Quick Reference Guide - Response to Transfusion Reaction

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 mm Hg on RA, or PaO_2/FIO_2 ratio ≤ 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 mm Hg on RA, or PaO_2/FIO_2 ratio ≤ 300), **or**
     - **sudden onset of hypotension** (≥ 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. Order TRX.
   - **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: Form	Send to TMS/Lab: Sealed Blood Product	Send to TMS/Lab: Patient Samples (order TRXTST if required)	Ongoing Transfusion Care
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	**Do NOT restart the transfusion**
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:

A. Fever defined as an oral temperature ≥ 38℃ **AND** ≥ 1℃ rise in temperature above the pre-transfusion baseline
PLUS any of the following signs and symptoms:
- Rigors (involuntary shaking)
- Nausea or vomiting
- Dyspnea (shortness of breath)
- Hypotension (systolic BP drop of ≥ 30 mm Hg below the pre-transfusion baseline)
- Tachycardia (HR > 40 bpm above pre-transfusion baseline)
- Shock

OR

B. Fever defined as an oral temperature ≥ 39℃ **AND** ≥ 1℃ rise in oral temperature above the pre-transfusion baseline **even in the absence of** other signs and symptoms

OR

C. Fever not responding to antipyretics

OR

D. A high suspicion of sepsis even in the absence of fever

Proof Only - Not Approved for Use

Reference document: BC Provincial Model Document BC TTISS TT1.0001 Ver 2.0 Aug 2011 Print Shop # 253738

fraserhealth

TRANSFUSION REACTION REPORT

☐ ARH ☐ BH ☐ CGH ☐ DH ☐ ERH ☐ FCH ☐ JPOCSC ☐ LMH ☐ MMH
☐ PAH ☐ RCH ☐ RMH ☐ SMH

Form ID: LBXX100048D Rev: Apr 20, 2017 Page: 1 of 2

Diagnosis:

Indication for Transfusion:

Category: ☐ Hematology/BMT ☐ Oncology ☐ Medical ☐ Surgical ☐ Obstetrics/Gyn/Perinatal ☐ Trauma ☐ Neonatal

1. Patient and Blood Component/Product Unique Identifier Verification (Clerical Check)

Is the information **IDENTICAL** on all the following: • Patient ID band • Issue document/tag • Blood component/product label? ☐ **YES** ☐ **NO**

IF NO, contact TMS/Lab **IMMEDIATELY Another patient may be at risk.** Date / Time TMS/Lab notified:

2. Clinical History (Check all that apply)

☐ Pre-existing fever ☐ History or evidence of circulatory overload ☐ Immune-compromised (specify):

☐ Transfused under GENERAL anesthesia ☐ Transfused under REGIONAL anesthesia ☐ Transfusion medication (specify):

Patient currently prescribed: ☐ ACE inhibitor ☐ Diuretic ☐ Antibiotic(s)

History of transfusion: ☐ No ☐ Unknown ☐ Yes (within 3 months) ☐ Yes (> 3 months)

History of pregnancies/miscarriages ☐ No ☐ Unknown ☐ Yes (within 3 months) ☐ Yes (> 3 months)

3. Location, Date, and Time of Transfusion Reaction

Patient location: ☐ ICU ☐ ER ☐ Medical ward ☐ Surgical ward ☐ OR ☐ PAR ☐ OB/Gyn ☐ Outpatient ☐ Chronic Care

Date (dd/mmm/yyyy)	Time Transfusion **Started**	Time Reaction **Occurred**	Time Transfusion **Stopped**	Time Transfusion **Restarted** (Quick Reference Guide)

4. Clinical Signs and Symptoms

Pre-transfusion	Temp: ℃ (route)	BP:	Pulse:	Respiratory Rate:
Post transfusion	Temp ℃ (route) (Highest)	BP:	Pulse	Respiratory Rate:

Clinical Signs and Symptoms: Check all that apply.

- ☐ Urticaria (rash)
- ☐ Pruritus (itching)
- ☐ Headache
- ☐ Fever **(Oral T ≥38℃ AND ≥1℃ rise above baseline temp)**
- ☐ Chills (sensation of cold)
- ☐ Rigors (involuntary shaking)
- ☐ Flushing
- ☐ Skin rash other than urticaria
- ☐ Restlessness/anxiety
- ☐ Nausea/vomiting
- ☐ Joint/muscle pain
- ☐ Back pain
- ☐ Chest pain
- ☐ Heat/pain at IV site
- ☐ Dizziness
- ☐ Jaundice
- ☐ Red or brown urine
- ☐ Oliguria
- ☐ Diffuse hemorrhage
- ☐ Facial or tongue swelling
- ☐ Dyspnea (shortness of breath)
- ☐ Wheezing
- ☐ Hypoxemia: SPO_2 _____% or PaO_2 _____ mm Hg on
  - ☐ Room air
  - ☐ Supplementary 0_2_____L/min
- ☐ Hypertension
- ☐ Hypotension (SBP drop ≥ 30mmHg)
- ☐ Tachycardia (HR rise > 40bpm)
- ☐ Shock

