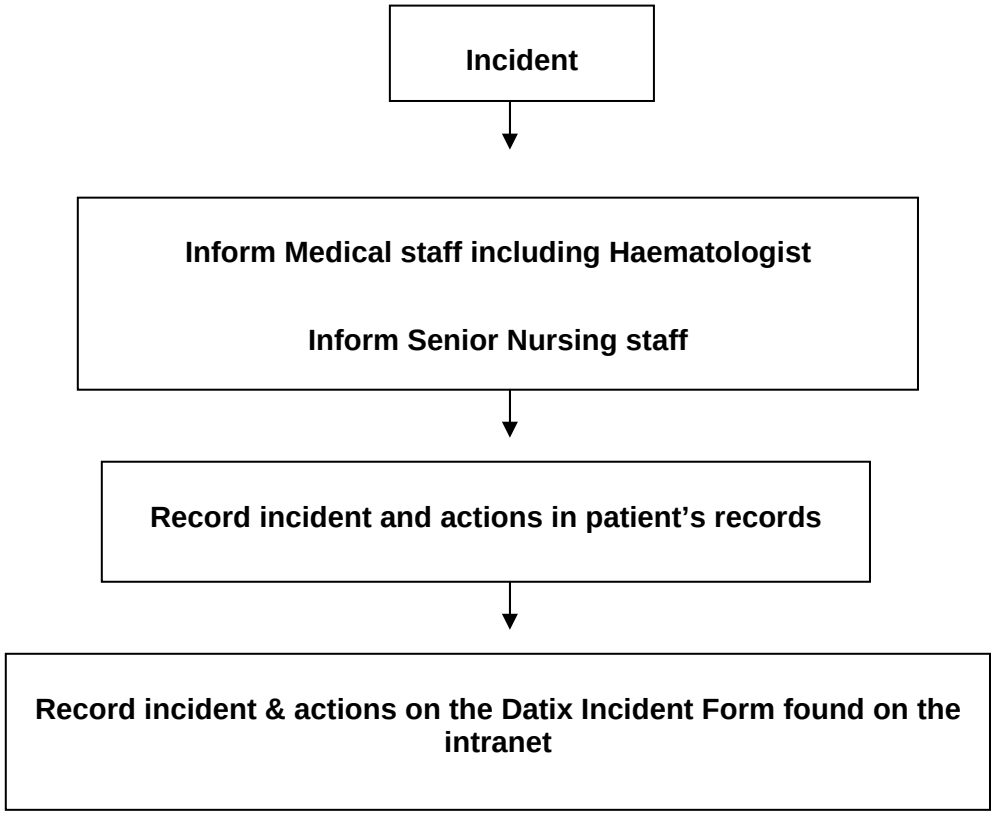
	60		60
	40		40
Responds	Alert		Alert
to	Voice		Voice
(X)	Pain		Pain
	Nil		Nil
	40		40
	38		38
Temp	36		36
(X)	34		34
	32		32
Urine ml/hr	>30		>30
(No)	0-30		0-30
Trigger?	Y/N		
Response	Level		

Call nurse in charge if any amber observation or if temperature rise > 1.5° Centigrade from baselineIf more than one amber or any red observations follow normal escalation pathway (see reverse of general observation chart)

15 minutes after transfusion ceases, restart normal observation chart

If suspected transfusion reaction, see Acute Transfusion Reaction Guideline urgently

Appendix 4: Procedure for Blood Component Administration Incident & Flowchart of Transfusion Pathway



Problems giving rise to a blood component administration incident may include but not be limited to:

- **A Major Acute Transfusion Reaction**
- **Incorrect patient identification**
- **Special blood transfusion requirement not met**
- **Blood component administered in significantly more or less time than planned**

Transfusion Pathway

Whittington Health NHS

Decision to Transfuse

This pathway and the Trust transfusion policy will support compliance with the National Blood Transfusion Standards. Only staff who have completed the transfusion training and competencies assessment can participate in the clinical transfusion process. In addition, staff who participate in blood collection also require to be competency assessed. Bleep Transfusion Practitioner 2953.

