Transfusion Reaction Algorithm

Does the Patient have NEW onset signs and symptoms?

Temperature rise greater than 1°C	Chills	Jaundice
Shortness of breath (dyspnea)	Rigors	Hemoglobinuria
Tachycardia	Rash	Bleeding at IV site
Hypertension	Urticaria	Pain (back, chest,
Hypotension	Pruritus	bone, abdomen)
Hypoxemia		

STOP THE TRANSFUSION

1. Do not discard product
2. Maintain IV with normal saline. Use new IV set.
3. Contact MD/Designate for medical assessment/ treatment
4. Do vital signs at least every 15 minutes until stable
5. Perform visual assessment of product
6. Check for clerical discrepancy
7. Notify blood bank/lab

Clerical Discrepancy Check

1. Confirm patient identification
2. Confirm patient demographics and all documentation matches:
   a. ID band/health card
   b. Physician order in chart
   c. Tag on product
   d. Label on product
   e. Transfusion Medicine Results Report

NO DISCREPANCY

Minor symptoms ONLY:

Rash/urticaria/pruritus
Temperature rise greater than 1°C **AND** temperature less than 39°C **AND** no associated Major symptoms **AND** onset greater than 10 minutes into transfusion

Proceed as follows:

1. MD/Designate may order medication
2. Resume transfusion with *caution* if ordered by MD/Designate
3. Direct observation for first 15 minutes following transfusion re-establishment
4. For IVIG, if transient mild symptoms resolve with decreased flow rate, do not complete Transfusion Reaction Investigation Form (CM105)

OR

Clerical **DISCREPANCY**

Has the patient developed major symptoms?

YES

Major symptoms:

Hypotension/shock
Severe allergic reaction
Back/chest pain
Hypoxemia
Hemoglobinuria
Severe Respiratory Distress
Tachycardia/arrhythmias
Temperature greater than 39°C
Bleeding at IV site
Note: consult Transfusion Medicine MD on call if replacement blood products are required urgently

STOP/DO NOT CONTINUE TRANSFUSION

1. Notify the MD/Designate
2. Return the following to blood bank **STAT**:
   - Product and product tags
     Note: Remove blood set and clamp off port on component
   - Complete Transfusion Reaction Investigation Form (CM105) and collect post transfusion sample
   - If additional blood components are required, complete requisition and collect new sample for crossmatch
3. Consider laboratory testing and imaging (CBC, biochemistry, coagulation, urinalysis, chest X-ray)
4. Consider Bacterial Contamination and culture patient if:
   - Temperature rise more than 1°C AND greater than 39°C
   - Temperature rise greater than 1°C and between 38 and 39°C with rigors, hypotension, tachycardia, dyspnea and/or shock
   - Temperature rise not responding to antipyretic and/or suspicion of sepsis in absence of fever

NO

1. Continue the transfusion with vigilance
2. Complete the Transfusion Reaction Investigation Form (CM 105) and submit to blood bank

Additional resources:
www.bestbloodmanitoba.ca

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