KATHARINE HOUSE HOSPICE

Policy and Procedure for the Transfusion of Blood and Blood Products.

Approved by:

Date of approval:

Originator: Medical Director

Related Policies and Procedures

Consent Policy and Procedure
Drug Policy
Oxford Radcliffe Hospitals NHS Trust Blood Transfusion Policy

Responsibility

Medical Director	For maintaining the Policy and Procedure for the Transfusion of blood and blood products.
All clinical staff	For following the responsibilities and procedures laid out in the Policy and Procedure for the Transfusion of blood and blood products.

Introduction.

Blood transfusions are potentially hazardous procedures that should only be undertaken when the clinical benefits to the patient outweigh the risks. The most serious immediate risks of blood transfusion are acute haemolytic reactions and transfusion-transmitted infection. These can have a very rapid clinical onset. Meticulous care must be taken to ensure that the right blood is given and that any complications are recognised and treated promptly. The clinical monitoring that takes place during a blood transfusion is to detect signs of these complications so that immediate remedial action can be undertaken.

It is very important to record in the patient's clinical records the clinical impact of each blood transfusion. If a blood transfusion improves the symptoms of anaemia, it strengthens the case for further blood transfusions in the future if anaemia returns. On the other hand, if the transfusion is not helpful, the patient can be spared the inconvenience, disappointment and risks of further futile transfusions.

Transfusion-related responsibilities are shared amongst the clinical team as follows:

Medical staff are responsible for:
- Documenting the pre-transfusion full blood count result, the likely cause of the anaemia and the symptoms of anaemia that the transfusion is intended to correct.
- Discussing the possible benefits and risks of transfusion with the patient.
- Obtaining appropriate informed consent for transfusion from the patient.
- Ensuring that a specimen of blood is obtained for cross-matching purposes and that this is collected in the correct bottle and labelled satisfactorily (including the form).
- Ensuring that the specimen is sent to Horton Hospital and no other hospital.
- Establishing an appropriate intravenous administration site at the time of transfusion.
- Prescribing each unit of blood on the drug prescription chart (under "once only drugs") and specifying the transfusion rate.

(N.B. All of these items remain the responsibility of a hospice doctor, even if the blood specimen is taken by a third party in the community healthcare setting).

Nursing staff are responsible for:
- Thoroughly security-checking each and every unit of blood or blood product before transfusion.
- Monitoring the patient during and after transfusion. (See Appendix for a copy of the Blood Transfusion Observation Sheet).
- Involving the medical staff in the management of any transfusion reaction.
- Reporting transfusion reactions
- Documenting the transfusion procedure in the patient's clinical notes.

Obtaining consent for transfusion.

A standardised consent form for blood transfusions is used at the hospice. This contains information on the potential risks and benefits of blood transfusion and ensures that:
- The same risks and benefits are discussed with all blood transfusion recipients.
- There is documentary evidence that this discussion took place.

Requesting blood for transfusion.

Blood for transfusion is requested from the Horton Hospital Blood Transfusion laboratory. Bottles and request forms are kept in the treatment room.

Specimens must be collected and labelled according the strict ORH NHS Trust guidelines if they are to be processed. This includes documentation of the patient's name, address, date of birth and hospital or NHS number on the bottle and form. If neither of these latter numbers are immediately available to us then:

- The NHS number can be obtained from the GP surgery.
- The hospital number can be obtained from the Horton Hospital Blood Bank. If the patient does not already have a hospital number, then Blood Bank will generate an emergency one at the time of your call to them.

Positive identification of the patient must be undertaken before a specimen of blood is taken for blood transfusion purposes. The easiest way to do this is to ask the patient to *say* their surname, forename and date of birth. Blood tubes must not be labelled before addition of the blood, and the process of bleeding and labelling must be completed before any other patient is bled.

Whilst completing the blood transfusion request form, the patient must be asked about previous transfusions and any reactions. If a reaction has previously occurred, the doctor ordering the transfusion must consider whether transfusion of blood may take place only in the presence of a doctor on site at Katharine House.

ORH Trust employs an extra security system for transfusion-related blood specimens, that comprises a set of unique red identity labels for each specimen. One of these labels must be placed:

- On the specimen bottle.
- On the request form.
- On the patient's drug chart.
- In the patient's clinical notes (Place *two* labels here because we do not routinely attach identitiy labels to our patients' wrists).

