Women Who Refuse Blood

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2017
Patient Blood Management

We're part of it!
What is “Patient Blood Management”? (PBM)

Evidence-based approach to optimising the care of patients who might need blood transfusion.

What’s wrong with blood?
Long-term forecast:
“Within 20 years demand for blood is expected to increase by 20% relative to the supply”

Currie CJ et al Transfusion Medicine 2004
Trend in Active Number of Blood Donors
receive and collate reports of death or major complications of transfusion of blood or products
1:1,300 wrong blood in tube
1:13,000 Blood transfused to wrong patient

‘Do they know who you are?’
Mortality from Transfusions (total 22)

- Transfusion associated circulatory overload (TACO) 55%
- TRALI 4%
- HTR 4%
- Haemolytic transfusion reactions
- Transfusion related acute lung injury
- Incorrect blood component transfused
- Avoidable, delayed or under transfused
- Post transfusion purpura
- Unclassifiable complications of transfusion
- UCT 5%
- PTP 5%
Safe and Appropriate Use of Blood

- Hospital transfusion teams
- Lab accreditation
- Traceability
- National guidelines for appropriate use
- Serious hazards of transfusion (SHOT) 1996
Speciality use of Red Cells Transfused 2013

- Medicine: 67%
- Obs and Gynae: 6%
- Surgery: 27%
Maternal Mortality in the UK

1952-54

90 per 100,000 maternities

2010-12

10 per 100,000 maternities

2011-13

9 per 100,000 maternities
Causes of maternal deaths 2011-13

PPH increasing, doubled from 2003/5 7% to 13%
'SHE FELT A GUSH OF BLOOD' Mum who died hours after emergency C-section started bleeding heavily as she cradled her newborn baby

The NHS were previously cleared of corporate manslaughter charges after the death of Frances Cappuccini

BY BRITTANY VONOW AND AINE FOX
4th January 2017, 2:40 pm

A MOTHER-of-two felt a “gush of blood” as she cradled her newborn son, losing more than half of her blood and dying just eight hours after giving birth, an inquest has heard.

Primary school teacher, Frances Cappuccini, 30, never woke up from emergency surgery after she began to bleed heavily hours after giving birth to her second child.
Patient Blood Management
3 Pillars

Pre-optomise
*Treat anaemia*

Minimise Blood Loss
*Active 3rd stage*
*Cell salvage*

Optomise Reserve
*Treat anaemia*
*Restrictive transfusion*
Pre-optomise

Anaemia Management

• Aggressive treatment of anaemia during pregnancy
• Regular blood tests
• Initial oral iron
• Iv iron for resistant anaemia
Minimise Blood Loss
Prevent PPH: WHO Recommendations

• Skilled midwife
• Attention to detail
• High index of suspicion
• Prompt turning off the tap
• Active management of 3rd stage of labour with uterotonics
• Tranexamic acid
• Uterine massage
Cell Salvage

- Intraoperative cell salvage
  - Routine practice
- Vaginal cell salvage?
  - Early stages
Optomise Reserve
Anaemia and transfusion both increase mortality.

When does the risk of anaemia outweigh the risk of transfusion?
Transfusion Guidelines

- Restrictive or liberal?
- Patients randomized to:
  - liberal Hb <80g/l
  - Restrictive transfusion only with symptoms of anaemia
- No difference in morbidity and mortality

- **PRICK post PPH Study**
GUIDE TO THE MANAGEMENT OF OBSTETRIC HAEMORRHAGE

DEFINITION:
Minor: 500-1000ml
Moderate: 1000-2000ml
Severe: >2000ml
BLOOD LOSS IS FREQUENTLY UNDERESTIMATED.

