Appendix 1 - NBTC National Standards for the Clinical Transfusion Process

Overview

These standards define the requirements for knowledge and practical assessments for health care workers involved in the transfusion process.

Key learning outcomes common to all tasks

All staff involved in the transfusion process must:

1. Have as a minimum a basic knowledge of the transfusion process and the principle of selection or matching of blood components for transfusion to avoid serious or fatal reactions.
2. Understand the critical steps in the process and that an error, deviation or omission during the process may lead to a serious or fatal reaction.
3. Understand the importance of unique patient identifiers and know the minimum information required and documentation needed at each stage of the transfusion process to safely proceed
4. Be able to explain the actions to take if inadequate information, discrepancies or mistakes are identified at any stage of the process.
5. Know that tasks **must not** be undertaken unless satisfactory assessment has been achieved in that task.

Performance Criteria

Blood component Standard 1: Blood transfusion- sampling

Action	Rationale
1.1 Collect/Complete the sample request form (or electronic equivalent) and take this to the patient's side. Ensure all fields are completed.	To be able to positively identify the correct person to be bled. It is important to communicate as much relevant information to the laboratory e.g. need for irradiated or CMV negative blood components.
1.2 Ask the patient to state their first name, last name and their date of birth. Cross check this information with the sample request form. Where the patient is unable to identify themselves follow local policy on patient identification.	The use of open questions must be used unless the patient is unable to identify themselves as this reduces the risk of misidentification of the patient. This is known as positive patient identification.
1.3 Where local protocol requires, confirm that the patient has received information about transfusion and consents to blood being taken for anticipated transfusion. Written information and discussion of risks and benefits can be given at this point. The discussion should be recorded in the patient's notes.	SaBTO recommends that consent should be achieved at all stages of the transfusion process. The consent process should include a discussion of the risks, benefits and possible alternatives to the transfusion and the patient should give verbal consent for the transfusion to be given.

1.4 Check the patient details on the request form (first name, last name, date of birth and unique patient identification number) with the patient's form of identity (ID) *. Outpatients without an ID band may be asked to state the first line of their address as an additional check along with their first name, last name and date of birth. The correct spelling of the patient's name should be verified. In emergency situations the patient's core identifiers may be unknown. At least one unique identifier, usually a temporary identification number (accident and emergency or trauma number) and gender must be used as per local policy**.** Once full identification is obtained another sample, ID band, request form, other related documentation must be created for the patient.	In order to maintain consistency of ID throughout the process, at least 4 identifiers are required to positively identify a patient – this should be first name, last name, date of birth and unique patient identification number. In emergency situations, the unique patient identification number and gender must be used until full identification is obtained.
1.5 Take the sample. Complete the sample tube label **after** the sample has been taken. This task must be done at the patient's **side**, from the patient's ID, by the sample taker. Details to be completed should include: A) Patient's first name, last name B) Patient's date of birth C) Patient's unique identification number D) Date and time of draw E) Signature/identity of sample taker	Pre labelling samples increases the risk of the tubes being used for another patient resulting in the wrong blood in the tube. Labelling away from the patient increases the risk of mislabelling the sample with the wrong patient's details. Printed labels are not permitted on the sample tube unless it has been generated 'on demand' by a handheld device at the patient's side. Errors may occur if printed labels from within the patient's notes are used as they may be incorrect (labels for the wrong patient).
1.6 Complete the request form with the date and time of sampling. The request form must clearly identify the staff member that has taken the sample.	To provide a full audit trail of the process.

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Blood component Standard 2: Blood transfusion- pre collection checks and collection of blood components:

Action	Rationale
Pre-collection checks	
2.1 Check that the component has been authorised (or prescribed), that any special requirements have been noted, the reason for transfusion documented, and that the patient consents to the transfusion wherever possible. Written information and discussion of risks and benefits can be given at this point. The discussion should be recorded in the patient's notes.	To ensure that the appropriate specification of blood component is issued/collected from the storage area and that the component can be used. The consent process should include a discussion of the risks, benefits and possible alternatives to the transfusion and the patient should give verbal consent for the transfusion to be given.
2.2 Check that the patient is available in the clinical area and there is patent venous access. Check that the component is ready for collection.	To avoid any delays in commencing the transfusion.
2.3 Check that the patient has appropriate ID *	To avoid delay or errors in positively identifying the patient.
2.4 Check and document the patient's baseline observations, to include temperature, pulse, respiratory rate and blood pressure.	To ensure the swift recognition of a transfusion reaction when deviations from baseline are observed.
Collection of component	
2.5 Select the appropriate collection documentation containing the patient's first name, last name, date of birth and unique patient identification number. The documentation should also define which component should be collected. Check that the patient details on this documentation match the patient's appropriate ID*.	To ensure the correct blood component is collected for the correct patient. Four identifiers are required for positive patient identification, and must be provided in written or electronic format by the clinical area.
2.6 Locate, remove and document the removal of the correct blood component for the patient from the storage area according to your local policy (electronic or manual methods).	Following agreed procedures will ensure that the correct component is collected for the correct patient, that the components are used in the correct order, and that a full audit trail is maintained.
2.7 Check that the patient details (first name, last name, date of birth and unique patient identification number) on the issued label attached to the component pack match the patient details on the collection paperwork. Check that the unique component pack donation number matches that on the	To ensure the correct blood component is collected for the correct patient. This will prevent serious error and avoid unnecessary waste.

