

## Clinical Standard Operating Procedure (SOP)

# BLOOD TRANSFUSION

**FOR STAFF** All staff

**PATIENTS** All patients who may require blood component transfusion during transfer

## Introduction

This document outlines the principles and governance associated with the carriage and administration of blood components during transfer of critically ill patients.

## Training requirements

All clinical team members must be up-to-date with the National Blood Transfusion Committee Requirements for Training and Assessment in Blood Transfusion 2016. Transfer Practitioners must complete the UHBW Blood Transfusion theory training. Duty Consultants must complete either their main employing Trust or UHBW mandatory training requirements.

The declaration form (Appendix A) must be completed by all team members and returned to the Retrieve Base Lead Nurse. These will be updated and reviewed annually and Retrieve can organise training for those who need to renew their competency. Completed forms will be compiled and expiry dates of training monitored by the Retrieve Support Manager.

## Requesting blood

The potential need for blood components during transfer should be discussed with the referring clinical team during the referral telephone call. If thought to be needed, the referring clinical team should organise this with their local transfusion laboratory at the earliest opportunity. The Retrieve team should be clear on what is being requested.

## Pre-transfer checks

### Blood components & transport box

Any blood components transferred need to be carried in a validated blood transport box that is sealed and contains the relevant paperwork. The blood box should be prepared and sealed by the blood transfusion lab staff (if this is not done, the box will not be valid for sufficient duration). Once the box is opened, blood component transfusion **MUST** be completed within 4 hours.

Maintaining the cold chain is essential. There should be a label on the outside of the box detailing the components within and the time the box was packed and the expiry time of temperature control. If this is not visible, the box should **NOT** be opened, instead the referring hospital's transfusion laboratory should be contacted for clarity prior to transfer.

## Patient and wristbands

Patient details (full name, date of birth, NHS number etc.) must be established prior to transfer. Referring hospital wristbands must be attached to the patient and checked in line with the Retrieve 'Pre-Transfer' checklist. If the carried blood components are likely to be needed (or transfusion is ongoing) on arrival at the receiving hospital the referring hospital wristbands must remain in place.

## Transfusion during transfer

- Only break the box seal and open it when you are going to transfuse blood components
- Document seal broken/box opening time (on blood transfusion record (Appendix 2) and on ARCEMS)
- Blood components must be prescribed on the blood transfusion record (Appendix 2) and as a fluid on ARCEMS
- Blood component unique donation number, transfusion start time and volume need to be recorded on blood transfusion record and on ARCEMS (where hospitals provide their own paper-based blood traceability form with each unit, these must also be completed)
- Blood components must be checked using the pre-transfusion checklist on the blood transfusion record
- Appropriate giving sets must be used (blood and platelet sets) and should be acquired from the referring hospital prior to transfer
- Observations including temperature should be recorded on ARCEMS at the beginning, at 15 minutes intervals and at the end of each blood component transfused.

## At receiving hospital

Blood paperwork must be completed for all blood components transfused en route. This includes;

- Blood component, unit unique donation number, date of transfusion and the time the transfusion started must be written on the blood transfusion record for each unit transfused
- The completed blood transfusion record must be added to ARCEMS via the photograph attachment function and a copy handed to the receiving hospital team along with the ARCEMS printout for inclusion in the notes.
- Blood component traceability for each unit transfused (usually via the label attached to blood bag, or a separate paper form). Each completed label/sticker/form must be returned to the receiving blood transfusion lab (see Appendix 2 page 2)
- Blood boxes, unused components (if not imminently for transfusion), and a copy of the completed blood transfusion record must be returned to the receiving hospital's transfusion laboratory as soon as possible. In the case of unused components, this must be done as a priority to prevent wastage

Each receiving hospital is likely to have a different setup and advice from the receiving clinical team or transfusion laboratory will be needed (see information in table on next page). Repatriation of blood boxes back to the referring hospital will be undertaken by the receiving hospital's transfusion laboratory, in line with existing processes. Original copies of traceability forms/stickers and a copy of the Retrieve transfusion record will also return to the issuing blood bank via this route.

To assist with this process, Retrieve have an aide memoire for blood transfusion in transfer (see Appendix 2). This is intended to help ensure all legal documentation is complete and shared with the accepting hospital department and transfusion laboratory as necessary. This aide memoire is laminated and available with a printed laminated copy of this SOP and the 'Blood product / component transfusion record' form in the Retrieve Primary Bag.

Following deployment, return a photocopy of the completed paperwork to the Base Lead Nurse. This is held as a back-up copy. The Retrieve Support Manager will scan a copy into the ARCEMS notes to ensure a clear document is available.

