



Saskatchewan
Health Authority



Sask
Blood



WHY USE TWO WHEN ONE WILL DO?

Transfusing one unit of
blood at a time reduces the
risk of an adverse event -
transfuse one then reassess

Partnering for best transfusion
care in Saskatchewan

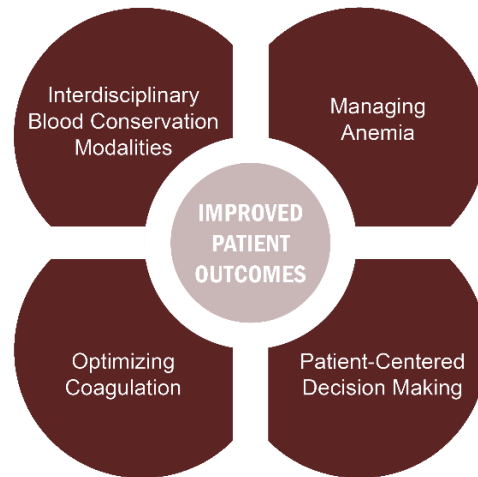
Orientation to Patient *Blood* Management/ Transfusion Safety

Visit us at www.saskblood.ca

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Introduction



What is Patient Blood Management?

Patient blood management (PBM) is an evidence-based, multidisciplinary approach to optimizing the care of patients who might need transfusion. PBM encompasses all aspects of patient evaluation and clinical management surrounding the transfusion decision-making process, including the application of appropriate indications, as well as minimization of blood loss and optimization of patient red cell mass. PBM can reduce the need for allogeneic blood transfusions and reduce health-care costs, while ensuring that blood components are available for the patients who need them.

A PBM Program uses a team approach to assess a patient's blood management needs. The goal of the team is to develop a plan of care that uses pharmaceuticals, technology and techniques to decrease blood loss and to enhance blood cell production. This approach reduces or eliminates the need for a blood transfusion.

Why is Patient Blood Management Necessary?

- Reduces unnecessary hospital and patient care costs.
- Improves patient safety by minimizing exposure to blood.
- May reduce hospital length of stay and reduces exposure to viruses and other blood borne diseases.
- May reduce the risk of hospital acquired complications and infections.
- Conserves use of a precious community resource.

What is Transfusion Safety?

Transfusion Safety works to ensure all blood transfusions are conducted in the safest possible manner and that all existing standards and practices are met. A Transfusion Safety program encompasses all healthcare disciplines involved in the Transfusion process.

For more information and for all resources, please visit SaskBlood.ca

Version: 17 – September 3, 2024

A Patient's Guide to Patient Blood Management

HOW AM I PART OF THE DECISION MAKING PROCESS IN PBM

There are many strategies to manage the medical issues that result in anemia, clotting problems or bleeding. For some patients, blood transfusion may never be an option because of medical, religious or other personal reasons. Each person must make an individual decision based on understanding with the assistance of the physician and healthcare team. Here are a few questions you can ask your physician regarding your status:

What are the risks, benefits and alternatives to any proposed treatment, including blood transfusion?

What are you prepared to do to minimize or eliminate the likelihood of a blood transfusion in my care plan?

What can be done before, during and after surgery to reduce my risk of bleeding?

If I am a patient for whom a blood transfusion is NOT an option, what medical or surgical techniques are you planning on using?

MORE INFORMATION

For more information, including resources, please visit saskblood.ca.

CONTACT US

To contact us, please email SouthSaskTransfusions@saskhealthauthority.ca or pbm@saskblood.ca.

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A PATIENT'S GUIDE TO PATIENT BLOOD MANAGEMENT



**Saskatchewan
Health Authority**

Healthy People, Healthy Saskatchewan

CEAC 1405
December
2019

THE ROLE OF BLOOD IN YOUR BODY

Red blood cells bring oxygen to your organs and tissues. Oxygen is carried and released by hemoglobin (Hgb), a protein present in red blood cells. A lower than normal hemoglobin level (less than 130 g/L) is called anemia. Anemia is a condition that should not be left untreated. If it is severe or allowed to progress for a long period of time, anemia can add risk to your health.

KNOW YOUR BLOOD COUNT

Your doctor can test your blood to determine a hemoglobin level. A hemoglobin level tells your doctor if your body has enough red blood cells.

HOW DO I PROCEED IF MY DOCTOR SAYS I AM ANEMIC?

- Undergo tests to find the cause of anemia.
- Analyze blood to determine iron levels.
- Get information about increasing your blood count with:
 - Iron therapy.
 - Vitamin B12.
 - Folic acid.
 - Vitamin C.
 - Erythropoietin.
- Develop a treatment plan to improve your blood count.

WHAT IS PATIENT BLOOD MANAGEMENT

Patient Blood Management (PBM) is the scientific use of safe and effective medical and surgical techniques designed to prevent anemia and decrease bleeding in an effort to improve patient outcomes.



WHAT DOES PBM ACCOMPLISH

- Improves patient safety by minimizing exposure to blood.
- Reduces hospital length of stay.
- Minimizes risk of exposure to viruses and other blood-borne diseases.
- Decreases the risk of hospital-acquired complications and infections.
- Promotes improved outcomes.
- Enhances quality of life and well-being.

STRATEGIES TO ENHANCE RED BLOOD CELL PRODUCTION AND MINIMIZE BLOOD LOSS

If you are having a medical procedure, have a complete blood count (CBC) taken well in advance of your procedure date; 4 weeks prior is recommended. This allows the medical team time to optimize your health status well ahead of hospitalization.


PATIENT BLOOD MANAGEMENT PROGRAMS

A PBM program uses a team approach to assess a patient's blood management needs. The goal of the team is to develop a plan of care that uses medications, technology and techniques to decrease blood loss and to enhance blood cell production. This approach reduces or eliminates the need for a blood transfusion.




The Saskatchewan Health Authority works in the spirit of truth and reconciliation, acknowledging Saskatchewan as the traditional territory of First Nations and Métis People.

Consent/Refusal for Blood Administration (#1163)

 <p>Saskatchewan Health Authority</p> <p>CONSENT/REFUSAL FOR ADMINISTRATION OF BLOOD/BLOOD COMPONENTS AND/OR PRODUCTS</p>	<p>Patient Name: _____</p> <p>Phone Number: _____</p> <p>HSN/MRN: _____</p> <p>Date of Birth (dd/mm/yyyy): _____</p> <p>Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Unknown</p> <p>Facility/Ward: _____</p>																																																																
<p>We have discussed the risks of administration of blood/blood components and/or products as well as the nature, consequences, benefits, material risks, and the reasonable alternatives, including the consequence(s) of refusing the administration of blood. Our decisions are documented below.</p>																																																																	
<p>Transfusion and Alternative Options as Selected by Patient/Substitute Decision Maker</p> <table style="width: 100%;"> <tr> <td style="width: 60%;">All blood/blood components and/or products</td> <td style="width: 10%; text-align: center;"><input type="checkbox"/> Accept</td> <td style="width: 10%; text-align: center;"><input type="checkbox"/> Refuse</td> <td style="width: 20%; text-align: center;"><input type="checkbox"/> N/A</td> </tr> </table> <p><u>Blood and Primary Components</u></p> <table style="width: 100%;"> <tr> <td style="width: 60%;">Red blood cells</td> <td style="width: 10%; text-align: center;"><input type="checkbox"/> Accept</td> <td style="width: 10%; text-align: center;"><input type="checkbox"/> Refuse</td> <td style="width: 20%; text-align: center;"><input type="checkbox"/> N/A</td> </tr> <tr> <td>Plasma (frozen plasma)</td> <td style="text-align: center;"><input type="checkbox"/> Accept</td> <td style="text-align: center;"><input type="checkbox"/> Refuse</td> <td style="text-align: center;"><input type="checkbox"/> N/A</td> </tr> <tr> <td>Platelets</td> <td style="text-align: center;"><input type="checkbox"/> Accept</td> <td style="text-align: center;"><input type="checkbox"/> Refuse</td> <td style="text-align: center;"><input type="checkbox"/> N/A</td> </tr> </table> <p><u>Blood Component and/or Products</u></p> <table style="width: 100%;"> <tr> <td style="width: 60%;">Cryoprecipitate</td> <td style="width: 10%; 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Consent to Diagnostic and Treatment Procedures (#370)



Consent to Diagnostic and Treatment Procedures

I, _____ consent to and authorize _____
(Name of person or substitute decision maker) (Name of health care provider)

or designate, and/or such assistants/professional trainees as may be selected by the health care provider, to perform the following procedure(s) on _____
(Myself or name of person)

Procedures(s): *(Print legibly and specify details)* _____

The procedure(s) listed above have been explained to me and I understand the nature, consequences, benefits, material risks, and the reasonable alternatives including the consequences of refusing the proposed procedure(s). I have had the opportunity to seek clarification and have had my question(s) answered.