laboratory produced label. Check expiry date on the component. Check the blood group and product type.	
2.8 Transport the component to the clinical area as quickly as possible using the appropriate transportation method. Ensure the component is handed to the appropriate member of the clinical team and receipted into the clinical area according to your local policy. The component must not be left unattended at any time.	To ensure the component is stored correctly whilst in transit, that the component is readily identifiable on arrival in the clinical area, that there is no delay and that there is a full audit trail. This is to maintain the cold chain process

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Blood component Standard 3: Blood transfusion - administration of blood components
NB: ALL THE ACTIONS BELOW MUST BE PERFORMED AT THE PATIENT'S SIDE

Action	Rationale
3.1 Check that the reason for the transfusion is documented, has been explained to the patient and the patient has given their consent. Written information and discussion of risks and benefits can be given at this point if not already undertaken. The discussion should be recorded in the patient's notes.	To ensure that the transfusion is appropriate, documented and the patient has given their informed consent. The discussion concerning consent including the risks, benefits and possible alternatives should have already been undertaken by the authoriser (or prescriber) who made the decision to transfuse.
3.2 Confirm the patient details on the prescription chart with the patient and the patient's appropriate ID*. Check that the appropriate component has been authorised (or prescribed), including any special requirements, the rate and volume of the infusion and whether any medications are required to be administered. Check that the prescription has been signed. Check that any special requirements documented on the prescription chart match those on the blood component.	To ensure the component has been authorised (or prescribed) for the correct patient To ensure that the correct specification of component has been collected and the infusion instruction is clear.
3.3 Check that the patient's baseline observations, to include temperature, pulse, respiratory rate and blood pressure have been recorded and are still valid (performed within one hour of starting the administration process).	To ensure a full set of baseline observations have been documented, to allow identification of a transfusion reaction.
3.4 Conduct a visual inspection of the component for any leaks and discolouration and check its expiry date.	To check that the component is in date, that there are no signs of infection (such as discolouration or flocculation) or risk of

	bacterial ingress, and that the component is suitable to be administered. Administration of a bacterially contaminated component may be fatal.
3.5 Check the blood group of the patient matches that of the component and its associated label. If the blood group is different the suitability of the component must be checked. Check that the unique component pack donation number matches that on the issued label. Check expiry date on the component. Check the product type.	Incompatible blood components can be fatal. An ABO incompatible blood transfusion is classed as a Department of Health 'Never Event'. Transfusion should not be commenced if the unit has exceeded its expiry date or will do so during the time period of administration. The product type should be checked to ensure that the correct product is being given eg platelets, FFP etc.
3.6 Ask the patient to state their first name, last name and date of birth. Cross check this information as well as the unique patient identification number with the patient's ID *, the issued label attached to the component pack and the prescription chart. The correct spelling of the patient's name should be verified.	The use of open questions reduces the risk of misidentification of the patient. A minimum of 4 identifiers is necessary to positively identify a patient. All patient's details in the laboratory produced label attached to the component pack should be matched against the patient's ID to ensure the correctly labelled product is being administered.
3.7 Check that the special requirements recorded on the prescription chart match the special requirements noted on the component label.	To ensure that the patient receives a blood component with the correct special requirements.
3.8 Select the correct giving set and set up the infusion and, if an infusion pump is to be used, the correct infusion rate has been selected. The transfusion should be commenced within 30 minutes of removal from a controlled storage area.	To ensure the administration rate matches the details on the prescription. The giving set should be suitable for administration of the product to be transfused.
3.9 Cross check and complete the documentation related to the administration of the component as per your local policy. This should include the identification of the staff undertaking the checking procedure.	To ensure a full audit trail is in place.
3.10 The patient should be reminded about adverse effects and the importance of reporting immediately any potential symptoms of an adverse event.	To ensure a swift detection of any possible transfusion reaction.

3.11 Approximately fifteen minutes into the administration a full set of observations (as baseline) must be repeated and documented. Discussion of the patient's wellbeing should also take place at this time.	To identify any deviation from the baseline observations or clinical symptoms that may be due to an adverse reaction to the transfusion. Local policies may include further observations.
3.12 The patient should be observed and monitored throughout the administration process, as per local policy.	To detect any change in the patient's condition that may be due to a transfusion reaction during the administration process and to check that the transfusion is progressing at the correct rate.
3.13 Once the component has been administered another full set of observations (as baseline) must be repeated. These observations should be clearly documented as completion observations. If a further component is to be commenced within an hour of the completion of the current component these observations can be used as baseline observations for the next component.	To detect any change in the patient's observations that may indicate the development of a transfusion reaction.
3.14 Positive evidence of the transfusion of each component unit must be documented in accordance with local policy.	To ensure full traceability of blood components between donor and patient in the event of recalls or need to investigate adverse events.
3.15 The empty component packs and their associated infusion sets must be disposed of according to local policy.	To minimise the risk of contamination or of any needle stick injury.
3.16 Patients should be observed during the subsequent 24 hours for (or, if discharged, counselled about the possibility of) late adverse reactions. Organisations should ensure that systems are in place to ensure patients have 24-hour access to clinical advice.	Transfusion reactions can occur many hours after the transfusion has completed. This has been highlighted in recent SHOT reports. Patients should receive written information including contact details if they require advice.

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Ref: BCSH Guideline on Administration of Blood Components 2009