Allergic Reaction - REACTION Format

This policy applies to: Patients whose chief complaint is itching, rash or allergic reaction.

Exclusion Criteria: None

Recognize

- Itching, hives, flushing, angioedema
- Coughing, wheezing, stridor, or respiratory distress
- Chest or throat constriction
- Difficulty swallowing
- Difficulty phonating
- Nausea / vomiting
- Altered Mental Status
- Hypotension or shock
- Edema

Evaluate

- Onset and trajectory of symptoms
- Anatomic and situational location of exposure
- Insect sting or bite
- Known allergies: food, environmental, medication, other
- Known or suspected exposure: past occurrences and current event
- Known history of sensitivity or allergic reaction
- Past medical and medication history
- New clothing, soap, or detergent
- New medications

Administer Treatment

- Remove allergy trigger if known and present

- Prioritize interventions based on clinical presentation and severity of reaction
- Supplemental oxygen PRN for goal SpO2
- Attentive and prompt airway assessment and management
- Airway Management if indicated per Airway Management PCG (P1)
- If patient has suspected or known exposure and exhibits signs of any: respiratory distress, airway
  restriction, altered mental status or shock, treat accordingly
  - **Epinephrine Auto-Injector 0.3 mg IM** if available
  - Vascular access per Vascular Access PCG
  - Consider **crystalloid fluid bolus 500 mL IV/IO** to support hemodynamics, repeat PRN
  - **Diphenhydramine (Benadryl) 50 mg IM/IV/IO**
  - **Epinephrine** (1mg/1mL) **0.3 mg IM or Epinephrine** (1mg/10mL) **0.1 mg IV/IO** q 3 min PRN for
    MORE SEVERE REACTION
    - Consider **Epinephrine infusion 0.01 mcg/kg/min IV/IO**, titrate to max 0.1 mcg/kg/min
      as an alternative to repeat IM or IV/IO doses
    - Monitor ECG rhythm closely, Epinephrine may potentiate arrhythmias, especially in
      patients over the age of 40
  - **Methylprednisolone (Solu-Medrol) 125 mg IV/IO**
  - **Albuterol (2.5 mg/3 mL) nebulized** for wheezing or shortness of breath

---

Consider Differentials

- Urticaria (rash only)
- Anaphylaxis (severe systemic effect)
- Shock (severe vascular effect)
- Angioedema (drug induced or infection)
- Aspiration / airway obstruction
- Vasovagal event
- Asthma or COPD
- Infection (ex: retropharyngeal abscess, bacterial tracheitis, croup, epiglottitis, strep)
- Pulmonary edema or CHF
- Metabolic disorders

Transport Considerations

- During transport, maintain astute airway, breathing, circulation and mental status assessment with
  prompt intervention as needed. Stability can quickly change to instability in these

patients.
- Consider early airway management, reference Airway Management PCG (P1)

