ALL WALES POLICY

All-Wales Policy and Procedure for Transfer of Blood and Blood Components between Hospitals

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Ratified by:	Clinical Advisory Group
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Summary of changes

February 2012	**Ver 4.1**	Minor update to contacts list
January 2014	**Ver 4.2**	Minor update to contacts list. No other changes pending National project by Welsh Government
February 2015		No changes
June 2016	**Ver 4.3**	Minor updates

CONTENTS

	PAGE
Introduction	3
Purpose	4
Principle	5
Procedure for the dispatching hospital	7
Procedure for the receiving hospital	8
References	9

Appendices

1. Blood Component Transfer Form	10
2. Blood Transfer Box Label Datalogger Label	11
3. Blood Transfer Information to Clinical Staff	12
4. Flowchart: Actions for Clinical Staff	13
5. Hospital Contact Numbers	14

Introduction

This guidance for the transfer of blood components has been revised in response to recent changes in clinical practice, re-organisations of health services and legal requirements, including:

- The regulatory framework requiring a vein-to-vein audit trail between donor and recipient (EU directive 2002/98/EC; Blood Safety and Quality Regulations 2005 (as amended)
- Improvements in the transfusion process, especially in documentation and patient identification (Better Blood Transfusion initiatives)
- Changes in the clinical management of patients with major bleeding and increased centralisation of health services in formal clinical networks ("hub and spoke") reducing need for transfer of blood with patients

This document seeks to standardise the procedure for the transfer of blood and blood components between hospitals in the Welsh Blood Service region. Although it is intended as a guide that encompasses practices from all users, hospitals are encouraged, where appropriate, to add local protocols to the policy to complement, but not to detract from the practices outlined in this document. The term blood component is used throughout this document, unless there is reference to a specific component.

The Welsh Government's Blood Advisory Structure, concluded that a compelling need to transfer blood would be rare in modern practice, though hospitals must undertake risk assessments to guide local practice. Two scenarios were considered to be an exception:

- Blood components allocated to a specific patient who was actively bleeding and in whom the risk of transfer to a specialist unit was considered appropriate. Such patients would require a medical and/or nursing escort

- Special transfusion requirements for patients being transferred, such as complex phenotyped blood, irradiated blood or HLA matched platelets

  In these circumstances the patient MUST be accompanied by a member of the clinical team from the dispatching hospital and the dispatching laboratory will coordinate the blood component transfer

  IN NO CIRCUMSTANCES should clinical staff take it upon themselves to pack and transfer blood components.

Blood components may also be transferred to improve the utilisation of stock amongst hospital transfusion laboratories.

This document does **not** cover:

- transfer of blood components for a specific patient to a blood fridge located in a satellite hospital/unit of the dispatching hospital[1]

- contingency planning for a blood shortage[2]

[1] Covered by local policy
[2] Covered by local policy and contingency plans

Purpose

The purpose of this document is to help ensure the following:

1. Blood components are transferred in the appropriate clinical scenario
2. Blood components are transported and packaged in accordance with validated procedures to ensure quality and safety
3. The transfer of blood components are correctly documented to maintain proof of temperature controlled storage
4. Vein to vein traceability is maintained
5. The roles and responsibility of the dispatching and receiving hospitals are clearly defined
6. Transport of blood components are optimally managed by transfer from one blood transfusion laboratory to another blood transfusion laboratory

Historically the purpose of transferring blood with the patient was to provide an immediate supply of blood to use during the definitive operation in the receiving hospital. Advances in laboratory practice have made this unnecessary except in rare situations.

JPAC (www.transfusionguidelines.org.uk) provide evidence of audits previously undertaken, showing that low levels of stock transferred with the patient are transfused to those patients. Also that there are high levels of wastage due to inadequate packaging or temperature control.

Avoiding transfer of blood with patients

The receiving hospital is by definition a specialist centre with up to date transfusion laboratory facilities. The dispatching hospital will have cross-matched blood. The blood group and results of antibody screening can be communicated by fax or telephone to the receiving hospital laboratory, to provide a prior warning.

Preparation for anaesthesia and surgery in the recipient hospital provides a window of time for registration of the patient, fitting of identification bands and the provision of a blood sample for post transfer full blood count, biochemistry and cross-match.

If transfusion is required urgently in the receiving hospital O Rh D negative or type specific blood can be issued immediately and transfused.

It is recommended that provision of facilities for cell salvage (equipment and trained personnel) should be considered in tertiary centres receiving such patients and where appropriate, should be set up ready to receive the patient.