INITIAL MANAGEMENT:
- Call for help: Switchboard 2222 "Major obstetric haemorrhage"
- Summon: Obstetrician, Anaesthetist, ODA, Midwives, Theatre staff
- Airway Breathing & Circulation
- High flow oxygen via a facemask
- Head down tilt, left lateral if APH
- IV access: 2 x 14 gauge (orange) cannulae
- Take blood: FBC, Coag, 4 Unit X-Match
- Give fluids via fluid warmer or Rapid infuser
- IV Hartmann’s solution to max 2000ml
- IV colloid to max 1500ml
- O-negative blood, if bleeding is uncontrolled
- Inform lab, order blood products: 2467 (blood bank) or Bleep 227

DIAGNOSIS:
- Ante partum haemorrhage (APH)
  - Placenta Praevia & Placental Abruption: If severe - deliver baby ASAP.
- Post partum haemorrhage (PPH) (> 500ml blood loss post delivery):
  - Tone: Atonic Uterus (70%)
  - Tissue: Retained Products (10%)
  - Trauma: Genital Trauma (20%)
  - Thrombin: DIC (1%)

SPECIFIC MANAGEMENT:

Specific management of PPH:
Pharmacological:
- Syntocinon 5IU slow IV. Repeat once.
- Ergometrine: 500 mcg slowly IV

Caution in PET
- Syntocinon: 30 IU in 500mls @ 125 mL/hr IV
- Carbo-prost 0.25mg IM every 15 min: 8 doses max. (0.5mg intramyometrial)

Caution in asthmatics
- Misoprostol: 1mg per rectum

Surgical:
- Uterine massage if atony
- Bimanual uterine compression
- Balloon tamponade (eg Rusch balloon)
- B-Lynch suture
- Ligation of uterine/ internal iliac arteries
- Hysterectomy

Radiological:
- Contact radiology consultant via switch: Embolization / arterial balloon occlusion

Blood Loss and Coagulation Management:
- Identify member of team liaise with lab
- Identify member of team to coordinate sample delivery and blood product collection
- Contact Consultant haematologist for advice (139)
- Give packed red blood cells (RBC)
- After 4U RBC give 1U FFP for each further RBC
- Use ROTEM as guide
- If INR >1.5 give FFP
- Platelets if platelets <50*10^9
- Cryoprecipitate or fibrinogen concentrate, if Fibrinogen < 2g/L
- If DIC suspected fibrinogen concentrate first as instantly available
- Consider Tranexamic acid 1g IV
- Repeat coagulation studies + regular
- Consider 10ml 10% Calcium gluconate

Anaesthetic considerations:
- Call consultant anaesthetist
- Liaise early with ITU: 2424, Bleep 484
- Avoid hyperventilation: early use of Bair Hugger and warmed fluids
- Request cell salvage and ROTEM
- Wash swabs for cell salvage (30% in swabs)
- Monitor urine output and temperature
- Consider arterial line early
- Take regular blood samples for FBC, coagulation, ABG and Hemocue
- If surgery is required, avoid regional anaesthesia if cardiovascular instability: GA and RSI
- Consider CVP line and oesophageal doppler
- Vasopressors may be required despite fluid resuscitation. Use phenylephrine in first instance; Norad (4mg in 40 ml 5% Dex) may be necessary
Severe Haemorrhage >2000ml

• Over 4000 severe haemorrhages last year
  – most would require blood transfusion

• Incidence increasing
Women who refuse blood have x44 increased risk of dying
Women Who Refuse Blood
Why do people refuse blood?

- Concerns over infection
- Previous poor experience
- Religious beliefs
  - Jehovah’s Witnesses most common reason
“The life of all flesh is the blood thereof: whoever eat it shall be cut off” (Lev. 17:10–16)
‘Abstain from .... and from blood’ (Acts 15:28–29) (1–3)
Jehovah’s Witnesses

• 134,500 in UK (62,000,000 total population)
  – 0.2% of the population
• Refusing blood is a deeply held core belief based on biblical scriptures.
• Understand the implications
• Still expect the highest standard of modern medical care.
• Furthermore they regard a non-consensual transfusion as a gross physical violation
Legal Position

• In British law the fully informed competent adult patient has an absolute right to accept or refuse medical treatment.