- Clinical judgment is vital and should be based on individual patient's needs, consider:
  - age and underlying medical condition
  - physiological status
  - the risks of transfusion vs. the benefit
- Clinical staff
  - Discuss with patient need for blood/blood component
  - Discuss alternatives and option to refuse
  - Provide patient information leaflet
  - Record informed consent in medical notes
  - Record indication in transfusion record

Sampling / Requesting

- Clinical Staff
  - Complete blood request form - include any special requirements where appropriate
- Clinical Staff/Phlebotomist/Support Staff eg Healthcare Support Worker
  - Confirm positive patient ID verbally where appropriate by asking the patient to state their full name and date of birth, and check wristband and documentation
  - Take sample for pre-transfusion testing
  - Label all samples beside the patient
  - Send blood sample and request form to hospital transfusion laboratory
- Laboratory Staff
  - Verify patient's details and book in the sample
  - Perform pre-transfusion testing
  - Select, label and issue compatible units if required

Blood Collection

- Clinical Staff/Support Staff
  - Ensure blood/blood component is available for collection
  - Ensure collection slip/patient identification matches with the patient
  - Ensure blood/blood components are prescribed before collection
  - Ensure patient has venous access
- Porter/Clinical Staff/Support Staff
  - Check collection slip/patient identification against the unit Tag on component
  - Sign, date and time the ledger book upon collection and collection slip
  - Deliver blood/blood components to clinical area in the appropriate container
  - One unit of red cell at time unless otherwise indicated
  - Get blood checked immediately upon arrival and signed for on collection slip

Administration

- Clinical Staff
  - Receive blood components in clinical area
  - Undertake pre administration checks:
  - Step 1: Check the blood component has been prescribed
  - Step 2: Inspection of bag, check for leaks, discoloration and clumping and check expiry date
  - Step 3: Undertake and record baseline observations
  - Ensure transfusion starts immediately

Do not proceed if in doubt.

- Clinical Staff/Support Staff
  - Ensure patient is wearing an identification band and confirm positive patient identification by asking the patient to state their full name and date of birth
  - Check this information matches identification band, the unit Tag and check Tag Vs blood bag
  - For compromised patients confirm the details with a relative or another member of staff
- Clinical Staff
  - Ensure blood transfusion documentation is completed for each unit administered
  - Sign, date and time, peel off label on traceability tag and stick in transfusion record
  - Return traceability tag by inserting it into the clear plastic box in your area

Monitoring

- Clinical Staff/Support Staff
  - Monitor and record patient's temperature, blood pressure and pulse as required
  - Continue recording observations hourly as a minimum and at end of transfusion
  - Repeat for every unit transfused
  - Ensure transfusion is completed within 4 hours of removal from fridge
  - Monitor and respond to any adverse event
  - Report any adverse event to senior staff and transfusion laboratory
- Clinical Staff
  - Reassess the need for further component and initiate blood collection process
  - Record completed transfusion
  - Record post-transfusion full blood count and clinical outcome in patient records
  - Ensure the patient knows they have had a transfusion and document that

Appendix 5: Non Medical Staff Prescribing Blood Components

This Non Medical Prescribing of Blood Components Policy is intended to respond to the changing needs of clinical practice and facilitate the care of patients under the Clinical Teams of Whittington Hospital NHS Trust by improving availability of blood components and quality of prescribing.

Section 130, 1968 Medicines Act has been amended by regulation 25 of the Blood Safety and Quality Regulations 2005 (SI 2005 no 50 as amended).

The effect of this amendment is to exclude blood components from the legal definition of medicinal products. Therefore, although the prescription of blood components has traditionally been regarded as the responsibility of a medical practitioner, there are no legal barriers to other appropriately trained, competent, registered practitioners ordering, authorising and administering blood components.

