Resources for Managing Patients who refuse blood (including Jehovah's Witnesses)

Compiled by a working group commissioned by the Lothian Transfusion Committee

December 2020

Approved by Lothian Transfusion Committee December 2020
Version 1.0 Review date: December 2023

Contents

The Jehovah's Witness Hospital Liaison Committee have reviewed this document, and wish to highlight that:

- Jehovah's Witnesses will refuse red cells, white cells, platelets, and plasma, as a deeply-held core value rather than a treatment choice
- Each Jehovah's Witness will make a personal choice regarding all plasma derivatives and autologous procedures
- The Hospital Liaison Committee is available to assist when questions arise regarding the treatment of one of Jehovah's Witnesses
- Jehovah's Witnesses generally complete and carry a document entitled *Advance Decision to Refuse Specified Medical Treatment*

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1. Pathways for referral of patients who refuse blood (including Jehovah's Witnesses) presenting for surgery in NHS Lothian

It is estimated that there are 140 000 Jehovah's Witnesses in the UK who may refuse allogenic blood transfusion and some blood components on religious grounds. A growing number of patients also refuse blood transfusion for other reasons, for example safety concerns. This refusal poses challenges to clinicians and may put the patient's life in danger.

This document takes into account the recommendations made in recent guidelines published by RSCEng and Association of Anaesthetists. It provides a suggested local pathway and information about local resources for clinicians managing patients who refuse blood in NHS Lothian.

The following groups of patients who refuse blood or blood products should be managed on this pathway. Those:

1. At significant risk of losing >500ml blood
2. Undergoing a procedure where a group and save screen would be routinely taken
3. Pre-existing anaemia or coagulopathy
4. Taking anticoagulants

Elective Pathway

		Complete / Date
OUTPATIENT CLINIC	The clinician listing the patient for elective surgery should: 1) identify whether the patient would normally be managed with blood products or components 2) ascertain whether the patient will or will not accept blood products or components.	
	The “Consent form for the refusal of blood transfusion” should be completed at this time and filed in the buff surgical notes.	
	A summary of this discussion should be recorded in the “Significant Information” area of the Trak EPR.	
	Given the risks of blood refusal, careful multidisciplinary consideration is essential to discuss the appropriateness of planned surgery and whether this is in the best interest of the patient.	
	Make a note on waiting list form that patient refuses blood products or components.	
	Take baseline bloods for full blood count, U&Es, LFTs, coagulation screen, iron studies, ferritin, B12 and folate.	
	Refer the patient to the anaesthetist-led pre-operative assessment service for consideration of the nature of pre-operative assessment and optimisation required prior to surgery. For RIE: RIE.Preoperativeassessment@nhslothian.scot.nhs.uk For SJH: Send letter to the Anaesthetic Clinic, SJH For WGH: AnaestheticPre-Assessment@nhslothian.scot.nhs.uk	

PRE-OPERATIVE	If the patient is first identified to refuse blood products at nursing pre-assessment consultation, discuss patient with Pre-assessment Consultant Anaesthetist and ensure relevant outpatient clinic tasks above have been carried out.	
	Pre-assessment Consultant Anaesthetist to assess whether 1) pre-operative blood optimisation is required (Consider oral/ intravenous iron, EPO, vitamin B12, folate etc) 2) referral to haematology is indicated eg issues around anticoagulation, bleeding history or anaemia	
	Patients who are identified as requiring referral to haematology should be referred using this form: http://intranet.lothian.scot.nhs.uk/Directory/Laboratories/BloodTrans/Pages/DocumentationForPatientsRefusingBloodTransfusion.aspx (Copy in appendix 9 of this document) This should be e-mailed to: RIE.HaematologyAdminTeam@nhslothian.nhs.scot.uk	
	Pre-operative assessment team to identify if and when anticoagulants, antiplatelet drugs and other drugs that could affect clotting must be stopped before surgery, inform patient and document date. Advice available from HaemPreOp-CoagAdvice@nhslothian.scot.nhs.uk	
	Pre-operative assessment team to inform consultant anaesthetist responsible for allocated theatre list.	
	Pre-operative assessment team to inform consultant surgeon responsible for allocated theatre list.- they should be aware of this already	
	Pre-operative assessment team will ask waiting list office to annotate theatre list with “Does not accept some blood products or components.”	
	Ensure consent form and blood product checklist completed by the surgeon in advance of surgery. If not done, preassessment team to inform consultant surgeon.	
	Consultant surgeon to inform theatre co-ordinator to request cell salvage.	