Katharine House has a general policy of not attaching identification labels to patients wrists. Only when there is any possibility of ambiguity (e.g. two patients with the same name) should a red label be placed in a wristband and attached to the patient.

There can be significant logistical obstacles to members of the Primary Care Team obtaining blood specimens for cross-matching purposes and getting them to the correct laboratory, so these specimens will often have to be taken in the hospice setting. It is the responsibility of the hospice doctor who agreed to the transfusion to ensure that an appropriate and safe specimen gets to the correct laboratory, and that the necessary blood identity labels are placed in the hospice notes, even if the taking of the blood is delegated to another person who may not be employed by the hospice. In practice, it is often easiest and safest for the patient to be cross-matched at the hospice, even if they are to be transfused as an outpatient.

Collection of blood from the Horton Hospital pathology department.

Blood may be collected from the Horton by either:

- A member of hospice medical or nursing staff.
- A volunteer who has been suitably instructed in this policy.

It is important that blood for transfusion is kept continuously under ideal conditions, and in the temperature range +3 to +7º C in particular. On no account must blood be transported in containers other than those specified below or stored elsewhere than in the specified blood transfusion refrigerators at the Horton Hospital or Katharine House. Blood must be kept in an ice box for not more than 4 hours and allowed at room temperature for not more than 30 minutes before use. Beyond this time it must be disposed of.

When ready for collection from Horton Hospital, blood is held in the refrigerator at the entrance to the Horton Hospital Pathology Department, where a supply of Blood for Transfusion Transport Boxes will also be found. If none are available, one must be obtained from the laboratory staff.

The hospital operates a computerised security system that can only be operated by a member of hospital staff with an identity badge that includes a personalised bar code identifier. This must be used to open the refrigerator door and to scan each unit of blood out. During normal working hours, a member of staff in the laboratory can assist with this, but out-of-hours either the on-call lab technician or an on-call porter will be required.

A cool pack (obtained from the Horton Hospital blood transfusion refrigerator) is first placed in a Transport Box. The units of blood for the patient (labelled with their name and bearing their red label with the unique identification number) are then located. There will be a Transfusion Report Form attached to the first unit of blood, bearing details of all the cross-matched blood issued. The details of each unit of blood must be checked against this form and against the entry in the Hospital Blood Transfusion Register. The units of blood are scanned out of the refrigerator before being placed in the Transport Box.

The Blood is then taken to Katharine House with as little delay as possible. If the blood has been collected by anyone other than a member of the hospice medical or nursing staff, it must be taken immediately to the nurse in charge of the ward or day centre, as appropriate. The blood is then taken to the Katharine House blood transfusion refrigerator and the details of all units of blood are entered into the hospice Blood Transfusion Register, together with the date and time that it is put in, by a member of the hospice medical or nursing staff. The Transfusion Report Form is taken to the nurse in charge of the ward or day centre, as appropriate.

The blood transfusion refrigerator is the only refrigerator within the hospice in which blood products can be stored and it must be used for no purpose other than the storage of blood products. It must be kept locked at all times. Should the refrigerator

temperature fall outside the range of +3 to +7º C, it must not be used for the storage of blood products.

Following transfer of the blood to the Transfusion Refrigerator, take the Transport Box (containing the cool pack) to the Reception Area for return to the Horton Hospital by the next available transport.

Maintenance of the blood transfusion refrigerator

The Blood Transfusion Refrigerator displays its internal temperature and also has an alarm system to warn of any significant temperature irregularities and/or power failures. The internal temperature is also constantly recorded on paper discs that are replaced every 7 days and stored for 10 years.

It is the responsibility of the Administration Manager to maintain the paper disc temperature recording system.

Any malfunctioning of the blood transfusion refrigerator must be reported to the Business Director or deputy as soon as possible.

Identification checks prior to transfusion.

Units of blood must be removed from the Transfusion Refrigerator one at a time and taken to the ward or day centre only when they are required.

Two members of staff, each of whom must be either a doctor or qualified nurse, must carry out an identity check prior to the administration of each and every unit of blood for transfusion.

The patient must be asked to state his/her surname, forename and date of birth which must be checked against his/her drug prescription chart, transfusion report form and the label attached to the unit of blood.

The Unique identification number on the red labels on the unit of blood must be the same as those in the clinical notes and on the drug chart.

The Blood Group, number on the bag of blood and date of expiry must agree with those on the transfusion report form, and the date of expiry must not have been passed.

