# Organising, Receipt and Administration of Blood Components Including Management of Transfusion Reactions

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|---|---|
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| **Approved by:** | TTC and ISAG |
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| **Target Organisation(s)** | Worcestershire Acute Hospitals NHS Trust<br>Worcestershire Health & Care Trust |
| **Target Departments** | All |
| **Target staff categories** | All staff involved in the transfusion process |

**This guideline is for use by the following staff groups :**
All staff involved in the process of transfusion administration

## Key amendments to this guideline

| Date | Amendment | Approved by: |
|---|---|---|
| June 2018 | Inclusion of the new blood transfusion care pathway including prescription and transfusion associated overload checklist | Gill Godding |
| July 2020 | Document extended for 6 months whilst review and approval takes place | Gill Godding |
| February 2021 | Document extended for 6 months as per Trust agreement 11/02/2021 | Trust agreement |
| July 2021 | Minor amendments to contents and the treatment and management of transfusion reactions | Gill Godding |
| 7th November 2023 | Document reviewed and approved for 3 years | Laura Walters |
| June 24 | Document updated to include BloodTrack | ISAG/TTC |

## Contents Page

## 1. Introduction

This policy details how to organise, receive and administer blood components/products to a patient who has been identified as requiring them.

This includes correctly identifying the patient, confirming that administration documentation is accurate, legible and complete, completing the required pre-transfusion checks, ordering blood to be collected from blood bank storage, receiving the blood component on the clinical area, correctly identifying the patient and component prior to administration (bedside checklist) and commencing the unit with the correct giving set.

The procedure involves supporting and monitoring the patient throughout the transfusion process, identifying and responding promptly to indications of adverse reactions, completing relevant documentation and disposing of used blood bags and other equipment on completion.

This policy is relevant to anyone required to carry out this activity, in order to support safer blood transfusion practice, by ensuring the correct blood component or product is given to the correct patient.

## 2. Preparing the patient for transfusion

Transfusion should only occur in well illuminated areas where the patients can be readily observed.
Overnight transfusions must be avoided unless the patient is severely symptomatic. Routine transfusion should occur between 08:00 and 20:00.

The WR1251 Documentation for transfusion of Blood Components pathway should be used for all transfusions (operating theatres are the only exception where a fluid chart is used but must follow normal processes in recovery). In the intensive care unit, the prescription and observations should be recorded on the Intensive care electronic patient system, including the electronic completion of consent and TACO checklist.

### The Transfusion Prescription

- Prescribers must ensure that the indication for transfusion, patient consent and the Transfusion Associated Circulatory Overload (TACO) checklist are completed prior to the prescription being written.
- Prescribers are not use abbreviations on the transfusion prescription. They should write, in full, Red cells, Plasma, Platelets or Cryoprecipitate
- It is the responsibility of the prescriber to ensure that any special requirements are met, e.g. irradiated, HEV negative, CMV negative, HLA matched platelets, blood warmer (see appendix 4 of the blood transfusion policy for further information)
- Medications related to transfusion (e.g. diuretics, antipyretics) must be prescribed on a medication chart
- A new transfusion prescription should be completed for every new transfusion episode
- A new Consent and TACO checklist should be completed for every new decision to prescribe blood

### Diuretics

There may be a risk of precipitating congestive cardiac failure, particularly in patients with chronic anaemia. If it is necessary to transfuse, this risk can be minimised by administering a diuretic (e.g. furosemide 20-40 mg orally) and closely observing the patient**.** The decision to give a diuretic must be based on a clinical assessment of the patient.

**Consent for transfusion**

In October 2011 (updated in 2020), SaBTO published its guidelines on Patient Consent for Blood Transfusion. The provision of information and the informed verbal consent discussion should be undertaken by the healthcare practitioner who has made the decision to transfuse. It is recommended within these guidelines the patient understands:

- the reason for the transfusion
- the benefits of the transfusion
- the risks of transfusion – both short- and long-term risks (including any additional risks pertinent to long term multi-transfused patients)
- any transfusion needs specific to them
- any alternatives that are available, and how they might reduce their need for a transfusion
- the possible consequences of refusing a blood transfusion
- the transfusion process
- that they are no longer eligible to donate blood (with the exception of individuals who have received Convalescent Plasma, as they may continue to donate Plasma to treat individuals with SARS-CoV-2)
- that they are encouraged to ask questions

The WR1251 Documentation for transfusion of Blood Components pathway includes this consent and it must be completed fully (where patient/parent is able) before the transfusion is prescribed for the patient.

If the patient is conscious and able to respond, check that they understand why they require a transfusion and obtain informed consent for it. Patient information leaflets are available in all clinical areas to aid this discussion. Additional leaflets and translations are available on the WAHT intranet A-Z Blood transfusion home site.

If unable to give informed consent, then ensure that the relevant parent/guardian/next of kin is aware of the requirement for transfusion.

The “Documentation for transfusion of blood components”, should be fully completed for every transfusion episode.

**Pre transfusion checks**

Prior to requesting collection of the blood component, ensure that the pre transfusion checklist has been completed.

