



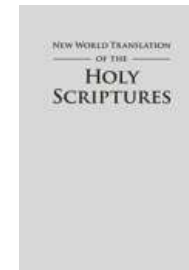
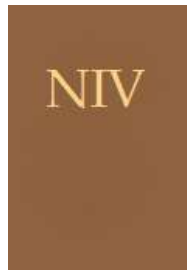
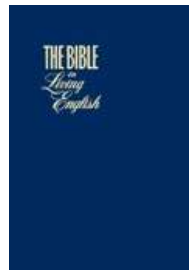
# Patients who refuse blood: Options for Jehovah's Witnesses

*James Pallett & David Smith  
South-West RTC, November  
2018*

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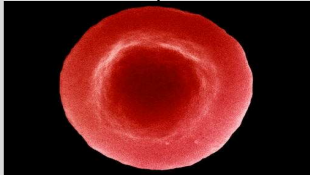
# “Abstain ... from blood”

Acts of Apostles 15:20



**Not Accepted By Jehovah's Witnesses**

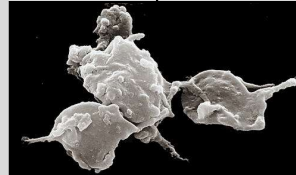
**WHOLE BLOOD**



**Red Cells**



**White Cells**



**Platelets**



**Plasma**



**Derivatives – Patient Choice**

# Communicating choices: key documents & wristband

**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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dpa E BI 1/16 Page 1 of 2

North Bristol **NHS**  
NHS Trust

**Appendix 1 CHECKLIST FOR JEHOVAH'S WITNESSES AND OTHER PATIENTS WHO DECLINE BLOOD TRANSFUSION (page 1 of 2)**

- Consent to a procedure without the use of blood legally requires only the standard NHS consent form signed and completed with reference to withholding consent for blood clearly identified
- Jehovah's Witnesses are likely to have an "Advance Decision to Refuse Specified Medical Treatment" document which should be considered and a copy filed in the patient record.
- This checklist is a prompt for discussion/clarification of the patient's wishes to be completed, signed and dated then filed in the patient record. For completeness the list includes treatments that may not be relevant for every patient.

First Name: \_\_\_\_\_ Surname: \_\_\_\_\_ Or addressograph: \_\_\_\_\_  
 Hospital/NHS Number: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Date of Birth: \_\_\_\_\_

Treatment Option	Accept?	Comment
*Red Cells	YES/NO	
*Fresh Frozen Plasma (FFP)	YES/NO	
*Platelets	YES/NO	
*Cryoprecipitate	YES/NO	
*Clotting factors e.g. Prothrombin Complex Concentrate	YES/NO	
*Immunoglobulins including anti D	YES/NO	
*Human Albumin Solution	YES/NO	
*Vaccines	YES/NO	
*Intraoperative cell salvage	YES/NO	
*Postoperative cell salvage	YES/NO	
*Gels, glues and or topical haemostats generated intraoperatively from the patient's own blood	YES/NO	
*Haemodialysis	YES/NO	
*Transplantation e.g. solid organ, bone, tissue, stem cells	YES/NO	
*Recombinant clotting factors	YES/NO	
Other (please state)		





**This Wye Valley Trust Management Plan logs a named HLC contact for each elective patient**

**Preoperative Assessment Management Plan for Jehovah's Witnesses and Patients who refuse blood products (Copy for patient/ GP/ notes)**

**Patient Details:**      *Affix sticky label*

**Contact numbers:**      Patient.....  
Next of Kin.....  
Witness (Pastoral).....  
Witness (Hospital Liaison Committee).....

