

Blood Product Education Tool

Background: We recognize that some religious groups believe that accepting blood products, or certain medical practices, may conflict with their beliefs. We also recognize that pregnancy and surgery increase the risks of bleeding and may lead to a worse outcome, or death, in the absence of these medical interventions. We respect the rights of our adult patients to use blood products and other practices, or not. We wish to explore and record your wishes regarding management of your pregnancy and/or your surgery.

Prenatal/Pre-operative Care

- Physician consultation - as soon as possible after entering care.
- Maintain hematocrit between 33-40%
- Anesthesia consultation in the third trimester and upon admission
- Power of attorney - Identify person who will make decisions for you, if you can not
- Advanced directives

Refusal of Blood Products

- Whole blood, packed red blood cells, fresh frozen plasma and platelets.
- Preoperative autologous blood collection and storage for later reinfusion

Management options you may choose to accept or refuse.

- Blood salvage (hemodilution, cell saver, cardiac bypass, hemodialysis)
- Blood fractions of plasma or cellular components (albumin, immunoglobulins, clotting factors)
- Erythropoietin (contains albumin)
- Fibrin/Thrombin adhesives
- RhoGAM
- Epidural blood patch
- Acute normovolemic hemodilution (Blood in a continuous circuit with the patient)

Bloodless Management Strategies (See Appendix 1: Clinical Strategies)

- Blood conservation - Decreased testing, small volume sampling, point of care micro testing)
- Minimizing use of agents with antiplatelet activity
- Meticulous hemostasis during surgery
- Intravenous iron therapy

Refusal of the timely use of blood products may result in a worsened outcome for mother / baby, and may require more involved surgical interventions, including hysterectomy (removal of the uterus) with loss of fertility.

Significant blood loss in the absence of the blood products, or the above interventions, may lead to death for mother / baby. (See Appendix 2: Patient Resources)

Checklist

- Discuss and scan the durable power of attorney for health
- Discuss and document acceptable and non-acceptable blood products for individual
- Discuss and scan signed refusal of blood product form (Appendix 3)
- Discuss L&D planning with OB/GYN
- Discuss Pre-op planning for GYN OR case with OB/GYN
- Discuss pregnancy / preop anemia management

Literature

Refusal of medically recommended treatment during pregnancy. Committee Opinion No. 664. American College of Obstetricians and Gynecologists. Obstet Gynecol 2016;127:e175–82. (Reaffirmed 2019)
(Accessed 4/15/23)

Anemia in Pregnancy. ACOG Practice Bulletin No. 233. American College of Obstetricians and Gynecologists. Obstet Gynecol 2021;138:e55–64.

Medical Information for Clinicians: Jehovah's Witnesses Website
www.jw.org/medical (Accessed 4/15/23)

Patient Resources / Links

Hospital Liaison Committees for Jehovah's Witnesses
<https://www.jw.org/en/medical-library/strategies-downloads/hospital-liaison-committees-jehovahs-witnesses/> (Accessed 4/15/23)

or in Alaska call 907-565-9439

Reviewed 4/15/23 njm
Revised 2/11/21 njm
Revised 7/28/19njm
Reviewed 7/17/17njm
Reviewed 7/30/15njm
Reviewed 5/19/13njm
Approved 4/20/11njm

Appendix 1

Clinical strategies

Clinical Strategies to avoid blood transfusion

- ❖ Four main points:
 - Optimize strategies to control blood loss
 - Manage autologous blood
 - Enhance hematopoiesis
 - Maximize tolerance of anemia
- ❖ Preoperative assessment & planning (recognition/management of anemia, optimization of coagulation status, restricted phlebotomy, surgical planning)
- ❖ Intraoperative management
 - Meticulous hemostasis & surgical technique
 - Hemostatic surgical devices (thermal, electrosurgical, ultrasonic)
 - Pharmacologic agents to enhance hemostasis (systemic and topical)
 - Autologous blood management (cell salvage, hemodilution)
 - Other blood conservation techniques (hypotensive anesthesia, surgical positioning, normothermia)
 - Minimally invasive approaches
 - Angiographic embolization
- ❖ Postoperative management (management of anemia and tolerance of anemia, volume management, restricted phlebotomy, avoidance of hypertension and hypothermia)

