Considerations in the management of pregnant women who refuse blood and blood products

Introduction
Some patients, including pregnant women, refuse blood and blood products. In particular, Jehovah’s Witnesses have specific religious beliefs regarding transfusion, although when it comes to minor blood fractions or procedures involving the use of their own blood, their acceptance of particular products or procedures may vary subject to their conscience views. The issues involved in the provision of medical treatment to pregnant women who refuse blood and blood products are complex and it is therefore difficult to develop a formal protocol that can be applied with certainty to every individual circumstance. Pregnancy, unlike many other situations where acute blood loss may occur, offers a significant window of opportunity during antenatal care to ascertain the woman’s exact wishes in a non-acute setting and to make sure she is as unlikely as possible to need blood products.

The primary thrust of this document is to encourage senior medical officer involvement in:

- discussion of, and documentation of, specific issues of consent early in the pregnancy
- optimisation of the woman’s cardiovascular status early in the pregnancy
- planning of pregnancy care to minimise risks associated with unexpected need for intervention
- prompt attendance in the event of required surgical intervention or unexpected serious blood loss

Consent to treatment with blood products
A fully informed, competent adult is entitled to decide to accept medical treatment or not. Medical and nursing/midwifery staff have an obligation to provide any patient with all the information necessary to enable that patient to make an informed decision and to answer any relevant questions the patient may have. Further, healthcare staff have an obligation to satisfy themselves that a patient is fully informed before that patient makes a decision to accept or refuse treatment.

Staff in a maternity service have an obligation to become aware of a women’s preferences regarding the acceptability (or otherwise) of receiving blood products. In the event that a pregnant woman has specific views regarding treatment with blood and blood products which that woman identifies as unacceptable, staff of that service should seek to clarify such wishes as early as possible in the pregnancy. The service is obligated to provide detailed information, in a non-judgmental manner, regarding the pros and cons of such treatment, and such conversations should be undertaken by senior and experienced medical officers.

The decision to accept or decline a specific treatment (including blood components and its alternatives), remains the individual choice of competent adults. Not all women adhere to the same beliefs, and healthcare professionals should not make assumptions on what the woman may accept, must respect the wishes of the woman and bear in mind that she has the right to change her mind at any time. Conversations relating to consent to accept or decline a specific treatment should be had in private with the woman only, in order to ensure the confidentiality of her decision.

Subsequently it is important that an individualised plan of care is developed which identifies the blood components / products and the alternatives the woman will accept in the event of haemorrhage, well in advance of birth. Specifically, all such women should have a plan of care established which
identifies what is acceptable in the event of haemorrhage. It is wise to encourage the woman to codify her wishes in an Advance Health Directive (if she has not already done so - see below). Appropriate notation of the agreed plan of care should be clearly included on patient’s hospital records, and a copy of the Advance Health Directive, if one is available, should be attached to those records.

**Advance Health Directive**

There are different documents which can be called Advance Health Directives, and healthcare staff need to be very aware of the differences.

In Queensland, the Powers of Attorney Act 1998 and the Guardianship and Administration Act 2000 operate together to provide a mechanism by which a person can make an Advance Health Directive (AHD) or “living will”, which is a written expression of the person’s wishes in relation to medical treatment but which only comes into effect if the person loses his or her capacity. Insofar as they relate to health care matters, they are intended to codify the law in relation to substitute decision making for adults who, either temporarily or permanently, have lost their capacity to make decisions for themselves.


- understand the nature and effect of decisions;
- be able to make the decision freely and voluntarily; and
- be capable of communicating the decision in some way.

A person has impaired capacity if any of the 3 elements are not present.

Women who are conscious and competent can provide or withhold consent for treatment (of any type). An Advance Health Directive only becomes operational if the woman becomes incompetent due to unconsciousness or other circumstances. A substitute decision maker can provide or withhold consent for treatment if named as a Health Power of Attorney in the Advance Health Directive, and if the decision to be made is not articulated in the Advance Health Directive. It is wise to ensure that a copy of such a document is available in the medical record in case the woman becomes incompetent due to unconsciousness or other circumstances. If there is doubt, the Office of the Adult Guardian should be consulted.

There are specific legal requirements for children (under 18 years of age) requiring emergency blood transfusion. Anyone over 18 years of age is legally recognised as an adult. Under 18 years of age a “mature minor principle” may apply. Individuals may be capable of giving consent if, in the view of the care-giver, they are fully aware of the circumstances and implications. In the event of conflict between the parent and a mature child over proposed transfusion, the Family Court has a general supervisory power to intervene to protect the best interests of the child. Although there is not any legally recognised age at which the mature minor principle applies, as a guide, young people between the ages of 14 -18 years are more likely to have a sufficient understanding of decisions affecting their health and are therefore more likely to be considered competent.
### Jehovah’s Witnesses’ position on Allogenic and Autologous Blood