I recognize that during the procedure(s) unforeseen or unknown conditions may require additional or different procedure(s) than those described above. I further authorize that the above named health care provider, or designate, may perform such procedure(s) as are in his/her professional judgement immediately necessary, desirable and such that delay is not feasible.

I consent to the administration of the appropriate anaesthetic and all other medications as may be necessary to facilitate my treatment. The risks associated with the anaesthetic and likely medications to be administered have been explained to my satisfaction.

Blood testing for blood-borne infections such as Hepatitis B, Hepatitis C and HIV may be required, in the event that a healthcare worker or another individual is exposed to my blood or body fluids. I understand that these test results will be sent to the care provider of the exposed person and to Occupational Health as well as to my own doctor and will be disclosed to the exposed person.

☐ I **consent** to be tested as described above ☐ I **refuse** to be tested as described above

The transfusion of blood or blood products may be required. I confirm that the nature, benefits, risks, consequences and alternatives to blood transfusion have been explained to me and that my questions have been answered.

☐ I **consent** to transfusion ☐ I **refuse** transfusion ☐ Transfusion **not routinely required**

I acknowledge that no guarantees have been made to me as to the result of the procedure(s).

I agree to the retention of any tissue that may be removed during the procedure(s) for diagnostic/study purposes and I agree to the disposal of any removed tissue according to approved Regina Qu'Appelle Health Region practice.

(Signature of person or substitute decision maker)

(Date (MM/DD/YYYY))

(Signature of witness at the discretion of the health care provider who has signed below)

(Date (MM/DD/YYYY))

Certification by the Health Care Provider Obtaining Consent

I hereby certify that the nature, consequences, benefits, material risks, and the reasonable alternatives including the consequences of refusing the proposed procedure(s) named in paragraphs above have been explained to the above named person, or substitute decision maker, who has consented to it.

(Signature of health care provider)

(Date (MM/DD/YYYY))

RQHR 370 (05/16)

Blood Transfusion Information for Patients

Blood Transfusion Information

Blood transfusions are an important part of healthcare. Each person is unique and your circumstances are discussed with your authorized healthcare provider.

Blood contains red blood cells, white blood cells and platelets suspended in a liquid called plasma. Red blood cells contain "hemoglobin" which carries oxygen to all tissues of the body. White blood cells fight infection.

Platelets are involved in the prevention of bleeding. Plasma is necessary for blood clotting.

Donated blood is separated into components including red blood cells, platelets and plasma after the white blood cells have been removed. These may be given to a person separately or together. The procedure of giving blood to a person through a vein is called a blood transfusion.

Canadian Blood Services

About every minute someone in Canada needs blood. In most provinces, Canadian Blood Services is responsible for blood collection and testing. Canadian blood donors give their blood free of charge. If you or someone in your family would like to donate blood, please call Canadian Blood Services at 1-888-2Donate (1-888-236-6283).

Reasons for Transfusion

Generally, a blood transfusion is given to replace a part of the blood that is low due to bleeding, illness or medical treatment, such as chemotherapy. Red blood cells are given to correct anemia (low hemoglobin level). Platelets or plasma are given to prevent or stop bleeding.

If You Need a Blood Transfusion

If your authorized healthcare provider recommends a blood transfusion, you are asked to give consent. It is very important that you understand what you are agreeing to. If you have any questions, concerns or need clarification, ask your authorized healthcare practitioner.

The laboratory staff draw a blood sample and carefully select and prepare the blood product that your authorized practitioner requested. Tests are done to ensure the transfusion matches your blood.

During a Blood Transfusion

A needle is inserted into a vein in your hand (or arm) and connected to a sterile plastic tubing which is attached to the blood product. During the transfusion, your temperature and pulse are checked and you are carefully watched by your nurse. The transfusion may take from 30 minutes to several hours depending on the blood product you are receiving.

Major Risks of Transfusion

 Saskatchewan Health Authority	Major Risks of Transfusion	 Sask Blood
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Non Infectious Complications	Risk of Event
Red blood cell antibodies that can complicate future pregnancies or transfusion	1 in 13
Febrile non-hemolytic transfusion reaction (FNHTR) per pool of platelets	1 in 100
Transfusion-associated circulatory overload (TACO) per transfusion episode	1 in 100
Minor allergic reactions (urticaria)	1 in 100
Febrile non-hemolytic transfusion reaction (FNHTR) per unit of RBC	1 in 300
Delayed hemolytic transfusion reaction (DHTR) per patient transfused	1 in 2,500
Transfusion related acute lung injury (TRALI)	1 in 10,000
Serious allergic reaction per unit of component	1 in 40,000
Post-transfusion purpura	1 in 100,000
ABO-incompatible transfusion per RBC transfusion episode	1 in 354,000

Infectious Complications	Risk of Event
Symptomatic bacterial sepsis per pool of non-pathogen reduced platelets	1 in 10,000
Death from bacterial sepsis per pool of non-pathogen reduced platelets	1 in 200,000
Symptomatic bacterial sepsis, per unit of red blood cells	1 in 250,000
Death from bacterial sepsis per unit of RBC	1 in 500,000
Transmission of West Nile Virus	<1 in 1,000,000
Residual risk of hepatitis B virus (HBV) per unit	1 in 2,900,000
Transmission of Chagas disease per unit	1 in 4,000,000
Residual risk of human immunodeficiency virus (HIV) per unit	1 in 19,700,000
Residual risk of hepatitis C virus (HCV) per unit	1 in 41,500,000
Transmission of human T-cell lymphotropic virus (HTLV) per unit	<1 in 1,000,000,000

References:

1. Callum, JL, et al. *Bloody Easy 5.1: Blood Transfusions, Blood Alternatives and Transfusion Reactions. A Guide to Transfusion Medicine*. Fifth Edition, 2022. Toronto, ON: Ontario Regional Blood Coordinating Network.
2. Canadian Blood Services Annual Surveillance Report, 2022. Available online at: <https://professionaleducation.blood.ca/en/transfusion/publications/surveillance-report>.

Approved by: Transfusion Medicine Discipline Committee
Date of Revision: August 7, 2024


Ordering of Red Blood Cells – ADULTS (#601)



PRACTITIONER PRE-PRINTED ORDERS Ordering of Red Blood Cells – ADULTS

To complete the order form, fill in required blanks and/or check the appropriate boxes. Bulleted items will be initiated automatically. To delete orders, draw one line through the item and initial.	
Allergies: <div style="text-align: center; border: 1px solid black; padding: 2px; margin-top: 5px;"> See Allergy / Intolerance Record </div>	Patient Weight _____ kg <input type="checkbox"/> Estimated <input type="checkbox"/> Actual
Posted Initial	<div style="display: flex; justify-content: space-between;"> ORDERS AND SIGNATURE Page 1 of 1 </div>
	<p>Rationale <i>Strong evidence suggests that in hemodynamically stable, non-bleeding patients, a hemoglobin threshold of 70 g/L (or 80 g/L in acute coronary syndromes) can decrease transfusion requirements and avoid adverse outcomes. Single unit transfusions are usually preferable.</i></p> <p>Consider using intravenous iron in the anemic, asymptomatic, non-bleeding patient. Consider B12/folate and erythropoietic stimulating agent. See PP-290 (iron sucrose for inpatients) and PP-673 (iron isomaltoside for outpatients).</p> <p>Consider Tranexamic Acid 15 – 30 mg/kg in the acutely bleeding patient, preferably pre-transfusion (see Appendix for further information)</p>
	<ul style="list-style-type: none"> • Informed consent for transfusion obtained and documented (RQHR 370/254 or 1163) (please attach to outpatient orders) <input type="checkbox"/> Uncrossmatched – must complete Physician Waiver form (RQHR 1103) <input type="checkbox"/> STAT <input type="checkbox"/> Routine <input type="checkbox"/> Special requirements for oncology/immunosuppressed patients (see Appendix): _____ <p>Indications: (Choose at least ONE indication)</p> <p><input type="checkbox"/> Acute blood loss: <input type="checkbox"/> stopped <input type="checkbox"/> ongoing</p> <p><input type="checkbox"/> Hypotension/tachycardia unresponsive to fluid</p> <p><input type="checkbox"/> Anemia and active ischemia (ECG changes or troponin rise)</p> <p><input type="checkbox"/> Patient is undergoing active treatment anticipated to cause significant blood loss</p> <p><input type="checkbox"/> Symptoms: <input type="checkbox"/> chest pain <input type="checkbox"/> shortness of breath <input type="checkbox"/> syncope</p> <p><input type="checkbox"/> Bone marrow failure (under advice of hematologist only)</p> <p><input type="checkbox"/> Other: _____</p>
	<p>Orders</p> <p><input type="checkbox"/> Transfuse 1 unit packed red blood cells (PRBCs) at 125 mL/hr after initial rate of 50 mL/hr and no observed reaction</p> <p style="margin-left: 20px;">• Refer to <u>Nursing Procedure B.1</u> (Blood Component Administration)</p> <p><input type="checkbox"/> Transfuse _____ units PRBCs, at _____ (rate)</p> <p><input type="checkbox"/> furosemide 20 mg IV x 1 dose or _____ mg IV x 1 dose prior to transfusion in euvolemic patients (Consider post-transfusion dose as clinically indicated; see Appendix Page +1 for TACO Risk Assessment)</p> <p><input type="checkbox"/> Tranexamic acid 1 gram OR _____ gram(s) (15 – 30 mg/kg) IV x 1 dose</p> <p><input type="checkbox"/> CBC 4 hours post-transfusion or: _____ (specify)</p>
CALL RGH TRANSFUSIONS (306) 766-4474 WHEN UNCROSSMATCHED RBCs required	
Date & Time	Practitioner Signature: _____ Practitioner Name (printed): _____