The pre-transfusion checks are as follows:

- The patient must have a wristband in situ which specifies the four unique identifiers needed for transfusion:
  - Surname
  - First name
  - Date of birth
  - NHS number
- The patient should have a patent cannula/line in situ.
- The prescription should be checked for the completion of consent and TACO checklist
- The component must be prescribed correctly
- BloodTrack ward enquiry should be checked to establish if units are available for use
- Perform baseline observations of the following to create an accurate NEWS score:
  - Blood pressure

- Heart rate
- Respiratory rate
- Temperature
- Oxygen saturations and requirements
- Level of consciousness

Providing the patient is stable, the baseline observations can be carried out up to 60 minutes prior to the commencement of the transfusion.

These pre-administration checks **must** be completed prior to requesting collection of the blood from blood bank storage.

See "Procedure for Collection of Blood Components/Products from Blood Storage" for details on how to collect blood.

**Generating a pick up slip**

When the pre-transfusion checks have been completed, a pickup slip needs to be generated for a porter or other trained, competent staff member to collect the required component.
To generate a pickup slip:

- Take the PDA and printer to the patient and switch both units on
- Ask the patient to confirm their name and DOB (if able) and check what they say against their wristband. Check the patient's full name, DOB and NHS number match between the wristband and the prescription
- On the PDA, select "pickup"
- Scan your ID and enter your pin to gain access
- Scan the patient's wristband
- The PDA will then ask you to confirm you have checked the patient details. Tick the boxes to confirm the patient's details are correct and click "proceed".
- The PDA will then ask you to select what component you want to be collected. Select the component that is prescribed (e.g. red cells) and click "proceed".
- You will then be asked to select the quantity required. Tick the relevant box and click "proceed".
- You will then be prompted to print the pickup slip. Scan the QR code on the handheld printer's screen and the pickup slip will be printed.
- Check the information on the collection slip has printed out correctly and select "done" on the PDA.

The collection request will need to be raised via the porter's lodge/switchboard. The porter will come to the clinical area, collect the pickup slip and then go to collect the component.

**3. Ward Receipt**

**Arrival on the ward/clinical area**
When blood is delivered to a ward or department, it must be handed to a transfusion competent member of staff who will check that the correct blood has been delivered by checking the following patient details:

- First name
- Surname
- DOB
- NHS number

The staff member will then check the component and compatibility label matches by checking:

- Donor/unit number
- Component type

- Blood group of component and compatibility to the patients' blood group
- Expiry date
- Special Requirements
- Quality of the component/Visual check

Staff member will then sign the red transit bag to agree the right unit has been collected for the patient.

If the staff member finds an error, they are to ask the porter to return the component to the blood bank and the staff member from the clinical are must ring blood bank to inform them the unit was incorrect, what the issue was and blood bank will investigate the issue. The clinical area will then need to raise a datix.

**Care of Blood prior to Transfusion**

- Blood components must never be left unattended
- Transfusion should begin as soon as possible after delivery of the blood unit
- Once the blood has been removed from the issue fridge it must be completely transfused within 4 hours of removal from the fridge
- If the transfusion has not been started within 30 minutes and there is no prospect that it will be completely transfused within the next 3 ½ hours the unit must be returned to blood bank to be wasted.
- Unused blood components must never be disposed of in the clinical area, they must be sent back to blood bank.
- Blood which is being transported in a sealed Transit box (supplied by the laboratory) can be stored for up to 4 hours from time of packing, which is clearly stated on the component transit form that accompanies the transit box. Components in the transit box must not be used if 4 hours has lapsed. The seal must not be broken and the box must not be opened until the units are due to be transfused. Once the transit box is opened, you have 4 hours to complete transfusion of the enclosed components, or 30 minutes to return the box to blood bank if the components are not going to be used. Any unused units must be returned to the blood bank as soon as possible.
- Blood must **not** be stored in ward refrigerators under any circumstances.
- Medications must not be added to blood components under any circumstances

**4. Administration sets for Transfusion**

- Blood must be transfused through a sterile Blood Transfusion giving set with a 170 -200µm filter which is specifically designed for this purpose. Additional filters are not required.
- The line should be primed with the blood component itself, not with normal saline
- The giving set can be used for multiple units of the same component type, but MUST be changed if the component is changed i.e. from red cells to Platelets.
- Special paediatric giving sets must be used for transfusions to infants

Each blood transfusion giving set must only be used for a maximum of 12 hours.

## 5. Blood Warming

- The decision to warm blood is the responsibility of the prescriber and must be documented in the patient's notes. Blood Warmers should be used when a patient is found to have Cold Agglutinins or is having a massive transfusion.
- Blood should only be warmed using a specifically designed commercial device (CE marked) with a visible thermometer and audible warning
- Blood warming devices should only be operated by personnel who have received training and regular updates in their use.