The recently published 'Guideline on the Administration of Blood Components', from the British Committee for Standards in Haematology, has included a recommendation that blood components should be prescribed by an appropriately trained and competent practitioner as defined by local organisational policies/guidelines (BCSH 2009)

1. Clinical Governance

Clinical governance procedures and risk management strategies must be in place to ensure that:

- The patient remains at the centre of all decisions taken
- All members of the healthcare team are involved in the planning and delivery of care
- There is transparency with reference to accountability for all individuals involved in delivery of care

Non medical prescribing of blood components will be specific for the specialist clinical areas and non transferrable between specialties.

2. Selection criteria for non medical prescribers

This role will be open to clinical nurse specialists with the agreement of all key stakeholders in the area of practice i.e. medical consultants and line managers. Practitioners undertaking this role will be expected to exercise a high level of knowledge, expertise, clinical reasoning and diagnostic skills, working interdependently within a healthcare team and expected to utilise non medical prescribing on a regular basis. The role of non medical prescribers will be specific to their specialist clinical area e.g. Haematology/Oncology nurses for Haematology/Oncology patients only.

Appendix 6: Trust-wide Blood Transfusion Programme

In accordance with the training needs analysis matrix for Whittington Health, it is a statutory requirement that all groups of staff involved in any part of the blood transfusion process must take part in transfusion training and pass the required competency assessment. As recommended by The National Patient Safety Agency (NPSA) Safer Practice Notice14 (9 November 2006) and as required for NHSLA compliance.

Additional training in blood transfusion is included in FY1/FY2 doctors' training programmes.
Attendance at training is collected by the Education Department who enter the data on the OLM section of the Electronic Staff record (ESR) and disseminate this information to the Directorates as requested. Attendance is monitored by the Transfusion Team.

Assessment of Competence

In line with the NPSA Safer Practice Notice 14, all members of staff who take samples for pre-transfusion testing, who collect blood or who administer blood must have been trained and passed the required competency assessment every two years. The criteria for competency must be based on the NPSA requirements. Any differences must be risk assessed and the documents approved by the appropriate Trust Committees.
The transfusion competency assessment is available on the Trust intranet which is monitored regularly by the Transfusion Team.

Staff group, **Participants**	***Task***	**Training materials for staff who are already performing transfusion process**	**Training materials required for staff who are new to the transfusion process**	**Topics**	**Expected Learning outcomes**	***Session time***
Registered Nurse Midwife Student midwife Medical student ODP Doctors Health care Assistant/support worker	**(1) Obtaining a venous sample**	Video & Power Point Presentations, Safe transfusion e-learning and competencies assessment. IV study up-date	Video & Power point presentations, Simulative Practical procedure on Phlebotomy, Clinical guidelines and IV study. Competency assessment	♦ Transfusion policy and transfusion guidelines ♦ Serious Hazards of transfusion ♦ Transfusion process ♦ Blood sampling errors & incidents ♦ Roles & responsibilities	**X** Certificated **X** Ensure that all practitioners can participate in transfusion process safely, adhering to the Trust policy and guideline **X** Minimise risk to all patient and practitioners involved in the transfusion process **X** Optimising patient outcomes **X** Promote the effective and efficient use of blood	This Task requires two hours session time to cover. Some part of this task is being presented at the Trust Mandatory training update

Staff group, Participants	**Task**	Training materials for staff who are already performing transfusion process	Training materials required for staff who are new to the transfusion process	Topics	**Expected Learning outcomes**	Session time
Registered Nurse Midwife ODP Doctors	**(2) Ordering blood to be delivered to the clinical area**	Video & Power Point Presentations, Safe transfusion E-learning and competencies assessment	Induction training, Presentations & hospital guideline, Simulative questions & assessment, Safe transfusion e- learning and competencies assessment.	♦ Guidelines to practice ♦ Serious Hazards of transfusion ♦ Errors and incidents ♦ ABO & Rh Blood Group systems ♦ Indications for blood & blood components ♦ Massive blood transfusions ♦ Roles and responsibilities ♦ Traceability and documentation	**X** Certificated **X** Same as the above outcomes	This Task requires two hours session time to cover. Some part of this task is being presented at the Trust Mandatory training update