**Procedure Details:**      Proposed procedure.....  
Date of admission.....  
Consultant.....

**Advance Directive:**      Is in place      Yes/ No

FOR CLINICIANS

CONTACT LOCAL REPRESENTATIVE

MEDICINE & SURGERY

PEDIATRICS

DISEASES & CONDITIONS

BIOETHICS & LAW

## Medical Information for Clinicians

The medical literature contains numerous reports of complex medical and surgical procedures performed successfully without transfusion of allogeneic whole blood or its primary components. Avoiding blood transfusion involves the optimal use of clinical strategies to minimize blood loss, conserve autologous blood, enhance hematopoiesis, and augment tolerance of anemia. This section contains citations of peer-reviewed articles from leading medical journals, presenting evidence in support of the use of autologous blood conservation and alternatives to blood transfusion.

### Medicine and Surgery

Clinical strategies for managing hemorrhage and anemia without allogeneic blood transfusion.

### Pediatrics

Clinical strategies for managing neonatal and pediatric patients without allogeneic blood transfusion.

### Diseases and Conditions

Clinical strategies for managing specific diseases or conditions without allogeneic blood transfusion.

### Bioethics and Law

Ethical, legal, and social factors for health-care professionals to consider when treating Jehovah's Witnesses.



FOR CLINICIANS

CONTACT LOCAL REPRESENTATIVE

MEDICINE & SURGERY

PEDIATRICS

DISEASES & CONDITIONS

BIOETHICS & LAW

VIDEOS

COST-EFFECTIVENESS OF BLOOD TRANSFUSION ALTERNATIVES

## Blood Cell Salvage

Intra-operative cell salvage in South Africa: feasible, beneficial and economical.

Solomon L, von Rahden RP, Allorto NL.

Source: S Afr Med J 2013;103(10):754-7.

Indexed: PubMed 24079629

DOI: 10.7196/samj.7355

<http://www.ncbi.nlm.nih.gov/pubmed/24079629>

Clinical efficacy and cost effectiveness of intraoperative cell salvage in pelvic trauma surgery.

Odak S, Raza A, Shah N, Clayson A.

Source: Ann R Coll Surg Engl 2013;95(5):357-60.

Indexed: PubMed 23838500

DOI: 10.1308/003588413X13629960045715

<http://www.ncbi.nlm.nih.gov/pubmed/23838500>

The use of blood cell salvage in acetabular fracture internal fixation surgery.

Bigsby E, Acharya MR, Ward AJ, Chesser T.J.

Source: J Orthop Trauma 2013;27(10):e230-3.

Indexed: PubMed 23360908

DOI: 10.1097/BOT.0b013e3182877684

<http://www.ncbi.nlm.nih.gov/pubmed/23360908>

The economic benefits of cell salvage in obstetric haemorrhage.

Brearton C, Bhalla A, Mallaiah S, Barclay P.

Source: Int J Obstet Anesth 2012;21(4):329-33.

Contact Local Representative

A free worldwide service, available 24 hours a day to clinicians treating Jehovah's Witnesses.

Contact



[www.jw.org/en/medical-library](http://www.jw.org/en/medical-library)

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**“[HLCs] are very helpful and excellent arbitrators. Without them many relationships between doctor and patient would have been destroyed.”**

Professor Martin Elliott

Co-Medical Director at Great Ormond Street Hospital; Professor  
of Paediatric Cardiothoracic Surgery at University College  
London.

March 15<sup>th</sup> 2017



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# **PRACTICAL & EFFECTIVE SURGICAL APPROACHES**

**Multimodal strategies are critical**



## JW Pre-optimisation: North Bristol process

400 Patients per week  $\approx$  1 or 2 JWs

**PATIENT:** Advise HLC who send/discuss NBT Checklist and prompt to obtain FBC including ferritin for presentation at POA

**AT CLINIC** (HLC member might attend):

1. Bloods taken (results in two days)
2. If relevant, iron optimised at the next Wednesday iron clinic
3. Meet with **consultant anaesthetist** in more complex cases

**POACTEAM:** Alert relevant clinical personnel re upcoming JW patient via 'Lorenzo' system

## Low platelets – a special challenge in Witness patients

Strategy adopted and studied at Massachusetts General Hospital 2011

18 adults treated with romiplostim to increase PLT count pre surgery

Marshall et al: *Romiplostim in the Management of the Thrombocytopenic Surgical Patient*, *Transfusion* 55 (October 2015) 2505-2510