The inception of EMRTS (Emergency Medical Retrieval and Transfer Service) in April 2015 saw blood components being made available to patients who

require pre-hospital critical-care. Blood components carried by EMRTS are provided under a separate agreement with Morriston and Wrexham hospitals. Patients transferred by EMRTS may have received blood components onboard and therefore your laboratory may receive traceability documentation relating to these.

Recommendations

Transfer of blood components with a patient is required in exceptional circumstances *only*. This should be reserved for patients who will need transfusing during the journey. Two units of red blood cells should be sufficient.

The transfusion laboratory should coordinate the transfer of blood components and ideally this will occur from laboratory to laboratory. Blood components should never be transferred without the knowledge of the transfusion laboratory.

Principle

Blood components may be transferred between hospitals in Wales. This may be to ensure efficient distribution of blood stocks, with a patient or for a specific patient at another hospital.

It is a legal requirement to ensure the audit trail is maintained when blood components are transferred and to ensure that patient transfusion records within the laboratory information system are updated accordingly.

The cold chain is a temperature-controlled supply chain of storage and distribution activities which maintain a given temperature range. Insulated boxes containing cool packs, or other validated packaging materials, ensure that the optimum temperature is maintained for transport.
Records are kept of transport of blood components in order to maintain an audit trail of the cold chain. The fate of individual units must be recorded by both the receiving and dispatching hospitals.

Transfusion laboratories that transport blood components regularly to other hospitals, clinics and hospices should use their own validated method to pack the blood component for transportation for transfer.

Not all laboratories pack blood components for transport in exactly the same way. Even if the dispatching hospital's method is different to the receiving hospital's the information on the received paperwork should be accepted as valid i.e. the expiry time of the temperature controlled storage of the packaged blood component and the intact seal on the transport box.

Procedure for the dispatching hospital

Prior to packaging the blood components ensure suitable transport arrangements are in place.

Blood Component Packaging and Final Documentation

1. Locate the blood component to be sent.

2. Complete the transfer document (appendix 1). The component detail section can be computer generated and attached. Make a copy of this documentation for your records and fax to the receiving hospital. Blood components which may have been difficult to source should not be transferred with the patient as the figures cited show that a large proportion of this would be wasted – it is preferable to send the blood component by taxi/courier directly to the receiving transfusion laboratory. Return the units to suitable storage conditions whilst preparing the transport box, packing materials and labels.

3. Immediately before sending, place the blood component in the validated transport box appropriate for the number of units being transferred. Follow the local validated procedure for packaging and transport.

4. Place all the appropriate documentation in the transport box, retaining a copy of the transfer document.

5. Replace the box lid. Ensure label details are complete and label attached to box (appendix 2).

6. The box should be sealed by a method that identifies it has not been tampered with. The recommended method is a cable tie that alerts the user/laboratory, if removed or broken, that the cold chain has been broken.

7. Staff accompanying patients with transport boxes should be advised regarding the temperature control of blood components and given a copy of appendices 3 and 4.

Dispatch of Blood Components

1. On dispatch of the blood component, telephone the laboratory of the receiving hospital immediately to confirm dispatch and that their fax number is correct.

2. Confirm the following

    - Dispatching laboratory contact details.

- Time of dispatch.
- Mode of transport (courier or ambulance with the patient).
- Estimated time of arrival.
- Number and type of units.
- Patient identification details and the ward or department (if known) expected to receive the patient.
- Patient's blood group, any antibodies, special requirements and recent transfusion history.
- Complete and fax a Shared Care Document if appropriate

3. Fax a copy of the transfer documentation to the receiving blood transfusion laboratory.

4. It is necessary for the dispatching hospital to record the final fate of the units. This may be –

   - Transfused to the patient.
   - Wasted due to breach of temperature controlled storage.
   - Put into receiving hospital's stock/transferred.

5. The receiving hospital must ensure that they can make this information available. The receiving hospital should record receipt, arrival time and final designation of blood component(s) on their own computer system, or on a paper record if the IT system does not allow for this.

Procedure for the receiving hospital

The blood component(s) should be sent to the transfusion laboratory as soon as it arrives at the receiving hospital. The clinical area where the patient is being transferred to should be aware that they are required to send the transport box immediately on arrival to the transfusion laboratory to ensure proper process.
Further information for clinical staff is documented in Appendices 3 and 4.

Local policies should be in place to ensure that received blood components are transferred to suitable storage facilities as soon as possible, taking note of the expiry time shown on the transport box.

1. On arrival, transfusion laboratory staff should check the integrity of the box, complete the transfer documentation and check the units are still under correct storage conditions.