Clinical strategies for avoiding and controlling hemorrhage and anemia without blood transfusion in surgical patients

- 1) General non-blood management principles
 - a) Comprehensive prospective planning, multidisciplinary approach
 - b) Obtain informed consent for anticipated potential procedures
 - c) Refer patient to another institution if better resources are available there
 - d) Surveillance for blood loss, early recognition, prompt intervention to secure hemostasis and lower threshold for intervention
- 2) General therapeutic principles
 - a) Proactive approach: anticipation, preparation, and management strategies
 - b) Thorough preoperative work-up (this is outlined in another article as above) and optimize physiologic environment before surgery
 - c) Restrict diagnostic phlebotomy
 - d) Surgical & anesthetic blood conservation techniques
 - e) Optimize oxygen delivery and consider measures to minimize oxygen consumption
 - f) Rapid control of hemorrhage

Clinical strategies for managing hemorrhage and anemia without blood transfusion in critically ill patients

- ❖ General ICU management principles
 - Formulate individualized clinical management plan; prediction, prevention, prompt recognition and treatment of blood loss
 - Discuss anticipated/potential procedures with the patient
 - Interdisciplinary/collaborate team approach, ongoing communication with team members and consultation with specialists where necessary
 - Prevent and rapidly arrest any bleeding
 - Minimize iatrogenic blood loss (restrict phlebotomy, cautious thromboembolic prophylaxis)
 - Optimize cardiac and respiratory support as soon as possible, minimize oxygen consumption (analgesia, sedation), early aggressive treatment of anemia (iron, nutrition, erythropoiesis-stimulating agents)
 - Maintain normovolemia in the anemic patient; consider permissive moderate hypotension & controlled fluid resuscitation in the case of hemorrhage until bleeding is arrested

Clinical strategies for avoiding and controlling hemorrhage and anemia without blood transfusion in **obstetrics and gynecology**

- 1) Clinical evaluation/preoperative planning
 - a) Personal medical history and family history (remember gyn history, h/o PPH, easy/spontaneous bruising), coexisting disease (renal, hepatic, cardiac, pulmonary – these all may affect bleeding and ability to cope with blood loss), medication history (anticoagulants, of course, but also antibiotics, herbal medications, NSAIDS/ASA)
 - b) Lab assessment: CBC (including red cell indices, reticulocyte count), iron studies, and if indicated coagulation studies and evaluation for specific coagulation factor assays
- 2) Optimize RBC count & coag studies
 - a) Correct “hematinic deficiencies” – iron (if po, use ascorbic acid too, & avoid milk/egg/coffee/tea/antacids/calcium/fiber; IV may be more effective), folic acid, vitamin B12
 - b) Recombinant erythropoietin therapy (has been used in pregnant patients in the 3rd trimester without known adverse effects)
 - c) Minimize iatrogenic blood loss (minimize lab tests/volume and frequency of diagnostic phlebotomy)
 - d) Treat coexisting conditions associated with blood loss (dysfunctional uterine bleeding, hemorrhoids, GI lesions)
 - e) Management of coagulation studies (medication management, coagulation disorder management, and thrombocytopenia in pregnancy)
 - i) Gestational thrombocytopenia: no specific therapy
 - ii) Drug-induced thrombocytopenia: review current medications (heparin, quinine, quinidine, sulfonamides)
 - iii) ITP: corticosteroids, IVIG, or the combination
 - iv) preE and HELLP syndrome: judicious fluid and volume management, corticosteroids