Physician Waiver for Administration of Unmatched Donor Red Cells (#1103)

 <p>Saskatchewan Health Authority</p> <p>PHYSICIAN WAIVER FOR ADMINISTRATION OF <u>UNMATCHED</u> DONOR RED CELLS</p>	<p>Patient Name: _____</p> <p>Phone Number: _____</p> <p>HSN/MRN: _____</p> <p>Date of Birth (dd/mm/yyyy): _____</p> <p>Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Unknown</p> <p>Facility/Ward: _____</p>
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I am aware the risk of transfusion of uncrossmatched donor red blood cells is greater than the risk of fully crossmatched donor red blood cells. It is my clinical judgment, the risk of awaiting fully crossmatched donor red blood cells is greater than the risk of administering uncrossmatched donor red blood cells.

Printed Name: _____ <small>(Printed Name of Physician/Authorized NP)</small>	Signed: _____ <small>(Signature of Physician/Authorized NP)</small>
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Verbal Consent (Obtained During an Emergency Situation)


Printed Name: _____ <small>(Printed Name of Registered Nurse)</small>	Signed: _____ <small>(Signature of Registered Nurse)</small>
---	--

For Physician: _____ <small>(Printed Name of Physician/Authorized NP)</small>	Date: _____ <small>(DD/MM/YYYY)</small>
---	---


*Please file on the patient's chart once complete

RQHR 1103 (11/19)


Saskatchewan Transfusion Adverse Event Report Form

 Saskatchewan Transfusion Adverse Event Report Form		Patient Demographics	
Reporting Facility Name: _____		Please print both sides and place patient identifiers on PAGES 1 & 2 Patient Legal Last Name: _____	
Phone Number: _____ Fax Number: _____		Patient Legal First Name: _____	
Diagnosis: _____		HSN/MRN: _____	
Indication for Transfusion: _____		Date of Birth (dd/mm/yyyy): _____	
Category (choose one): <input type="checkbox"/> Hematology/BMT <input type="checkbox"/> Oncology <input type="checkbox"/> Medical <input type="checkbox"/> Surgical		Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Unknown	
<input type="checkbox"/> Obstetrics/Gyn/Perinatal <input type="checkbox"/> Trauma <input type="checkbox"/> Neonatal/Peds			
1. Patient and Blood Component/Product Unique Identifier Verification (Clerical check)			
Is the information IDENTICAL on all the following: <input type="checkbox"/> Patient ID band <input type="checkbox"/> Issue document/tag <input type="checkbox"/> Blood component/product label? <input type="checkbox"/> YES <input type="checkbox"/> NO IF NO, contact TMS/Lab IMMEDIATELY . Another patient may be at risk. Date/Time TMS/Lab notified: _____ Person contacted: _____			
2. Clinical History (Check all that apply)			
<input type="checkbox"/> Pre-existing fever (T ≥ 38.0°C before transfusion) <input type="checkbox"/> History or pre-transfusion evidence of hypervolemia <input type="checkbox"/> Immune-compromised (specify): _____			
<input type="checkbox"/> Transfused under GENERAL anesthesia <input type="checkbox"/> Transfused under REGIONAL anesthesia <input type="checkbox"/> Transfusion pre-medication (specify): _____			
Patient currently prescribed: <input type="checkbox"/> ACE inhibitor <input type="checkbox"/> Diuretic <input type="checkbox"/> Antibiotic(s) (specify): _____			
History of transfusion: <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes (within 3 months) <input type="checkbox"/> Yes (> 3 months)			
History of pregnancies/miscarriages: <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes (within 3 months) <input type="checkbox"/> Yes (> 3 months)			
3. Location, Date and Time of Transfusion Reaction			
Choose one: <input type="checkbox"/> ICU <input type="checkbox"/> ER <input type="checkbox"/> Medical Ward <input type="checkbox"/> Surgical Ward <input type="checkbox"/> OR/Post Anesthesia Care <input type="checkbox"/> OB/Gyn <input type="checkbox"/> Outpatient <input type="checkbox"/> Chronic Care <input type="checkbox"/> Lab (Serologic)			
Date (dd/mm/yyyy)	Time Transfusion Started	Time Reaction Occurred	Time Transfusion Stopped
		Time Transfusion Restarted Only upon medical direction	
		Time Transfusion Completed	
4. Vitals & Clinical Signs and Symptoms			
Pre-transfusion	Temp: _____ °C (oral)	BP: _____	Pulse: _____
During reaction	Temp: _____ °C (oral)	BP: _____	Pulse: _____
Post-transfusion	Temp: _____ °C (oral)	BP: _____	Pulse: _____
Clinical Signs and Symptoms (Check all that apply; attach medication record, nursing notes, physician notes, and transfusion administration record, if available)			
<input type="checkbox"/> Fever (Oral T ≥ 38°C AND ≥ 1°C rise above baseline temp) <input type="checkbox"/> Nausea/vomiting <input type="checkbox"/> Facial or tongue swelling			
<input type="checkbox"/> Urticaria (hives) <input type="checkbox"/> Joint/muscle pain <input type="checkbox"/> Wheezing			
<input type="checkbox"/> Pruritus (itching) <input type="checkbox"/> Back pain <input type="checkbox"/> Hypoxemia: SpO ₂ _____ % or PaO ₂ _____ mm Hg on			
<input type="checkbox"/> Skin rash other than urticarial <input type="checkbox"/> Chest pain <input type="checkbox"/> Room air			
<input type="checkbox"/> Dyspnea (shortness of breath) <input type="checkbox"/> Heat/pain at IV site <input type="checkbox"/> Supplementary O ₂ _____ L/min			
<input type="checkbox"/> Headache <input type="checkbox"/> Dizziness <input type="checkbox"/> Hypertension			
<input type="checkbox"/> Chills (sensation of cold) <input type="checkbox"/> Jaundice <input type="checkbox"/> Hypotension (SBP drop by ≥ 30mmHg)			
<input type="checkbox"/> Rigors (involuntary shaking) <input type="checkbox"/> Red or brown urine <input type="checkbox"/> Tachycardia (HR rise by > 40bpm)			
<input type="checkbox"/> Flushing <input type="checkbox"/> Oliguria <input type="checkbox"/> Shock			
<input type="checkbox"/> Restlessness/anxiety <input type="checkbox"/> Diffuse hemorrhage			
Other relevant clinical information: _____			
5. Blood Component/Product(s) and Equipment Information (Attach sheet with additional information if needed)			
Blood Component/Product Type	Product ABO/Rh	Unit Number or Lot Number	Expiry Date (dd/mm/yyyy)
Filters or Equipment Used	<input type="checkbox"/> Standard blood filter <input type="checkbox"/> Other blood filter <input type="checkbox"/> IV pump <input type="checkbox"/> Blood warmer <input type="checkbox"/> Rapid infusion device <input type="checkbox"/> Re-infusion device <input type="checkbox"/> Cell saver <input type="checkbox"/> Details: _____		
6. Measures Taken and Notifications			
6a. Transfusion Reaction Treatment Measures Taken (Check all that apply)			
<input type="checkbox"/> None <input type="checkbox"/> Analgesics <input type="checkbox"/> Vasopressors <input type="checkbox"/> ICU <input type="checkbox"/> Other Measures Taken			
<input type="checkbox"/> Transfusion Stopped <input type="checkbox"/> Antihistamines <input type="checkbox"/> Antibiotics <input type="checkbox"/> Chest X-ray <input type="checkbox"/> Specify: _____			
<input type="checkbox"/> Transfusion Restarted <input type="checkbox"/> Steroids <input type="checkbox"/> Supplementary O ₂ <input type="checkbox"/> Patient Blood Culture Ordered			
<input type="checkbox"/> Antipyretics <input type="checkbox"/> Diuretics <input type="checkbox"/> Mechanical Ventilation <input type="checkbox"/> Product Sent to Lab			
6b. Notifications			
<input type="checkbox"/> Physician Name: _____ Date/Time: _____		<input type="checkbox"/> TMS/Lab Name: _____ Date/Time: _____	
Reported By: Signature: _____ Name (print): _____ Designation: _____		Date/Time: _____	
Facility: _____			