DAY OF SURGERY	Ensure consent form and blood product checklist completed	
	Ensure issues highlighted at pre-list brief and WHO checklist? “Is everyone aware of the answers to the blood transfusion checklist?” “Is everyone aware of the techniques we will use to minimise blood loss in this case?” Plan for the worst case scenario	
	Calculate the patient’s blood volume, and record 10% circulating volume on the accountable items board.	
	Actively warm to patient to maintain normothermia.	
	If the patient consents, cell salvage should be set up at beginning of surgery.	
	Consider administration of tranexamic acid 1g intravenously.	
	Minimise volume of blood sampling. Consider using paediatric blood tubes. These are available from the Neonatal Unit.	
	Use arterial blood gas monitoring to track haemoglobin levels and identify hypocalcaemia.	
	If blood loss exceeds 10% estimated circulating volume or 500ml, use point of care testing such as rotational thromboelastography or thromboelastometry to guide support of coagulation within the limitations of products that are acceptable to the patient.	
POST-OPERATIVE	Comprehensive verbal and written handover should be given to recovery/ critical care/ ward staff.	
	Have a low threshold for admission to critical care post-intervention.	
	Concerns about post-operative complications should be escalated rapidly to senior staff. It may be useful to consider early intervention rather than watchful waiting.	

Emergency pathway

		Complete/ Date
INITIAL MANAGEMENT	The responsible clinician should: 1) identify whether the patient would normally be managed with blood products or components 2) ascertain whether the patient will or will not accept blood products or components.	
	If the patient is unconscious or not competent, and has advance directive refusing blood products or components, this should be respected.	
	The “Consent form for the refusal of blood transfusion” should be completed at this time to clarify which blood products or components are acceptable to the patient.	
	Given the risks of blood refusal, careful multidisciplinary consideration is essential to discuss the appropriateness of planned care and whether this is in the best interest of the patient. Consider early intervention rather than expectant management.	
	Consultants from each of the specialties involved in the patient’s care (including haematology) should be informed early and be involved in the decision making.	
	Inform on call haematology team.	
	Take baseline bloods for FBC, U&Es, LFTs, coagulation screen (+/- iron stores, Ferritin B12 and folate, G&S).	
	Use point of care testing such as rotational thromboelastography or thromboelastometry to guide support of coagulation within the limitations of products that are acceptable to the patient.	
	Use arterial blood gas monitoring to track haemoglobin levels and identify hypocalcaemia. Minimise volume of blood sampling. Consider using paediatric blood tubes.	
	If the patient is bleeding, consider administration of tranexamic acid 1g intravenously.	
	Identify if the patient is taking anticoagulants, anti-platelet drugs and other drugs that could affect clotting. Consider whether these agents should be reversed or stopped.	

	In some clinical situations (and If acceptable to the patient), it may be appropriate to request the cell salvage machine to be brought to the Emergency Department. Contact the theatre co-ordinator to request a cell salvage machine, and a theatre practitioner skilled in its use.	
	Calculate the patient's blood volume, and ensure the team are aware when 10% circulating volume is lost. Keep a track of blood loss by weighing swabs/ pads/ bowls of blood etc.	
	If the patient is bleeding, actively warm to patient to maintain normothermia.	
PRIOR TO SURGERY/ OTHER INTERVENTION	When booking the theatre case, inform the theatre co-ordinator that patient does not accept some blood products or component.	
	Annotate procedure/ theatre list with "Does not accept some blood products or components."	
	Ensure consent form and blood product checklist completed in advance of surgery or other procedure.	
	Ensure issues highlighted at pre-list brief and WHO checklist. "Is everyone aware of the answers to the blood transfusion checklist?" "Is everyone aware of the techniques we will use to minimise blood loss in this case?" Plan for the worst case scenario	
	If the patient consents, cell salvage should be set up at beginning of surgery.	

DURING SURGERY/ OTHER INTERVENTION	Calculate the patient's blood volume, and record 10% circulating volume on the accountable items board.	
	Actively warm to patient to maintain normothermia.	
	If the patient consents, cell salvage should be set up at beginning of surgery.	
	Consider administration of tranexamic acid 1g intravenously.	
	Minimise volume of blood sampling. Consider using paediatric blood tubes. These are available from the neonatal unit.	
	Use arterial blood gas monitoring to track haemoglobin levels and identify hypocalcaemia.	
	If blood loss exceeds 10% estimated circulating volume or 500ml, use point of care testing such as rotational thromboelastography or thromboelastometry to guide support of coagulation within the limitations of what products are acceptable to the patient.	
FOLLOWING SURGERY/ OTHER INTERVENTION	Comprehensive verbal and written handover should be given to recovery/ critical care/ ward staff.	
	Have a low threshold for admission to critical care post-intervention.	
	Concerns about post-operative complications should be escalated rapidly to senior staff. It may be useful to consider early intervention rather than watchful waiting.	
	Consider adding alert to Trak for future admissions.	