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## DOSE

- Median 3µg/kg and typically adjusted once during treatment

## DURATION & PLATELET LEVELS

- Median 4.2 weeks. Median platelets 47 at initiation rising to 144 at surgery

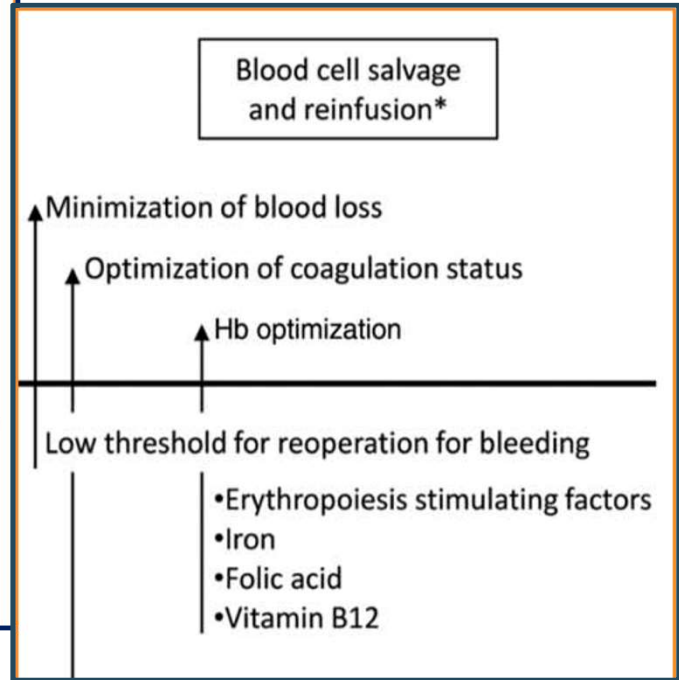
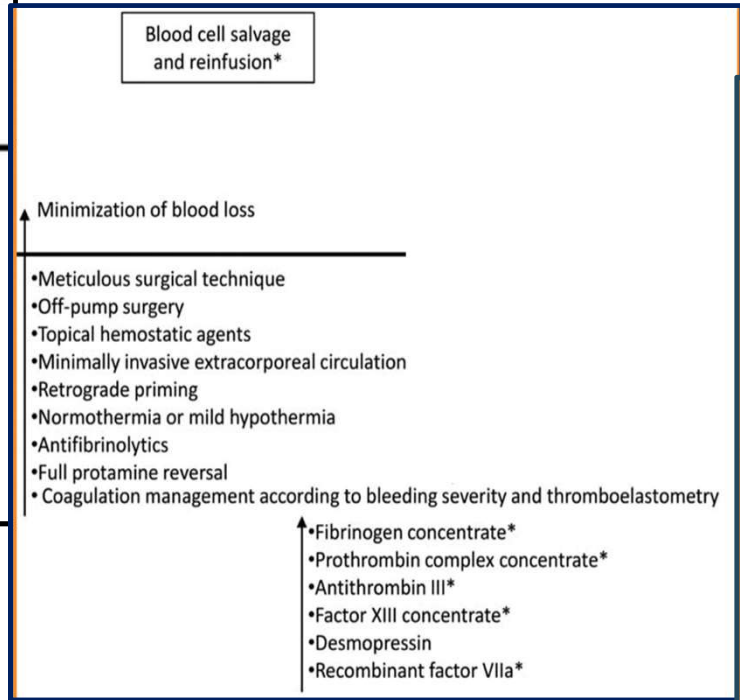
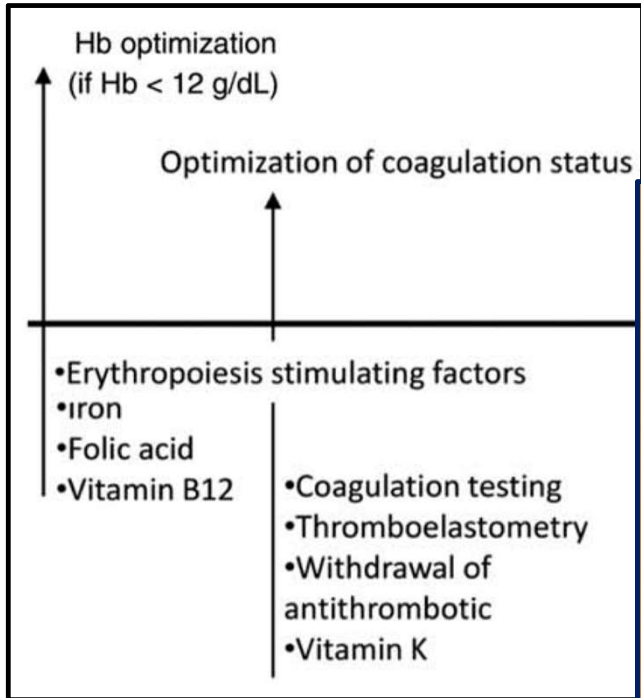
## BENEFITS

