

**Red Blood Cell
Screening FAQs for
Clinical Staff**

Since the implementation of red blood cell (RBC) screening in the Edmonton and North Zones, there have been some questions from the clinical services. This Frequently Asked Questions (FAQs) resource has been compiled to address those that are most commonly received.

RBC Screening FAQs

1. Why is RBC screening being done?
 - To reduce unnecessary transfusions to decrease risk to patients, decrease RBC demand, and to reduce associated costs to the health care system. RBC screening also aligns with Choosing Wisely Canada recommendations that transfusion decisions for stable, non-bleeding inpatients be based on symptoms and hemoglobin concentration, and recommend single unit transfusions. Additional units should only be prescribed after re-assessment of the patient and their hemoglobin value.
2. Which patients does RBC screening affect?
 - ER and inpatient adult patients who are asymptomatic, hemodynamically stable and not bleeding.
3. Which patients are exempt from RBC screening?
 - Patients who are hemodynamically unstable or experiencing life-threatening bleeding; post-operative vascular or cardiac surgery patients (up to 48h post-op); pediatric and neonatal patients; as well as patients in: trauma rooms, operating rooms (OR), Post-Anesthesia Recovery Rooms (PARR)/Post-Anesthesia Care Units (PACU), and outpatient units (including Cancer Care and Medical Day units).
 - Those demonstrating significant symptoms from impaired oxygen delivery such as elevated heart rate, dizziness or fainting, or cardiac symptoms like chest pain or shortness of breath are also exempt.
 - **Please note that it is critical for the MRHP (Most Responsible Health Practitioner) that is placing the red cell order to include the information that the patient is unstable, bleeding and/or significantly symptomatic from anemia to ensure that information gets reliably communicated to the laboratory staff.**
4. Why are post-operative vascular and cardiac surgery patients excluded? Shouldn't all post-operative patients be considered equally? Why are post-operative vascular and cardiac surgery patients excluded for only 48h post-op?
 - It is not actually the bleeding risk that excludes these patients. It is due to vascular insufficiency issues that would raise the thresholds that make cardiac and vascular patients different.
 - Up to 48h post-op, these patients are still considered 'perioperative,' and are thus excluded from RBC screening.
5. Are patients sent to an emergency department for transfusion by their family physician due to ordering privileges exempt from RBC screening?
 - No. Since the patient is in the ER, RBC screening will apply.