Other relevant clinical information:

5. Blood Component/Product(s) and Equipment Information (Attach sheet with additional information if needed.)

5a. Blood Component/Product Type	Unit or Lot Number	Volume Transfused (mL or # of vials)

5b. Filters Equipment Used ☐ Standard blood filter ☐ Other blood filter ☐ IV pump ☐ Blood warmer ☐ Rapid infusion device ☐ Re-infusion device ☐ Cell saver Details

6. Measures and Notifications

6a. Treatment Measures Taken (Check all that apply)

- ☐ Antipyretics
- ☐ Antihistamines
- ☐ Steroids
- ☐ Diuretics → ☐ Effective
- ☐ Antibiotics
- ☐ Vasopressor
- ☐ Analgesic
- ☐ Supplementary O_2
- ☐ Chest X-ray
- ☐ ICU
- ☐ Ventilation → Duration:_____
- ☐ Blood samples taken
- ☐ Other:

Notifications:
Physician (name): Date/Time: **TMS/Lab** (name): Date/Time:

6b. Reported By: (signature)
Name (print): Designation Date/Time:

Reference Document: BC Provincial Model Document BC TTISS TT1.0002F Ver 2.0 August 2011 Print Shop # 253738

Proof Only - Not Approved for Use

TRANSFUSION REACTION REPORT

Transfusion Medicine Service / Laboratory Use Only

7. Results of Investigation Pathologist Conclusion

7a. History of Previous Transfusion Reactions

❑ None ❑ Unknown ❑ Yes (within 3 months) ❑ Yes (> 3 months) Type of previous reaction:

7b. Relevant Lab Results and Additional Clinical Information **Patient ABO/D:**

Examination	Pre transfusion Result	Post transfusion Result

7c. Pathologist Conclusion (based on 2007 PHAC definitions)

❑ Incident: ❑ Patient identification ❑ Product related ❑ Equipment related ❑ Other(specify): _____

❑ No transfusion reaction ❑ FNH ❑ Minor allergic ❑ Severe allergic/anaphylactict / anaphylactoid ❑ Anaphylactic shock

❑ IVIG headache ❑ Aseptic meningitis (IVIG related)

❑ Incompatible Transfusion ❑ Intentional ❑ Unintentional ❑ ABO System Anti- _____ ❑ Other System Anti- _____

❑ Acute hemolytic reaction ❑ Delayed hemolytic reaction Cause: _____

❑ Delayed serological transfusion reaction Specify new alloantibody(ies) within 28 days of transfusion: Anti-_____

❑ TACO ❑ TAD ❑ Hypotensive reaction ❑ PTP ❑ TA-GVHD

❑ Bacterial contamination ❑ Positive culture product Organism (specify): _____

❑ Positive culture recipient Organism (specify) _____

❑ TRALI ❑ Possible TRALI → Risk factors: _____

❑ CBS TRALI criteria met (1+2+3+4:) ❑ CBS TRALI form sent Date:

1 ❑ Hypoxemia (defined as any of) ❑ SpO_2 < 90% on Room Air **or** ❑ PaO_2 < 60 mm Hg on Room Air **or** ❑ PaO_2/FIO_2 < 300

2 ❑ Transfusion within 6 hours of TRALI 3 ❑ New Chest X-Ray findings of bilateral infiltrates 4 ❑ No evidence of circulatory overload

❑ Unknown ❑ Other (specify): _____

7d. Relationship, Severity, and Outcome

Relationship of reaction to transfusion ❑ Definite ❑ Probable ❑ Possible ❑ Doubtful ❑ Ruled out ❑ Not determined

Severity (Grade) ❑ 1 (non-severe) ❑ 2 (severe) ❑ 3 (life-threatening) ❑ 4 (death) ❑ Not determined

Outcome ❑ Minor or no sequelae ❑ Major or long-term sequelae ❑ Death ❑ Not determined

Relationship to death ❑ Definite ❑ Probable ❑ Possible ❑ Doubtful ❑ Ruled out ❑ Not determined

Blood supplier or manufacturer notified ❑ No ❑ Yes → Supplier/Manufacturer Contact: _____ Date/Time: _____

Status of investigation ❑ In progress ❑ Cannot be concluded → Reason (specify) ❑ Concluded

8. Pathologist Comments and Recommendations

Proof Only - Not Approved for Use

❑ **This report relates to a transfusion administered at a facility other than the reporting facility.**
Transfusion Facility

Transfusion Service Medical Director Pathologist (or Designate)

Signature: _____ Name (print): _____ Date: _____