# Management of Patients Who Refuse Blood Transfusion

| Lead Clinician(s) | |
|---|---|
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| Approved by Clinical Governance Group on: | 4th September 2018 |
| This is the most up to date version of the document and should be used until a revised version is in place: | 4th September 2020 |

## Key amendments to this guideline

| Date | Amendment | Approved by: |
|---|---|---|
| June 2018 | New Advance directive appended | Gill Godding |
| July 2019 | Criteria for patients having elective surgery on satellite sites added | Trust Transfusion committee |

## Introduction

It is the right of every patient to refuse any specific form of treatment including transfusion of blood and blood components. This guideline outlines the available alternatives to transfusion that can be applied in various clinical situations to optimise the care and treatment of the patient. Advice is also provided on the legal situation surrounding refusal of blood transfusion.
There is a separate policy for obstetrics
Refusal of blood transfusion - B67Management of patients who refuse blood transfusion including blood

## This guideline is for use by the following staff groups:

All staff who are involved in obtaining consent for transfusion and prescribing blood components and/or products. Transfusion occurs throughout all clinical specialities.

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## Introduction

It is the right of every patient to refuse any specific form of treatment including transfusion of blood and blood components. This is of particular relevance to Jehovah's Witness patients who may carry an advanced directive document which lists the blood components/ products and autologous procedures that are, or are not, acceptable to them.

This guideline outlines the available alternatives to transfusion that can be applied in various clinical situations to optimise the care and treatment of the patient. The pre-operative pathway can be enhanced in various ways to reduce the requirement for transfusion. The interventions can be physical or pharmaceutical.

Patient Blood Management represents an international initiative in best practice for transfusion medicine. This is an evidence-based approach to optimising the care of patients who might need blood transfusion. Patient Blood Management puts the patient at the heart of decisions made about blood transfusion to ensure they receive the best treatment and avoidable, inappropriate use of blood and blood components is reduced. Routine safe practice should include the use of intravenous iron, and cell salvage; other alternatives such as erythropoietin should be used with caution and only after discussion with Haematology consultant leads.

Advice is also provided on the legal situation surrounding refusal of blood transfusion.

## Patients Right to Refuse

In 2011 the Advisory Committee on the Safety of Blood Tissue and Organs (SaBTO) published an independent report on consent for transfusion. This document recommends that all patients are told the following information in order to gain informed verbal consent prior to transfusion;

- Reason for transfusion
- Risks of transfusion
- Benefits of transfusion
- Consequence of transfusion
- Alternatives to transfusion

At any point the patient has the right to refuse transfusion of anything from a single component i.e. red cell, to all blood components or products. This decision MUST be respected and fully documented in the patient's notes.

## Legal Position

It is a general legal and ethical principle that valid consent should be obtained from a patient before they are treated; see WAHT-CG-075.

"*An adult (aged 16 or over) has full legal capacity to make decisions for themselves (the right to autonomy) unless it can be shown that they lack capacity to make a decision for themselves at the time the decision needs to be made*" (Mental Capacity Act, 2005 [England and Wales]).
If a competent adult patient refuses the administration of blood, failure to respect that refusal would constitute assault. A healthcare professional who does not respect this principle may be liable to legal action by the patient and possible action by their professional body.

In the case of critically ill patients with temporary incapacity, for example altered consciousness after trauma, clinicians must give life-saving treatment, including blood transfusion, unless there is clear evidence of prior refusal such as an Advance Decision Document. The patient record should document the indication for transfusion and the patient should be informed of the transfusion when mental capacity is regained (and their future wishes should be respected) (Handbook of Transfusion Medicine 5th Edition, 2013).

Where the parents or legal guardians of a child under 16 refuse blood transfusion (or other medical intervention) that, in the opinion of the treating clinician, is life-saving or essential for the well-being of the child, a Specific Issue Order (or national equivalent) can be rapidly obtained from a court (Handbook of Transfusion Medicine 5th Edition, 2013). Information on how to obtain a specific Issue Order can be found in the Paediatric consent policy. (Policy for Consent to Examination or Treatment (WAHT-CG-075)

**Elective Surgery**

Pre-operative clinical assessment:

The patient should be assessed preoperatively and should be asked about a history of bleeding episodes, anaemia, hypertension and evidence for chronic inflammation, infection or malignancy sought. A drug history should be taken to identify any that increase bleeding risk e.g. aspirin, non-steroid anti-inflammatory drugs (NSAID's). A clinical examination should also include measurement of blood pressure. If there is anaemia this should be investigated and treated. The following blood tests are indicated: full blood count, serum ferritin, B12 and folate, urea, creatinine and electrolytes and a coagulation screen.