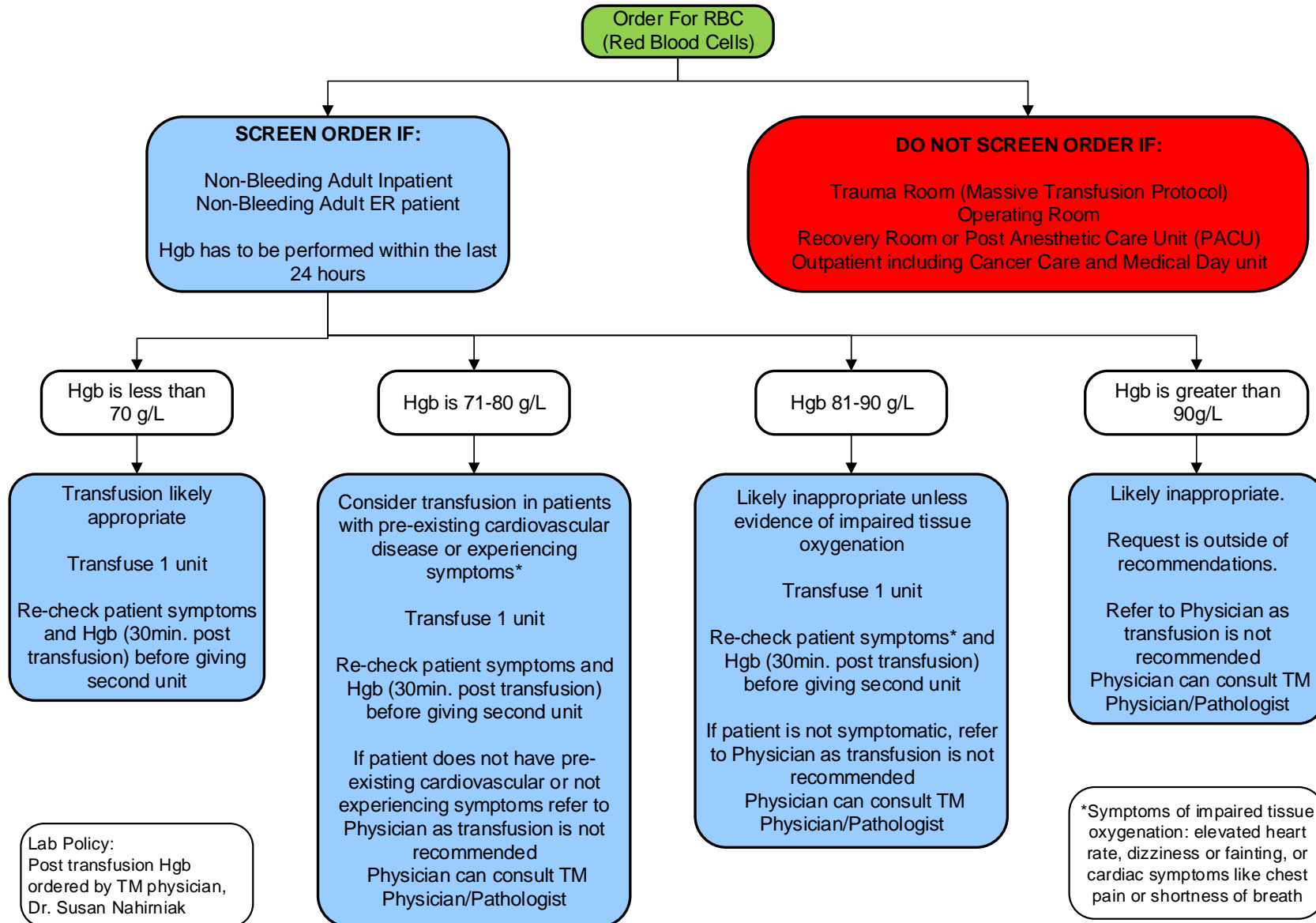
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6. Are dialysis patients exempt from RBC screening?
 - Dialysis patients generally have a lower hemoglobin (Hb) trigger for RBC transfusion in dialysis to avoid sensitizing them for future transplants, so this should not be an issue with screening criteria for **inpatient** dialysis.
 - RBCs as part of **outpatient** dialysis are **NOT** screened.
7. Which should be drawn post-transfusion- a Hb or CBC? Is a blood gas Hb acceptable?
 - Hb only.
 - Blood gas measurements of Hb are acceptable
8. Within what time frame of the RBC request does the Hb result have to be?
 - Within the past twenty-four (24) hours of the RBC request.
9. What time-frame should a post-transfusion Hb be drawn?
 - Thirty (30) minutes post-transfusion.
10. If Hb is 'trending down,' is this considered bleeding?
 - Trending down with a Hb drop of ≥ 10 g/L in 24h or less = blood loss or hemolysis. However, if red cell transfusion is deemed necessary when placing the order please indicate that the patient is bleeding.
11. What about patient care unit- specific protocols that necessitate different transfusion requirements?
 - If patient care units state that they wish to follow their protocol on the inpatient physician orders, RBC units will be issued with a comment that it does not meet organizational policy but no additional screening will be undertaken by Transfusion Medicine (TM) front-line staff or TM physicians.
 - Evidence indicates that restrictive protocols are safe in non-bleeding adult inpatients, including hematology patients undergoing chemotherapy. Additional inappropriate transfusions increase the alloimmunization and transfusion reaction risks for these patients.
 - Review of all red cell issues released with the comment will occur at the Edmonton Zone Transfusion Medicine Committee as part of ongoing quality improvement.
12. What if the patient has other exemptions that warrant RBC transfusions?
 - If an exemption is required that has not yet been communicated in the inpatient physician orders, the patient's physician should be notifying the TM physician on a case-by-case basis.

For any additional questions or concerns, please do not hesitate to contact your local Transfusion Medicine Physician/ Pathologist on call, local Transfusion Safety Coordinator or Dr. Susan Nahirniak (Section Chief of Transfusion Medicine, APL North Sector) for further clarification.

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