As return of traceability paperwork to the issuing lab along with the transfer blood boxes can take time, issuing transfusion labs in referring hospitals may need to contact Retrieve for electronic copies so that transfused units can be properly and promptly accounted for. The Retrieve Support Manager will be contacted as necessary via [retrieve.transfer@nhs.net](mailto:retrieve.transfer@nhs.net) and, if adequate information is provided (referring hospital, date and approximate time of issue), they should be able to identify the ARCEMS record for the transfer. Electronic copies of the paperwork can then be returned via email (only to nhs.uk or nhs.net accounts). If it proves difficult for the Retrieve Support Manager to accurately establish which transfer involved the transfusion, the on-duty Retrieve teams can be asked to interrogate ARCEMS for further assistance.

	Transfusion laboratory	Instructions
North Bristol NHS Trust	0117 4148350 Bleep: 9433	<ul style="list-style-type: none"> <li>The transfusion laboratory will organise collection from the receiving clinical area.</li> <li>It is Trust policy that blood components received from another hospital must not be transfused within Southmead and unused components returned to the transfusion laboratory as soon as possible.</li> </ul>
University Hospitals Bristol NHS Foundation Trust (BRI)	0117 342 5579/5529	<ul style="list-style-type: none"> <li>The transfusion laboratory should be contacted as soon as possible if ongoing blood support is required. Unused units must be returned to the transfusion laboratory as soon as possible on arrival by the clinical area.</li> </ul>
University Hospitals Plymouth NHS Trust (Derriford)	01752 452465 Bleep 0871  Transfusion Practitioners: 01752 431487 Bleep 0604/0909	<ul style="list-style-type: none"> <li>If the patient does not require the transferred blood products within 15 minutes of arrival, the products must be returned to Derriford Hospital Blood bank.</li> <li>Do not place the transferred blood into the blood fridge, but ensure that they are delivered in the transfer box to a member of the blood bank team.</li> </ul>

## Continuation of transfusion started prior to Retrieve's arrival

There may be circumstances when Retrieve are not present when a blood component is first checked and started but it is to continue during transfer. Documentation on ARCEMS should be clear that the transfusion was started prior to transfer and Retrieve involvement with the patient. In these circumstances the following process should be followed.

- Document blood component, unit unique donation number, date of transfusion, the time the transfusion started (non-Retrieve) and volume within the ARCEMS record

- Observations including temperature should be recorded on ARCEMS at 15 minutes intervals and at the end of the blood component transfusion.
- Blood components must be prescribed as a fluid on ARCEMS, like any other drug infusion continued in transfer.
- Blood traceability tags or forms should be managed according to the process of the issuing transfusion lab. In most cases, this will involve the tracing form going with Retrieve so that the time the transfusion is complete can be documented on the form. If in doubt, the issuing lab should be contacted prior to departure, for instructions.

## Document Change Control

Date of Version	Version Number	Lead for Revisions	Type of Revision	Description of Revision
06/24	V1.8	Deputy Clinical Director	Minor	Clarification around how to process traceability forms

## Document Governance

<b>REFERENCES</b>	UHBW Blood and Blood Component Transfusion Policy
<b>RELATED DOCUMENTS AND PAGES</b>	Retrieve Pre-Transfer checklist
<b>AUTHORISING BODY</b>	UHBW Hospital Transfusion Committee
<b>SAFETY</b>	Blood Component traceability is a legal requirement and the processes described in this document must be followed by Retrieve clinical team members
<b>QUERIES AND CONTACT</b>	Retrieve Leadership Team

## Appendix 1 – Transfusion competency and records

The blood transfusion competency form will be held electronically by the Base Lead Nurses.

The blood component transfusion record is available in paper format to each transfer team and must be photographed and inserted into the ARCEMS record as well as copies given to receiving hospitals.

## BLOOD TRANSFUSION COMPETENCY DECLARATION

I hereby certify that I am in date for my host Trust's blood competency training and assessment.

Name: .....

Signature: .....

Host Trust: .....

Date: .....

Expiry date for current training: .....

Expiry date for current competency: .....

