Adult Hypersensitivity (HSR)/Allergic Reaction Management

Any signs or symptoms of blood product hypersensitivity reaction (HSR)/allergic reaction, call On-Call Physician STAT, notify Attending Physician and MERIT Code as appropriate. If a patient is unresponsive at any point, call a “code” as appropriate for your area.

PRESENTING SYMPTOMS

- STOP infusion and monitor vital signs every 5 minutes
- Call the On-Call Physician STAT and notify the Attending Physician

Patient with HSR to medication
(For blood product related HSR see Page 2)

- Acetaminophen
  - Fever, chills, and/or rigors
  - Within 4 hours or Stem Cell Transplant patient?
  - 1 mg, 000 0 mL subcutaneously, followed by

- Diphenhydramine
  - Itching, facial flushing
  - Hives (urticaria), rash
  - 50 mg IV push over 2 minutes
  - Improvement within 5 minutes?

- Hydrocortisone
  - Hypotension, wheezing, shortness of breath, facial/lip/tongue swelling
  - Place pulse oximeter
  - Start O2 at 2 liters/minute by nasal cannula if saturation less than or equal to 92%
  - Start normal saline at 150 mL/hour

- Other signs or symptoms of HSR/allergic reaction
  - Call the On-Call Physician for instructions

- Acetaminophen
  - 1,000 mg PO for 1 dose per order set

- Diphenhydramine
  - 50 mg IV push over 2 minutes

- Hydrocortisone
  - 100 mg IV push over 1 minute and repeat

- Diphenhydramine
  - 50 mg IV push over 2 minutes

- Evaluation and disposition by On-Call physician: re-evaluate need for IVF

- Improve within 5 minutes?

1. Fever defined as greater than 38.3°C or greater than or equal to 38°C for 1 hour or longer
2. Hypotension defined as a systolic blood pressure (SBP) less than 90 mmHg or a drop in SBP of more than 20 mmHg from baseline

Additional orders per On-Call Physician

Documentation
1. Use HSR/Allergy Order Set to document management utilized for an individual patient.
2. Enter as Observed Adverse Drug Reaction (ADR) in Nursing Documentation in OneConnect.
**Adult Hypersensitivity (HSR)/Allergic Reaction Management**

This practice algorithm has been specifically developed for MD Anderson using a multidisciplinary approach and taking into consideration circumstances particular to MD Anderson, including the following: MD Anderson’s specific patient population; MD Anderson’s services and structure; and MD Anderson’s clinical information. Moreover, this algorithm is not intended to replace the independent medical or professional judgment of physicians or other health care providers. This algorithm should not be used to treat pregnant women.

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### PRESENTING SYMPTOMS

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Management</th>
</tr>
</thead>
</table>
| Fever, chills, and/or rigors | **STOP blood product transfusion** and monitor vital signs every 5 minutes  
Call the On-Call Physician for instructions |
| Itching, facial flushing, hives (urticaria), rash | **Give diphenhydramine** 25 mg IV push over 2 minutes  
Continue transfusion  
Monitor vital signs every 5 minutes  
If transfusion is stopped, observe for 15 minutes  
If no improvement, call the On-Call Physician |
| Hypotension, wheezing, respiratory distress, facial/lip/tongue swelling | **STOP blood product transfusion** and monitor vital signs every 5 minutes  
Call the On-Call Physician for instructions  
Place pulse oximeter  
Start O2 at 2 liters/minute by nasal cannula if saturation less than or equal to 92%  
Give:  
- **Diphenhydramine** 50 mg IV push over 2 minutes (if not administered within last 30 minutes), followed by  
- **Hydrocortisone** 100 mg IV push over 1 minute  
Repeat if necessary |
| Other signs or symptoms of HSR/allergic reaction | **STOP blood product transfusion** and monitor vital signs every 5 minutes  
Call the On-Call Physician for instructions |

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1. Fever defined as greater than 38.3°C or greater than or equal to 38°C for 1 hour or longer
2. Hypotension defined as a systolic blood pressure (SBP) less than 90 mmHg or a drop in SBP of more than 20 mmHg from baseline
3. Respiratory distress may include, but is not limited to: shortness of breath, hypoxia, dyspnea or labored respiration, wheezing, orthopnea, stridor
4. Other signs and symptoms may include, but are not limited to:  
   - Chest pain, tachycardia, tachypnea, hypertension  
   - Low back pain and/or flank pain  
   - Headache occurring during transfusion  
   - Discoloration of urine (tea, cola, or blood colored)

Approved by The Executive Committee of the Medical Staff on 02/27/2018

Department of Clinical Effectiveness V5
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Management of Blood Product Transfusion Reaction-ADULT

<table>
<thead>
<tr>
<th>Laboratory tests:</th>
<th>Reporting:</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Anti-IgA antibodies</td>
<td>● Place a Transfusion Medicine consult</td>
</tr>
<tr>
<td>● Urinalysis for presence of hemoglobin</td>
<td>● Complete a Patient Safety Event report</td>
</tr>
<tr>
<td>● Other appropriate laboratory tests</td>
<td>● Complete a Transfusion Reaction Investigation request</td>
</tr>
<tr>
<td></td>
<td>● Return the remaining blood tubing to Blood Bank</td>
</tr>
</tbody>
</table>
SUGGESTED READINGS


UTMDACC Institutional Policy #CLN1115 Blood Component Administration and Transfusion Reaction Policy

DEVELOPMENT CREDITS

This practice consensus algorithm is based on majority expert opinion of the Adult Hypersensitivity 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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