2. Blood samples must be taken from the patient immediately and sent to the blood transfusion laboratory for testing. Transfusion laboratory staff to remind clinical staff of requirement of the samples.

3. Blood components received must be entered on the LIMS and have the fate recorded as follows –

   - Disposed and the reason.
   - Not transfused but entered into stock.
   - Information regarding units that have been transfused *en route* should be transferred back to the issuing laboratory

4. The receiving blood transfusion laboratory must ensure that all transferred units are accounted for.

5. For blood components transferred with a patient, the receiving laboratory must inform the dispatching laboratory of the fate of the units to enable update of records as above. This ensures the correct fate of the units is recorded at both hospitals. One example is to fax or email a copy of the transfusion record to the dispatching hospital.

6. On the rare occasion that the transferred units were cross matched by the WBS (or NHSBT) and transferred with the patient, consider the use of a deviation procedure or concessionary issue to enable the units to be used and avoid unnecessary delay in transfusing the patient.

Wrist Bands

In those exceptional circumstances where the patient is to be transfused *en route* the patient identity wrist bands should be used to identify the patient pre-transfusion. Most receiving hospitals will re-register the patient and issue a second set of wrist bands. Communication between the clinical area and the laboratory is necessary to ensure that patient identification is managed in a safe and appropriate manner. A policy should be in place to minimise the risk of multiple hospital numbers and wherever possible the NHS number should be incorporated.

References

British Committee for standards in Haematology (2009) *Guideline on the administration of blood components,* www.bcshguidelines.com

Department of Health, Statutory Instrument 2005/50 (as amended) *Blood Safety and Quality Regulations*

JPAC www.transfusionguidelines.org.uk

Appendix 1: Blood Component Transfer Form

BLOOD COMPONENT TRANSFER DOCUMENT

This form must accompany units transferred between the named hospitals

Blood components must only be transported in a validated container and in compliance with the Blood Safety and Quality Regulations (2005)

Patient Name ..... NHS Number .....

Address ..... DOB ...../...../..... Gender .....

Enter below donation numbers and component type of all transferred units (or attach printout)

Unit 1: RBC / FFP / PLTS

Unit 2: RBC / FFP / PLTS

Unit 3: RBC / FFP / PLTS

Unit 4: RBC / FFP / PLTS

Special Requirements: Irradiated ☐ / CMV Negative ☐ / HLA Matched ☐ / HEV Negative ☐

DISPATCHING HOSPITAL ..... *(Hospital name)*

I confirm that the components listed above have been stored in accordance with National and Regulatory requirements before issue and that the transfusion laboratory on the recipient site was notified of transfer.

The components have been packed and sealed in a container that is validated for ..... Hours

Date Packed ..... Time Packed ..... BMS Signature .....

Issuing Hospital Contact Details

Tel № Direct: ..... Fax № .....

Hospital Switchboard ..... On call bleep: .....

RECEIVING HOSPITAL ..... *(Hospital name)*

The box was received Sealed ☐ Opened ☐

I confirm that the above components were / were not received in an appropriate condition and will be stored / disposed according to National and Regulatory requirements

Date Received ..... Time Received ..... BMS Signature .....

Final Disposition (mark as appropriate)

Used *en-route*	Unit 1 ☐	Unit 2 ☐	Unit 3 ☐	Unit 4 ☐
Received to stock	Unit 1 ☐	Unit 2 ☐	Unit 3 ☐	Unit 4 ☐
Wasted	Unit 1 ☐	Unit 2 ☐	Unit 3 ☐	Unit 4 ☐
Traceability	Unit 1 ☐	Unit 2 ☐	Unit 3 ☐	Unit 4 ☐

Return completed form to the Blood Transfusion Laboratory

Appendix 2: Blood Box Label

To: _____

(*Insert receiving hospital name and address*)

DO NOT OPEN UNLESS IMMEDIATE TRANSFUSION OF THE PATIENT IS INDICATED

BLOOD

URGENT
For Immediate Delivery

The Blood / Components contained in this box were issued from the Blood Transfusion Laboratory at ..... Hospital. If found please telephone ..... immediately.