## 6. Bedside checking procedure

The administrator must be fully trained in NPSA Framework 3 to administer blood components to patients. This is a single person checking process with the use of BloodTrack TX. The trained health professional must complete the following checks:

**Patient identity checks**:

- Ask the patient to state their full name and DOB (where able)
- Compare what they say against the patient's wristband
- Compare the wristband details (Name, DOB and NHS number) against the prescription and the compatibility label attached to the blood component

*Ensure all patient details match, if there are any discrepancies DO NOT TRANSFUSE. Return the component back to blood bank, telephoning them to inform them of the issue, and investigate the cause.*

**Component checks:**

- Check the unit is the correct component that is prescribed
- Check the donor/unit number on the blood component against the compatibility label
- Check the blood group details on the component matches the compatibility label. Check it is compatible to the patient's blood group, which is also stated on the compatibility label
- Check the expiry date of the unit (on the unit itself)
  *Note: Plasma and Cryoprecipitate contain the thawed date and time. Plasma is to be used within 24hours of thawing (unless it is a major haemorrhage) and Cryoprecipitate is to be used within 4 hours of thawing*
- Check the component for abnormalities, e.g. discolouration, clots and leaks.
- Check if the patient has any special requirements, and that they are met by the unit. Special requirements are listed on the component itself

*If there are any discrepancies, return the component to blood bank to investigate the issue, telephoning them to inform them of the issue*.

**Using BloodTrack TX**

Use the PDA to confirm you have the right unit for the right patient.

1. On the PDA select "begin transfusion"
2. Scan your barcode when prompted and key in your pin number
3. Scan the patients wristband. The PDA will ask you to confirm the patient identity checks match against those on the screen. Once the patient has verbally confirmed their details and the wristband had been checked, select confirm and press proceed
4. Scan the QR code on the traceability tag. The BloodTrack TX software will then compare the information on the patient's wristband and the transfusion compatability label

5. The PDA will then prompt you to check the patient details on the wristband matches against the patient details on the compatability label. If they all match select “proceed”

*Note: if the compatability label and the patient details on the wristband do not match, the differences will be highlighted in yellow.*

6. A special requirments screen will then appear. Confirm if the patient has any special requirementsby checking the prescription to see if any have been precribed. Select the special requirement or “no special requirements” as applicable and press proceed
7. Scan the unit number on the component
8. Scan the product code on the component
9. Confirm the unit number matches against the PDA, compatability label and component, then select proceed

*Note: if there are any discrepencies between the donor/unit number and product code, the BloodTrack TX software will highlight these in yellow. Pressing to proceed will cause the BloodTrack TX software to issue a warning message and emit and alarm to stop you from transfusing the component to the patient. Click ok to stop the alarm from sounding, and the PDA will automatically log out.*

10. The PDA will ask you to confirm all component checks have been completed, including compatibility of the unit to the patient’s blood group. Once these checks have been completed, press to proceed
11. The PDA will prompt for the component administration to begin, and will record the transfusion as started. The time the unit must be fully transfused by will be displayed.

Complete all relevant area of the Transfusion Care Pathway.

*If the blood unit pack is accidentally punctured during the setting up procedure or not transfused for any other reason, the blood bank must be informed as soon as possible and the unit returned in red transit bag.*

## 7. Administration

- Connect the component to the administration set using an aseptic none touch technique
- The administration line should be primed in the presence of the patient once the bedside checks are completed.
- Feed the line into the infusion pump and set at the appropriate rate
- Attach the line to the patient’s cannula and commence transfusion.
- Advise the patient about any possible signs and symptoms they may experience and make sure they can reach the call bell.
- Remain with patient for the next 5 minutes to observe for any adverse event which could be linked to ABO incompatibility.

| Component | Recommended administration time | Exceptions |
|---|---|---|
| Red cells | 1 ½ - 3½ hours | Massive haemorrhage/Exchange |
| FFP/Octoplas | 10-20 mls/kg/hour | Massive haemorrhage |
| Platelets | 30-60 minutes | Massive haemorrhage |
| Cryoprecipitate | 10-20 mls/kg/hour | Massive haemorrhage |

## 8. Care and monitoring of patients during transfusion

- Severe reaction to transfusion is most likely to occur within the first 15 minutes of the start of each component. The patient must be closely observed during this period.
- The observations should be repeated at 15 minutes from the start of the transfusion. If no change from baseline, then no further observations are required during transfusion unless the patient shows signs of an adverse reaction.
- Regular visual checks should be made on the patient to check for signs of transfusion reaction.
- Observations relating to the transfusion should be recorded on the WR2151 Documentation for transfusion of blood components (With the exception of theatres and Intensive care unit where the patient is being continuously monitored. The pre-transfusion observations, 15 minute observations and post transfusion observations should be documented on the theatre anaesthetic chart or ITU observation chart)
- Transfusion in the operating theatre is the only exception to the use of the WR2151 Documentation for transfusion of blood components. The start of the transfusion is to be documented on the anaesthetic observation chart. The patient must not be transferred from recovery to the ward area without the completion of the WR2151 Documentation for transfusion of blood components.
- Traceability is to be maintained at all times

## 9. End of transfusion

- Post transfusion observations are to be completed and recorded appropriately. These observations can be used as the baseline observations for the next unit providing it is commenced within an hour.
- Remove compatibility label from the used bag and dispose of in the confidential waste. The empty blood bag should be put back into the transportation bag to be disposed of in clinical waste.
- The transfusion documentation must be filed in the patient's medical notes.
- The doctor should document in the patient notes if there were any adverse events during transfusion and also if the expected benefits from transfusion had been achieved.
- For day-case patients receiving a blood transfusion, the post transfusion advisory leaflet should be given to the patient prior to going home, indicating emergency contact numbers.

