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| Manual | Transfusion Medicine | PROCEDURE**TEMPLATE** |
| Section | Inventory Management |
| **Title: Prospective Screening Transfusion Orders *(for Technologists)*** |
| Issued by |  | **ID:**  |
| Approved by |  |
| Effective DateRevised Date |  | Version: 1 |

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| **Final** |

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| Controlled document. Any documents appearing in paper form must be used for reference purposes only. The on-line copy on the file server above must be considered the current documentation. |

# Policy:

# All blood product orders for non-bleeding inpatients and non-bleeding emergency room shall be screened by the technologist for appropriateness.

# All orders for blood products must be escalated for medical review if they do not meet the established transfusion guidelines.

# Orders from the following areas are excluded from screening: Trauma Room, Operating Room, Recovery Room (PACU) and Outpatient Clinics (including Cancer Care and Medical Day Unit)

# Purpose: This procedure outlines the process for technologists to triage blood product requests for:

# Correct patient

# Appropriateness

# Correct dose

# Correct timing of infusion (if patient is undergoing a procedure).

1. **Records/Forms/Documents:**
* Facility approved Transfusion Guidelines
* Facility Approved Order Set or LIS Generated blood product order sheet
* Screening Job Aid or Algorithms
* Prospective Screening Worksheet
1. **Quality Control:** All blood product orders must meet established transfusion guidelines for appropriate indication, appropriate dose, and appropriate timing before being issued out of the laboratory.
2. **Procedure:**

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| **Procedure Steps** | **Work Instructions** |
| Receive Order for blood products | * 1. Each order for blood products shall be reviewed by the technologist to ensure appropriate indication, dose and timing.
 |
| Review all relevant patient information | 1. Review relevant patient laboratory values (e.g. Hg, Plt count, INR)
2. Review patient diagnosis
3. Review patient symptoms

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| ***If:*** | ***Then:*** |
| The patient is bleeding and RBC or PLT is requested | No screening is necessary proceed to issue requested units |
| The patient is bleeding and Plasma is requested | Proceed to step 5.3 |
| The patient is not bleeding | Confirm:1. Is the patient symptomatic?
* Cardiac symptoms?
* Symptomatic anemia?

(includes dizziness, elevated heart rate or fainting)1. Does this patient have a history of cardiac disease?
 |

1. If any of the information is missing from the patient’s blood order contact the patient’s nurse or physician to provide the missing information
2. Once all information has been received and reviewed proceed to next step

 |
| 1. Review order for appropriate indication
 | * + 1. Screen the order for appropriateness using the job aids developed based on the established guidelines for transfusion of blood products

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| ***If*** | ***Then*** |
| The order meets the established guidelines | * Issue the product as per facility established procedure
 |
| The order is suspected to be inappropriate *(See 5.3.2)* | * Review with patient’s care team
 |
| The order is still deemed suspect after review with clinical team | * The order must be reviewed by a transfusion medicine physician before the product may be released.
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* + 1. Refer to the guide to identifying inappropriate orders is shown below; also refer to the job aid or algorithm for the specific product.

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| ***Inappropriate Order*** | ***Action*** |
| ***RBC Orders*** |
| Order for 2 RBC units in a non-bleeding patient with a hemoglobin greater than 60 g/L | * Inform the patient care team that the order for the second unit is outside the hospital guidelines
* Inform the ordering clinician that a repeat hemoglobin is required before the second unit can be released

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| If  | Then |
| Ordering clinician provides the repeat hemoglobin value | Proceed to step 5.4 |
| Ordering clinician does not provide a repeat hemoglobin | Proceed to step 5.3.3 |