2. Available products and techniques to support blood less surgery by site in NHS Lothian

The following products and techniques may be available within NHS Lothian:

1. Clotting factors
2. Cell salvage
3. Haemostatic products that are human and non human derived e.g. surgical sealants
4. Acute normovolaemic haemodilution
5. Interventional radiology
6. Other procedures involving autologous blood

1. Clotting Factors

NB The off label use of any of these products should be discussed with the RIE Haematology Consultant on-call (available via switchboard)

There is a Black Box warning regarding major adverse thrombotic events when given off label.

	RIE 08.30- 16.30 Mon- Fri	**RIE Out of hours**	**WGH**	**SJH**
a) Recombinant Factor VIIa (Novoseven)	Haemophilia Centre at RIE (OPD 1 back base) (Ext 21270)	Ward 206 (Ext 22061). Please ask the nurse in charge for access to "the Factor Fridge".	Blood bank	Blood bank
b) Fibrinogen Concentrate (RiaSTAP)	Haemophilia Centre at RIE (OPD 1 back base) (Ext 21270)	Ward 206 (Ext 22061). Please ask the nurse in charge for access to "the Factor Fridge".	Not available	Not available

c) *Prothrombin Complex Concentrate (Beriplex)*	Blood bank (Ext 27501)	Blood bank (Ext 27501)	Blood bank	Blood bank

a) Recombinant Factor VIIa (Novoseven) Dosing – Off label use for emergency management of patients who refuse blood products

Patient Pathway for patients who refuse blood **Weight Range***	**Dose**	**Administration time**
<50 kg	4mg	2 – 5 minutes
50-59 kg	5mg	2 – 5 minutes
60-69 kg	6 mg	2 – 5 minutes
70-79 kg	7 mg	2 – 5 minutes
80-89 kg	8 mg	2 – 5 minutes
90- 99 kg	9mg	2 – 5 minutes
> 100 kg	Max 10mg	2 – 5 minutes

*For patients with a BMI > 30 kg/m^2, please calculate ideal body weight using the relevant formula below (Devine Formula). If height documented in metric, please use local chart for conversion to inches.:

Men: Ideal Body Weight (in kilograms) = 50 + 2.3 kg per inch over 5 feet.

Women: Ideal Body Weight (in kilograms) = 45.5 + 2.3 kg per inch over 5 feet.

Logistics

Off label Novoseven use should be discussed with the RIE Haematology Consultant on-call (available via switchboard).

Available vial sizes

Novoseven is locally available in 1 mg, 2 mg and 5 mg vials for reconstitution. NHS Lothian (via RIE Haemophilia Centre) does NOT stock 8 mg vials.

Reconstitution

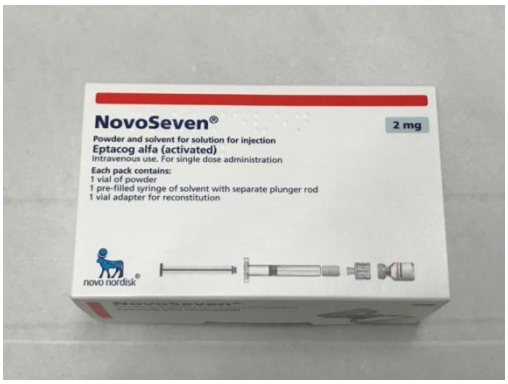
If vacuum is lost, please attach sterile needle to syringe and use to inject diluent into product vial but avoid aiming directly at powder (to avoid foaming). Swirl gently to

mix and do NOT shake. Solution should be colourless. Administer within 3 hours of reconstitution.

Stock location (RIE)
Monday to Friday 8:30am – 4:30pm – Novoseven is available from the Haemophilia Centre at RIE (OPD 1 back base) (Ext 21270).
Otherwise Novoseven is available from Ward 206 (Ext 22061). Please ask the nurse in charge for access to “the Factor Fridge”.

Stock location (SJH and WGH)
Novoseven is available in Blood Bank.