- No delays or cancellations due to thrombocytopenia. **No transfusions, bleeding or thrombotic events for Witness patients.**

# Jehovah's Witnesses & Cardiac Surgery

Outcome of JWs after adult cardiac surgery ~ systematic review & meta-analysis - *Transfusion* 2016; 56;2146-2153

- Up to half of patients undergoing cardiac surgery are transfused
- Review included 6 qualifying studies reporting on 564 JWs and 903 'controls'
- Primary Endpoints: in-hospital and 30 day postoperative mortality
- Conclusion: *“The results of this pooled analysis suggest that blood-sparing strategies employed in JWs are safe and may be associated with somewhat improved outcomes compared to patients not refusing transfusions.”*



## Bespoke care pathway paediatric cardiac surgery (sub aortic stenosis)

Successful surgery: home day six and no blood components used

- **PRE-OPERATIVE:** Pre-op Hb & Ferritin fine – no optimisation required: Hb trigger for consideration of transfusion: 60g/L
- **INTRA-OPERATIVE**
  - Tranexamic Acid
  - Meticulous haemostasis and normothermia; minimal sampling
  - RAP and ICS from the start, including recovery from swabs
  - Minimised circuitry – no allogeneic blood to prime
  - Fibrinogen conc immediately post CPB to enhance clotting
- **POST-OPERATIVE**
  - Hb to be closely monitored and consideration given to the timely use of postop EPO
  - Watch PICU>HDU>Ward transitions closely

# SCOLIOSIS

85° Scoliosis in a 32 year old male Witness. The need for surgical correction was compounded by another condition, NFI, which tends to make blood vessels friable when exposed.





# TREATMENT COURSE

## ❑ PLANNING

- Meticulous haemostasis – ready to interrupt if bleeding was excessive
- Two stage surgery
- Low post-op intervention thresholds

## ❑ STAGE 1: Remove compressed discs

- Minimal blood loss
- 14 day home recovery interval

## ❑ STAGE 2: Rod insertion

- ICS (1600 mls) + Flowable haemostat
- Low threshold for postop EPO (not required)
- Home within 7 days



# Summary

- **'No Blood'** = firm expectation not simply 'nice if possible.'
- **Clear & consistent identification** of what is acceptable for each patient is vital.
- Clinical toolkit is almost always **standard PBM**, but often will need to be applied **earlier, more aggressively and with multidisciplinary input.**
- **Pre-planning is a game-changer** in elective surgery and JW patients are keen to make the process as smooth as possible.
- Consider **novel/bespoke approaches**, eg patient-specific care plans for paediatric care; the use of TPO mimetics for thrombocytopaenia.
- Broader benefits: **"These strategies are not limited to Jehovah's Witnesses,** for which society owes them a debt of gratitude" ~ Professor Martin Elliott, GOSH