Patients should be asked to report symptoms which develop within 24 hours of completion of the transfusion to the ward area where they were transfused.

## 10. Acute transfusion reactions

### Signs and symptoms of an acute transfusion reaction

Acute transfusion reactions can present with a range of signs and symptoms of varying severity.

Mild transfusion reactions (1= mild) do not need to be reported to the laboratory.

| | 1 = Mild | 2 = Moderate | 3 = Severe |
|---|---|---|---|
| | A rise in temperature of 1-2°C from baseline values *or* a fever >38°C (with or without a rash) | A rise in temperature of >2°C from baseline *or* a fever >39°C *and/or* rigors, chills, and other inflammatory symptoms (such as myalgia) or nausea which requires prompt medical review | A rise in temperature of >2°C *and/or* rigors, chills, or fever >39°C *or* other inflammatory symptoms (such as myalgia) or nausea which requires prompt medical review *and/or* directly results in, or prolongs hospital stay. |
| **Allergic type reaction** | Transient flushing, Urticaria (hives) or rash (with or without mild temperature rise) | Wheeze or angioedema *with or without* flushing/urticaria/rash *without* respiratory compromise or hypotension | Bronchospasm, stridor, angioedema or circulatory problems which require urgent medical intervention *and/or* directly result in or prolong hospital stay *or* **Anaphylaxis** (severe, life-threatening, systemic hypersensitivity reaction with rapidly developing airway and/or breathing and/or circulation problems) |
| **Reaction with both allergic and febrile features** | Features of both mild febrile *and* mild allergic reactions | Features of both allergic *and* febrile reactions, *at least one of which is in the moderate category.* | Features of both allergic *and* febrile reactions, *at least one of which is in the severe category* |
| **Hypotensive reaction** | | Isolated fall in systolic blood pressure of 30mm/Hg or more occurring during or within one hour of completing transfusion *and* a systolic blood pressure of 80mm/Hg or less *in the absence of allergic or anaphylactic symptoms.* | Hypotension, as previously defined, leading to shock (e.g. Acidaemia, impairment of vital organ function) *without allergic or inflammatory symptoms*. Urgent medical intervention required. |

| | | | |
|---|---|---|---|
| | | No/minor intervention required. | |

Febrile and allergic reactions may present within 4 hours, whilst hypotensive reactions are considered as presenting within one hour.

| Severity Grades for haemolytic transfusion reactions | | | |
|---|---|---|---|
| 1=DAT without haemolysis | 2=mild | 3=moderate | 4=severe |
| Not SHOT reportable | 2 of the following<br>• Falling Hb<br>• Positive DAT<br>• spherocytes | • Falling Hb<br>• Rise in bilirubin<br>• +/- Positive DAT<br>• +/- spherocytes | • Falling Hb<br>• Rise in bilirubin<br>• Renal impairment<br>• +/- Positive DAT<br>• +/- spherocytes |

**If a severe reaction is suspected:**

- **STOP the transfusion**.
- Seek urgent medical assistance
- Take down the blood with the giving set and replace with saline to be run slowly to maintain venous access
- Use an ABCDE approach to direct the treatment plan, including medications to treat anaphylaxis
- Check that the unit details match the patient (i.e. name, component group etc.)
- Take all observations and calculate NEWS score immediately, and continue at frequent intervals
- Maintain an accurate fluid balance, including the volume and colour of all urine passed
- Test urine for haematuria
- Contact blood bank to inform them of the situation and to obtain a reaction report form
- Return the unit of blood that was being transfused to the hospital blood bank via the Porters
- Collect any blood samples requested by the transfusion laboratory without delay
- Complete the reaction report form and return it to the blood bank
- Blood Bank to notify Transfusion Practitioners to investigate the reaction
- The clinician responsible for the patient should discuss all serious transfusion reactions with the on duty/on call consultant haematologist

