

# Quick Reference Guide – Response to Transfusion Reaction

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**For ALL suspected blood component/product transfusion reactions:**

1. STOP the transfusion. Do NOT infuse the remaining blood component/product in the line.
  - Disconnect the set from the IV site, and maintain sterility of the blood product and IV set.
  - Give N/S (or D5W for IVIG infusion) TKVO with new IV set.
2. ASSESS the patient's vital signs and symptoms and stabilize the patient.
3. RECONFIRM unique identifiers on both patient and blood component/product as per facility policy and procedures.
  - Verify the information is IDENTICAL on the (1) patient's ID band, (2) issue document/tag, and (3) blood component/product label.
  - Call the Transfusion Medicine Service (TMS/Lab) IMMEDIATELY if an error has occurred. Another patient may be at risk.
4. NOTIFY the attending physician or designate of the reaction.
  - Follow the physician's instructions for the treatment and management of the clinical symptoms.
  - Obtain orders for a chest x-ray if the patient exhibits hypoxemia ( $SpO_2 < 90\%$  or  $PaO_2 < 60\text{mm Hg}$  on RA, or  $PaO_2/FIO_2$  ratio  $\leq 300$ )
  - Obtain orders for aerobic and anaerobic blood cultures if criteria are met for suspected bacterial contamination (see Tables 1 & 2).
  - Call the TMS/Lab IMMEDIATELY if the patient has any of the following:
    - new onset red/brown urine , or
    - sudden onset of hypoxemia ( $SpO_2 < 90\%$  or  $PaO_2 < 60\text{mm Hg}$  on RA, or  $PaO_2/FIO_2$  ratio  $\leq 300$ ), or
    - sudden onset of hypotension ( $\geq 30$  mm Hg drop in systolic BP and a systolic BP below 80 mm Hg), or
    - if you suspect bacterial contamination of the product (see Table 2),
5. INITIATE the transfusion reaction investigation.
  - SEND samples and sealed blood component/product to TMS/Lab. (see Table 1).
  - PROMPTLY send completed Transfusion Reaction Report to TMS/Lab for all transfusion reactions.

Table 1 Clinical Signs & Symptoms (S/S)	Send to TMS/Lab			"Ongoing Transfusion Care"
	Form	Sealed Blood Product	Patient Samples	
IVIG related, mild transient S/S - side effects that resolve with reduced flow rate or medication	No	No	None	May restart the transfusion at a slower rate with appropriate medication and frequent vital signs if ordered by the physician after consultation on the patient's condition.
Urticaria or pruritus with any blood component/product	Yes	No	None	
IVIG related S/S that are moderate or severe or unresponsive to "Ongoing Transfusion Care"	Yes	No	None	<b>Do NOT restart the transfusion</b>
Suspected bacterial contamination (see Table 2 for S/S)	Yes	Yes (avoid contamination of product)	2 EDTA vials And - First voided post-reaction urine sample for routine urinalysis (may be sent later) And - Patient Blood Cultures are recommended	
All other unexpected signs or symptoms with any blood component /product	Yes	Yes (avoid contamination of product)	2 EDTA vials And - First voided post-reaction urine sample for routine urinalysis (may be sent later)	

**Table 2: SUSPECT Bacterial Contamination of the blood component/product IF patient has signs or symptoms A, B, C or D as follows:**

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| <p>A. Fever defined as an oral temperature <math>\geq 38^\circ\text{C}</math> AND <math>\geq 1^\circ\text{C}</math> rise in temperature above the pre-transfusion baseline PLUS any of the following signs and symptoms:</p> <ul style="list-style-type: none"> <li>• Rigors (involuntary shaking)</li> <li>• Nausea or vomiting</li> <li>• Dyspnea (shortness of breath)</li> <li>• Hypotension (systolic BP drop of <math>\geq 30\text{mmHg}</math> below the pre-transfusion baseline)</li> <li>• Tachycardia (HR <math>&gt; 40\text{bpm}</math> above pre-transfusion baseline)</li> <li>• Shock</li> </ul> | <p>OR</p> <p>B. Fever defined as an oral temperature <math>\geq 39^\circ\text{C}</math> AND <math>\geq 1^\circ\text{C}</math> rise in oral temperature above the pre-transfusion baseline even in the absence of other signs and symptoms</p> | <p>OR</p> <p>C. Fever not responding to antipyretics</p> <p>OR</p> <p>D. A high suspicion of sepsis even in the absence of fever</p> |
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