Staff group, Participants	**Task**	Training materials for staff who are already performing transfusion process	Training materials required for staff who are new to the transfusion process	Topics	**Expected Learning outcomes**	Session time
Registered Nurse/ Midwife ODP Porter Health Care Assistant/Support Worker Student Nurses Medical student Student Midwife	**(3) Collect blood for transfusion**	Video & power point presentations, Safe transfusion E-learning and competency assessment	Induction training, Simulative practical procedure and a visit to the Lab. Simulative questions and written assessment	♦ Serious Hazards of Transfusion ♦ Errors and incidents ♦ Types of blood components ♦ Cost of errors Safety measures ♦ Cold chain and traceability	**X** Certificated **X** Same as the above outcomes	This Task requires two hours session time to cover. Some part of this task is being presented at the Trust Mandatory training update

Staff group, Participants	**Task**	Training materials for staff who are already performing transfusion process	Training materials required for staff who are new to the transfusion process	Topics	**Expected Learning outcomes**	Session time
Registered Nurse Midwife ODP Medical Staff	**(4) Administer blood transfusions**	Presentations and scenario, Safe transfusion E-learning and competencies assessment	IV study day (including blood transfusion session) Competency assessment, Simulative practical procedure, Safe transfusion e- learning and competencies assessment.	♦ Guidelines to practice ♦ Serious Hazards of Transfusion ♦ Errors and incidents ♦ Consent and legal issues ♦ ABO & Rh Blood group System ♦ Role of the Doctor in transfusion process ♦ Blood and blood components ♦ Traceability and documentations	**X** Certificate **X** Same as the above outcomes	This Task requires two hours session time to cover. Some part of this task is being presented at the Trust Mandatory training session.

Staff group, Participants	**Task**	Training materials for staff who are already performing transfusion process	Training materials required for staff who are new to the transfusion process	Topics	**Expected Learning outcomes**	Session time
Anaesthetists	**Administer blood transfusions**	Presentations, Trust guidelines and Safe transfusion E-learning and competency assessment	Induction training, presentation, Hospital guideline and Safe transfusion E-learning level 1 & 2			
All registered nurses, midwives, ODPs, medical and supportive staff involved in blood transfusion are required to pass the Modules, which make up Safe Transfusion Practice levels 1 and 2 competencies.						

Appendix 7: Transfusion Core Care Plan and Transfusion Record

BLOOD & BLOOD PRODUCTS TRANSFUSION CORE CARE PLAN

NAME: **HOSP. No:** **WARD**

PROBLEM NUMBER: **(one per page)**

Date & Time	PATIENT PROBLEM/NEED	RN SIGNATURE	Review Date
	Patient requires a transfusion		
Date & Time	**GOAL/AIM**	**RN SIGNATURE**	**Review Date**
	Safe transfusion with prompt detection of potential side effects		
	facilitating timely interventions		
Date & Time	**PLANNED NURSING INTERVENTIONS**	**RN SIGNATURE**	**Review Date**
	NB If patient has had previous transfusion reactions, must		
	have ½ hourly observations throughout transfusion(s)		
	a. Blood transfusion record & consent completed by doctor		
	b. Ensure patient/carer understands reason and procedure		
	for transfusion, offer Transfusion leaflet		
	c. Advise patient to inform nurse if feeling 'unwell' during the		
	transfusion – ensure call bell is within easy reach		
	d. Ensure cannula is patent, secure and has correct dressing		
	e. Ensure identification (id) bracelet is correct		
	f. Cross check the details on the prescription, unit pack,		
	unit pack tag and id bracelet **NB** if any **discrepancies** are		
	found **do not** administer transfusion, call the doctor		
	g. 15 minutes before commencement, record baseline		
	observations; BP pulse, temp & respirations on blood		
	transfusion chart		
	h. Ensure the unit is started as **soon as possible** on arrival		
	to Ward – maximum of ½ hour (**NB** transfusion must be		
	completed within **4 hours** of commencement)		
	i. If warming the blood, **only** use approved blood warmer		
	j. Record start time on fluid chart and prescription chart		
	k. Commence transfusion and maintain close observation for		
	the first 15 mins, observe signs and symptoms of adverse		
	reaction* If any occur, **stop** the transfusion (do not disconnect)		
	& inform nurse in charge and doctor **IMMEDIATELY**		
	l. If the transfusion is discontinued inform the Transfusion		
	Laboratory (x 5677) & return the unit and giving-set to them.		
	m. Record observations 15 & 45 mins after commencement		
	n. Subsequently record observations hourly		
	o. Record completion time on fluid chart and prescription		
	p. Repeat 'h to o' for each unit transfused.		
	Treat each unit as a new transfusion		
	q. The giving set **MUST** be changed after 12 hours or after		
	the third unit is completed.		