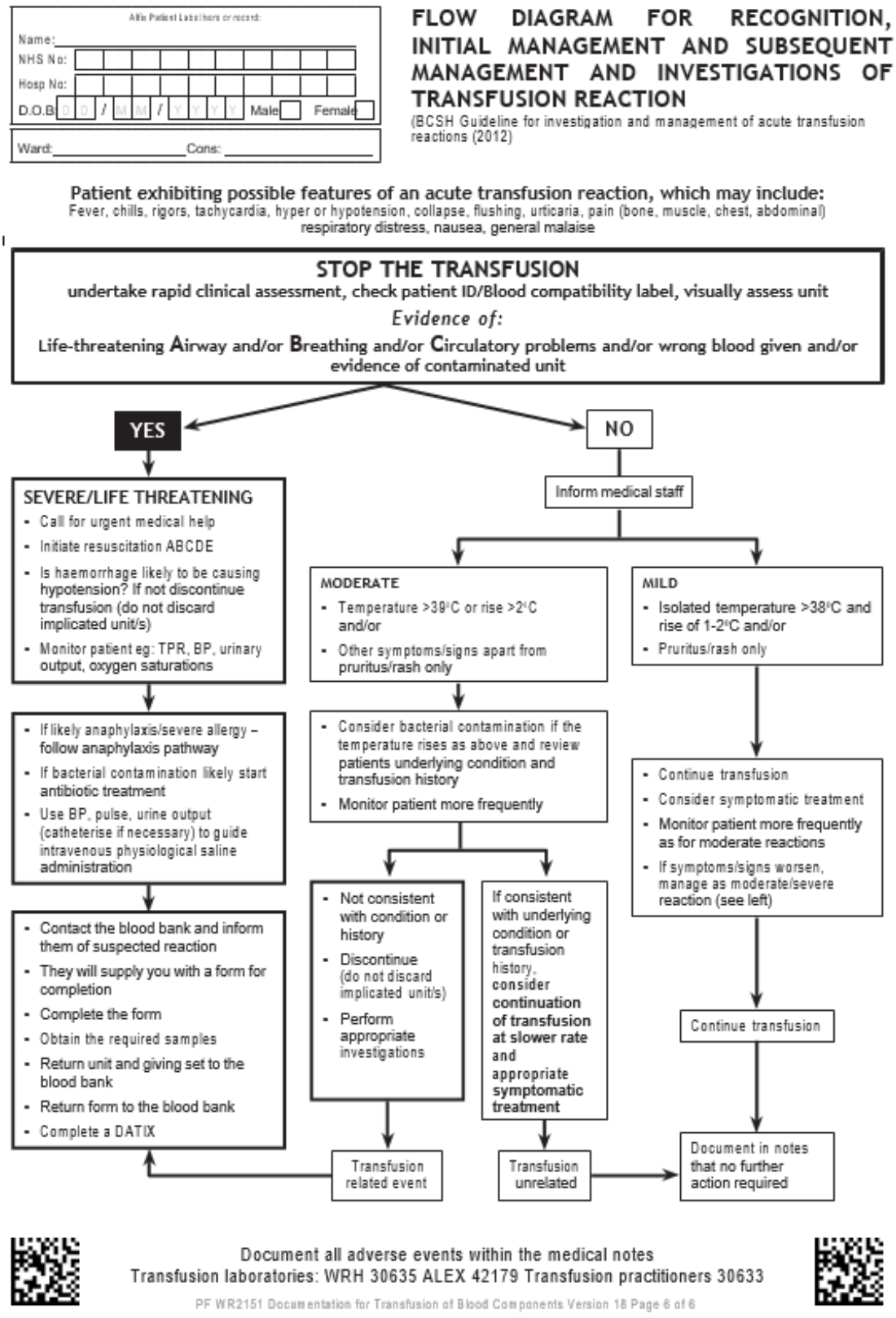
Be aware if a patient undergoing massive haemorrhage develops hypotension, careful clinical risk assessment is required to ascertain if the blood component or the haemorrhage is the cause.

If the patient develops sustained febrile symptoms from the moderate category, bacterial contamination or haemolytic reaction should be considered

In the clinical area refer to the “Flow diagram for recognition, initial management and subsequent management and investigation of transfusion reactions” (BCSH Guidelines

2012) on the WR1251 Documentation for Transfusion of Blood Components pathway for further information. See below

## 11. Transfusion reaction management algorithm



## 12. Management of Transfusion Associated Circulatory Overload (TACO)

1. Stop transfusion immediately, if possible place the patient in an upright position and give oxygen support to maintain O2 saturations more than 95%
2. Urgent Medical Review to assess and manage as a suspected acute transfusion reaction
3. After excluding allergic reaction, treat TACO symptoms with oxygen, diuretics and other cardiac failure therapy
4. Hypertension is a constant feature in TACO so monitor and manage BP
5. Get urgent CXR, ECG, NT-Pro BNP, FBC, UE, CRP; +/- blood cultures, +/- Echo
6. Record strict fluid balance and body weight daily for next 2-3 days
7. In serious cases, mechanical ventilation and treatment in the intensive care unit (ICU) may be required – contact the Critical Care Outreach team
8. If clinical condition settles and red cell transfusion is strongly indicated, resume transfusion with only 1 unit in 3-3.5 hours after a dose of diuretic with more frequent monitoring of vital signs, urine out-put and strict fluid balance. Check FBC after 1-2 hours of completing that unit of transfusion.
9. If more than one unit red cell transfusion is indicated, reassess with medical review for increase in Hb after 1st unit of red cells, an improvement in respiratory status after diuretic treatment, fluid balance significantly positive or improved and need for more diuretic prior to next transfusion.