• Therefore, to administer blood in the face of an informed refusal by the patient may invoke criminal and/or civil proceedings.
### 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):

   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

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          WLL 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 witnesses
   Name
   Occupation
   Address
   Telephone

   Signature of witnesses
   Name
   Occupation
   Address
   Telephone

9. **EMERGENCY CONTACT:**

   Name
   Address
   Telephone

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
    Telephone Number(s)
Requirements of an Advanced Decision

- Must be in writing
- Must be signed by the individual
- Must be witnessed
- Must contain a statement that it is to apply even if the person’s life is at risk

They have the right to change their mind at any time, this must be clearly documented.
<table>
<thead>
<tr>
<th>Blood Product (please answer by ticking yes or no)</th>
<th>Yes</th>
<th>No</th>
<th>Not relevant</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>(Primary blood components are generally declined by Jehovah’s Witnesses but blood fractions may be acceptable)</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I will accept the transfusion of donor red blood cells. (Considered a primary blood component by Jehovah’s Witnesses)</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>I will accept platelets (Considered a primary blood component by Jehovah’s Witnesses)</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>I will accept fresh frozen plasma (Considered a primary blood component by Jehovah’s Witnesses)</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>I will accept human albumin. (Considered a blood fraction by Jehovah’s Witnesses)</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>I will accept immunoglobulins including anti D immunoglobulin (Considered a blood fraction by Jehovah’s Witnesses)</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>I will accept human derived coagulation factor concentrates eg octaplex (Considered a blood fraction by Jehovah’s Witnesses)</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>I will accept recombinant coagulation factor concentrates eg novo seven, advate, kogenate (These are not blood products)</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>I will accept intra-operative cell salvage (A patient’s own blood lost during a procedure is collected, filtered and washed to produce red blood cells for transfusion back to the patient)</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>I will accept human plasma based surgical sealants eg Floseal (Considered a blood fraction by Jehovah’s Witnesses) (May be used to aid haemostasis during an operation)</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>I will accept haemodialysis (You will be told if this is relevant to your operation or treatment)</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>
Key Points of Management

• Consultant lead unit
• On call consultant team are informed when she is admitted with anaesthetic review
• Senior midwife involved
• Advanced Directive in the notes
• Before any operative intervention specific consent must be taken
Management of Women Who Refuse Blood

What you can / must do.

- You have the right to refuse to care for Jehovah's Witnesses in the elective situation.
- In an emergency, you are obliged to provide care and must respect the patient’s wishes.
  - And their family!
- They have the right to change their mind at any time, this must be clearly documented.
Areas of Difficulty
Emergency Situations
Women requiring blood but unable to consent or refuse

- **Advanced directive available**
  - Consult document for guidance and respect its views

- **Advanced directive available but not present**
  - Try to avoid blood until available
  - In life threatening situations act in best interest of patient

- **Advanced directive not available**
  - Act in best interest of patient
  - Involve 2nd consultant if possible
  - Keep family informed
Children of Jehovah’s Witnesses
Young people aged 16 and 17

- Presumed to have the competence to give consent.

Children under 16

- May have sufficient understanding to have the capacity to consent.
- Gillick competence
All under 18

• They can’t refuse treatment
• The doctor only needs the consent of one person with parental responsibility.
• If both they and parents refuse this could be over-ruled by a court.
• Apply for a legal “Specific Issue Order” via the High Court.
Specific Issue Order

- Two Consultants make signed entry in the clinical record.
- The following should be addressed:
  - Non-blood options been fully explored
  - Is another Hospital willing to treat without blood?
  - Is there a consensus that a true emergency exists?
  - Has the hospital liaison committee been approached for assistance?
- Statement faxed to the court proving the child’s need for treatment is so overwhelming that the parents’ wishes must be overridden.