THIS BOX SHOULD BE TAKEN IMMEDIATELY ON ARRIVAL TO THE HOSPITAL TRANSFUSION LABORATORY

Issued by: Signature of BMS		**Delivered by:** Signature of Porter / Driver	
PRINT NAME		PRINT NAME	
Date:	**Time:**	**Date:**	**Time:**
Delivered to: Signature		PRINT NAME	DESIGNATION:
Date:	**Time:**	**Time Removed from Transport box**	Unit 1: Unit 2: Unit 3: Unit 4:

This transport box has been validated for the storage of blood components.
The contents of this box will be suitable for transfusion until:
(*insert time*)_____ : _____ **hours**

Transport box opened / seal broken at: _____ : _____

In compliance with the BSQR 2005, it is confirmed that the contents of this box have been stored securely in accordance with Guidelines for the Blood Transfusion Services in the U.K.

DATALOGGER LABEL

Please keep datalogger in box until last unit is removed

Supplying Hospital.....

Time ……Date…….
Logger placed in box with component

Signature: _____

Time last unit removed ……

Signed Date

Please return to supplying Hospital

Appendix 3

Blood Transfer Advice to Clinical Staff

Dispatching hospital to ensure that the following sheet is ATTACHED to the transfer box when blood is being transferred with a patient

THE BLOOD COMPONENTS IN THIS BOX HAVE BEEN PACKED ACCORDING TO STRICT TRANSFUSION LABORATORY GUIDELINES

During transfer:

- If blood is required during the patient's journey please ensure that it is checked and transfused in accordance with local policy and National Guidance (BCSH, 2009)
- Blood is suitable for transfusion within the timeframe stated on the paperwork attached to the box, provided the seal is unbroken
- Please ensure the box remains sealed unless a unit is required for transfusion. Once opened the cold chain has been broken and all units must be transfused within 4 hours
- If blood is removed for transfusion, please replace the lid

On arrival:

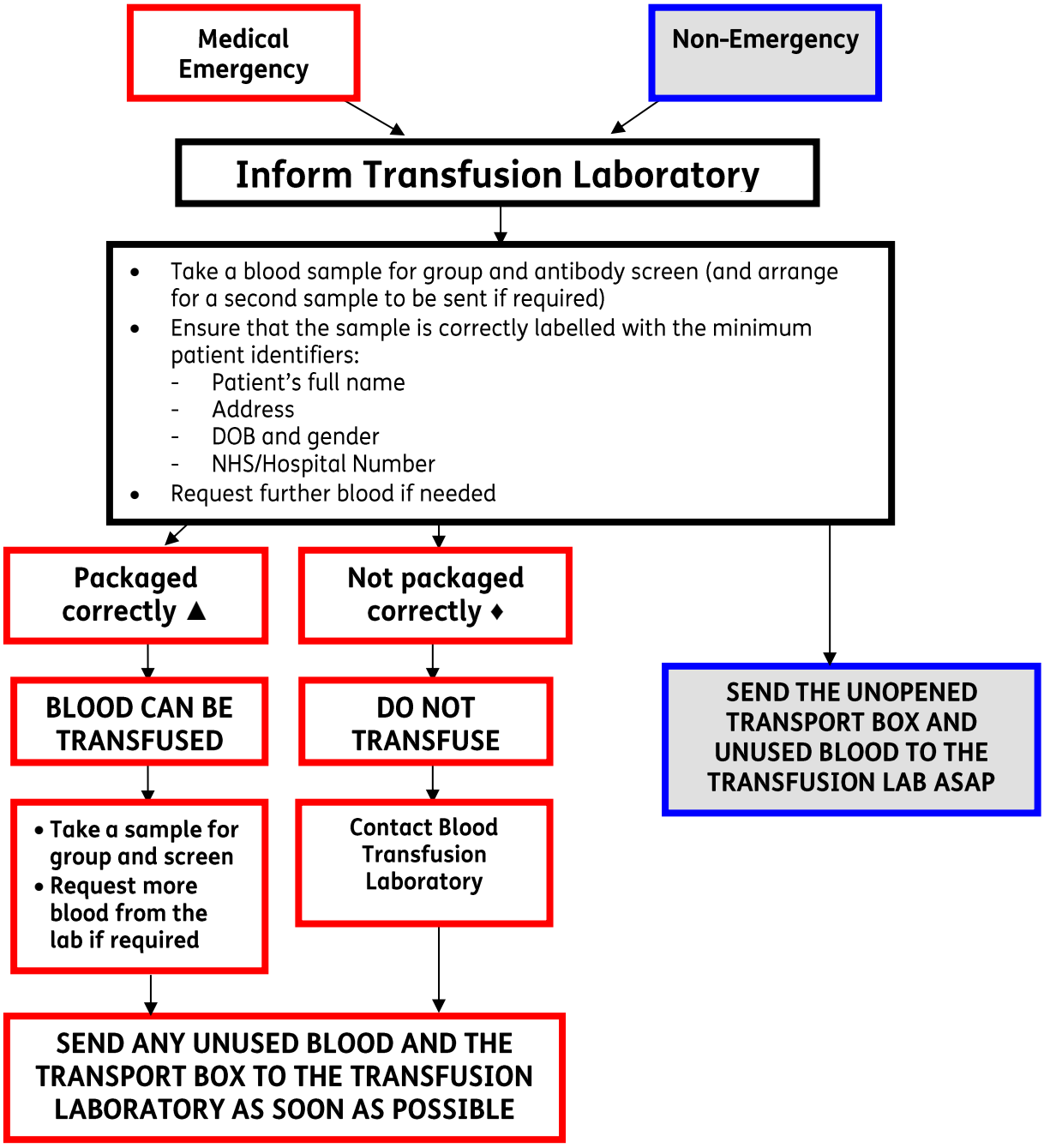
- When the patient arrives in the receiving clinical area, hand the blood box to the receiving member of clinical staff
- Please state how much blood, if any, was transfused during the journey and any adverse events noted
- Responsibility for the blood now lies with the receiving hospital in line with their local policy