- f) Anticoagulation management
- 3) Management of menorrhagia: medical and surgical management outlined
- 4) Obstetric hemorrhage: Regular obstetric management, with consideration of the following:
 - a) In surgical management of ectopic pregnancy – ensure availability of blood salvage equipment; hysterectomy indicated for certain forms
 - b) Inevitable/incomplete abortion – prompt evacuation of the uterus, administration of oxytocic drug, and consideration of prophylactic angiographic embolization
 - c) Placenta previa – active treatment rather than expectant management if there is sustained bleeding (change of threshold for intervention), early and aggressive erythropoietin therapy
 - d) Regular management of postpartum hemorrhage
 - e) Expeditious angiographic embolization
 - f) Major vessel ligation; bilateral high/low uterine and ovarian artery ligation, consider internal iliac artery ligation; single-stage uterine “devascularization”
 - g) Hysterectomy, pelvic cavity pressure pack or angiographic embolization for posthysterectomy hemorrhage
 - h) If need for transport or delay to OR: antishock garment, external aortic compression, direct pressure for other lacerations
- 5) Perioperative blood conservation
 - a) Meticulous hemostasis and surgical technique; consider prophylactic embolization for patients with high bleeding risk; minimally invasive approaches
 - b) Controlled hypotensive anesthesia
- 6) Nonblood volume expanders
 - a) Crystalloids: LR, NS, hypertonic saline
 - b) Colloids: pentastarch/hetastarch, gelatin, dextran (avoid dextrans in obstetrics d/t anticoagulant effects and risk of anaphylactic reactions)
 - c) Oxygen-carrying red cell substitutes: perfluorocarbon solutions, hemoglobin-based oxygen carriers
- 7) Pharmacologic enhancement of hemostasis
 - a) Topical hemostatic agents: tissue adhesives/fibrin glue, collagen hemostat, oxidized cellulose, gelatin foam/sponges, vasopressin, thrombin
 - b) Systemic hemostatic agents: vitamin K, TXA, epsilon-aminocaproic acid, desmopressin, aprotinin, conjugated estrogens, recombinant activated factor VII, coagulation factor replacement therapy, prothrombin complex concentrate, cryoprecipitate
- 8) Management of profound anemia – stop any bleeding, restrict diagnostic phlebotomy, maximize oxygen delivery, minimize oxygen consumption, stimulate red cell production

Appendix 2

Patient resources

Local and national patient resources

Hospital Liaison Committees for Jehovah's Witnesses

- Made up of community-based ministers who, without charge and upon request:
 - o Provide clinical papers & information for managing patients without blood transfusion
 - o Facilitate physician-to-physician consultations & assist in patient transfer when needed
 - o Make presentations
 - o Clarify ethical issues
 - o Arrange for pastoral care to hospitalized patients

Religious and Ethical Position on medical therapy and related matters

Jehovah's Witnesses' religious understanding does not absolutely prohibit the use of fractions derived from the primary components of blood

- Healthcare providers should determine in advance what products or procedures are acceptable to each patient. Many J.W. carry a card on them outlining what they will and will not accept, and this is prepared in accordance with local laws.
- Many J.W. do not accept preoperative autologous blood donation. Autotransfusion techniques (hemodilution, cell salvage, heart-lung machine, and hemodialysis) are matters for personal decision. Epidural blood patches, plasmapheresis, blood-cell tagging, and autologous platelet gel may be acceptable
- Potentially acceptable: albumin, clotting factors, fibrinogen, immunoglobulins, blood salvage, dialysis, cardiopulmonary bypass

Please see Patient Resources / Links above

Appendix 3

Refusal of blood product form



Alaska Native Medical Center

INFORMED CONSENT for BLOOD PRODUCTS TRANSFUSION

- I have been informed that in the course of my medical treatment, I may need blood and/or one of its products. Blood products include whole blood, red blood cells, fresh frozen plasma, platelets, cryoprecipitate, autologous or intra-operative salvaged autologous blood.
- I understand that there are risks associated with this therapy even though all donors are carefully screened by medical history and their blood has been tested by laboratory analysis. This analysis includes but is not limited to testing for unexpected antibodies, hepatitis B, antibody to HIV (exposure to the virus causing AIDS), and syphilis. I understand that these measures cannot completely eliminate the risk of possible infection or unfavorable body reaction to the introduction of foreign and infectious agents that have not been identified by scientists and therefore cannot be detected.
- My doctor has described the known common risks associated with blood products transfusions including those risks listed below. The risks and consequences of not receiving this therapy have also been explained, as have the alternatives to include the use of my own blood (autologous), donated before surgery and if applicable, intra-operative salvaged autologous blood.

