Transfusion Reaction Algorithm

Patient has onset of NEW signs and symptoms

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

1. STOP THE TRANSFUSION

2. Do not discard product
3. Maintain IV with normal saline using new IV set
4. Contact MD/designate for medical assessment/treatment. Suspect transfusion reaction?
5. If yes, proceed with prescribed treatment and continue with Algorithm
6. Perform vitals every 15 minutes until patient is stable
7. Visually assess product
8. Check for clerical discrepancy
9. Notify blood bank

Clerical Discrepancy Check

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

NO DISCREPANCY

Minor symptoms ONLY:
Rash/urticaria/pruritus and/or Temperature rise greater than 1°C **AND** temperature 38°C to 38.9°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 if product not expired
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 identified

Has the patient developed major symptoms?

YES

Major symptoms:
Hypertension
Hypoxemia
Severe Respiratory distress
Temperature rise greater than 39°C
Hypotension/shock
Back/chest pain
Hemoglobinuria
Jaundice
Bleeding at IV site
Severe allergic reaction
Tachycardia/arrhythmias

STOP! DO NOT CONTINUE TRANSFUSION

1. Return the following to blood bank **STAT**:
   - Product with attached IV tubing. **All ports clamped and IV tubing capped. Product tags should not be removed at any point during transfusion.**
2. Complete the Transfusion Reaction Investigation Form CM105 and send to blood bank

NO

1. Continue the transfusion with vigilance
2. Complete the Transfusion Reaction Investigation form (CM105) and submit to blood bank

Turn Algorithm over for recommended investigation/actions and reporting information

Note: Consult Transfusion Medicine MD on call if replacement blood products are required urgently.

Additional resources:
www.bestbloodmanitoba.ca

Canadian Blood Services — it's in you to give
Shared health Soins communs Manitoba
BBM Best Blood Manitoba

Version 3 (Oct 2018)

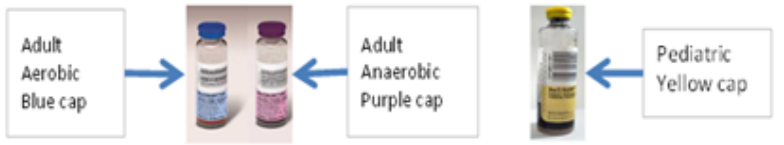
For all Suspected Major Transfusion Reactions

- Return product to blood bank STAT. Ensure tubing attached and all clamps closed.
- Send a type and screen following usual protocol
- Notify health care provider who ordered blood product of the transfusion reaction
- Complete the "Transfusion Reaction Investigation Form" CM105 and send to the blood bank

Signs and Symptoms	Recommended Investigation / Actions
• Temperature rises to greater than 39°C or • Temperature rise not responding to antipyretics or • Temperature 38°C to 39°C and Chills/Rigors or Hypotension/Shock or Tachycardia or Severe Respiratory distress or • Suspicion of sepsis in absence of fever	☐ Draw Blood Cultures from patient ☐ If bacterial contamination suspected, antibiotics should strongly be considered ☐ Monitor patient for signs and symptoms of shock
• Rash or urticaria accompanied by any major symptom	☐ Chest x-ray if dyspneic ☐ Monitor for shock, epinephrine may be required
• Severe hypertension assosciated with hypoxemia and severe respiratory distress, signs of fluid overload	☐ Consider a chest x-ray ☐ Monitor SpO2 ☐ Patient may require oxygen and diuretics
• Severe hypotension assosciated with hypoxemia and severe respiratory distress	☐ Consider hemolytic or DIC (Disseminated intravacular coagulation) work up ☐ Chest x-ray if dyspneic ☐ Consider bacterial sepsis or allergic reaction work up

Required Blood for Blood Cultures- Reference Guide

Adults			Pediatrics		
Volume	Site	BottleType	Weight	Volume	Number of Bottles
10ml	peripheral	aerobic	<4kg	1ml	1 pediatric
10ml	peripheral	anerobic	4-<9kg (20lbs)	2-4ml	1 pediatric
10ml	second peripheral site	aerobic	9-27kg(20-60lbs)	10ml	3 pediatric or 1 adult aerobic
			28kg(61+lbs)	30ml	2 adult aerobic and 1 adult anaerobic



If TRALI (Transfusion Related Acute Lung Injury) is suspected the physician treating the patient must contact the TM physician on call and complete the "TRALI Patient Data Form"
https://blood.ca/sites/default/files/TRALI_Patient_Data.pdf

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