

BLOOD PRODUCTS – MANAGEMENT OF PREGNANT WOMAN UNABLE TO USE BLOOD PRODUCTS

This LOP is developed to guide clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this LOP.

1. AIM

- Appropriate assessment and management of a woman who is unable to use blood products during pregnancy, delivery and postpartum period.

2. PATIENT

- Woman who refuses transfusion of blood products in pregnancy based on:
 - Religious beliefs (e.g. Jehovah's Witness)
 - Personal grounds
- Woman with complex red cell antibodies and/or rare blood group

3. STAFF

- Medical and midwifery staff

4. EQUIPMENT

- nil

5. CLINICAL PRACTICE

Antenatal

- Identify woman who would not accept blood products during pregnancy, intrapartum or postpartum period
- Identify woman with complex red cell antibodies and/or rare blood group
- Counsel woman with regard to the increased risk of maternal mortality, morbidity and possible ways to minimise this
- Refer to haematologist/haematology clinic for documentation on a legally binding advanced care directive, including which products would and would not be acceptable to the woman. Place a copy in the medical record including:
 - Which blood fractions are acceptable (e.g. albumin, Prothrombinex, Biostate)
 - Whether Anti-D is acceptable
 - Which recombinant products are acceptable (e.g. erythropoietin, Novo7)
 - What is acceptable in event of excess bleeding (eg. intra-operative blood salvage)
 - Measures that may be possible to limit anaemia (eg. acute normovolemic haemodilution)
 - Measures to treat complications (e.g. haemodialysis)
- Review by obstetrician/high risk antenatal clinic for initial consultation and again in the third trimester to:
 - Identify woman at high risk of haemorrhage
 - Counsel woman of significant morbidity/mortality if she has a major haemorrhage
 - Advise appropriate place of birth and model of antenatal/intrapartum care
 - Recommend active management of the 3rd stage of labour
 - Discuss measures that may be required in the case of a major/life threatening haemorrhage including interventional radiology and postpartum hysterectomy
 - Document and consent what action woman would sanction if she were unconscious/unable to communicate and likely to die from haemorrhage.
- Review full blood count (FBC), ferritin, B12 and folate at antenatal booking visit

CLINICAL POLICIES, PROCEDURES & GUIDELINES

Approved by Quality & Patient Care Committee
16/2/17

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- Optimise haematological parameters by:
 - Identifying and treating haematinic deficiency (Iron, B12, Folate)
 - Recommending oral iron supplement (100-200mg elemental iron/day) and oral folate (0.5mg/day) with a target ferritin \geq 100ug/L
 - Using intravenous(IV) iron therapy if oral therapy ineffective or not tolerated
 - Reducing iatrogenic blood loss antenatally with a restrictive phlebotomy approach
 - Withholding antiplatelet/anticoagulant drugs (e.g. aspirin, enoxaparin) for the appropriate time prior to delivery
 - Considering erythropoiesis stimulating agents(ESA). This requires haematology supervision.
- Perform FBC and ferritin regularly, at least at 28 and 36 weeks' gestation
- Refer to anaesthetist prior to birth for consultation
- Consider review by interventional radiologist in conditions with high risk of blood loss e.g. placenta praevia
- Ensure haematologist/haematology clinic has liaised with medical officers in Australian Red Cross Blood Service (ARCBS) for woman with complex red cell antibodies and/or rare blood group
- Ensure clear intrapartum and postpartum care plan is documented in medical records prior to birth

Intrapartum

- Review the advanced care directive and documented care plan for birth
- Inform senior obstetrician, anaesthetist and haematologist that woman has been admitted in labour
- Inform blood bank woman with complex red cell antibodies and/or rare blood group, has been admitted in labour
- Site 16g IV cannula
- Take FBC and ferritin
- Advise active management of 3rd stage of labour
- Ensure careful and regular monitoring postpartum of vital signs, fundal height and blood loss, with accurate documentation of cumulative blood loss
- Manage active haemorrhage promptly and involve consultant obstetrician, anaesthetist and haematologist early
- Manage haemorrhage as per antepartum haemorrhage(APH)/postpartum haemorrhage(PPH) with the exception of blood products, and according to the woman's advanced care directive/documentated care plan
- Make the decision to take a woman to operating theatre (OT) early, as early definitive management e.g. hysterectomy may be life saving
- Consider cell salvage intraoperatively – primarily managed by anaesthetic team

Management of Postpartum Anaemia

- Identify and treat haematinic deficiency (Iron, B12, Folate)
- Minimise phlebotomy
- Consider IV iron +/- ESA
- Consider hyperbaric oxygen therapy in the stable woman with severe anaemia

6. DOCUMENTATION

- Antenatal Card
- Integrated clinical notes
- Advanced care directive

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7. EDUCATIONAL NOTES

- There is a 45-65 times greater maternal mortality risk in Jehovah's Witness patients
- The competent woman's choice must be respected, both ethically and legally. The competent woman has the right to refuse any form of life-sustaining treatment
- Health professionals have a continuing duty to provide care and may only refuse to provide care if this decision does not adversely impact upon the woman's health, and an alternative caregiver has agreed to accept responsibility for ongoing care
- Maternal autonomy before fetal beneficence upholds the law in New South Wales (NSW)
- Ensure all women are asked at booking visit, if they would accept blood products
- Delay in decisive measures in acute haemorrhage increases the risk of death. The decision to take the woman to theatre for definitive management should be made earlier than usual
- Early and clear communication with the woman, family and multidisciplinary team is imperative
- Erythropoietin/Darbepoietin:
 - Requires Haematologist review
 - Not pharmaceutical benefits scheme (PBS) subsidised for this indication
 - As erythropoietin and darbepoietin are not approved on the formulary for this indication an Individual Patient Use (IPU) form must be completed, and will be approved by the RHW Therapeutic and Drug Utilisation Committee. The Committee will decide if the hospital or patient covers the cost of the medication.
 - Erythropoietin 300-600 units/kg subcutaneously (SC) weekly x 3-6
 - Good evidence for benefit is lacking
- Jehovah's Witnesses can obtain an advanced care directive from their own organisation.
- Offer employee assistance program (EAP) counselling to either groups or individual clinicians involved in traumatic cases

8. RELATED POLICIES / PROCEDURES / GUIDELINES

- Postpartum Haemorrhage - Prevention and Management
- Third Stage Management Following Vaginal Birth
- Anaemia and Haemoglobinopathies in Pregnancy
- Antepartum Haemorrhage
- Iron Carboxymaltose by Infusion

9. RISK RATING

- **Medium**

10. NATIONAL STANDARD

- BP – Blood Product Safety

10. REFERENCES

1. Massiah N et al. Obstetric Care of Jehovah's Witnesses: a 14-year observational study. Arch Gynecol Obstet 2007; 276: 339-343
2. Van Wolfswinkel ME et al. Maternal mortality and serious maternal morbidity in Jehovah's witnesses in the Netherlands. BJOG 2009; 116:1103-1110.
3. Kidson-Gerber et al. Caring for pregnant women for whom transfusion is not an option. A national review to assist in patient care. ANZJOG Volume 56, Issue 2, April 2016, Pages 127-136

REVISION & APPROVAL HISTORY

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