Notification of Blood Administration

 Notification of Administration of Blood and/or Blood Products	
Name: _____	
MRN: _____	
During your stay in the Regina Qu'Appelle Health Region you were given a human blood product.	
If you have any questions regarding this product please contact your physician.	
Discharge/Transfer	
_____ (Signature of person or substitute decision maker)	_____ (Date (MM/DD/YYYY))
_____ (Health Care Professional providing discharge or transfer documentation)	
White - Health Records	Canary - Patient
RQHR 425 (10/99)	

Why Use Two Poster





**WHY USE TWO?
WHEN ONE WILL DO**

Transfusing one unit of blood at a time reduces the risk
of an adverse event – **Transfuse one then reassess**

Blood is a gift - Use it wisely

Dr. Lett - Anesthesiologist and Physician Lead for
the Blood Product Stewardship Program, RQHR



 **SaskBlood**
www.saskblood.ca

7482-16-NMES-16

For more information and for all resources, please visit SaskBlood.ca

Version: 17 – September 3, 2024

Choosing Wisely Canada

Transfusion Medicine

Ten Things Physicians and Patients Should Question
by
Canadian Society for Transfusion Medicine
Last updated: June 2018



1 Don't transfuse blood if other non-transfusion therapies or observation would be just as effective.

Blood transfusion should not be given if other safer non-transfusion alternatives are available. For example, patients with iron deficiency without hemodynamic instability should be given iron therapy.

2 Don't transfuse more than one red cell unit at a time when transfusion is required in stable, non-bleeding patients.

Indications for red blood transfusion depend on clinical assessment and the cause of the anemia. In a stable, non-bleeding patient, often a single unit of blood is adequate to relieve patient symptoms or to raise the hemoglobin to an acceptable level. Transfusions are associated with increased morbidity and mortality in high-risk hospitalized inpatients. Transfusion decisions should be influenced by symptoms and hemoglobin concentration. Single unit red cell transfusions should be the standard for non-bleeding, hospitalized patients. Additional units should only be prescribed after re-assessment of the patient and their hemoglobin value.

3 Don't transfuse plasma to correct a mildly elevated (<1.8) international normalized ratio (INR) or activated partial thromboplastin time (aPTT) before a procedure.

A mildly elevated INR is not predictive of an increased risk of bleeding. Furthermore, transfusion of plasma has not been demonstrated to significantly change the INR value when the INR was only minimally elevated (<1.8).

4 Don't routinely transfuse platelets for patients with chemotherapy-induced thrombocytopenia if the platelet count is greater than $10 \times 10^9/L$ in the absence of bleeding.

A platelet count of $10 \times 10^9/L$ or greater usually provides adequate hemostasis. Platelet transfusions are associated with adverse events and risks. Considerations in the decision to transfuse platelets include the cause of the thrombocytopenia, comorbid conditions, symptoms of bleeding, risk factors for bleeding, and the need to perform an invasive procedure.

5 Don't routinely use plasma or prothrombin complex concentrates for non-emergent reversal of vitamin K antagonists.

Patients requiring non-emergent reversal of warfarin can often be treated with vitamin K or by discontinuing the warfarin therapy. Prothrombin complex concentrates should only be used for patients with serious bleeding or for those who need urgent surgery. Plasma should only be used in this setting if prothrombin complex concentrates are not available or are contraindicated.

6 Don't use immunoglobulin therapy for recurrent infections unless impaired antibody responses to vaccines are demonstrated.

Immunoglobulin (gammaglobulin) replacement does not improve outcomes unless there is impairment of antigen-specific IgG antibody responses to vaccine immunizations or natural infections. Isolated decreases in immunoglobulins (isotypes or subclasses), alone, do not indicate a need for immunoglobulin replacement therapy. Exceptions include genetically defined/suspected disorders. Measurement of IgG subclasses is not routinely useful in determining the need for immunoglobulin therapy. Selective IgA deficiency is not an indication for administration of immunoglobulin.

- 7 Don't order unnecessary pre-transfusion testing (type and screen) for all pre-operative patients.**

Pre-operative transfusion testing is not necessary for the vast majority of surgical patients (e.g., appendectomy, cholecystectomy, hysterectomy and hernia repair) as those patients usually do not require transfusion. Ordering pre-transfusion testing for patients who will likely not require transfusion will lead to unnecessary blood drawn from a patient and unnecessary testing performed. It may also lead to unnecessary delay in the surgical procedure waiting for the results. To guide you whether pre-transfusion testing is required for a certain surgical procedure, your hospital may have a maximum surgical blood ordering schedule or specific testing guidelines based on current surgical practices.
- 8 Don't routinely order perioperative autologous and directed blood collection.**

There is no role for routine perioperative autologous donation or directed donation except for selected patients (for example, patients with rare red blood cell antigen types). Medical evidence does not support the concept that autologous (blood donated by one's self) or directed blood (blood donated by a friend/family member) is safer than allogeneic blood. In fact, there is concern that the risks of directed donation may be greater (higher rates of positive test results for infectious diseases). Autologous transfusion has risks of bacterial contamination and clerical errors (wrong unit/patient transfused). As well, autologous blood donation before surgery can contribute to perioperative anemia and a greater need for transfusion.
- 9 Don't transfuse O negative blood except to O negative patients and in emergencies for female patients of child-bearing potential of unknown blood group.**

Males and females without childbearing potential can receive O Rh-positive red cells. O-negative red cell units are in chronic short supply, in some part due to over utilization for patients who are not O-negative. To ensure O-negative red cells are available for patients who truly need them, their use should be restricted to: (1) patients who are O-Rh-negative; (2) patients with unknown blood group requiring emergent transfusion who are female and of child-bearing age. Type specific red cells should be administered as soon as possible in all emergency situations.
- 10 Don't transfuse group AB plasma to non-group AB patients unless in emergency situations where the ABO group is unknown.**

The demand for AB plasma has increased. Group AB individuals comprise only 3% of Canadian blood donors. Those donors who are group AB are universal donors for plasma, thus are the most in-demand type for plasma transfusion. Type-specific plasma should be issued as soon as possible in emergency situations to preserve the AB plasma inventory for those patients where the blood group is unknown.

How the list was created

The Canadian Society for Transfusion Medicine (CSTM) compiled its Choosing Wisely Canada list of recommendations by putting out a call to its membership for suggested list items. Members were asked to provide suggestions, rationale and references. Once all suggestions for list items had been received and the deadline for submissions had passed, the CSTM board voted on the accumulated list and ranked the items according to our assessment of what was most important. We met by conference call to discuss the outcome of the voting and worked together to refine the wording and the order of the list items and to find additional references as required.

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Choosing Wisely/SABM



An initiative of the ABIM Foundation

Society for the Advancement of Blood Management



Five Things Physicians and Patients Should Question

1

Don't proceed with elective surgery in patients with properly diagnosed and correctable anemia until the anemia has been appropriately treated.

Anemia is common, presenting in approximately one-third of patients undergoing elective surgery. There is often the misconception that anemia is harmless, when, in fact, it is independently associated with significant morbidity and mortality that can be as high as 30-40% in certain patient populations. Treatment of anemia improves patient readiness for surgery, aids in management of comorbid conditions, decreases length of stay and readmission rates, and reduces transfusion risks. Treatment modalities may include nutritional supplementations, such as iron, B12 and folate, changes in medication, management of chronic inflammatory conditions or previously undiagnosed malignancy, or other interventions based on the etiology.