References
Novo nordisk reconstitution diagram https://www.novosevenrt.com/starting-treatment/preparing-for-an-infusion.html
Novoseven Summary of Product Characteristics
https://www.medicines.org.uk/emc/product/6360/smpc



b) Fibrinogen Concentrate (RiaSTAP) Off label use for emergency management of patients who refuse blood products

Weight Range*	Dose (1g in 50ml)	Administration time
<50 kg	3 g (150 ml)	30 minutes
50-69 kg	4 g (200 ml)	40 minutes
> 70 kg	5 g (250 ml)	50 minutes

*For patients with a BMI > 30 kg/m^2, please calculate ideal body weight using the relevant formula below (Devine Formula). If height documented in metric, please use local chart for conversion to inches:

Men: Ideal Body Weight (in kilograms) = 50 + 2.3 kg per inch over 5 feet.

Women: Ideal Body Weight (in kilograms) = 45.5 + 2.3 kg per inch over 5 feet.

Logistics

Off label RiaSTAP use should be discussed with the RIE Haematology Consultant on-call (available via switchboard).

Reconstitution

Reconstitute RiaSTAP at room temperature as follows:

1. Remove the cap from the product vial to expose the central portion of the rubber stopper.
2. Clean the surface of the rubber stopper with an antiseptic solution and allow it to dry.
3. Using an appropriate transfer device or syringe, transfer 50 mL of Sterile Water for Injection into the product vial.
4. Gently swirl the vial until the product is fully dissolved. **Do not shake the vial.**

After reconstitution, the RiaSTAP solution should be colourless and clear to slightly opalescent.
Inspect visually for particulate matter and discolouration prior to administration. Do not use if the solution is cloudy or contains particulates. Discard partially used vials.

Do not mix RiaSTAP with other medicinal products or intravenous solutions. It should be administered through a separate injection site.

RiaSTAP is stable for 24 hours after reconstitution when stored at 20-25ºC and should be administered within this time period.

Stock location (RIE only)

Monday to Friday 8:30am – 4:30pm – Fibrinogen concentrate (Riastap) is available from the Haemophilia Centre at RIE (OPD 1 back base) Ext 21270. Otherwise it is available from Ward 206. Please ask the nurse in charge for access to “the Factor Fridge”.

References

https://www.fda.gov/downloads/Biolog...ionatedPlasmaProducts/ucm094006.pdf

c) <u>Prothrombin Complex Concentrate – Off label use for emergency management of patients who refuse blood products</u>

Weight Range*	Dose	Administration time
< 55 kg	2 500 units (100 ml)	15 minutes
56 - 65 kg	3 000 units (120 ml)	15 minutes
66 – 75kg	3 500 units (140 ml)	20 minutes
76 – 85 kg	4000 units (160 ml)	20 minutes
86 – 95 kg	4 500 units (180 ml)	25 minutes
> 95 kg	5 000 units (200 ml)	25 minutes

*For patients with a BMI > 30 kg/m^2, please calculate ideal body weight using the relevant formula below (Devine formula). If height documented in metric, please use local chart for conversion to inches.:

Men: Ideal Body Weight (in kilograms) = 50 + 2.3 kg per inch over 5 feet.

Women: Ideal Body Weight (in kilograms) = 45.5 + 2.3 kg per inch over 5 feet.

Available vial sizes

Beriplex is the Prothrombin Complex Concentrate currently used by NHS Lothian. 500 IU (units) vials and 1000 IU (units) vials are available in NHS Lothian.

Logistics

Off label Beriplex use should be discussed with the RIE Haematology Consultant on-call (available via switchboard). Maximum single dose administered should be 5000 units (IU) and maximum dose is 50 units (Factor IX units)/kg.

Reconstitution

If Water for Injection does not flow into product vial, please use sterile syringe and needle to withdraw water for injection from vial and insert into product vial. Gently

swirl to mix. Do NOT shake. Withdraw reconstituted product via needle and syringe. After reconstitution, Beriplex solution should be colourless and clear to slightly opalescent. It should be administered immediately.

Stock location (RIE, SJH and WGH)

Beriplex is kept in Blood Bank at all sites.

References

Beriplex PN Product Information https://www.beriplex.co.uk/hcp-home
Beriplex Summary of Product Characteristics
https://www.medicines.org.uk/emc/medicine/27570 &
https://www.medicines.org.uk/emc/product/6236/smpc
Mix2Vial Diagram
https://www.clinicaldata.nzblood.co.nz/resourcefolder/mix2vial.php?dhbid=1

2. Cell Salvage

Autologous cell salvage is considered a matter of personal choice for Jehovah's Witnesses and as such, it is usually an acceptable technique. Patient information leaflets can be found https://www.transfusionguidelines.org/transfusion-practice/uk-cell-salvage-action-group/patient-factsheet.