## RETRIEVE BLOOD COMPONENT TRANSFUSION RECORD

All parts of this form must be completed in full and retained in the patient's notes

<p><b>Patient Demographics:</b> <i>Affix patient addressograph</i></p> <p>Surname:.....</p> <p>First Name(s):.....</p> <p>NHS No:.....</p> <p>Referring hospital MRN: .....</p> <p>DOB:.....</p>	<p><b>Indication for Transfusion:</b></p> <p>.....</p> <p>.....</p> <p><b>Likely diagnosis of major haemorrhage:</b></p> <p>.....</p> <p>.....</p>
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**Patient Information and Verbal Consent**

- This patient has verbally agreed to transfusion of prescribed component, understands the reason for this, risks/benefits, possible alternatives and will receive information leaflets when possible.
- This patient has not provided consent because they are UNCONSCIOUS / LACKS CAPACITY (delete as appropriate) and must be informed of the transfusion prior to / at discharge.

Print name:..... Signature:..... Date:.....

**Prescription**

I confirm that in my professional opinion this transfusion is clinically indicated:

Component & Amount	Date	Special requirements or instructions	Rate	Prescribing Doctor (print name and sign)

	Unit 1	Unit 2	Unit 3	Unit 4
<b>Paperwork Checks</b>				
- Patient ID on this record matches patient ID band	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Indication and consent for transfusion documented	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Prescription checked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Blood Unit Checks</b>				
- Expiry date and visual check (leaks / clots / colour)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Blood group and donation number identical on blood unit and blood compatibility label	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Special requirements checked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Patient Details Checks</b>				
- Patient ID matches on ID band and blood compatibility label (and verbally where possible)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Observations</b>				
- Record before transfusion, at 15 minutes & at the end	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## RETRIEVE BLOOD PRODUCT TRANSFUSION RECORD

**RECORD OF ADMINISTRATION for:**

**NHS Number**.....

**Referring hospital MRN**.....

**It is a legal requirement** for the receiving hospital's transfusion laboratory to be provided with evidence of transfusion for each blood component transfused.

All traceability labels / stickers from transfused blood units must be completed and sent to the receiving hospital's blood transfusion laboratory along with a copy of this completed form.

The original record should remain with the patient for retention in clinical notes.

**To be completed for ALL blood component transfusions:**

**Time blood transfer box opened: RBC**..... **FFP**..... **Other:** .....

Blood Unit Details	Checked and administered by (print name and sign)	Date	Time	Volume transfused (ml)
Component: Donation number:			Started:	
			Ended:	
Component: Donation number:			Started:	
			Ended:	
Component: Donation number:			Started:	
			Ended:	
Component: Donation number:			Started:	
			Ended:	
Component: Donation number:			Started:	
			Ended:	
Component: Donation number:			Started:	
			Started:	

**Appendix 2 – Checklist for transfusion in transfer**



<b>Referral</b>	Order component(s) to be <b>available on arrival</b> in a transport box	<input type="checkbox"/>
<b>At referring hospital</b>	Collect transport box	<input type="checkbox"/>
	Check patient has 2 wristbands	<input type="checkbox"/>
<b>Transfusion during transfer</b>	Document transport box seal broken/box opening time • <b>ARCEMS</b> • <b>Blood component paperwork</b>	<input type="checkbox"/> <input type="checkbox"/>
	Complete blood component paperwork and checklist <b>For each unit:</b> • <b>Checklist complete</b> • <b>Traceability label</b>	<input type="checkbox"/> <input type="checkbox"/>
	Prescribe blood component • <b>ARCEMS</b> • <b>Blood component paperwork</b>	<input type="checkbox"/> <input type="checkbox"/>
	Document unique donation number • <b>ARCEMS</b> • <b>Blood component paperwork</b>	<input type="checkbox"/> <input type="checkbox"/>
	Document unit start and finish times • <b>ARCEMS</b> • <b>Blood component paperwork</b>	<input type="checkbox"/> <input type="checkbox"/>
	Document volume (ml) • <b>ARCEMS</b> • <b>Blood component paperwork</b>	<input type="checkbox"/> <input type="checkbox"/>
	Document observations on ARCEMS for each unit • <b>Beginning of transfusion</b> • <b>Every 15mins</b> • <b>End of transfusion</b>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Check all paperwork complete	<input type="checkbox"/>
	Photocopy blood component paperwork x 2	<input type="checkbox"/>
	Attach photograph blood component paperwork to ARCEMS PRF	<input type="checkbox"/>
<b>At receiving hospital</b>	Leave printed PRF and a copy of blood component paperwork with the bedside team	<input type="checkbox"/>
	Leave empty blood component bags at patient bedside	<input type="checkbox"/>
	Return to transfusion lab (usually with porters): • <b>Transport box and unused components</b> • <b>Original paperwork with traceability labels</b>	<input type="checkbox"/> <input type="checkbox"/>
	Return copy of paperwork to Base Lead Nurse	<input type="checkbox"/>