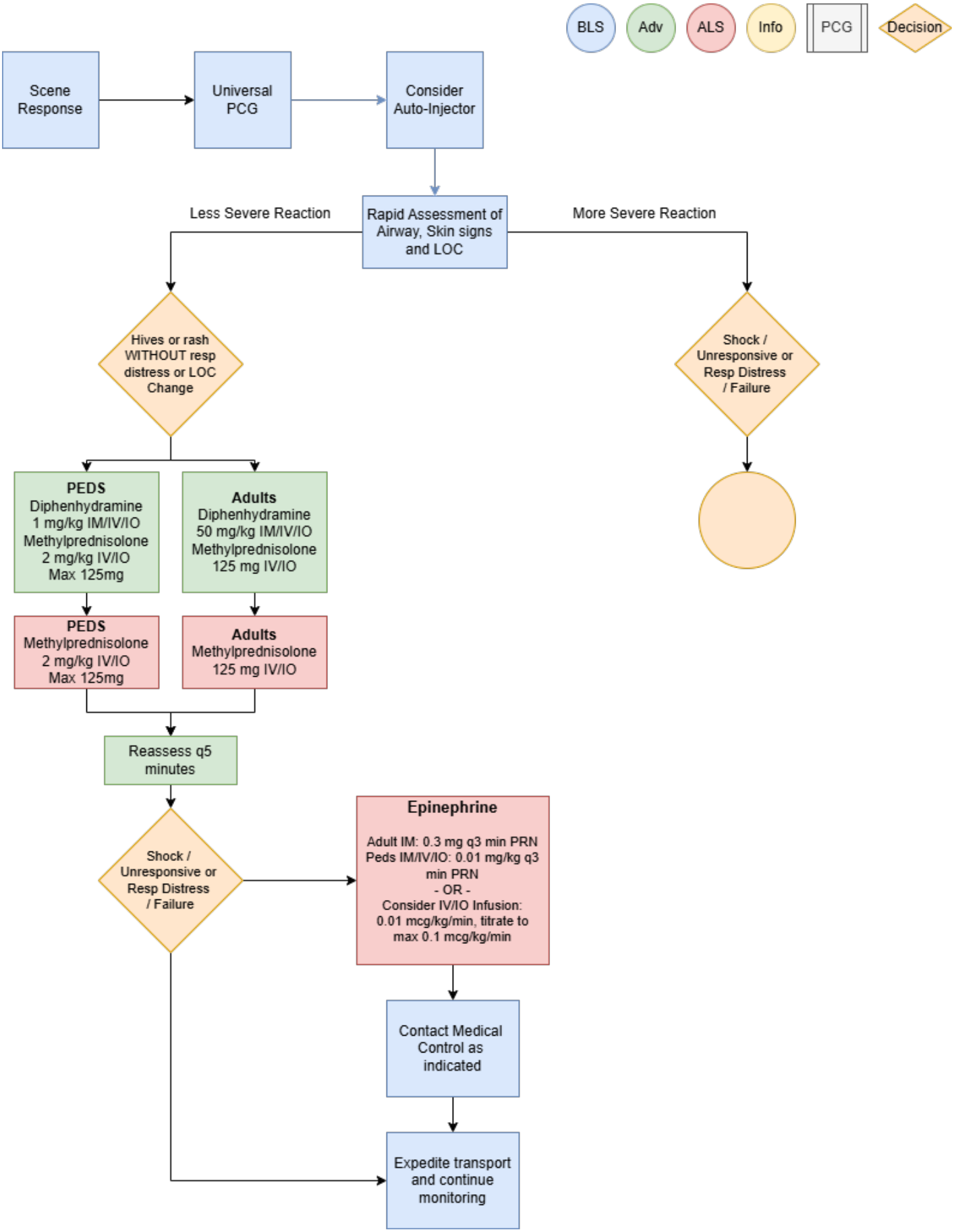
Information

- Typically, the shorter the interval from exposure to symptoms, the more severe the reaction
- Hemodynamic instability may recur up to 24 hours after initial stabilization

Other Populations

- Neonatal/ Pediatric drug dosing:
  - Pediatric **Epinephrine Auto-Injector JR dose is 0.15 mg** for patients 15-30 Kg
  - **Diphenhydramine (Benadryl) 1 mg/Kg IM/IV/IO** over 5 min max dose 50 mg
  - **Epinephrine** (1mg/1mL) **0.01 mg/Kg IM/IV/IO** q3 min until stable or infusion started
    - Max 0.5 mg per dose (Intentionally larger than adult dosing)
    - **Epinephrine infusion 0.01 mcg/Kg/min IV/IO**, titrate to max 1 mcg/kg/min
  - **Methylprednisolone (Solu-Medrol) 2 mg/Kg IV/IO** max dose 125mg
  - **Albuterol for 15 Kg or more, use adult dose**
  - **Albuterol for less than 15 Kg (1.25mg/ 3ml) nebulized** with O2 at 6 lpm

Navigate


BLS
Adv
ALS
Info
PCG
Decision
Scene Response
Universal PCG
Consider Auto-Injector
Rapid Assessment of Airway, Skin signs and LOC
Less Severe Reaction
More Severe Reaction
Hives or rash WITHOUT resp distress or LOC Change
Shock / Unresponsive or Resp Distress / Failure
PEDS
Diphenhydramine
1 mg/kg IM/IV/IO
Methylprednisolone
2 mg/kg IV/IO
Max 125mg
Adults
Diphenhydramine
50 mg/kg IM/IV/IO
Methylprednisolone
125 mg IV/IO
PEDS
Methylprednisolone
2 mg/kg IV/IO
Max 125mg
Adults
Methylprednisolone
125 mg IV/IO
Reassess q5 minutes
Shock / Unresponsive or Resp Distress / Failure
Epinephrine
Adult IM: 0.3 mg q3 min PRN
Peds IM/IV/IO: 0.01 mg/kg q3 min PRN
- OR -
Consider IV/IO Infusion:
0.01 mcg/kg/min, titrate to max 0.1 mcg/kg/min
Contact Medical Control as indicated
Expedite transport and continue monitoring

References

Campbell, Ronna. “Anaphylaxis: Emergency Treatment.” UpToDate, January 2022.
Sicherer, Scott. “Prescribing Epinephrine for Anaphylaxis Self-Treatment.” UpToDate, January 2022.
“U.S. Army Medevac Critical Care Flight Paramedic Standard Medical Operating Guidelines.” Jan. 2020.

Revision #14
Created 14 November 2024 17:31:41 by James Anderson
Updated 19 November 2024 16:42:23 by James Anderson