ADVERSE EFFECT *	FREQUENCY	
Infected by:		*These and other adverse effects (e.g., embolism, clotting, chemical imbalance, etc.) may also occur with my own blood transfusions (autologous/intraoperative blood salvage). Data is from the references below: 1) Transfusion Therapy: Clinical Principles and Practice, 3 rd Edition AABB Press 2011. 2) Guidelines for Blood Recovery and Reinfusion in Surgery and Trauma, AABB 2010. 3) AABB Technical Manual, 18 th Edition AABB Press 2014 Updated Blood Utilization Review 11/2015
HEPATITIS A	1 in 10 million units	
HEPATITIS B	1 in 800,000 to 1 in 1.2 million units	
HEPATITIS C	1 in 1.15 million units	
HIV** (Type 1 & 2)	1 in 1.5 million units	
Human T-cell Lymphotropic Virus (I & II)	1 in 641,000 units	
Cytomegalovirus (CMV)	< 1% (Most adults not susceptible)	
Other: (Malaria, Syphilis, T. Cruzi and Babesiosis)	1 in > 1 million units	
Bacterial Contamination:		
Platelet Sepsis	1 in 83,000 units	
RBC Sepsis	1 in 5 Million units	
Noninfectious Risks of Transfusion		
Allergic (Urticaria)	1 in 250 units	
Febrile Non-Hemolytic Reaction	1 in 500 units	
Transfusion Related Acute Lung Injury (TRALI)	1 in 2,000 to 1 in 5,000 units	
Delayed Hemolytic Reaction	1 in 4,000 to 1 in 12,000 units	
Transfusion Associated Circulatory Overload	1 in 7,000 to 1 in 15,000 units	
Acute Hemolytic Reaction	1 in 12,000 units	
ABO Incompatible Transfusion	1 in 38,000 units	
Anaphylactic Reaction	1 in 150,000 units	

OTHER RISKS (to be completed by provider if indicated)

- I have read (or had read to me) and I understand the above information on blood products transfusion. I have had the opportunity to ask questions and my questions were answered. I hereby consent to blood products transfusion(s) as explained to me.

Provider Signature: _____ Date: _____ Time: _____ AM ☐ PM ☐ or _____ Military
 Patient/Patient's Representative Signature: _____ Date: _____ Time: _____ AM ☐ PM ☐ or _____ Military
 Witness's Signature: _____ Date: _____ Time: _____ AM ☐ PM ☐ or _____ Military

☐ **CONSENT OBTAINED BY TELEPHONE.** Contact name and phone # _____

- TRANSLATOR:** I, _____, have translated the information presented to the person giving this consent. I have also read him/her the consent form in the _____ language and explained its contents to him/her. To the best of my knowledge, he/she understands this explanation.
 Translator's Signature: _____ Date: _____ TIME: _____ AM ☐ PM ☐ or _____ Military

6. REFUSAL OF BLOOD PRODUCTS TRANSFUSION

I have read (or had read to me) and I understand the foregoing information on blood products transfusion, including the risks associated with not receiving a transfusion if medically indicated.
 I have had the opportunity to ask questions and my questions were answered to my satisfaction.
 I hereby **do not** consent to blood products transfusion(s).

Provider Signature: _____ Date: _____ Time: _____ AM ☐ PM ☐ or _____ Military
 Patient/Patient's Representative Signature: _____ Date: _____ Time: _____ AM ☐ PM ☐ or _____ Military
 Witness's Signature: _____ Date: _____ Time: _____ AM ☐ PM ☐ or _____ Military

PATIENT IDENTIFICATION LABEL