2

Don't perform laboratory blood testing unless clinically indicated or necessary for diagnosis or management in order to avoid iatrogenic anemia.

Up to 90% of patients become anemic by day 3 in the intensive care unit. Although laboratory testing can aid in diagnosis, prognosis and treatment of disease, a significant number of tests are inappropriate or unnecessary. Anemia secondary to iatrogenic blood loss causes an increased length of stay and mortality. Increased phlebotomy for laboratory testing also increases the odds for transfusion and its associated risks. Unnecessary laboratory testing adds to the cost of care through laboratory test charges and also by increasing downstream costs due to unnecessary interventions, prescriptions, etc. Thus judicious use of laboratory testing is recommended, and testing should not be performed in the absence of clinical indications.

3

Don't transfuse plasma in the absence of active bleeding or significant laboratory evidence of coagulopathy.

Recent studies demonstrate that plasma is often transfused inappropriately. In the absence of active bleeding or clear evidence of coagulopathy, current literature shows no reduction in blood loss or transfusion requirements with the use of plasma, but shows increased risk of transfusion-associated adverse events such as transfusion-related acute lung injury, transfusion-associated circulatory overload and allergic reactions. These transfusion-associated adverse events lead to poorer outcomes and increased cost of care.

4

Avoid transfusion when antifibrinolytic drugs are available to minimize surgical bleeding.

Antifibrinolytic pharmacologic therapy has been shown to reduce blood loss and transfusion requirements in orthopedic and cardiovascular surgeries. Early administration of tranexamic acid, specifically within three hours, in trauma and obstetric hemorrhage significantly reduces mortality and bleeding.

5

Avoid transfusion, outside of emergencies, when alternative strategies are available as part of informed consent; make discussion of alternatives part of the informed consent process.

Informed choice/consent regarding transfusion and other effective methods should be standardized and consistently delivered. Throughout the world, there is wide variation among medical practitioners and hospitals with regard to medical knowledge about the true risks of transfusion, alternatives to transfusion, and the delivery of this information to patients. Outside of the truly emergent clinical situation, transfusion should be avoided or limited when other interventions are available. Alternative strategies include, but are not limited to pharmacologic agents, cell salvage, normovolemic hemodilution and minimally-invasive surgical techniques.

These items are provided solely for informational purposes and are not intended as a substitute for consultation with a medical professional. Patients with any specific questions about the items on this list or their individual situation should consult their physician.

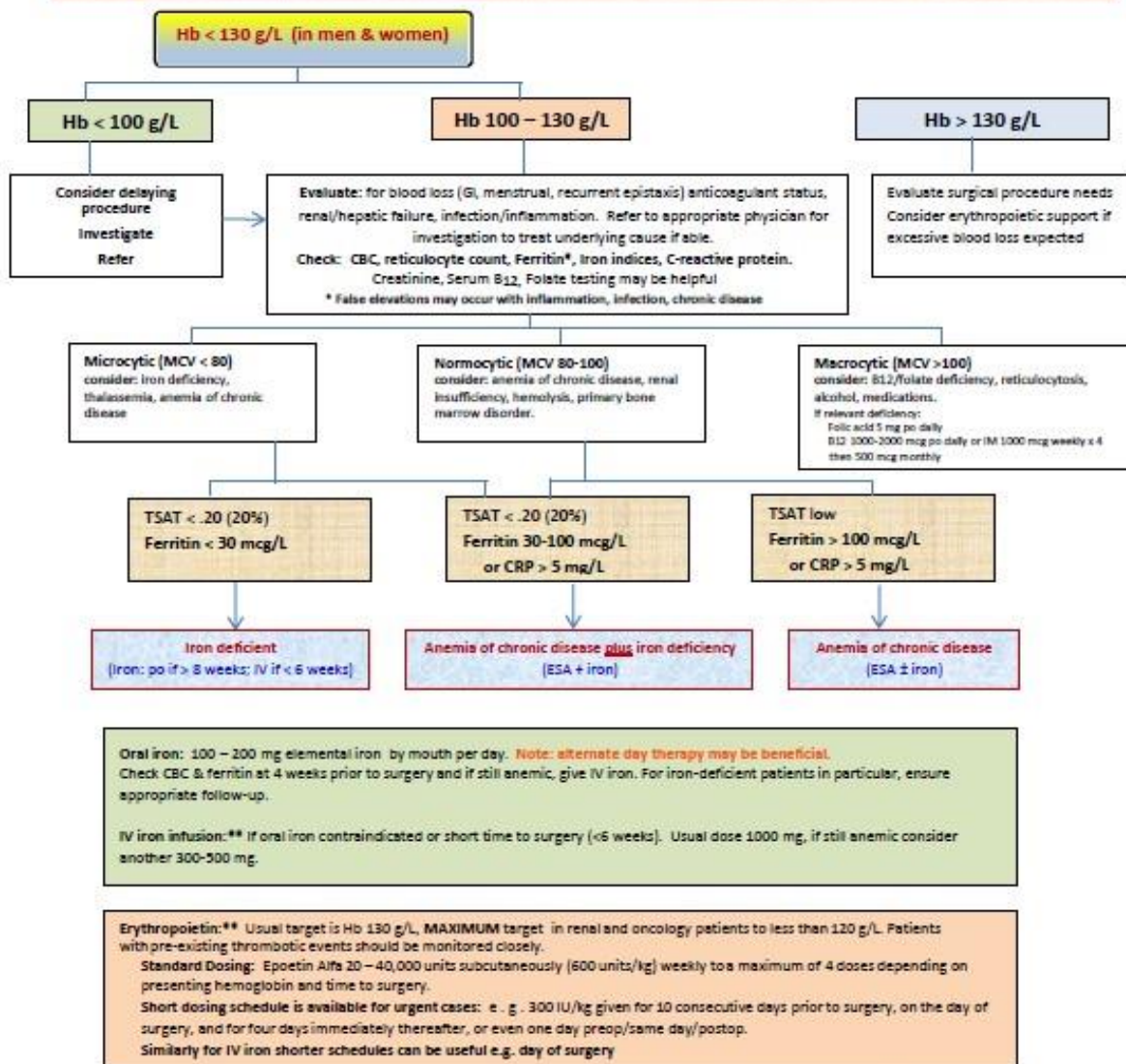
Released July 23, 2018

Preoperative Anemia Management & Hemoglobin (Hgb) Optimization Algorithm

Preoperative Hemoglobin Optimization and Anemia Management

Risk Factors for Transfusion: Hemoglobin (Hb) less than (<) 130 g/L, weight less than 65 Kg, elderly, female, complex or repeat surgical procedure, renal insufficiency (creatinine clearance <40 ml/min), antiplatelet agents, anticoagulants, some supplements
Interventions must take into consideration age, gender, anticipated surgical blood loss and pre-existing medical conditions.
A pre and post treatment Hb should ALWAYS be obtained; if still anemic, consider further dosing.

When assessing a pre-op patient, do a CBC. If anemic, do a ferritin, TSAT and C-reactive protein (CRP) if at all possible.



** May be accessed in Ontario through third party provider of the Ontario Drug benefits Plan (Exceptional Access Program), Trillium

Oral Iron Guidance



Oral Iron Guidance

Consider IV iron and complete PPO-290 if:

- Response to oral iron results in less than 20 g/L of hemoglobin in 4 weeks
- GI intolerance to oral iron or absorption problem
- High-risk blood loss and hemoglobin 4 weeks prior to surgery less than 130 g/L and TSAT less than 20%
- Short pre-op duration to correct significant iron-deficiency anemia
- Third trimester of pregnancy
- Use of erythropoietin as planned

Investigations or Tests

- Baseline bloodwork upon referral to surgeon:
 - CBC
 - ☐ Ferritin
 - ☐ Iron, TIBC
 - Repeat CBC 1 month prior to planned surgery to assess response to oral iron therapy

Consider Consults / Referrals as Necessary for Etiology

- ☐ Gastroenterology
- ☐ Gynecology
- ☐ Hematology
- ☐ Nephrology

Medication

- Start oral iron therapy at least 2 months prior to surgery for patients with iron-deficiency anemia (IDA), (ferritin less than 30mcg/L or ferritin less than 100 mcg/L with TSAT less than 20%) and hemoglobin less than 130 g/L (NOTE: If patient on ferrous fumarate at home, pharmacy will auto-substitute ferrous sulphate on admission to hospital).

