GUIDELINES FOR BLOOD TRANSFUSION

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Introduction

A blood transfusion is a potentially hazardous procedure which should only be given when the clinical benefits to the patient outweigh the potential risks, the most important of these being acute haemolytic reactions and transfusion-transmitted infections. Stringent procedures must be followed to ensure that the correct blood is given and that any adverse reactions are dealt with promptly and efficiently.

Scope

This policy applies to all areas of the hsopital, and all employees of the hospital, including individuals employed by a third party, by external contractors, as voluntary workers, as students, as temporary staff.

Aim

The purpose of this policy is to: ensure that the correct blood is given and that any adverse reactions are dealt with promptly and efficiently.

All staff involved in the process must be appropriately trained and aware of their responsibilities in relation to handling blood components and performing transfusion related tasks within their own competence and in accordance with procedures which are in place to reduce the risks to patients.

Consent for blood transfusion

The decision to transfuse and consent to transfusion should be made in advance with the patient, parent or carer as appropriate before any planned transfusion. Patients receiving a transfusion should be informed of the indication for the transfusion as well as the potential risks, benefits and alternatives

Identification of patient

Accurate identification of patients at all stages of the blood transfusion process is essential.

All patients having a sample taken for a blood transfusion or receiving any blood product must be identified with a wristband which is compliant with the hospital Patient Identification Policy.

Positive patient identification must be used to ensure the correct wristband is attached to the patient prior to blood sampling or blood administration.

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In certain circumstances (for instance in pre-operative assessment) it is acceptable for the patient to simply hold/be in possession of the wristband. It is NOT acceptable for the wristband to be other than on the patient (such as in/on patient record folder)

If the patient is unconscious and unknown, it is acceptable to use "Unknown male/female" in place of the surname and forename in combination with the Medical record number, which is assigned to the patient on arrival. DO NOT use any other substitute details for

Prescribing Blood

Blood may only be be transfused on prescription by a doctor.

Blood transfusions should ordinarily be prescribed using the blood transfusion section of the prescription folder.

The reason for blood transfusion must be included in all requests and documented in the patient's medical records.

Some patients require special blood components. Special requirements should be included on the prescription to allow the member of staff carrying out the final bedside identification checks to ensure that the blood component to be transfused complies with any special requirements.

Preparation of the patient and arranging blood collection

An appropriate-sized cannula should be inserted. The connection of the cannula should be visible and secured. The procedure for setting up an intravenous infusion should be followed and the usual care for intravenous lines should be applied.

Details of red cell units currently available for the patient can be found from blood bank.

In the majority of adult cases, a gravity blood giving set is required. Infusion pumps or blood warmers may be required for some transfusions. They must be used according to the manufacturer's instructions and only blood giving sets approved for use with the pump must be used.

Take and record baseline observations of temperature, pulse, respiration and blood pressure prior to the transfusion.

In order to minimise the risk of wasting blood components due to breaching time limits, ensure that the patient is ready for the transfusion to go ahead without delays (such as requiring new venous access or shift handover) prior to contacting the porters.

Contact the porters and ask them to collect a blood component, stating the degree of urgency:

- immediately
- Within 15 minutes
- Within one hour

Provide a pick up slip using the Blood bank documents for collection by the porter.

Collecting blood components to be transfused

Staff may only collect blood components if they have been trained to do so (access to the blood fridge is denied to staff who have not been trained to collect blood.

General principles include:

When collecting the blood from a blood refrigerator, the patient details must be carefully checked visually the compatibility

label, the blood component and the pick up slip to ensure that details are matched identically.

Blood components must be collected for one patient at a time in all circumstances.

One unit of red cells should be collected at a time unless extremely rapid transfusion of large quantities of blood is needed.

The blood should be delivered to the relevant clinical area without delay. The clinical staff accepting the blood must check that the blood received is for the correct patient.

The time of removal of the blood from the blood fridge is recorded in BloodTrack records.

Blood not used within half an hour on the ward should be returned to the Blood Transfusion Laboratory if there is no prospect of it being transfused within 4 hours.

If more than one unit of red cells are collected for a patient at one visit, or if blood is being transported between hospitals, they should be transported in an approved blood transport box with the correct use of cool packs, as this will extend the time allowed out of the fridge prior to transfusion (usually to 4 hours).

Identifying the patient immediately prior to commencing transfusion
Any staff undertaking this procedure must be competent in the administration of intravenous drugs, have been trained in safe transfusion.

Blood transfusion slip must be used for checking every blood component immediately prior to the transfusion ('begin transfusion or 'emergency transfusion' function) as it supports and promotes the correct procedure, which includes key visual and verbal checks of patient identification to ensure an exact match between blood compatibility label and patient.

Transfusions must not take place without a wristband attached and verified as correct for the patient which matches identically with the patient identification on the blood compatibility label.

The 'begin transfusion' (bedside) check must always be performed at the patient's side immediately prior to commencement of the transfusion. Once the check has been successfully completed, the blood component should be used to prime the blood giving set (if necessary) at the bedside and the transfusion commenced without delay.

If the blood component leaves the patient's side after the bedside check, or if another member of staff performed the check but did not commence the transfusion, a repeat 'begin transfusion' (bedside) check will be required immediately prior to commencement of the transfusion.

One member of staff is accountable for carrying out an identity check of the patient and the blood component at the patient's bedside. The person must be a healthcare practitioner who is currently registered with the Nursing Council (NC).

