Pediatric Hypersensitivity (HSR)/Allergic Reaction Management Procedures

**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.

Any signs or symptoms of hypersensitivity reaction/allergic reaction, **call On-Call Provider**¹ STAT, notify attending physician and MERIT as appropriate.

If a patient is unresponsive at any point, call a “**code**” as appropriate for your area.

**Presenting Symptoms**

- Diphenhydramine 1 mg/kg (maximum 50 mg/dose) IV push over 5 minutes
  - Improvement within 5 minutes?
    - Yes
    - Hydrocortisone 2 mg/kg (maximum 100 mg/dose) IV push over 30 seconds
      - Evidence of respiratory distress or hemodynamic instability?
        - Yes
        - Additional orders per appropriate provider¹
        - Complete documentation²
      - No
      - Diphenhydramine 1 mg/kg (maximum 50 mg/dose) IV push over 5 minutes (if not administered within last 30 minutes), followed by
        - Hydrocortisone 2 mg/kg (maximum 100 mg/dose) IV push over 30 seconds (if not administered within last 30 minutes)
    - No
    - Diphenhydramine 1 mg/kg (maximum 50 mg/dose) IV push over 5 minutes (if not administered within last 30 minutes), followed by
      - Hydrocortisone 2 mg/kg (maximum 100 mg/dose) IV push over 30 seconds (if not administered within last 30 minutes)

1. Appropriate provider:
   - PICS – PICS Attending/App
   - PATC/Clinic – Doc of Day
   - G9 – Inpatient Pediatric Hematology/Oncology or Cell Therapy Provider

2. Documentation:
   - Use HSR/Allergy orders to document management utilized for an individual patient
   - Document event as an Observed Adverse Drug Reaction (ADR)

3. Hypotension defined as:
   - Age 0 - 28 days: SBP < 60 mmHg
   - Age 1 - 12 months: SBP < 70 mmHg
   - Age 1 - 10 years: SBP < [70 + (2 x age in years)] mmHg
   - Age > 10 years: SBP < 90 mmHg

4. Administer epinephrine IM into the antero-lateral mid-third portion of the thigh. Administration via IM route is preferred regardless of platelet count.

² Other signs and symptoms of HSR reaction may include fever defined as temperature ≥ 38.0°C, chills, and/or rigors.

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SUGGESTED READINGS


Philips, L. (2005). American Academy of Allergy, Asthma and Immunology; American College of Allergy, Asthma and Immunology; Joint Council of Allergy, Asthma and Immunology: The diagnosis and management of anaphylaxis: an updated practice parameter. Journal of Allergy and Clinical Immunology, 115, S483-S523.


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DEVELOPMENT CREDITS

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