- ☐ ferrous fumarate 300mg (100mg elemental iron) PO q2days at bedtime
- ☐ ferrous fumarate 300mg (100mg elemental iron) PO once daily at bedtime
- ☐ ferrous fumarate 600mg (200mg elemental iron) PO q2days at bedtime

Ferrous sulphate may be substituted for fumarate but has less elemental iron and higher GI side effects.

For iron salt intolerance, consider using ferric pyrophosphate or heme iron polypeptide such as Proferrin; increased GI tolerance is reported but at increased cost.

- Take iron tablets on empty stomach with water, fruit juice or vitamin C.
- Do not take iron tablets with antacids, proton pump inhibitors, calcium supplements, coffee or tea.

Iron - Intravenous Therapy for Iron Deficiency Anemia in Adult Outpatients (CS-OS-1926)




PATIENT INFORMATION (or Addressograph)

Name: _____

Birthdate: _____ HSN: _____

Phone: _____

INTRAVENOUS IRON FOR IRON DEFICIENCY ANEMIA (IDA) in ADULT Outpatients			
Allergies: _____		Patient Weight: _____ Kg <input type="checkbox"/> Actual <input type="checkbox"/> Estimated	
To complete the order form, fill in required blanks and initial the appropriate boxes (<input type="checkbox"/>). Pre-checked boxes (<input checked="" type="checkbox"/>) are initiated automatically. To delete orders, draw one line through the item and initial.		Processed (Initials) Care Plan MAR FAX REQ SCM	
This order set is for ALL IV iron orders for ADULT outpatients unless meeting one of the exclusions below. Refer to Frequently Asked Questions document CS-G-0154 for further information			
Practitioner Information			
Requesting Most Responsible Practitioner (MRP) FULL Name: _____			
Phone Number: _____ Fax: _____			
IV Iron Request			
<input checked="" type="checkbox"/> Fax orders to _____ (Infusion Site/Facility) Fax Number: _____			
Indication for IV Iron: _____			
Patient Eligibility			
EXCLUSION: Pediatric (less than 17 years old), hemodialysis patients and 1 st trimester pregnancy			
Eligible for <u>outpatient</u> IV iron if meets <u>at least 1 criterion in each column</u> . Select all that apply. Lab result must be from past 30 days.			
<input type="checkbox"/> Hgb less than 130 g/L If pregnant, refer to Obstetric Anemia Screening and Treatment algorithm (CS-A-0008) for guidance	<input type="checkbox"/> Ferritin less than 30 mcg/L <input type="checkbox"/> TSAT less than 20% <input type="checkbox"/> CKD only: TSAT less than 30% TSAT = transferrin saturation CKD = chronic kidney disease	<input type="checkbox"/> Oral iron is ineffective (anticipated or demonstrated) or poorly tolerated <input type="checkbox"/> Optimization of anemia therapy for patients requiring Erythropoietin Stimulating Agents (ESAs) Requiring <u>urgent</u> iron replacement: <input type="checkbox"/> Perioperative (pre or post) <input type="checkbox"/> Pregnant (gestational age _____ wks) <input type="checkbox"/> Postpartum <input type="checkbox"/> Hgb less than 90 g/L and symptomatic	
Monitoring/Observations			
<input checked="" type="checkbox"/> Refer to product-specific SHA parenteral monograph for vital sign monitoring. Increase monitoring as clinical condition requires.			
<input checked="" type="checkbox"/> Refer to CS-A-0007 Intravenous Iron Hypersensitivity Management Algorithm (Reverse Page 1)			
Follow-up (for prescribers) – see FAQ for more details			
Determining cause of anemia and ongoing lab monitoring are essential. Consult specialist (e.g. Gastroenterology, Gynecology) as appropriate to identify and manage cause of iron deficiency. Follow local consultation process.			
Practitioner: _____	PRINTED NAME	SIGNATURE	DATE/TIME

Approved by: Division of Transfusion Medicine, April 2024



Approved for use by: SHA Order Set Committee, April 2024

CS-OS-1926 May 27, 2024

Inquiries about this order set can be sent to SHAOrderSets@saskhealthauthority.ca

Page 1 of 2

PEDIATRIC Iron Sucrose Infusion Orders (#657)

 																													
PRACTITIONER PRE-PRINTED ORDERS PEDIATRIC Iron Sucrose Infusion Orders																													
To complete the order form, fill in required blanks and/or check the appropriate boxes. Bulleted items will be initiated automatically. To delete orders, draw one line through the item and initial.																													
Allergies: <div style="text-align: center; border: 1px solid black; padding: 2px;">See Allergy / Intolerance Record</div>	Patient Weight Est. _____ kg Actual _____ kg																												
Posted Initial	<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> ORDERS AND SIGNATURE </div> <div style="width: 40%; text-align: right;"> Page 1 of 2 </div> </div>																												
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 65%; padding: 5px; vertical-align: top;"> Diagnosis Iron deficiency in patients intolerant or not responsive to oral iron replacement products </td> <td style="width: 35%; padding: 5px; vertical-align: top;"> Rationale/Suggestions: Formula to calculate dose of total iron sucrose in mg (= total iron deficit in mg): Weight(kg) x (target Hgb g/L-actual Hgb g/L) x 0.24 +depot iron (mg) Depot Iron calculation: If weight is 35 kg or less: iron depot = 15 mg/kg If weight is greater than 35kg: iron depot = 500mg Target hemoglobin to be based on patient age and sex. 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| **Date & Time** | | | | |-------------------------------------|--| | Practitioner Signature: | | | Practitioner Name (printed): | | |

Version: May 2019
 Approved by: Department of Pediatrics
 Revision Date: April 2022

Form No.:PP-657


Pasqua Hospital Infusion Clinic

- Located on the Ambulatory Care Unit at the Pasqua Hospital
- Open 0730-1600, Monday to Friday (closed stat holidays)
- Provides services for administration of complex drugs and electrolytes, blood and blood product infusions and therapeutic phlebotomy
- All Practitioner Pre-Printed Orders can be accessed via the PPO website or online at SaskBlood.ca under **PBM**
- Orders sent in by fax to 306-766-2881 and reviewed by RN



What Does Your Patient Need?


**PATIENT BLOOD
MANAGEMENT
(PBM)**



Why?

- Improve outcomes/quality of care
- Reduces risks
- Save costs

All at the same time

 Saskatchewan
Health Authority
Healthy People, Healthy Saskatchewan

Regina Area Iron Comparison

Regina Area Iron Comparison

	Iron Sucrose PP-290 Intravenous Iron Therapy	Iron Isomaltoside* PP-673 Iron Isomaltoside (Monoferric™) Therapy for use in Ambulatory Care ONLY
Maximum Single Dose	300 mg	1500 mg
Maximum single dose per kg	7 mg/kg	20 mg/kg
Infusion Time Per Visit	2 hours	1 hour
Number of Visits	5-10	1-2
Total time for course of therapy	10-20 hours	1 to 2 hours
Parking Costs per patient per course of therapy (\$1/0.5 hour)	\$25-50	\$3-6
Target Population	Inpatients	Outpatients
Cost/100 mg	\$40	\$45
Total Drug Cost Per 1500 mg	\$600	\$675
Total RN Time, IV tubing, Parking and Drug Cost Per 1500 mg	\$1110	\$735
Serious Adverse Event Rate	<1 per million	<1 per million
Differences in adverse events	Rate dependent hypotension, flushing more common, resolves after cessation and slower infusion rate	Musculoskeletal pain at initiation of infusion more common; resolves after cessation and restarting
Hemoglobin Peak Response	8 weeks	Faster rise in hemoglobin weeks 1-5 and peaks by 8 weeks
Outpatient Pearl	For the time taken for every 1 outpatient treated with iron sucrose, 10 could be treated with Iron Isomaltoside	
	Inpatients who have started iron sucrose in hospital should be transitioned to Isomaltoside as an outpatient	

*Iron Isomaltoside (Monoferric™) is currently not covered under the provincial drug plan



Version: Final (December 16, 2019)

Saskatchewan Immune Globulin Stewardship Program

Frequently Asked Questions - Practitioners



Saskatchewan Immune Globulin Stewardship Program

Frequently Asked Questions—Practitioners

Q: What is the Saskatchewan Immune Globulin (IG) Stewardship Program?

A: This program was created to oversee Saskatchewan's IG use and provide safe quality care to the residents.

Q: Why is this important?

A: An impending world-wide shortage of IG supply may cause problems for those who need IG products. IG is a critical treatment for some people with underlying health conditions, and may be used in clinical situations. The goal is to ensure that IG is used only for approved reasons, in the right amounts, and for only as long as needed.