Any discrepancy in the identity checks of the patient and the blood component must be reported to the Blood Transfusion laboratory immediately and the blood must not be

transfused until the discrepancy has been resolved, either by re-taking a blood sample for crossmatching or by sending the blood back to the Blood Transfusion Laboratory to correct a mistake, depending on the cause of the mismatch. The incident must be reported in line with the Incident Reporting and Investigation Policy.

If the need for blood transfusion is very urgent (blood needed within 5 minutes) and no more crossmatched blood is available, use of emergency stocks may be considered in preference to the mislabelled blood.

Positively identify the patient by asking his/her surname, first name and date of birth (whenever possible) and make sure that these patient identification details are the same as on the patient's wristband. It is essential that any patient having a blood transfusion has a wristband attached. If the wristband is removed, for example to take a blood test, the person removing it or finding that it has been removed is responsible for ensuring that a correct replacement wristband is attached immediately.

For all patients, including unconscious patients, check that the following details (surname, first name, date of birth, medical record number and gender) are the same on The patient's wristband

The compatibility label attached to the blood component . The prescription and / or medical records. Check that the blood group and unit number on the blood bag are identical to those on the compatibility label attached to the blood bag.

The blood has not passed its expiry date. The blood bag shows no sign of damage and that there is no evidence of leakage.

The blood component complies with any special requirements. If a patient has special requirements, such as irradiated blood components, the requirement must be noted on the patient's medical records and on the prescription.

The prescription is updated with the time and date of administration.
The previous seven steps are completed and verified as part of the 'begin transfusion' process in Blood transfusion form, which should be placed on a history sheet.

Starting the transfusion

Before starting the transfusion, the patient must be positively identified in accordance with the processes set out in procedure.

Transfusions must not take place without a wristband attached and verified as correct for the patient which matches identically with the patient identification on the blood compatibility label.

Blood for more than one patient awaiting transfusion, for example in a treatment room or at the nurses' station, is extremely hazardous, as one of them may be ABO incompatible with your patient. This must be avoided by arranging for collection and commencement of the transfusion of blood components one patient at a time.

The practitioner must wash his/her hands before starting the transfusion and utilise a no touch technique for the connection of the transfusion. Disposable, non-sterile gloves should be worn.

All blood components require the use

of standard blood giving sets.Start the transfusion as soon as possible after the blood component's arrival in the clinical area. If a delay in starting the transfusion is likely, the blood should immediately be returned to the Blood Transfusion Laboratory refrigerator (within 30 minutes of removal) until just prior to the transfusion.

The transfusion of each unit of red cells should normally be completed within 4 hours of removal of the blood from the Blood Transfusion Laboratory refrigerator.

Blood components must never be stored in drug or domestic refrigerators.If a unit of red cells has been out of the refrigerator for more than half an hour and there is no prospect of it being transfused, it must be returned to the Blood Transfusion laboratory, explaining that it has been un-refrigerated for more than half an hour.

Commence the transfusion adjusting the regulation clamp (or pump settings) to ensure the prescribed rate of blood flow.

Medication must never be added to a unit of blood.

Monitoring and Care of Patients Receiving Transfusion.

The patient should be asked to report any potential adverse effects including shivering, rashes, flushing, and shortness of breath or pain in the extremities or loins.

Schedule of observations: Record temperature, pulse, respiration rate and blood pressure before the start of each unit as part of the Blood transfusion form.

Patients who are not under continual monitoring or observation must have their observations recorded using the 'vital signs' function in Blood Transfusion form. This will prompt the user to enter further details if a reaction is suspected.

The first such observation should be recorded at 15 minutes and must be within 30 minutes after the begin transfusion.

Record temperature, pulse, respiration rate and blood pressure at the end of each unit. Local guidelines should be established for further observations. The patient's regular observations must be continued. Note that signs of a severe transfusion reaction are most likely to become apparent during the first half hour of transfusion of each component.

Changing the giving set.

In order to prevent bacterial growth, change the giving set if the transfusion episode is to run for more than 12 hours or if there is an interruption to the closed system or if there is a delay between the end of one unit and the start of another.

Transfusion reactions

If a transfusion reaction is suspected, contact a doctor immediately, and record temperature, pulse, respiration rate and blood pressure. Further management depends on the type and severity of the reaction.

If a severe reaction is suspected:

- Stop the transfusion and seek urgent medical advice
- Change the giving set and maintain venous access

The reaction MUST be reported to the Blood Transfusion Laboratory. The laboratory will

request the return of the implicated unit and further blood samples from the patient.

Record the volume and colour of any urine passed. if there are signs of haemolysis the urine should be saved for analysis.

Observe the patient until haemodynamically stable, recording vital signs as per hospital protocol.

Documenting the transfusion

Each transfusion must be documented in the patient's medical records by the medical team responsible for the patient including the following information:

- Consent to the transfusion
- Date and time of transfusion
- Clinical indication for the transfusion
- Type of blood component and the number of units transfused
- The unit numbers of each blood component transfused

Transfusion reactions and their management
It is good practice for the assessment of the effectiveness of the transfusion to be documented in the health record, including clinical effectiveness e.g. arrest of haemorrhage due to a platelet transfusion in a bleeding thrombocytopenic patient or relief of symptoms of anaemia after a red cell transfusion, or improvement in laboratory tests e.g. increase in post-transfusion haemoglobin, coagulation tests or platelet count.