The end product, however, consists of only RBCs and saline, because plasma, clotting factors (factors XII, XI, X, IX, VIII, V, II, I), WBCs, and platelets are removed in the process. Therefore, a dilutional coagulopathy may result.

Elective cases

Consider transferring a cell salvage machine, and trained operator for elective surgery at SJH/ WGH. Contact the theatre co-ordinator at the RIE to arrange this (bleep 2118). In cancer surgery, a leucofilter should be used with cell salvage.

Emergency cases

Consider use of cell salvage for trauma patients in resus eg large haemothorax. Contact theatre co-ordinator at the RIE to arrange this (bleep 2118).

3. Acute Normovolaemic Haemodilution

When appropriate and acceptable to the patient, consider the use of acute normovoaemic haemodilution although there is not currently an NHS Lothian guideline for this technique. Immediately prior to surgery, blood can be siphoned off by gravity into a specially designed bag containing anticoagulant. The blood lost can be replaced with either crystalloid or colloid. Blood loss during surgery therefore has a lower haematocrit. The blood removed prior to surgery is then reinfused during or following the procedure.

Insert guideline when available.

4. Interventional Radiology

Interventional radiology may play a role in minimising intra-operative blood loss or be used an alternative to surgical intervention. The Vascular Interventional Radiology service for NHS Lothian is based at the Royal Infirmary of Edinburgh. There is a Consultant Interventional Radiologist on-call rota, however initial referral is usually made via the radiology registrar on call via switchboard.

5. Other procedures involving autologous blood

It is essential to discuss with each patient whether procedures involving their own blood would be acceptable eg haemofiltration, haemodialysis, plasmapheresis,

cardiopulmonary bypass (CPB) and extracorporeal membrane oxygenation (ECMO). These treatments are all areas of personal decision for Jehovah's Witnesses. If these procedures are acceptable, the methods for handling this blood should be discussed.

Whilst ECMO and CPB may be potential techniques to optimise anaemia tolerance, in practice, they very commonly require transfusion of multiple blood components including RBCs, platelets, FFP and cryoprecipitate.

3. Reference Guide: Haemostatic Gels and Sealants

Consider the use of haemostatic agents alongside diathermy, harmonic scalpels and radiofrequency ablation to reduce blood loss. Some haemostatic agents contain human clotting factors and may not be acceptable to patients who refuse blood products.

This guideline should be used in conjunction with the patient to facilitate discussions around which products they are willing to accept as there may be variability in patient choice.
Consult product literature for indication, contra-indications, side effects etc prior to using if no previous experience of use.
Some products are not stocked in NHS Lothian pharmacy or PECOS and will require to be ordered in advance. Some products are frozen and require to be thawed prior to use.
All information was obtained from product literature and Summary of Product Characteristics from 25th May – 4th June 2020

Human Plasma-derived Gels and Sealants (products may contain thrombin, fibrinogen, albumin)

Product	Active Ingredients	Company	Available through Pharmacy or PECOS (procurement)
ARTISS® Solutions for Sealant	Human fibrinogen, aprotinin, human thrombin, calcium chloride dehydrate	Baxter Healthcare Ltd (Licensed pharmaceutical Prescription Only Medicine)	Pharmacy only
EVICEL® Fibrin Sealant	Human fibrinogen and human thrombin	Ethicon (Johnson&Johnson)	Pharmacy or PECOS
TACHOSIL® Sealant Matrix	Human fibrinogen, human thrombin	Takeda UK Ltd (Licensed pharmaceutical Prescription Only Medicine)	Pharmacy only
TISSEEL® Fibrin Sealant	Human fibrinogen, aprotinin, human thrombin, calcium chloride dehydrate	Baxter Healthcare Ltd (Licensed pharmaceutical Prescription Only Medicine)	Pharmacy only
Floseal® Haemostatic Matrix	Human thrombin, gelatin granules (bovine), calcium chloride	Baxter Healthcare Ltd	PECOS
Surgiflo Haemostatic Matrix	Gelatin (porcine) matrix, human thrombin	Ethicon (Johnson&Johnson)	PECOS

Non-Human Plasma-derived Gels and Sealants (note, may contain animal products)

