Appendix 1

CARE PLAN FOR WOMEN IN LABOUR REFUSING A BLOOD TRANSFUSION

As referred to in the RCOG News (October 2000) and the MOET course manual 2003 of the Royal College of Obstetricians & Gynaecologists.

This document has been prepared as an aid for medical staff and midwives who are managing a Jehovah’s Witness or other patients who refuse a blood transfusion and are at risk of, or experiencing, postpartum haemorrhage. We urge clinicians to plan in advance for blood loss, which includes correction of antenatal anaemia. This should be discussed with the patient in keeping with her wishes that blood or blood products will not be used. Readiness to act promptly to prevent or stop bleeding is paramount.

- Consider booking high risk patients into a unit with facilities such as interventional radiology, cell salvage and surgical expertise.
- Please ensure the consultant obstetrician and anaesthetist are aware a Jehovah’s Witness has been admitted in labour.
- All such patients should have the third stage of labour actively managed with oxytocic drugs together with early cord clamping and controlled cord traction after placental separation. Do not leave the patient alone for the first hour after delivery.

Risk factors predisposing to postpartum haemorrhage:
If the patient has any of the risk factors below, an IV infusion of oxytocin should be considered after delivery of the baby.
- Previous history of bleeding, ante or postpartum haemorrhage
- Multiple pregnancy and/or > 3 children
- Fibroids/myomectomy scars
- Large baby (>4.0 kg)
- Prolonged labour (especially when augmented with oxytocin)
- Difficult operative delivery
- Polyhydramnios
- Increased maternal age (>40 yrs) and/or maternal obesity
- Abnormal placentation/retained products.

Management of active haemorrhaging:
- Involve consultant obstetrician, anaesthetist and haematologist.
- Establish IV colloid infusion e.g. Gelofusin.
- Give oxytocic drugs first, then exclude retained products of conception or trauma (this could save time).
- Proceed with bimanual uterine compression.
- Give oxygen.
- Catheterise & monitor urine output.
- Consider CVP line.
- Aortic compression against the spine, using a fist just above the umbilicus, may buy time in an emergency.
- Slow but persistent blood loss requires action.
- Anticipate coagulation problems.
- Keep patient fully informed.

- if bleeding continues:
- Ergometrine with oxytocin (Syntometrine) marginally more effective than oxytocin alone. If patient is hypertensive, use oxytocin, 10U IV, not 5U by slow IV injection (in PPH benefits of the higher dose outweigh the risks).
- Carboprost (Haemabate) 250µg/ml IM, can be repeated after 15 min. Direct intramyometrial injection is faster (less hazardous at open operation).
- Recombinant factor VIIIa (rFVIIa; NovoSeven) 90µg/kg, provides site specific thrombin generation. Increasingly used to successfully treat uncontrollable haemorrhage, for example: in placenta accreta/percreta, ruptured uterus, uterine atony and HELLP syndrome \(^{11-17}\) (in 7 of these cases bleeding was controlled even in the presence of DIC despite the failure of all conventional therapies, including packing of pelvis, arterial ligation and hysterectomy \(^{12,16}\)). Expert advice on this drug will be available from the local Haemophilia Comprehensive Care Centre or Novo Nordisk 24-hour medical advice line (0845 600 5055; emergency UK-wide...
delivery available). Some hospitals now hold a small stock of factor VIII to avoid delivery delay.

- Tranexamic acid (Cyklokapron), 1gm IV x tds; both are anti-fibrinolytic agents well established for controlling haemorrhage 16-20. Additionally, consider IV vitamin K.

- Intrauterine balloon tamponade: Bakri balloon available.

- B-Lynch brace suture 26,27 Simple surgical technique to control massive haemorrhage. Can be combined with intrauterine balloon catheter if bleeding persists. (Note: prophylactic insertion of this suture has been used in high risk caesarean section).

- Embolisation or ligation of internal iliac artery or bilateral mass ligation of uterine arteries and veins 27,30.

- Blood salvage may be life-saving if substantial blood loss anticipated1,31. Check if acceptable to patient. Used at caesarean section in at least 400 reported cases, without complications of amniotic fluid embolism or coagulopathy 32. A cell saver with leucocyte depletion filter together with separate suction (one for amniotic fluid and one for blood salvage) minimises amniotic fluid contamination 32,33.

- Hysterectomy, subtotal hysterectomy can be just as effective, also quicker and safer. Clamp uterine arteries as early as possible.

Management of postpartum haemorrhage:

- For severe anaemia give oxygen and use recombinant human erythropoietin (rHuEPO, NeoRecormon or Eprex) 300 IU/kg (not 50 U) x 3 weekly subcutaneously, or IV without delay for accelerated haemoglobin recovery 35,36. Augment with iron, vitamin B-12 and folic acid. ‘A further lesson is that erythropoietin is not an effective alternative to red cell transfusion in major acute haemorrhage because it takes 10–14 days to effect an increase in haemoglobin levels’ (CMACE, 2011:75).

Iron supplementation essential with EPO. Oral iron is too slow and unreliable, use IV iron (Cosmofer) by infusion. This drug is rarely associated with anaaphylaxis. (Note: Optimization of antenatal haemoglobin essential: When unresponsive to oral iron, cosmofer can be efficacious in reversing iron deficiency 26,39. The addition of EPO [which does not cross the placenta and is reportedly safely used in pregnancy] enhances the response 29,31,39,40. Suggested dosages of EPO and IV iron as above, but x 2 weekly). 2

- Consider elective ventilation in ICU. Use microsampling techniques (such as HemoCue haemoglobin analyser).

- Hyperbaric oxygen therapy is an option in life-threatening anaemia due to PPH1 – tel 0151 648 8000 (24-hrs) for available centres.

This document reflects current clinical and scientific knowledge and is subject to change. The strategies are not intended as an exclusive guide to treatment. Good clinical judgement, taking into account individual circumstances, may require adjustments.

Based on Hospital Information Services for Jehovah’s Witnesses 020 8906 2211 (24-hour); his@wtbts.org.uk (PDF copy available) Sept. 2005 which was reviewed by consultants in obstetrics and gynaecology, anaesthesia, and haematology (including experts in haemostasis).

References


12. Moscardó F, Pérez F, de la Rubia J, Balserdi B, Lorenzo JI, Senent ML, Aznar I, Carceller S, Sanz MA. Successful treatment of


**Recommendation to Mothers:** You have two copies of this document, one of which should be placed in your obstetric notes (usually a folder in which your antenatal workup records are kept). It should be discussed with the most senior clinician at the antenatal visit. The other copy should be presented to the obstetrician on admission to the maternity/labour ward for delivery of the baby.