Should there be any discrepancy, the fact must be reported to the Blood Transfusion Laboratory and the blood must not be given until the discrepancy has been resolved. An Incident Report form must also be completed.

When both members of staff carrying out the check are satisfied of the correct identity, the blood may be administered.

Starting the transfusion.

A giving set designed for blood must be used for any Blood Transfusion.

The person connecting each bag of blood must wash their hands before the procedure, use a no-touch technique and wear disposable non-sterile gloves. They must also check that there is no damage to or leakage from the unit of blood.

The time of starting the blood and of completion of each unit of blood must be entered into the Blood Transfusion report form. The report form becomes part of the medical clinical notes.

Blood transfusion must be started as soon as possible after delivery to the ward or day centre. If a unit of blood has been out of refrigerated storage for more than 30 minutes before being put up, it is no longer fit for use due to the possibility of bacterial proliferation and it must be destroyed. (See section on Disposal below).

Monitoring patients during blood transfusions (See Appendix for the Blood Transfusion Observation Form).

Staff are responsible for being familiar with any equipment used in blood transfusions, including their alarm systems.

Severe transfusion reactions are most likely to occur during the first half-hour of any unit. The patient must be informed of potential adverse effects of blood transfusion (including shivering, rashes, flushing, shortness of breath, pain in the limbs or loins) and asked to report them or other problems.

Should a transfusion reaction be suspected, the Nurse must:
- Stop the transfusion pump if the reaction appears to be severe.
- Seek immediate medical advice.
- Record temperature, pulse and blood pressure.
- Save the suspect unit of blood and report the incident to the Transfusion Laboratory.
- Retain any urine passed by the patient.

Temperature, pulse and blood pressure must be monitored during the transfusion of each unit of blood. The minimum observations for each unit are:
- At the beginning of each unit of blood. (N.B. As there is 35mls dead space in the blood giving set, the “beginning” of the transfusion” starts after 35mls have been given for the second and all subsequent units of blood).
- 15 minutes after the first set of observations.
- 30 minutes after the first set of observations.

Further observations may be made as appropriate should there be any concern about the progress of the transfusion.

Platelet concentrates.

Platelet concentrates must be transfused as soon as possible after arrival. Unlike blood, they must *not* be refrigerated. They should be handled according to the instructions provided by the Blood Transfusion laboratory.

Platelets must only be administered through a giving set that is approved for platelet transfusions. The giving set must *not* have already been used for giving a blood transfusion.

The transfusion of a pack of platelet concentrate must normally be complete in under half an hour.

Observations of the patient must include pulse, blood pressure and temperature before the transfusion. Should there be any worry about a reaction, further observations may be needed.

Disposal of unused blood products and the empty bags that contained blood products

The Consultant Haematologist at Horton Hospital has advised us that no blood must be returned to Horton Hospital once it has left the site. Any unwanted or unused blood products at the hospice must be disposed of responsibly in the clinical waste. This even applies to completely unused blood products that have remained refrigerated, in optimal condition and within their expiry dates.

All such bags of blood or blood product must be double-bagged and disposed of in the clinical waste.

Katharine House Hospice
Blood Transfusion Observation Chart

Patient name: Date of transfusion:

Baseline measurements before any blood is given.	Temp:	Pulse:	BP:
	Signature:		

	1 min. into transfusion	15 min.into transfusion	30 min.into transfusion	As unit comes to an end
First Unit Start time: Signature:	Time: Temp: Pulse: BP:	Temp: Pulse: BP:	Temp: Pulse: BP:	Temp: Pulse: BP:

	After transfusion of 35mls blood*:	15 minutes after first observation.	30 minutes after first observation	As unit comes to an end
Second Unit Start time: Signature:	Time: Temp: Pulse: BP:	Time: Temp: Pulse: BP:	Time: Temp: Pulse: BP:	Time: Temp: Pulse: BP:
Third Unit Start time: Signature:	Time: Temp: Pulse: BP:	Time: Temp: Pulse: BP:	Time: Temp: Pulse: BP:	Time: Temp: Pulse: BP:
Fourth Unit Start time: Signature:	Time: Temp: Pulse: BP:	Time: Temp: Pulse: BP:	Time: Temp: Pulse: BP:	Time: Temp: Pulse: BP:

*35mls is the dead space of the blood giving set.

Start a new observation sheet whenever a new blood giving set is used during the course of a transfusion.