Q: Why is there an impending shortage?

A: The world-wide supply of IG was already low before the COVID-19 pandemic. Now, the pandemic has made IG production difficult to the point that demand for IG may be higher than supply in Canada by late 2021. Provincial stewardship and conservation measures need to be started as soon as possible to ensure that IG is available for those who need it most.

Q: How will patients who need IG therapy continue to receive it?

A: Patients who are currently receiving IG treatment will continue the same process until they are up for renewal. When patients visit their prescribing doctors, they will have their weight and dose verified. The IG Stewardship Program will notify the patient's prescribing doctor about the possibility of subcutaneous administration for future doses. The prescribing doctor will contact the patient to notify them of the change and ensure supplies/set-up are available.

Q: What approach have other provinces taken?

A: Many other provinces have IG stewardship programs which influenced the development of this program. Through the Prairie Collaborative Immune Globulin (IG) Utilization Management Framework project, a clinical guideline for the criteria of IG was created. As a result, it is the expectation that Alberta, Saskatchewan, and Manitoba create a stewardship program to conserve IG while keeping patients safe.

CS-G-0005

October 2021
Page 1 of 3



Saskatchewan Immune Globulin Stewardship Program

Frequently Asked Questions—Practitioners

Q: What has been done in Saskatchewan so far?

A: Work on IG stewardship in Saskatchewan has been in development for a number of months. Work to date includes:

- Multidisciplinary collaboration with clinical standards to develop a provincial Adult 10% Intravenous Immune Globulin (IVIg) Practitioner Order Set
- Development of an interim IVIg prescriber/patient registry
- Development of education and communication plans to support rollout
- Recruitment of nurse navigators, data analyst, office administrative assistant, and project manager positions

Q: What are the key outcomes of this work?

A: The key outcomes of this work include:

- Create a patient/provider registry to collect data including patient medical condition, prescriber/specialty information, adjusted body weight dosing calculations, duration of orders, and patient outcomes
- Develop a provincial adult 10% IVIg practitioner order set
- Facilitate brand switching
- Province-wide expansion of Smart Pump 'generic' line for 10% IVIg products
- Configure laboratory information system (LIS) for all IG products and vial doses
- Control IG inventory
- Reduce IG wastage

Q: What is the criteria or definition of an urgent order for IG?

A: Outpatient IG orders are considered non-urgent, and inpatient IG orders are considered urgent.

Q: Who will be reviewing the IG orders?

A: The nurse navigators will be reviewing all outpatient orders prior to notifying the transfusion medicine lab and the infusion clinic. The transfusion medicine lab will review all inpatient orders. The IG Stewardship Program staff will enter the order details from both outpatient and inpatient clinics into the patient registry.

CS-G-0005

October 2021
Page 2 of 3



Saskatchewan Immune Globulin Stewardship Program

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CS-G-0005

October 2021
Page 1 of 3

SHA CS-OS-1910 Adult 10% Intravenous Immune Globulin (IVIG) Order Set



ADULT 10% Intravenous Immune Globulin (IVIG) Order Set			
Allergies: <input type="checkbox"/> See Regional Allergy / Intolerance Record OR:		Patient Weight <i>Refer to page 2 for Actual and Adjusted Body Weight and Height</i>	
To complete the order form, fill in required blanks and check the appropriate boxes (<input type="checkbox"/>). Pre-checked boxes (<input checked="" type="checkbox"/>) are initiated automatically. To delete orders, draw one line through the item and initial.			
This form must be completed on initial or renewal requests for IVIG on all patients, regardless of indication. Informed Consent is required prior to initiating IVIG Therapy. Please attach to outpatient orders.			
Practitioner Information			
Requesting Most Responsible Practitioner (MRP) FULL Name: _____			
License number: _____		MRP Specialty: _____	
Clinic Name/Address: _____			
Phone number: _____		Fax: _____	
Email: _____			
IVIG Request			
<input type="checkbox"/> Inpatient		Date Requested: _____	
<input type="checkbox"/> Outpatient		Date Requested: _____	
Anticipated Treatment Start Date: _____		Fax to local Transfusion Laboratory	
Infusion Site/Facility: _____		Fax to IG Stewardship Program: (306) 766-3509	
<input type="checkbox"/> Inpatient unit: _____		or email: igstewardshipprogram@saskhealthauthority.ca	
<input type="checkbox"/> Initial Request: Maximum 6 months duration		Location/City/Town: _____	
<input type="checkbox"/> Renewal Request: A reassessment must be done to confirm IG treatment continues to be effective and that minimum effective dose is being applied. Maximum 6 months duration.		<input type="checkbox"/> Outpatient department: _____	
<input type="checkbox"/> IG Stewardship Program to contact me (the patient's MRP), by email about the possibility of subcutaneous administration for future doses.			
Patient Clinical Information			
Diagnosis: _____			
Indication for IVIG therapy (if different from diagnosis): _____			
Previous reaction to IVIG: <input type="checkbox"/> No <input type="checkbox"/> Yes (specify reaction): _____			
FOR INITIAL ORDERS, indicate alternate treatments prior to IVIG therapy <input type="checkbox"/> None			
1. Treatment:			
Outcome:	<input type="checkbox"/> No response	<input type="checkbox"/> Intolerance	<input type="checkbox"/> Contraindicated
2. Treatment:			
Outcome:	<input type="checkbox"/> No response	<input type="checkbox"/> Intolerance	<input type="checkbox"/> Contraindicated
3. Treatment:			
Outcome:	<input type="checkbox"/> No response	<input type="checkbox"/> Intolerance	<input type="checkbox"/> Contraindicated
Practitioner:	_____	_____	_____
	PRINTED NAME	SIGNATURE	DATE/TIME

Approved by: Department of Laboratory Medicine, Division of Transfusion Medicine June 2021

Approved for use by: SHA Multidisciplinary Clinical Practice Oversight Committee July 2021

Revision Date: July 2024

CS-OS-1910 September 27, 2021

Page 1 of 4


SHA CS-OS-1910 Adult 10% Intravenous Immune Globulin (IVIG) Order Set

SHA CS-OS-1911 Pediatric 10% Intravenous Immune Globulin (IVIG) Order Set



PRACTITIONER ORDER SET

Site/Facility _____

PEDIATRIC 10% INTRAVENOUS IMMUNE GLOBULIN (IVIG) Order Set			
Allergies: <input type="checkbox"/> See Regional Allergy / Intolerance Record OR:		Patient Weight <i>Refer to page 2 for Height and Actual and Adjusted Body Weight</i>	
To complete the order form, fill in required blanks and check the appropriate boxes (<input type="checkbox"/>). Pre-checked boxes (<input checked="" type="checkbox"/>) are initiated automatically. To delete orders, draw one line through the item and initial.		Processed (Initials) Care Plan MAR REQ SCM	
This form must be completed on initial or renewal requests for IVIG on all pediatric patients, regardless of indication. Informed consent is required prior to initiating IVIG Therapy. Attach consent to outpatient orders. ORDERS WITHOUT INFORMED CONSENT WILL NOT BE PROCESSED AND WILL BE RETURNED.			
Practitioner Information			
Requesting Most Responsible Practitioner (MRP) FULL Name: _____			
License number: _____ Specialty: _____			
Clinic Name/Address: _____			
Phone Number: _____ Fax: _____			
Email: _____			
IVIG Request			
<input type="checkbox"/> Inpatient/Urgent Outpatient Date Ordered: _____ Fax to local Transfusion Laboratory <input type="checkbox"/> Non-Urgent Outpatient Date Ordered: _____ <input checked="" type="checkbox"/> For non-urgent requests, fax to IG Stewardship Program: (306) 766-3509 or email igstewardshipprogram@saskhealthauthority.ca			
Anticipated Treatment Start Date: _____			
Infusion Site/Facility: _____ Location/City/Town: _____			
<input type="checkbox"/> Inpatient unit: _____ <input type="checkbox"/> Outpatient department: _____ <input type="checkbox"/> Initial Request: Orders expire 6 months from completion of first dose. <input type="checkbox"/> Renewal Request: A reassessment must be done to confirm IG treatment continues to be effective and that minimum effective dose is being applied. Orders expire 6 months from completion of first dose. <input type="checkbox"/> IG Stewardship Program to contact me (the patient's MRP) by email about the possibility of subcutaneous administration for future doses. NOTE: Ensure email address provided above.			
Patient Clinical Information			
Diagnosis: _____			
Indication for IVIG therapy (if different from diagnosis): _____			
Previous reaction to IVIG: <input type="checkbox"/> No <input type="checkbox"/> Yes (specify reaction): _____			
<input checked="" type="checkbox"/> Attach copy of signed informed consent to outpatient order			
Practitioner:			
PRINTED NAME		SIGNATURE	
		DATE/TIME	