Receiving Clinical Staff:

- When the blood box is received, contact your Transfusion Laboratory immediately for instruction
- Follow additional guidance on attached flowchart

Appendix 4

ACTION FOR CLINICAL STAFF ON RECEIVING TRANSFERRED BLOOD COMPONENTS



▲ Packaged correctly;

- Check documentation and box integrity.
- If unsure call Blood Transfusion Laboratory

♦ Not packaged correctly:

- Blood arrives in an inadequate container e.g. plastic bag, cardboard box
- No documented time of packing
- Blood box seal broken
- Out of transport time

Appendix 5: Hospital Contact

ABERTAWE BRO MORGANNWG			
Morriston Hospital		**Princess of Wales Hospital**	
Main switchboard	01792 702222	Main switchboard	01656 752752
Transfusion Lab	**01789 3054**	Transfusion Lab	**01855 2343**
Fax. No.	01792 703992	Fax. No.	01656 655676
Singleton Hospital		**Neath Port Talbot Hospital**	
Main switchboard	01792 205666	Main switchboard	01792 702222
Transfusion Lab	**01883 5075**	Transfusion Lab	**01789 3054**
Fax. No.	01792 285470	Fax. No	01792 703992
ANEURIN BEVAN			
Royal Gwent Hospital		**Ysbyty Ystrad Fawr**	
Main switchboard	01633 234234	Main Switchboard	01443 802200
Transfusion Lab	**01738 4477**	Transfusion Lab.	**01443 802523**
Fax. No.	01633 212076	Fax No.	01443 802643
Nevill Hall Hospital			
Main switchboard	01873 732732		
Transfusion Lab	**01736 2235**		
Fax. No.	01873 733048		
BETSI CADWALADR			
Wrexham Maelor Hospital		**Ysbyty Gwynedd**	
Main Switchboard:	01978 291100	Main Switchboard:	01248 384384
Transfusion Lab:	**01814 5371**	Transfusion Lab:	**01746 4368**
Fax. No.	01978 725631	Fax. No.	01248 385399
Ysbyty Glan Clwyd			
Main Switchboard:	01745 583910		
Transfusion Lab:	**01815 4200**		
Fax. No.	01745 534016		
CARDIFF AND VALE			
University Hospital of Wales		**Llandough Hospital**	
Main switchboard	02920 747747	Main switchboard	02920 711711
Transfusion Lab	**01872 2157**	Transfusion Lab	**01776 5389**
Fax. No.	02920 744677	Fax. No.	02920 715399
CWM TAF			
Prince Charles Hospital		**Royal Glamorgan Hospital**	
Main switchboard	01685 721721	Main Switchboard:	01443 443443
Transfusion Lab	**01854 8267**	Transfusion Lab:	**01751 4366**
Fax.No.	01685 382587	Fax. No.	01443 443355
HYWEL DDA			
Glangwili Hospital		**Bronglais Hospital**	
Main switchboard	01267 235151	Main switchboard	01970 623131
Transfusion Lab	**01827 2459**	Transfusion Lab	**01822 5945**
Fax. No.	01267 227790	Fax. No.	01970 635923
Prince Phillip Hospital		**Withybush Hospital**	
Main switchboard	01554 756567	Main switchboard	01437 764545
Transfusion Lab	**01824 3057**	Transfusion Lab	**01720 3230**
Fax. No.	01554 783499	Fax. No.	01437 772156

*** Telephone Numbers in Bold = WHTN Number**