

Pediatric allergic reaction and anaphylaxis treatment

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Organ systems:

Skin/Mucosal – Hives, itching, swelling lips or tongue, pruritus, angioedema

Respiratory – Cough, wheezing, stridor, hypoxemia, sneezing, itchy eyes or nose, throat tightness

Gastrointestinal – Nausea, vomiting, abdominal pain, diarrhea

Cardiovascular – Hypotension, syncope, loss of consciousness

Potential allergen exposure
AND
More than one organ system involved
OR
Signs of cardiovascular symptoms
or respiratory distress?

➤ Connect to the Anaphylaxis Clinical Support Tool by FARE

NO YES

Hives/Rash ONLY

- Give diphenhydramine or cetirizine
- Monitor vitals and clinical status for at least 30 minutes
- Consider longer observation and IM EPINEPHrine if strong history of progression

Diphenhydramine dosing	
Weight	Dose
Less than 12.5 kg	6.25 mg
12.5 – 24.9 kg	12.5 mg
25 – 49.9 kg	25 mg
50 kg or greater	50 mg

Cetirizine dosing	
Age	Dose
6 months to less than 2 years	2.5 mg
2 to 5 years	5 mg
Greater than 5 years	10 mg

Clinically improved?

YES NO

No further treatment necessary

Have symptoms progressed to meet criteria for anaphylaxis?

NO

Meets discharge criteria?

YES NO

Observe and discharge

- Responsive to IM EPINEPHrine
- Observe 2 hours from time of epinephrine administration. Consider longer observation for patients with history of biphasic reactions or cardiovascular involvement with anaphylaxis (hypotension).
- Follow up with primary care provider within one week or allergist if already established care
- Received EPINEPHrine autoinjector education and prescription

EPINEPHrine autoinjector dose	
Weight	Dose
5 – 7.4 kg	0.1 mg
7.5 – 25 kg	0.15 mg
25.1 kg or greater	0.3 mg

Severe allergic reaction/anaphylaxis

- IM EPINEPHrine 1 mg/mL into patient's mid-outer thigh – May repeat every 5 – 15 minutes as needed

EPINEPHrine 1mg/mL dosing	
Weight	Dose
Less than 5kg	0.01 mL/kg
5 – 7.4 kg	0.1 mL
7.5 – 25 kg	0.15 mL
25.1 – 45 kg	0.3 mL
45 kg or greater	0.5 mL

Do NOT give this epinephrine dose IV – it can cause serious cardiovascular effects.

- Continuous vital signs and monitors

Hemodynamically stable?

YES NO

- Obtain IV/IO access
- Normal saline bolus (20 mL/kg; Max: 1,000 mL)
- Consider adjunct medications*
- Consider epinephrine drip (starting 0.1 mcg/kg/min, titrate to BP and patient response)
- Send tryptase level to assist with outpatient workup
- Admit to PICU

* Adjunct medications such as methylPREDNISolone, famotidine, albuterol and racemic EPINEPHrine can be considered based on symptoms but DO NOT treat anaphylaxis. Use of corticosteroids does not decrease severity of reaction or incidence of biphasic reaction.

Admit/Transfer to floor/PICU

- Received second dose of IM EPINEPHrine
- Patient's symptoms not improving

References

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Calling from an ED or inpatient setting? Call the IU Health Transfer Center for transfer or consult at **877.247.1177**.

Calling from an outpatient setting? Call MyRiley at **1.844.697.4539**.

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