APPROPRIATE BLOOD COMPONENT ORDERING

Patient safety within the transfusion process starts with the right order with the right indication for the right blood component written by a licensed provider. Transfusion education has historically been very limited and not based on the current evidence, which leads to the suboptimal practice of providers leaning on colleagues and their acquired experience. It is essential that all clinicians, including nurses, perfusionists, and other health-care workers having responsibilities within the transfusion process examine each blood component order carefully for accuracy and appropriateness.

Blood Component Orders

Blood product/component orders should be patient specific according to the clinical situation. Blood product order sets standardize choices that clinicians must consider when ordering a blood component transfusion. Blood component order sets allow timely completion of orders by including:

- Indication for blood component.
- Type of blood component.
- Dose (number of units or mL).
- Priority of blood component (emergency, stat, or routine).
- Attributes (or special manipulations) for each component and patient-specific scenario (eg, irradiated, washed, CMV negative).
- Rate of transfusion.
- Posttransfusion laboratory testing (patient response).
- Quality indicators for transfusion (component-specific ordering guideline established by an individual institution's transfusion committee, patient blood management committee, or quality committee).

Blood product order sets can thus help guide and inform clinicians about appropriate transfusion and help prevent inappropriate blood component ordering.

In addition, electronic order sets can use clinical decision support to implement built-in "rules" that automatically reference a patient's medication record, coding information, or laboratory values. Such rules remind the clinician when an order does not appear to follow evidence-based guidelines. Rules may include indications for certain components, appropriateness of processing attributes, or warnings of possible indications for additional considerations [eg, a drop-down box may appear that questions the appropriateness of an order for Red Blood Cells (RBCs) for a patient with a current hematocrit value of 31%]. Ideally, programming can allow clinicians to override rules or to require provider justification, creating a report to designated auditors for quality assessment review.

Quality assessment of blood component administration requires both prospective and retrospective review of blood component orders. As with other medical orders, a careful review is necessary to verify appropriateness, completeness, and understandability.

Consent for Transfusion

Consent for transfusion is an informed process, not simply the completion of a form. It requires an authorized provider (physician, nurse practitioner, or physician's assistant) to discuss the risks, benefits, and alternatives to transfusion with the patient and/or the patient's family or guardian. Information about the possible consequences of refusal of transfusion should also be included in this discussion. In 1994, The Joint Commission included standards indicating that documentation of this discussion must appear in the patient's record (OP.1.2). In 1995, this requirement moved to standard TX.5.2.2. Patient consent or refusal for transfusion should be documented in progress notes or patient's chart. Consent forms for surgical procedures often incorporate paragraphs specific to the discussion of blood component transfusion. Blood transfusions are no longer specifically mentioned in the patient consent standards (RI.2.40).[6] Quality assessment of transfusion should include verification that consent for transfusion has been performed and obtained before any nonemergency blood component administration.

Refusal of Transfusion

A patient's/family's specific wishes to not receive blood components or blood derivatives should be documented in the patient's record. The action of refusing to sign a specific "Consent for Transfusion" form does not constitute documentation of such a refusal. AABB *Standards* state that at a minimum, elements of consent shall include 1) a description of the risks, benefits, and treatment alternatives (including nontreatment); 2) the opportunity to ask questions; and 3) the right to accept or refuse transfusion.[4(p49)]

In addition, transfusing institutions that have developed a specific form for consent for transfusion should include language that 1) allows a primary-care provider to delineate, and the patient to sign in agreement, that specific blood components or derivatives are unacceptable to the patient for transfusion and 2) indicates the patient's acknowledgement of the consequences of this decision.

Auditing of the Orders and Consent for/Refusal of Transfusion

Assessments of compliance with established blood component ordering practices and procedures should be performed to ensure patient safety and compliance with patient wishes. Auditing the quality of blood component orders includes several important steps with questions that investigate not only the transfusions that were given but also the situations that might have resulted in transfusion:

1. Is the order complete?
    a. Does the order include the indications for transfusion, type of component, rate of administration, patient identification, and instructions for priority of the transfusion?
    b. If written, is the order legible and understandable?
    c. Has a physician, nurse practitioner, or physician's assistant discussed the risks, benefits, and alternatives of the transfusion with the patient/family/guardian; and has the patient's agreement been documented and witnessed before all routine transfusions?
2. Is the ordered transfusion appropriate according to established institutional guidelines, quality indicators, or transfusion thresholds?