| **ISBT criteria for diagnosis of TACO** |
|---|
| Patient should have acute or worsening respiratory compromise and/or evidence of pulmonary oedema (A and/or B below) during or up to 12 hours after transfusion<br>**and**<br>the presence of a total of 3 or more of the following criteria A-E: |
| |
| **Required criteria**<br>A. Acute or worsening respiratory compromise e.g. tachypnoea, shortness of breath, decreased O2 saturations, and/or<br>B. Acute or worsening pulmonary oedema based on physical examination and/or chest X-ray |
| |
| **Additional criteria**<br>C. Evidence for cardiovascular system changes e.g. tachycardia, hypertension<br>D. Evidence of fluid overload e.g. positive fluid balance, response to diuretics<br>E. Supportive result of a relevant biomarker such as elevated B type natriuretic peptide level (e.g. BNP or NT-pro BNP) |

## 13. Investigations required following transfusion reaction

| Symptoms | Investigations |
|---|---|
| **Fever (>2°C rise or 39 °C), and/or chills, rigors, myalgia, nausea or vomiting and/or loin pain** | Standard investigations*<br>Take samples for repeat compatibility testing, DAT, LDH and haptoglobin<br>Take blood cultures from patient<br>Coagulation screen<br>Do not discard implicated unit<br>**If febrile reaction sustained,** return unit to laboratory, repeat serological investigations (compatibility testing, antibody screen and DAT), haptoglobin and culture unit<br>**If loin pain,** perform serological investigations as above |
| **Mucosal swelling (angioedema)** | Standard investigations*<br>measure IgA level (EDTA sample)- if <0.07g/L , and no generalised hypogammaglobinaemia, perform confirmatory test with sensitive method and check for IgA antibodies |
| **Dyspnoea, wheeze, or features of anaphylaxis** | Standard investigations*<br>Check oxygen saturation or blood gases.<br>Chest X-ray (mandatory if symptoms severe)<br>If severe or moderate allergy suspected measure IgA level.<br>If severe allergy/anaphylaxis suspected, consider measurement of serial mast cell tryptase (plain tube) (immediate, 3 h and 24 h) |
| **Hypotension (isolated fall systolic of 30 mm resulting in level 80mm)** | Investigate as for fever<br>If allergy suspected measure IgA level.<br>If severe allergy/anaphylaxis consider measurement of serial mast cell tryptase, as above |

* Standard investigations: full blood count, renal and liver function tests, and assessment of urine for haemoglobin
Abbreviations: DAT, direct antiglobulin test; Ig, immunoglobulin; LDH, lactate dehydrogenase

## 14. Reporting

All transfusion reaction regardless of severity must be reported in the patient's notes.

- Patients with repeated febrile non haemolytic reactions may benefit from pre medication of oral paracetamol one hour prior to transfusion.
- Patients with repeated moderate to severe allergic reactions who are not IgA deficient need to be transfused in a clinical area with resuscitation facilities. *The use of prophylactic antihistamine may be considered although evidence of its efficacy is low*. Transfusion of washed red cells or platelets and the use of solvent detergent treated Plasma should be considered.

Moderate and severe reactions MUST be reported using an online incident form. The Transfusion Practitioner Team or Laboratory Manager will then report these to the Medicines and Healthcare Regulatory Authority.
All cases of suspected bacterial contamination MUST be reported to NHS Blood and Transplant so they can remove any other donor units from circulation.

## 15. Contingency plan if BloodTrack has down time/PDA not working

If the PDA is not working, please see the PDA help guide and FAQ section on the Blood Transfusion webpage. If the PDA still isn't working after trying recommended help guide and FAQ's, please contact:

| | |
|---|---|
| Worcester Royal Hospital (WRH) | Monday to Friday 8am till 4pm contact Transfusion Practitioners (TP) on 30633<br><br>Out of these hours contact blood bank on 30635 or bleep #848 |
| Alexandra Hospital | Monday to Friday 8am till 4pm contact Transfusion Practitioners (TP) on 30633<br><br>Out of these hours contact blood bank on 44719 or bleep #0255 |
| Kidderminster Treatment Centre | Monday to Friday 8am till 4pm contact Transfusion Practitioners (TP) on 30633<br><br>Out of these hours contact blood bank at WRH on 30635 or bleep #848 |

If the PDA is broken, the TP's/Blood Bank have one spare on each site that can swapped with the ward's PDA until it can be fixed. Once the ward PDA is fixed, it will be swapped back to its original allocated clinical area.

If the PDA is broken or there are any issues/down time and you have liaised with TP's or Blood Bank, you may need to administer the blood component / product required by reverting to a manual method. Below outlines the manual method required when the BloodTrack PDA is not working. All parts of the above policy that do not require BloodTrack TX must be adhered to.

**To request collection of blood component/product**

To request collection of the blood component, staff must use the manual blood collection slip (WR0262 Version 6). This must be completed at the patient side against the patient's wristband. An addressograph label may be used. The collection slip must include the patient's:

- First name
- Surname
- DOB
- NHS number

The required component and quantity required must be indicated on the collection slip, and must match the prescription. The collection request will need to be raised via the porter's lodge/switchboard. The porter will come to the clinical area, collect the manual blood collection slip and then go to collect the component.