<table>
<thead>
<tr>
<th>Unacceptable</th>
<th>Potentially acceptable (Personal decision)</th>
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<tbody>
<tr>
<td>• Whole blood</td>
<td>• Fractions from red cells white cells, platelets, plasma</td>
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<tr>
<td>• Red cells</td>
<td>• Albumin</td>
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<tr>
<td>• White cells</td>
<td>• Immunoglobulins</td>
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<tr>
<td>• Platelets</td>
<td>• Clotting factors</td>
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<tr>
<td>• Plasma</td>
<td>• Haemoglobin</td>
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<tr>
<td>• Preoperative autologous blood collection and storage for later reinfusion</td>
<td>• Haemin</td>
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<td></td>
<td>• Interferons</td>
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<tr>
<td></td>
<td>• Cell salavage</td>
</tr>
<tr>
<td></td>
<td>• Hemodilution</td>
</tr>
<tr>
<td></td>
<td>• Cardiopulmonary bypass (heart-lung machine)</td>
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<td></td>
<td>• Dialysis</td>
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<td></td>
<td>• Epidural blood patch</td>
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<td></td>
<td>• Recombinant erythropoietin</td>
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<td></td>
<td>• Recombinant factor VIIa</td>
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<td></td>
<td>• Labelling or tagging</td>
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<tr>
<td></td>
<td>• Platelet gel autologous</td>
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<td></td>
<td>• Plasmapharesis (when plasma substitute is used eg. Artificial colloid. Allogenic plasma is not acceptable)</td>
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</tbody>
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### Antenatal optimisation of the woman’s cardiovascular status

A multidisciplinary team approach is important, with oversight by a senior member of staff who is familiar with the available alternatives to transfusion.

It is essential that anaemia is prevented in pregnancy, as the presence of anaemia amplifies the impact of blood loss. Effective treatment of anaemia in the antenatal period is essential to optimise good fetal and maternal outcomes, and ameliorate as far as possible, the consequences of haemorrhage, should it occur. Treatment aim should be to reach a haemoglobin level of at least 12 g/dL. The threshold for intervention in the treatment of anaemia should be lower in women who refuse blood and blood products than in other patients.

At the initial antenatal visit the following blood tests should be ordered:

- Full blood examination
- Iron studies
- Vitamin B12
- Folate studies
- Urea and electrolyte
- Coagulation screen, if clinically indicated
- Blood group and antibody screen
- Consider obtaining Vitamin D level (if at high risk of Vitamin D deficiency)

Haematological parameters should be optimised during pregnancy by:

- treatment of any haematonic deficiency (iron, folate, B12) including Vitamin D deficiency
- encourage the woman to have a diet containing high levels of iron, folates and vitamin B12
- avoidance of antiplatelet drugs such as aspirin prior to birth where possible; however, in patients with complex medical disease, specific advice regarding the discontinuance of therapy should be discussed with the relevant physicians. Non-prescription drugs and supplements which may affect coagulation status should be avoided
- repeat full blood examination and iron studies may be required more frequently than is usual, depending on the booking haemoglobin level and must be followed up at 28 and 36 weeks
- iron infusions and/or erythropoietin therapy may be considered for a woman with a low haematocrit not responding within an appropriate timeframe to haematonic supplementation
Planning of pregnancy care to minimise risks associated with unexpected need for intervention

Integrated team management is crucial to minimising the risks of unexpected poor outcomes in any pregnancy, but particularly important when some of the usual treatment safeguards are not available. Central to such integrated team management is a clearly articulated and recorded management plan which has been agreed to by the woman and her carers. It is critical that such a management plan be agreed to and recorded in the medical record well before term. In general, it is appropriate to plan care in a facility where specialists are available in obstetrics, anaesthetics, intensive care and haematology. The management plan must include a specific agreed plan for management of the third stage of labour.

It is wise to ensure that a senior obstetric specialist is aware that the woman is in labour. If intervention is likely to be necessary (e.g. caesarean section) consideration should be given to ensuring that this process is undertaken electively in the presence of senior specialist staff. Consultation with an anaesthetic specialist prior to the time that such intervention may be necessary is wise, and discussion of pre-surgery haemodilution may be appropriate in some circumstances.

Care should be taken to deliver any blood products that the woman accepts in a private manner, with the assurance of confidentiality.

Prompt senior medical officer attendance in the event of required surgical intervention or unexpected serious blood loss

The need to achieve prompt haemostasis in any situation is magnified by the inability to transfuse if necessary. Prompt and effective haemostasis is most efficiently achieved by a surgeon who is aware of and experienced with the need to use the entire range of available options. The recorded management plan should make it clear that senior specialists (obstetric and anaesthetic) should be involved early in any surgical procedure in women who refuse blood and blood products. Where haemostasis difficulties are anticipated consideration should be given to the need for consultation with other disciplines, including interventional radiology and specialist haematology.

Appendices

Suggested further reading

Brydon C. Jehovah’s Witnesses. Anaesthesia and Intensive Care Medicine, 2013; 14(2): 79-81
National Blood Authority’s Patient Blood Management Guideline: Module 1 – Critical Bleeding/Massive Transfusion
Jehovah's Witness “Conscience Chart”

Jehovah’s Witness “Advance Health Directive” ("No Blood Card")