Approved by: Department of Laboratory Medicine, Division of Transfusion Medicine April 2022

Approved for use by: SHA Order Set Committee May 2022

CS-OS-1911 June 19, 2023

Inquiries about this order set can be sent to SHAOrderSets@saskhealthauthority.ca

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SHA CS-OS-1911 Pediatric 10% Intravenous Immune Globulin (IVIG) Order Set

SHA CS-OS-1912 Measles Post-Exposure Prophylaxis (PEP) - Intravenous Immune Globulin (IVIG)



PRACTITIONER ORDER SET

Site/Facility _____

Measles Post-Exposure Prophylaxis (PEP) - Intravenous Immune Globulin (IVIG) Order Set for Emergency Department Use Only			
Allergies: <input type="checkbox"/> See Regional Allergy / Intolerance Record OR:		Patient Weight and Height: _____ kg _____ cm	
To complete the order form, fill in required blanks and initial the appropriate boxes (). Pre-checked boxes () are initiated automatically. To delete orders, draw one line through the item and initial.		Processed (Initials) Care Plan MAR FAX REQ SCM	
IG Order and Dosing			
<input checked="" type="checkbox"/> Consult Public Health to confirm the route and dose of Immune Globulin (IG) appropriate for Measles PEP. For patients 30 kg or greater or who are determined eligible for IVIG by Public Health: Give IVIG: 0.4g/kg x _____ kg (dosing weight) = _____ g total Use the Alberta Health Services IVIG Dosing Calculator ; actual patient height and weight is required for adjusted body weight (dosing weight) calculation. For questions regarding appropriate weight and dosing or assistance (e.g. patients less than 30 kg, pregnant patients) contact the Transfusion Medicine physician on call: 306-655-1000. NOTE: In most circumstances, dosing for children and pregnant patients are calculated based on actual body weight. Prior to IVIG administration, the MRP must obtain Informed Consent for Blood Product administration. Follow local policy. If questions arise, contact the Public Health Nurse or Medical Health Officer on call.		ABW Dosing Calculator 	
Faxing Completed IVIG Order Set and Blood Consent Form			
<input checked="" type="checkbox"/> Fax signed order set <u>and</u> blood consent form to local Transfusion Medicine Laboratory			
Nursing Considerations			
IVIG Administration: <input checked="" type="checkbox"/> Follow local policy/procedure or SHA Intravenous Immunoglobulin, 10% - (Immune Globulin IVIG) product monograph Adverse Reactions: <input checked="" type="checkbox"/> Complete a Saskatchewan Transfusion Adverse Event Report (SK TAER) Form and submit to local Transfusion Medicine Laboratory			
Transfusion Medicine Laboratory Use Only			
<input checked="" type="checkbox"/> Fax completed order set and blood consent form to IG Stewardship Program: (306) 766-3509			
Practitioner:	PRINTED NAME	SIGNATURE	DATE/TIME

Approved by: Department of Laboratory Medicine, December 2023

Approved for use by: SHA Order Set Committee, January 2024

CS-OS-1912 January 22, 2024

Inquiries about this order set can be sent to SHAOrderSets@saskhealthauthority.ca

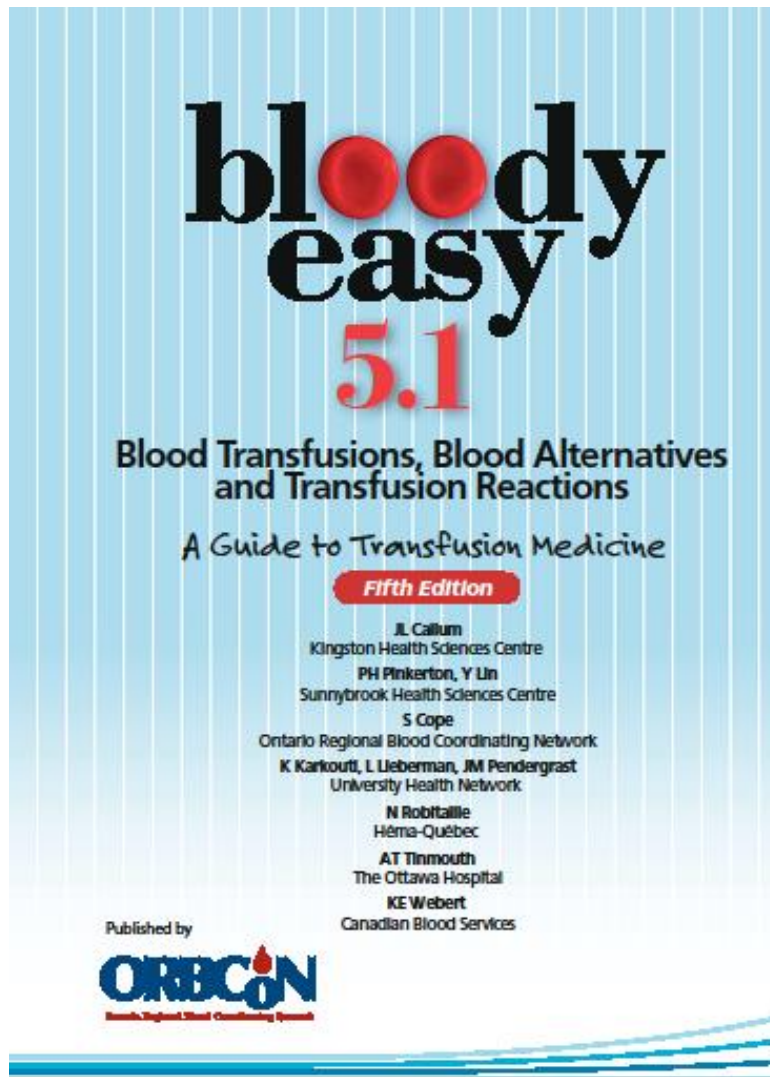
Page 1 of 1

SHA CS-OS-1912 Measles Post-Exposure Prophylaxis (PEP) - Intravenous Immune Globulin (IVIG)

For more information and for all resources, please visit [SaskBlood.ca](https://www.saskblood.ca)

Version: 17 – September 3, 2024

Bloody Easy Resources – Ontario Regional Blood Coordinating Network (ORBCoN)



- [Bloody Easy Tech Assess & Audits](#)
- [Bloody Easy for Healthcare Professionals](#)
- [Bloody Easy Blood Administration](#)
- [Bloody Easy Lite](#)

Links of Interest

1. https://www.youtube.com/playlist?list=PLMkHqTQIO1lID0DP7VeHhXAgKPd_MfKzM



3. <https://www.blood.gov.au/health-professionals>



4. <https://www.sabm.org/>



Contacts

Regina and Area Patient Blood Management Program/Transfusion Safety Team



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Anesthesiologist & Physician Lead
for the Patient Blood Management
Program

Saskatchewan Health Authority
Regina General Hospital
Room 3B10

Phone: 306-766-3491

Email:

pbm@saskblood.ca or
ryan.lett@saskhealthauthority.ca

Manager, Transfusion Safety/Patient
Blood Management, Southern
Saskatchewan
Saskatchewan Health Authority
Regina General Hospital
Room 3B10
Phone: 306-766-3109



Cherie Lunam

Confidential Administrative Assistant
Transfusion Medicine, Southern
Saskatchewan
Saskatchewan Health Authority
Regina General Hospital
Room 3B10

Phone: 306-766-0628

Email:

cherie.lunam@saskhealthauthority.ca

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Patient Blood Management Coordinator
IDA Clinical Trial Coordinator
Saskatchewan

Saskatchewan Health Authority
Regina General Hospital

Phone: 306-766-3134

Fax: 306-766-3466

Email: virginia.orthner@saskhealthauthority.ca

Holly Schaeffer, RN, BScN

Immunoglobulin Nurse Navigator Transfusion Safety
Southern Saskatchewan Saskatchewan Health Authority
Regina General Hospital Authority

Room 3B10 Room 3B10

Phone: 306-766-3135

Fax: 306-766-3509

Email: igstewardshipprogram@saskhealthauthority.ca

Transfusion Medicine Support

Dr. Reshma Khoosal

Reshma Khoosal, MSc, MD, FRCPC
Hematopathologist, Regina Area

Saskatchewan Health Authority
Regina General Hospital

Email: reshma.khoosal@saskhealthauthority.ca