Patients who refuse transfusion and are having surgery associated with risk of significant haemorrhage should not be operated on at a satellite site (i.e. KTC or Evesham). This includes patients having:

- Laparoscopic surgery
- Hysterectomy
- Evacuation of retained products of conception
- Hip replacement.

Other cases, such as vaginal prolapse repair, should be decided on a case by case basis by the clinical team. This is because there is access to more surgical specialties, ITU and cell salvage at the WRH and the Alex site. This decision should be ideally made in advance of the surgical date by the preoperative assessment team in conjunction with the wider surgical and theatre team.

Pre-operative erythropoietin administration:

Erythropoiesis stimulating agents (ESAs) such as recombinant erythropoietin are not cost effective or recommended for pre-operative patients.

Acute Normovolaemic Haemodilution (ANH)

This technique involves removing whole blood from the patient in theatre immediately prior to surgery and replacing it with a crystalloid or colloid. The blood is collected into blood bags containing an anticoagulant which remains connected to the patient's venous access line. The collected blood is ready to be re-infused immediately after surgery or earlier if indicated. Haematocrits of 20-25% are quite safe because normovolaemia is maintained at all times with the simultaneous infusion of crystalloids or colloids. Reported hazards of ANH are fluid overload, cardiac ischemia and wrong blood into patient errors.

Intra-operative cell salvage (ICS)

Intra-operative cell salvage uses 'cell saver' devices, which collect and process blood lost in the operative field. The collected blood is citrated, filtered, washed with saline, concentrated and returned to the patient.

Indications for ICS in adults and children are as follows:

- Surgery where anticipated blood loss is greater the 20% blood volume
- Elective and emergency surgery in patients with risk factors for bleeding
- Major Haemorrhage, including major obstetric haemorrhage http://guidance.nice.org.uk/IPG144/
- Patients with rare blood groups or multiple blood group antibodies for whom it may be difficult to provide donor blood
- Patients who refuse blood transfusion but who accept ICS

Contraindications include bowel surgery and bacterially infected surgical sites. Previous concerns over use of ICS with malignant disease have not been proven and a leucodepletion filter is recommended for these patients.

Postoperative cell salvage (PCS)
This is mainly used in orthopaedic procedures. The blood is collected from wound drains, filtered and then re-infused.

## Pharmacological alternatives

Tranexamic acid
This is an anti-fibrinolytic agent which reduces the conversion of plasmin to plasminogen and inhibits the breakdown of blood clots. Examples of published tranexamic acid doses are as follows:

- Cardiac surgery: 10 mg/kg intravenously (IV) immediately pre-op followed by IV infusion of 1 mg/kg/h.
- Traumatic haemorrhage in adults (CRASH-2): 1 g IV within 3 hours of the event followed by 1 g infused over 8 hours.
- Traumatic haemorrhage in children: 15 mL/kg (maximum 1000 mg) IV over 10 minutes followed by 2 mg/kg/h (max 125 mg/h) by IV infusion until haemorrhage is controlled.
- Postpartum haemorrhage (WOMAN trial): 1 g IV followed by a further 1g if bleeding continues or recurs.

Aprotinin
This inhibits many proteolytic enzymes and reduces fibrinolysis. Although this may be more effective than tranexamic acid in reducing blood loss its use has been shown to produce life threatening allergic reactions and increased risk of thromboembolic events.

Tissue sealants
These are also known as biological glue or tissue adhesives. This can be applied directly to surgical fields or raw surfaces to promote haemostasis and reduce blood loss. This has been used successfully in orthopaedic surgery.

Recombinant activated Factor VII (rFVlla, NovoSeven)
This is licensed for the treatment of bleeding episodes in haemophilia patients with inhibitors. The drug has however been widely used as a last resort to prevent bleeding in massive haemorrhage situations. If required discuss usage with a consultant haematologist and pharmacist. Should it be required it is available from pharmacy.

Desmopressin (DDAVP),
This is a synthetic product, can be used in mild haemophilia A and type 1 Willebrand Disease (VWD). This drug may be used to reduce bleeding in patients with uraemia and platelet dysfunction due to kidney failure. The standard dose for this indication is 0.3µg per Kg subcutaneously or intravenously and will last 24 hours.

Erythropoetin
This is a produced by the kidneys to stimulate red cell production. Recombinant Erythropoetin is now used in a variety of clinical settings to increase haematocrit and reduce red cell transfusions.