**Ward receipt**

The unit must be checked manually by the member of staff accepting it from the porter. This is done by checking the patient details on the compatibility label match against the prescription.

The patient identifiers are:

- Patient first name
- Patients surname
- DOB
- NHS number

The following blood component information must be checked and match between the component bag and the compatibility label:

- Donor/unit number
- Component type
- Blood group of component and compatibility to the patients' blood group
- Expiry date
- Special Requirements
- Quality of the component/Visual check

The receipt of blood components from the porter is a single nurse check. Once the required checks are completed, sign the red transit bag so the porter can leave. If any errors are identified during this check, ask the porter to return the unit, and telephone Blood Bank to inform them of the issue so it can be investigated. You must then raise a datix.

**Bedside checklist**

To administer a unit of blood using manual checks, a two nurse independent check must be completed. This requires one member of staff to complete all the checks, then a second member of staff to repeat them.

**Patient identity check**:

- Ask the patient to state their name and DOB (where able)
- Compare what they say against the patient's wristband
- Compare the wristband details (Name, DOB and NHS number) against the prescription and the compatibility label attached to the blood component

*Ensure all patient details match, if there are any discrepancies DO NOT TRANSFUSE, return the component back to blood bank and investigate the issue.*

**Component checks**:

- Check the unit is the correct component that is prescribed
- Check the donor/unit number on the blood component against the compatibility label
- Check the blood group details on the component matches the compatibility label. Check it is compatible to the patient's blood group, which is also stated on the compatibility label
- Check the expiry date of the unit (on the unit itself)
  *Note: Plasma and Cryoprecipitate contain the thawed date and time. Plasma is to be used within 24hours of thawing (unless it is a major haemorrhage) and Cryoprecipitate is to be used within 4 hours of thawing*
- Check the component for abnormalities, e.g. discolouration, clots and leaks.
- Check if the patient has any special requirements, and that they are met by the unit. Special requirements are listed on the component itself

*If there are any discrepancies return the component to blood bank to investigate the issue.*

The second trained health care professional should then independently repeat the bedside checks. Once both staff agree it is the correct unit for the correct patient, the unit can be started. Ensure all relevant documentation is completed as outlined above.

## Monitoring

| Page/ Section of Key Document | Key control: | Checks to be carried out to confirm compliance with the Policy: | How often the check will be carried out: | Responsible for carrying out the check: | Results of check reported to: *(Responsible for also ensuring actions are developed to address any areas of non-compliance)* | Frequency of reporting: |
|---|---|---|---|---|---|---|
| | **WHAT?** | **HOW?** | **WHEN?** | **WHO?** | **WHERE?** | **WHEN?** |
| | 1. The administration of blood<br>2. Monitoring the patient throughout the process<br>3. Completion and documentation of the event<br>4. Management of transfusion reactions | Audit will be completed to establish if the key parts of the process are being followed | 2 yearly | Transfusion practitioners/Blood bank | Trust Transfusion committee | 2 yearly |

## References

Blood Safety & Quality Regulations 2005
https://www.legislation.gov.uk/uksi/2005/50/contents/made accessed 2/7/21
**Robinson,S, Et al,** The administration of blood components: a British Society for Hematology Guideline 2017 https://onlinelibrary.wiley.com/doi/full/10.1111/tme.12481 accessed 16.07.21

## Contribution List

### Contribution List

This key document has been circulated to the following individuals for consultation;

| Designation |
|---|
| Consultant Haematologist |
| Consultant Urgent care |
| Consultant Specialised medicine |
| Consultants Women's and Children's |
| Consultant SCSD |
| Blood Bank Manager |
| Community IV team lead |
| Deputy Chief Nurse |
| Transfusion practitioner |

This key document has been circulated to the chair(s) of the following committee's / groups for comments;

| Committee |
|---|
| Trust Transfusion Committee |

## Supporting Document 1 - Equality Impact Assessment Tool

. To be completed by the key document author and included as an appendix to key document when submitted to the appropriate committee for consideration and approval.

Please complete assessment form on next page;

**Herefordshire & Worcestershire STP - Equality Impact Assessment (EIA) Form**
**Please read EIA guidelines when completing this form**

**Section 1 - Name of Organisation** (please tick)

| | | | | | |
|---|---|---|---|---|---|
| Herefordshire & Worcestershire STP | | Herefordshire Council | | Herefordshire CCG | |
| Worcestershire Acute Hospitals NHS Trust | ✓ | Worcestershire County Council | | Worcestershire CCGs | |
| Worcestershire Health and Care NHS Trust | | Wye Valley NHS Trust | | Other (please state) | |

| | |
|---|---|
| **Name of Lead for Activity** | **Dr Thomas Skibbe** |

| | | | |
|---|---|---|---|
| **Details of individuals completing this assessment** | **Name** | **Job title** | **e-mail contact** |
| | **Laura Walters** | **Lead transfusion practitioner** | **Laura.Walters12@nhs.net** |
| **Date assessment completed** | **16/07/21** | | |