Product	Active Ingredients	Company	Available through Pharmacy or PECOS (procurement)
Celox® Products	Creates a pseudo clot using Chitosan (a natural polymer extracted from shrimp shells and highly purified). No human ingredients	Medtrade Products Ltd	PECOS
Coseal® Surgical Sealant	Two synthetic polyethylene glycols (PEGs), a dilute hydrogen chloride solution and a sodium phosphate / sodium carbonate solution	Baxter Healthcare Ltd	PECOS
Hemopatch® Sealing Heamostat	Collagen pad (bovine derived) containing polyethylene glycol	Baxter Healthcare Ltd	PECOS
Hemospray® Endoscopic Haemostat	Mineral blend powder (no human or animal proteins or botanicals)	Cook Medical	PECOS
Perclot®	Polysaccharide haemostatic system containing no animal / human components	CryoLife	PECOS
PuraStat®	Synthetic peptides	Diagmed Healthcare	PECOS
Spongostan® Absorbable Haemostatic Sponge	Gelatin (porcine) sponge or powder. NB – Reference is made that this product may be used with thrombin, however this is not necessary and should be avoided if human products refused.	Ethicon (Johnson&Johnson)	PECOS
Surgicel® Absorbable Haemostat	Oxidised cellulose polymer (all products plant based)	Ethicon (Johnson&Johnson)	PECOS
EndoClot® Adhesive	Adhesive haemostatic synthetic polymer particles in a powder form.	EndoClot Plus	PECOS

4. Local Documents

Maternity Services Lothian Guidelines: Women who decline blood products

http://intranet.lothian.scot.nhs.uk/Directory/ReproductiveMedicine/PoliciesAndGuidelines/Documents/Maternity%20Pan%20Lothian/Intrapartum/Women%20who%20decline%20blood%20products.pdf

5. National Documents

GMC 2013: Personal beliefs and Medical Practice
https://www.gmc-uk.org/ethical-guidance/ethical-guidance-for-doctors/personal-beliefs-and-medical-practice

Royal College of Surgeons Guidelines: Caring for Patients who refuse blood 2016:
https://www.rcseng.ac.uk/library-and-publications/rcs-publications/docs/caring-for-patients-who-refuse-blood/

Association of Anaesthetists Guideline: Anaesthesia and peri-operative care for Jehovah's Witnesses and patients who refuse blood 2018
https://www.aagbi.org/sites/default/files/JW_Guideline_2018.pdf

6. Membership of the working group

Chair: Dr Ros Burns, Consultant Anaesthetist, Edinburgh Royal Infirmary

Dr Alastair Nimmo, Consultant Anaesthetist, Edinburgh Royal Infirmary

Dr Carol Blair, Consultant GI Physician, Edinburgh Royal Infirmary

Dr Catherine Collinson, Consultant Anaesthetist, Edinburgh Royal Infirmary

Maggie Davidson, Pharmacist, NHS Lothian

Mr Chris Deans, Consultant Surgeon, Edinburgh Royal Infirmary

Dr Ishrat de Beaux, Consultant Anaesthetist, Edinburgh Royal Infirmary

Dr Imogen Hayward, Consultant Anaesthetist, Borders General Hospital

Dr Rachel Hignett, Consultant Anaesthetist, Edinburgh Royal Infirmary

Catherine Innes, Transfusion Practitioner, NHS Lothian

Dr Alice Klauser, Consultant Haematologist, NHS Lothian

Dr Laura McCrae, Emergency Medicine Trainee, South East Scotland

Dr Hanan Mustafa, Consultant Obstetrician, Edinburgh Royal Infirmary

Dr Shona Neal, Consultant Anaesthetist, St John's Hospital, Livingston

Jane Oldham, Transfusion Practitioner, NHS Lothian

Dr Nicole Priddee, Consultant Haematologist, NHS Lothian

Dr Matt Royds, Consultant Anaesthetist, Western General Hospital, Edinburgh

7. Consent Form for the Refusal of Blood Transfusion

Adaped from Association of Anaesthetists Guideline: Anaesthesia and peri-operative care for Jehovah's Witnesses and patients who refuse blood 2018
https://www.aagbi.org/sites/default/files/JW_Guideline_2018.pdf

NHS Lothian

Refusal of Blood Transfusion Consent Form	Addressograph, or Name DOB Address Unit No./CHI

To the clinician: Use this checklist to clarify and record what is, and what is not, acceptable to the patient (or parent/guardian) who does not want blood and/or blood components or derivatives.
Use in conjunction any Advance Decision to Refuse Specified Medical Treatment document that the patient may have.