Details are given in the table below:

| ESA | Licensed (non-renal) indications |
|---|---|
| Epoietin alfa | Treatment of anaemia and reduction of transfusion in adult patients receiving chemotherapy for solid tumours, lymphoma or myeloma |
| | Preoperative autologous donation (of up to four units collected over 3 weeks) |
| | Prior to major orthopaedic surgery in adults |
| Epoietin beta | Symptomatic anaemia in adult patients with non-myeloid malignancies receiving chemotherapy |
| | Preoperative autologous donation |
| Darbopoietin alfa | Symptomatic anaemia in adult cancer patients with non-myeloid malignancies receiving chemotherapy |

Thrombopoietin mimetics
These are currently used in Idiopathic Thrombocytopenic Purpura and are being assessed to reduce platelet transfusions in aplastic anaemia, myelodysplasia and chemotherapy-induced thrombocytopenia.

Parental Iron
This produces a more rapid response than oral iron in patients with iron deficiency anaemia. Common indications for the use of intravenous iron include:

- Iron deficiency anaemia with intolerance of oral iron, especially in inflammatory bowel disease, or where oral iron is ineffective.
- To support the use of erythropoiesis stimulating agents (including patients on renal dialysis).
- As an alternative to blood transfusion when a rapid increase in Hb is required (e.g. perioperative anaemia, severe anaemia in late pregnancy or postpartum anaemia).

See the Clinical Guideline for the Use of Intravenous Iron (Ferric Carboxymaltose, Ferinject®) on the Blood transfusion treatment pathway.

## Autologous Blood Transfusion

This is collection and reinfusion of the patient's red cells. This Trust does not hold an MHRA license for this procedure and patient's wishing to pursue this option should be referred to an alternative Trust.

## Advanced Directive (Jehovah's Witness)

Jehovah's Witnesses frequently carry a signed and witnessed Advance Decision Document listing the blood products and autologous procedures that are, or are not, acceptable to them.
A copy of this should be placed in the patient record and the limitations on treatment made clear to all members of the clinical team.
It is appropriate to have a frank, confidential discussion with the patient about the potential risks of their decision and the possible alternatives to transfusion, but the freely expressed wish of a competent adult must always be respected (Handbook of Transfusion Medicine 5th Edition, 2013). A copy of an advanced directive document is in the Appendix. The advised decision can be revoked by the patient at any time while the patient retains capacity to do so.

The patient and/or clinical team can contact the Jehovah's Witness Hospital Liaison Committee for advice and support. The numbers are given on the Trust Intranet Blood Transfusion Site.

## Appendix: Advanced Decision Directive

### Advance Decision to Refuse Specified Medical Treatment

1. I, _____ (print or type full name), born _____ (date) complete this document to set forth my treatment instructions in case of my incapacity. **The refusal of specified treatment(s) contained herein continues to apply to that/those treatment(s) even if those medically responsible for my welfare and/or any other persons believe that my life is at risk.**
2. I am one of Jehovah's Witnesses with firm religious convictions. With full realization of the implications of this position I direct that **NO TRANSFUSIONS OF BLOOD or primary blood components (red cells, white cells, plasma or platelets)** be administered to me in any circumstances. I also refuse to predonate my blood for later infusion.
3. No Lasting Power of Attorney nor any other document that may be in force should be taken as giving authority to disregard or override my instructions set forth herein. Family members, relatives, or friends may disagree with me, but any such disagreement does not diminish the strength or substance of my refusal of blood or other instructions.
4. Regarding end-of-life matters: [initial one of the two choices]

   (a) _____ I do not want my life to be prolonged if, to a reasonable degree of medical certainty, my situation is hopeless.

   (b) _____ I want my life to be prolonged as long as possible within the limits of generally accepted medical standards, even if this means that I might be kept alive on machines for years.
5. **Regarding other healthcare and welfare instructions** (such as current medications, allergies, medical problems or any other comments about my healthcare wishes):

_____

_____

_____

_____

_____

_____

_____

_____

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6. I consent to my relevant medical records and the details of my condition being shared with the Emergency Contact below and/or with member(s) of the Hospital Liaison Committee for Jehovah's Witnesses.

7. _____ _ _ _ _ _ _ _ _ _ _ _ _____
Signature NHS No. Date

_____
Address

8. **STATEMENT OF WITNESSES:** The person who signed this document did so in my presence. He or she appears to be of sound mind and free from duress, fraud, or undue influence. I am 18 years of age or older.

_____ _____
Signature of witness Signature of witness

_____ _____
Name Occupation Name Occupation

_____ _____
Address Address

_____ _____

_____ _____
Telephone Mobile Telephone Mobile

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9. **EMERGENCY CONTACT:**

_____
Name

_____
Address

_____

_____
Telephone Mobile

10. **GENERAL PRACTITIONER CONTACT DETAILS:** A copy of this document is lodged with the Registered General Medical Practitioner whose details appear below.

_____
Name

_____
Address

_____

_____
Telephone Number(s)

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NO BLOOD

NO BLOOD

Advance Decision to Refuse
Specified Medical Treatment
(signed document inside)

NO BLOOD

NO BLOOD

NO BLOOD