**Section 2**

| | | | | |
|---|---|---|---|---|
| Activity being assessed (e.g. policy/procedure, document, service redesign, policy, strategy etc.) | **Title:**<br>**Administration of Blood Components and Management of Transfusion Requests** | | | |
| What is the aim, purpose and/or intended outcomes of this Activity? | Safe transfusion practice | | | |
| Who will be affected by the development & implementation of this activity? | ❑<br>✓<br>❑<br>❑ | Service User<br>Patient<br>Carers<br>Visitors | ✓<br>❑<br>❑<br>❑ | Staff<br>Communities<br>Other _____ |
| Is this: | ❑ Review of an existing activity<br>❑ New activity<br>❑ Planning to withdraw or reduce a service, activity or presence? | | | |
| What information and evidence have you reviewed to help inform this assessment? (Please | NHS BT<br>British Society for haematology guidelines<br>Blood safety and Quality regulations | | | |

| | |
|---|---|
| name sources, eg demographic information for patients / services / staff groups affected, complaints etc. | NPSA safer practice notice No:14<br>MHRA<br>Serious hazards of transfusion<br>Serious adverse blood reactions and events |
| Summary of engagement or consultation undertaken (e.g. who and how have you engaged with, or why do you believe this is not required) | |
| Summary of relevant findings | |

## Section 3

Please consider the potential impact of this activity (during development & implementation) on each of the equality groups outlined below. **Please tick one or more impact box below for each Equality Group and explain your rationale**. Please note it is possible for the potential impact to be both positive and negative within the same equality group and this should be recorded. Remember to consider the impact on e.g. staff, public, patients, carers etc. in these equality groups.

| Equality Group | Potential positive impact | Potential neutral impact | Potential negative impact | Please explain your reasons for any potential positive, neutral or negative impact identified |
|---|---|---|---|---|
| **Age** | | ✓ | | This policy will have neutral impact on all equality groups. |
| **Disability** | | ✓ | | |
| **Gender Reassignment** | | ✓ | | |
| **Marriage & Civil Partnerships** | | ✓ | | |
| **Pregnancy & Maternity** | | ✓ | | |
| **Race including Traveling Communities** | | ✓ | | |
| **Religion & Belief** | | ✓ | | |
| **Sex** | | ✓ | | |
| **Sexual Orientation** | | ✓ | | |
| **Other Vulnerable and Disadvantaged Groups** (e.g. carers; care leavers; homeless; Social/Economic | | ✓ | | |

| Equality Group | Potential positive impact | Potential neutral impact | Potential negative impact | Please explain your reasons for any potential positive, neutral or negative impact identified |
|---|---|---|---|---|
| deprivation, travelling communities etc.) | | | | |
| **Health Inequalities** (any preventable, unfair & unjust differences in health status between groups, populations or individuals that arise from the unequal distribution of social, environmental & economic conditions within societies) | | ✓ | | |

**Section 4**

| What actions will you take to mitigate any potential negative impacts? | Risk identified | Actions required to reduce / eliminate negative impact | Who will lead on the action? | Timeframe |
|---|---|---|---|---|
| | **none** | . | | |
| | | | | |
| | | | | |
| **How will you monitor these actions?** | | | | |
| **When will you review this EIA?** (e.g in a service redesign, this EIA should be revisited regularly throughout the design & implementation) | | | | |

**Section 5 -** Please read and agree to the following Equality Statement

**1. Equality Statement**

1.1. All public bodies have a statutory duty under the Equality Act 2010 to set out arrangements to assess and consult on how their policies and functions impact on the 9 protected characteristics: Age; Disability; Gender Reassignment; Marriage & Civil Partnership; Pregnancy & Maternity; Race; Religion & Belief; Sex; Sexual Orientation

1.2. Our Organisations will challenge discrimination, promote equality, respect human rights, and aims to design and implement services, policies and measures that meet the diverse needs of our service, and population, ensuring that none are placed at a disadvantage over others.

1.3. All staff are expected to deliver services and provide services and care in a manner which respects the individuality of service users, patients, carer's etc, and as such treat them and members of the workforce respectfully, paying due regard to the 9 protected characteristics.

| | |
|---|---|
| **Signature of person completing EIA** | Gill Godding |
| **Date signed** | 13/07/21 |
| **Comments:** | |
| **Signature of person the Leader Person for this activity** | Thomas Skibbe |
| **Date signed** | 13/07/21 |
| **Comments:** | none |

## Supporting Document 2 – Financial Impact Assessment

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

| | Title of document: | Yes/No |
|---|---|---|
| **1.** | Does the implementation of this document require any additional Capital resources | no |
| **2.** | Does the implementation of this document require additional revenue | No |
| **3.** | Does the implementation of this document require additional manpower | No |
| **4.** | Does the implementation of this document release any manpower costs through a change in practice | No |
| **5.** | Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programmes or allocated training times for staff | No |
| | Other comments: | none |

If the response to any of the above is yes, please complete a business case and which is signed by your Finance Manager and Directorate Manager for consideration by the Accountable Director before progressing to the relevant committee for approval.