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| Order for a non-bleeding patient with hemoglobin over 90 g/L | * Inform the patient’s care team that the order is outside the hospital guidelines and cannot be released without escalation to transfusion medicine physician
* Proceed to step 5.3.3
 |
| Order for a non-bleeding patient without cardiac history or symptomatic anemia (e.g., elevated heart rate, dizziness, fainting, or experiencing chest pain or shortness of breath) and hemoglobin over 70 g/L | * Inform the patient’s care team that the order is outside the hospital guidelines and cannot be released without escalation to transfusion medicine physician
* Proceed to step 5.3.3
 |
| Order for a non-bleeding patient with clear iron deficiency anemia (low MCV, low ferritin) and hemoglobin over 60 g/L | * Proceed to step 5.3.3
 |
| ***PLT Orders*** |
| Procedure not associated with significant blood loss and therefore are not required to elevate PLT counts which include: intravenous lines, arterial lines, PICC lines, thoracentesis, paracentesis, bone marrow procedure | * Inform the patient’s care team that the order is outside the hospital guidelines and cannot be released without escalation to transfusion medicine physician
* Proceed to 5.3.3
 |
| ***Plasma Orders*** |
| Procedures not associated with significant blood loss and therefore do not require plasma for elevated INR/PTT which include:Intravenous lines, arterial lines, PICC lines, thoracentesis, paracentesis, bone marrow procedure | * Inform the patient’s care team that the order is outside the hospital guidelines and cannot be released without escalation to transfusion medicine physician
* Proceed to step 5.3.3
 |

* + 1. Page the transfusion medicine physician on call to review the available information prior to release of the product.
		2. Orders for blood due to life threatening bleeding for patients in the operating and trauma rooms will be exempt from the screening process due to potential for delaying a life-saving transfusion. The Chief of the Department of Anesthesia (or delegate) and the Chief of Emergency are responsible for ensuring that the transfusions administered within the operating and trauma rooms are appropriate.
		3. Document all communication between the patient’s care team, ordering clinician and transfusion medicine physician either by using the Prospective Screening Transfusion Orders Worksheet or by entering information into the relevant blood bank specimen number in the LIS
		4. Proceed to 5.4
 |
| 1. Review order for appropriate dose of product
 | * + 1. Review all requests to ensure that the clinical team has not made a dosing error.
* Common adult dosing errors include 2 units of RBCs, 1-2 units of plasma, 2 doses of platelets, fewer than 10 units of cryoprecipitate

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| ***If*** | ***Then*** |
| Dosing error has not been suspected | * Proceed to step 5.5
 |
| Dosing error is suspected | * Call the patient’s care team to clarify, if the dosing error changes to follow established guidelines proceed to step 5.5
 |
| Dosing error still suspected after review with patient care team | * Inform patient care team that the order must be reviewed by a transfusion medicine physician before product can be issued proceed to 5.4.2
 |

* + 1. Page the transfusion medicine physician on call to review and clarify the dosage prior to release of product
		2. Document all communication between the patient care team, ordering clinician and transfusion medicine physician either by using Prospective Screening Transfusion Orders Worksheet or by entering information into the relevant blood bank specimen number in the LIS
		3. Proceed to step 5.5
 |
| 1. Review order for appropriate timing of infusion
 | * + 1. Review all requests for RBCs, Platelets, Plasma and Cryoprecipitate and coagulation factors for patients undergoing invasive procedures or surgical operations to ensure correct timing of the infusion.
* Common timing errors include: transfusing RBCs in advance of surgery to reach an arbitrary hemoglobin level (commonly 90-100 g/L), or transfusing plasma or platelets the day before the planned procedure

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| ***If*** | ***Then*** |
| Timing error is not suspected | * Proceed to step 5.6
 |
| Timing error is suspected | * call the patient’s care team to clarify
* if the order is changed to follow established guidelines proceed to step 5.6
 |
| Timing error is still suspected after review with the clinical team | * inform the patient’s care team that the order must be reviewed by a transfusion medicine physician before the product may be issued
* proceed to step 5.5.2
 |

* + 1. Page the transfusion medicine physician on call to review and clarify the timing prior to release of the product
		2. Document all communication between the patient care team, ordering clinician and transfusion medicine physician either by using Prospective Screening Transfusion Orders Worksheet or by entering information into the relevant blood bank specimen number in the LIS
		3. Proceed to step 5.6
 |
| 1. Issue products
 | * + 1. Once the order has been reviewed

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| ***And If*** | ***Then*** |
| Deemed appropriate | Follow facility established procedures to issue blood product requested |
| Deemed inappropriate | Ensure all documentation is complete and file  |

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1. **Procedure Notes:**

*Not applicable*

# References:

*Not applicable*

# Related Documents:

*Not applicable*

# Appendices:

Appendix 1 Prospective Screening of Transfusion Order (*for Technologists)* – Job Aid

Appendix 2 Prospective Screening of Transfusion Order (*for Technologists) - Algorithms*

Appendix 3 Prospective Screening of Transfusion Order (*for Technologists) -* Worksheet