TREATMENT OPTIONS		**Where clinically indicated and available, I...**		**Comments**
		ACCEPT	**REFUSE**	
Blood Components	Red Cells			
	Plasma (*e.g. FFP, octaplas)*			
	Platelets			
Derivatives / Fractions recognised as a matter of *individual choice* for patients who are Jehovah's Witnesses	Cryoprecipitate			
	Prothrombin Complex Concentrate *(e.g. Beriplex, Octaplex)*			
	Fibrinogen Concentrate *(e.g. RiaSTAP)*			
	Factor VIIa *(synthetic but may contain derivative traces)*			
	Human Albumin Solution			
	Immunoglobulins including Anti-D			
	Plasma derived haemostatic gels/ sealants			
	Other clotting factors			
Procedures recognised as a matter of *individual choice* for patients who are Jehovah's Witnesses	Cell salvage during/after surgery			
	Acute normovolaemic haemodilution			
	Plasmapheresis			
	Haemodialysis/ haemofiltration			
	Cardiopulmonary bypass			
	Extracorporeal membrane oxygenation (ECMO)			
Other				

To the patient: I have read the patient information leaflet 'Choices for patients who may refuse blood products' v1.0, and I have indicated above which blood products and procedures I am willing to receive if clinically indicated and available. I am aware that by refusing blood or blood products I may be endangering my life should a bleeding/haemorrhage emergency occur.

Signature of patient/ parent/ guardian: Print name:	Date: __/___/___
Clinician's Signature: Print name:	Date: __/___/___

8. Patient Information

Risks of a blood transfusion

https://www.nhs.uk/conditions/blood-transfusion/

Hospital liaison committee/ Hospital Information Services (United Kingdom) +44 (0)20 8371 3415

NHS Lothian patient information leaflet- “Choices for patients who may refuse blood products”

Patient Information Leaflet to support Consent Form for the Refusal of Blood Transfusion

Choices for patients who may refuse blood products

Information for Patients

What is this leaflet about?

This leaflet is designed to give you more information about the products which may be considered to treat a low blood count (anaemia) or control bleeding during your hospital stay. It also provides information about a number of procedures which involve your own blood.

This leaflet relates mainly to the beliefs of Jehovah's Witnesses. However there are also a growing number of patients who, for a variety of reasons, may refuse blood products or treatments. NHS Lothian will ensure the individual's beliefs and preferences are acknowledged and respected.

Ahead of a planned procedure, the healthcare professionals involved in your care will complete a checklist which ensures all the options available in this hospital are explained to you. This provides an up-to-date record of your wishes. In an emergency situation, there may not be time for a detailed discussion, however if you have an 'Advance decision to refuse specialist medical treatment form' (sometimes known as a 'no blood form') which tells us of your wishes about treatments, this will be respected.

These decisions are important because without treatment, bleeding can be life threatening.

What are primary blood components?

Jehovah's Witnesses often decline the transfusion of whole blood and primary blood components for reasons of religious faith.

These components are described in the table below:

Blood Components	What is it?	How is it made?
Red Cells	The red cells are essential for carrying oxygen around the body. A lack of these red blood cells is called anaemia.	Red blood cells are collected from a single blood donor.
Plasma	Plasma is the yellow liquid that carries red cells, white cells and platelets within the blood vessels around the body. It contains vital proteins known as clotting factors that help to control bleeding.	Fresh frozen plasma (FFP) is made from plasma which is separated from donor blood and frozen to preserve it.
Platelets	Platelets are tiny cell fragments found in blood. They play an essential role in stopping bleeding. When damage occurs to the blood vessels, such as a cut, platelets are attracted to the damaged site and together with proteins in the blood, form a clot.	Platelets for transfusion are either collected from a single donor or produced by combining platelets taken from four separate blood donations.

What are derivatives, or fractions, of primary blood components?

These treatments are a matter of personal choice for Jehovah's Witnesses. It is important to consider these options carefully.

Many of these products contain clotting factors. Clotting factors are vital proteins that help form a blood clot. This stops blood escaping from a blood vessel. It also allows healing to occur.