- ***Signs & symptoms** of adverse reaction include: *temperature rises of 1.5 degree centigrade (or more) new complaints of a rash, rigor, unexplained hypertension/hypotension, tachycardia, loin/abdomen/chest pain, nausea, shortness of breath.*
- **NO medication can be added to the transfusion unit**
- **NO other IV fluids** can be connected to the cannula during a transfusion

Whittington Hospital — For further information refer to the Trust Blood Policy. ratified December 11

A Haematologist is always on call via cencom

Patient Name: ……

Hospital No: ……

BLOCK TRANSFUSION RECORD **Ward:** ……**DOB:** ……/……/……..

PRESCRIBING CLINICIAN: ……**CONS:**……**DATE:**……/……/……

Clinical Diagnosis

……

Indication for transfusion:……

Pre – Transfusion Hb……g/dl, Platelets……x10^{9}L , INR……, Fibrinogen…… Date of result……

Previous transfusion of blood/blood components: Yes / No If Yes, What?…… Date……

Previous reaction: Yes / No Describe……

*NB A Hb of **7g/dl** in healthy patients (9g/dl in older patients and those with known/likely cardiovascular disease) is acceptable unless symptomatic / active bleeding.* **Platelet transfusions are indicated** for the prevention and treatment of haemorrhage in patients with thrombocytopenia or defective platelets. See Whittington Hospital Guidelines: Haematology section on Blood Policy and Clinical Use of Platelets. **FFP and Crypoprecipitate** are required to correct clotting abnormalities in patients who are bleeding.

Patient consent

The patient has verbally consented to treatment of a transfusion of blood/blood components:

Information leaflets provided: ☐ Patient refused leaflet ☐ Unconscious patient ☐

Patient unable to communicate ☐ Parent/relative informed ☐ Leaflets not available ☐

Staff signature ……Print name ……Designation……

PRE TRANSFUSION CHECKLIST FOR BLOOD/BLOOD COMPONENTS

Reason for the blood/blood components transfusion recorded in the case notes ☐Yes ☐No

The following MUST BE completed before each unit of blood/blood component is commenced

	Unit 1	Unit 2	Unit 3	Unit 4
Unit of product prescribed correctly (drugs chart)	☐	☐	☐	☐
Venous access is patent	☐	☐	☐	☐
Verbal consent to transfusion obtained (where possible)	☐	☐	☐	☐
Unit within date	☐	☐	☐	☐
Unit of blood has been out of the fridge less than 1 hour	☐	☐	☐	☐
Patient identification wristband is in place	☐	☐	☐	☐
Patient name, hospital number & DOB match on:				
Identification band	☐	☐	☐	☐
Drug chart	☐	☐	☐	☐
Unit Tag	☐	☐	☐	☐
Blood group and unit number match on:				
Unit pack and Unit Tag	Y☐ N☐	Y☐ N☐	Y☐ N☐	Y☐ N☐
Special requirement (e.g. CMV-ve or irradiated blood)	Y☐ N☐	Y☐ N☐	Y☐ N☐	Y☐ N☐

Stick Unit Tag label here				

Appendix 8: Competency Certificate of Non-participation

Blood Products Transfusion Competencies Certificate of Non-Participation

Please refer to the Whittington Blood policy and procedure. This form must be used by all staff who will not be participating in part of /any of the Blood Transfusion Process at Whittington Hospital NHS Trust.

