Any suspicion of blood component\(^1\) transfusion reaction, call On-Call Physician/Designee STAT, Attending Physician and MERIT as appropriate. If a patient is unresponsive at any point, call Code Blue (x2-7099) as appropriate for your area.

### PRESENTING SIGNS OR SYMPTOMS\(^2\)

- Fever, chills, and/or rigor
- Any of the following with or without hypotension\(^1\):
  - Respiratory distress, facial flushing, urticaria (hives), rash
- Other signs or symptoms\(^2\)

### INTERVENTIONS

#### STOP transfusion

1. Call the On-Call Physician/Designee and HVU\(^3\) STAT
2. Stay with patient to monitor symptoms and check vital signs every 15 minutes
3. Maintain IV access

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### Evaluation and disposition by On-Call Physician/Designee:

- See Appendix A for Transfusion Reaction Work-up and Reporting
- Re-evaluate need for IV fluids

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1. Blood components include red blood cells, platelets, fresh frozen plasma, cryoprecipitate, and white blood cells (granulocytes)
2. Refer to Guidelines for Identifying a Transfusion Reaction (ATT1722)
3. Note to provider: temperature of 39°C or a rise of 2°C and/or any rise in temperature accompanied with moderate/severe systemic signs or symptoms may indicate bacterial contamination
4. Note to provider: urticaria or hives may require transfusion work-up only if severe and unresponsive to measures that prevent transfusion from being completed
5. Reach the Hemovigilance Unit (HVU) transfusion medicine provider at extension B-LOD or 2-5663 (713-792-5663)
6. Discuss with primary team before administering steroids to patients receiving CAR T cells
7. Fever is defined as a rise of 1°C or more from baseline temperature and a temperature of ≥ 38°C
8. Hypotension defined as a drop in SBP ≥ 30 mmHg and SBP ≤ 80 mmHg
9. Respiratory distress may include dyspnea or labored respiration, wheezing, hoarseness/stridor, shortness of breath, hypoxia (\(O_2\) saturation ≥ 90% on room air), cough, and/or tachypnea
10. Administer epinephrine IM into the antero-lateral mid third of the thigh. Administration via IM route is preferred regardless of platelet count
11. If hypotension is the only presenting symptom, epinephrine should not be administered
12. Other signs and symptoms:
   - Chest pain, tachycardia (defined as a rise in HR > 30 bpm), hypotension (defined as drop in SBP ≥ 30 mmHg and SBP ≤ 80 mmHg), hypertension (defined as a rise in SBP > 30 mmHg and SBP ≤ 150 mmHg)
   - Abdominal pain/cramps, low back pain and/or flank pain
   - Pain - infusion site pain
   - Generalized - nausea/vomiting, anxiety, feeling of impending doom, diarrhea, loss of consciousness
   - New onset headache occurring during transfusion that requires intervention
   - Discoloration of urine (tea, cola, or blood colored)
   - Hemolysis/hemorrhage - sudden uncontrolled bleeding

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Approved by The Executive Committee of the Medical Staff on 06/16/2020

Department of Clinical Effectiveness V2
APPENDIX A: Transfusion Reaction Evaluation and Documentation

**Responsibilities for Nurses**

- Notify Attending Physician/Designee
- Notify Hemovigilance Unit (HVU) at 713-792-5663
- If Transfusion Reaction order panel is activated
  - Complete the Transfusion Reaction Investigation form (Forms On Demand/OnBase)
  - Notify Transfusion Service (Blood Bank) at 713-792-8630
  - Obtain appropriate lab tests as ordered
  - Return all remaining blood component(s) and supplies listed below to Transfusion Service (Blood Bank)
    - Do not remove the administration set from the blood component
    - Return transfusion set, leukocyte reduction filter, and intravenous solution
- Complete Suspected Transfusion Reaction section of Blood Administration flow sheet
- Complete a Safety Intelligence report

**Responsibilities for Providers**

- Activate Transfusion Reaction order panel which includes the following patient specimen collections
  - Urinalysis; collect first void for presence of hemoglobin (to check for hemolysis)
  - Blood sample in a 7 mL (EDTA) pink top tube
- Other appropriate laboratory tests
  - Anti-IgA antibodies (for suspected anaphylaxis reactions)

Disclaimer: This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson’s specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient’s care. This algorithm should not be used to treat pregnant women.

Suspected Blood Component Transfusion Reaction - Adult

Department of Clinical Effectiveness V2
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SUGGESTED READINGS


MD Anderson Institutional Policy #CLN1115 Blood Component Administration and Transfusion Reaction Policy

This practice consensus algorithm is based on majority expert opinion of the Adult Blood Product Transfusion Reaction work group at the University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following experts:

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