The following products may be available in NHS Lothian:

Derivative or Fraction	What is it?	How is it made?
Cryoprecipitate	A concentrated source of clotting factors (see above). These include factor VIII, von Willebrand factor, and fibrinogen.	It is made from plasma which is repeatedly frozen and thawed in a laboratory.
Prothrombin Complex Concentrate	A concentrated source of clotting factors (see above). These include factors II, VII, IX and X.	It is made from human plasma. It is considered a fraction of plasma.
Fibrinogen Concentrate	A concentrated source of a clotting factor (see above) called fibrinogen.	It is made from human plasma but is considered a fraction of plasma.
Factor VIIa	A concentrated source of a clotting factor (see above) called Factor VIIa. This artificial clotting factor is not equivalent to natural factors. It carries a greater risk of serious blood clots that form in veins and arteries which may cause problems such as stroke or deep vein thrombosis (DVT).	It is made in a laboratory using hamster kidney cells but it does NOT contain human plasma.
Human Albumin Solution	This is a fluid that can be used to replace body fluids lost during bleeding or dialysis.	It is made from human plasma but is considered a fraction of plasma.
Immunoglobulins	Immunoglobulins (antibodies) can sometimes be used to treat blood problems like a low platelet count. They can also be used to prevent your baby becoming anaemic (having a low blood count) if you have antibodies to their blood type.	Immunoglobulins are made from human plasma and contain human antibodies. They are considered a fraction of plasma.
Plasma derived haemostatic gels and sealants	These products are applied directly to an area of bleeding. They may act as a compress to apply a firm pressure to an injured area. They allow clots to form more quickly. They do this by acting as a support for the clot to develop on, or by containing clotting factors (see above).	These products may contain human clotting factors made from pooled donations of human plasma. They may also contain gelatin.

What procedures involving your own blood are available? What methods for handling this blood would be acceptable?

A number of blood-related procedures are matters of personal decision for Jehovah's Witnesses.

The following procedures may be available within NHS Lothian to treat a low blood count (anaemia):

Procedures	What is it?	
Cell salvage	This is a process for collecting the blood that is lost during your operation. It is then filtered so that it can be given back to you.	This is your own blood, and contains no donated blood components.
Acute normoovolaemic haemodilution	Several units of a patient's blood can be collected into blood donation bags immediately before surgery (usually in the operating room). The patient's blood volume is maintained by infusing fluids into a vein. The blood is stored in the operating theatre at room temperature and re-infused at the end of surgery, or if significant bleeding occurs.	This is your own blood, and contains no donated blood components.

Some procedures involve a patient's blood being pumped through a machine and then returned to the patient.

The following procedures may be available within NHS Lothian:

Procedures	What is it?	
Plasmapheresis	The blood of a patient with an immune system disease is circulated through a machine to be cleared of abnormal proteins or antibodies and returned to the patient.	A plasma substitute (with no donated blood products) can be used to prime the circuit.
Haemodialysis/ haemofiltration	The blood of a patient with kidney failure is circulated through a dialysis machine to be cleaned of waste products and returned to the patient.	A plasma substitute (with no donated blood products) can be used to prime the circuit.
Cardiopulmonary bypass	A cardiopulmonary bypass or "heart-lung machine" is connected to a patient through tubes placed into veins and arteries near the heart. The blood flows out through one of these tubes, is filtered and oxygen is added. It is then returned to the patient through another tube.	A plasma substitute (with no blood products) can be used to prime the circuit. In practice, transfusion of blood products including red cells, platelets, FFP and cryoprecipitate is often required during treatment.

Extracorporeal membrane oxygenation (ECMO)	ECMO can be thought of as an artificial lung outside the body. It puts oxygen into the blood. Tubes are placed in to blood vessels in the side of the neck to connect the patient to the ECMO machine. The blood circulates through the machine and back to the patient continuously. It helps maintain oxygen delivery to vital organs.	A plasma substitute (with no donated blood products) can be used to prime the circuit. In practice, transfusion of blood products including red cells, platelets, FFP and cryoprecipitate is often required during treatment.

Where is further information available?

Further information is available from the healthcare professionals involved in your care.

If you are a member of a Jehovah's Witness community, you can also seek advice from the Jehovah's Witness Hospital Liaison Committee.

9. Referral Form

Patients refusing Blood Components awaiting Invasive Procedures Referral Form	Addressograph, or Name: DOB: Unit No./CHI: Address:
Reason for refusing blood components: Religious ☐ Other ☐ If Other, please provide details:	
Seen Hospital Liaison Team: YES ☐ NO ☐	Baseline bloods checked: YES ☐ NO ☐
Advanced Directive Complete: YES ☐ NO ☐ (FBC/UE/LFT/COAG/G&S)	
Date of surgical procedure: ___/___/___	
Consultant in charge of patient's care:	
Type of procedure:	
Estimated blood loss:	
Past medical history:	
Current medications:	
Date of referral: ___/___/___	
Full name:	Grade:
Contact details:	

Email completed form to: rie.haematologyadminteam@nhslothian.scot.nhs.uk