NPSA requirement: Competency assessment is required every 3 years for staff undertaking transfusion procedures

Staff Full Name: .....

Position: ..... Specialty: .....

Job title: ..... Ward/Dept: .....

This form must be completed by any member of the Whittington Hospital clinical or supportive staff whose role will not require them (at any stage), to undertake tasks within the blood transfusion process, that require formal assessment of competency.

The elements of the blood transfusion process which require formal assessment of practical competency are:

- **Pre-transfusion sampling**
- **Organising receipt of blood/blood components from transfusion laboratory**
- **Collection and transportation of blood/blood components**
- **Administration of blood/blood components**

The National Patient Safety Agency (NPSA) 'Right patient, right blood' safety alert requires all hospital staff involves in transfusion process to be formally assess for competencies on each element described above every 3 years.

For compliance with the Blood Safety & Quality Regulations 2005 all staff must be aware of their legal responsibilities with regard to blood transfusion practice and receive training appropriate to their role.

I have read this document and I undertake *not* to perform the task connected with blood transfusion process as listed below:

Place a (X) in the relevant box/es to indicate non-participation in that part of process.

B1. Prescription ☐

B2. Pre-transfusion sampling ☐

B3. Organising receipt of blood/blood components from the transfusion laboratory ☐

B4. Collection and transportation of blood/blood components ☐

B5. Administration of blood/blood components ☐

B6. Non-participation in any part of the process ☐

Please note: *Transfusion team reserve the right to contact you or your manager to confirm that you are not participating in any activity, which require competency assessment.*

Signature of staff stating non-participation: ..... Date.....

PLEASE NOTE: This certificate became obsolete if the staff is subsequently training/trained and competency assessed for addition to any part of the blood transfusion process.

Abdul Adamu 16/07/2008

Appendix 9: Equality Impact Tool

Equality Impact Assessment Tool

To be completed and attached to any procedural document when submitted to the appropriate committee for consideration and approval.

Impact **(= relevance)** **1 Low** **2 Medium** **3 High**	**Evidence for impact assessment (monitoring, statistics, consultation, research, etc**	**Evidential gaps (what info do you need but don't have)**	**Action to take to fill evidential gap**	**Other issues**
Race	**1**			
Disability	**1**			
Gender	**1**			
Age	**1**			
Sexual Orientation	**1**			
Religion and belief	**1**			

Once the initial screening has been completed, a full assessment is only required if:

- The impact is potentially discriminatory under equality or anti-discrimination legislation
- Any of the key equality groups are identified as being potentially disadvantaged or negatively impacted by the policy or service
- The impact is assessed to be of high significance.

If you have identified a potential discriminatory impact of this procedural document, please refer it to relevant Head of Department, together with any suggestions as to the action required to avoid/reduce this impact.

Appendix 10

Plan for Dissemination and implementation plan of new Procedural Documents

To be completed and attached to any document which guides practice when submitted to the appropriate committee for consideration and approval.

Acknowledgement: University Hospitals of Leicester NHS Trust

Title of document:	**Blood Policy – Prescription to Administration**		
Date finalised:	**January 2012**	**Dissemination lead: Print name and contact details**	**Abdul Adamu bleep 2953**
Previous document already being used?	**Yes**		
If yes, in what format and where?	**Intranet guideline**		
Proposed action to retrieve out-of-date copies of the document:	**n/a**		
To be disseminated to:	**How will it be disseminated/implemented, who will do it and when?**	**Paper or Electronic**	**Comments**
Trustwide		**electronic**	
Is a training programme required?	**Yes as outlined in policy**		
Who is responsible for the training programme?	**Abdul Adamu** **bleep 2953**		