

Abstract

- Children with life-threatening food allergies are at risk of death from anaphylaxis due to incorrect administration of epinephrine.
- A review of the literature supports the need for primary care practices to develop protocols for epinephrine auto injector training for their patients with life-threatening food allergies that are at risk for anaphylaxis.
- Over 6 million US children (approximately 8%) have life-threatening food allergies and that number is on the rise.
- There are 150 deaths per year from anaphylaxis.
- With the number of children with life-threatening food allergies on the rise it is imperative that primary care providers provide the education necessary to keep them safe.

Discussion

- A potential risk for children with food allergies, the most common being peanuts, tree nuts, eggs, milk, shellfish, fish, wheat, and soy, is that accidental ingestion of the allergen will lead to anaphylaxis which could be fatal if not treated properly.
- Epinephrine is the first line treatment for anaphylaxis.
- Studies have shown that a large percentage of caretakers and/or patients themselves do not know how to properly use their epinephrine device.
- Most common mistakes were not holding in place for 10 seconds after triggering, failure to depress forcefully enough and failure to put the needle end on the thigh.
- Lack of knowledge on proper use of epinephrine is of serious concern because the outcome of incorrect administration of epinephrine could result in death.
- There is over-whelming evidence that incorporating review of epinephrine auto injector training during primary care visits will save lives.

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For a suspected or active food allergy reaction:

FOR ANY OF THE FOLLOWING	SEVERE SYMPTOMS	OR MORE THAN ONE	MILD SYMPTOM
	LUNG: Short of breath, wheezing, repetitive cough		NOSE: Itchy/runny nose, sneezing
	HEART: Pale, blue, faint, weak pulse, dizzy		MOUTH: Itchy mouth
	THROAT: Tight, hoarse, trouble breathing/swallowing		SKIN: A few hives, mild itch
	MOUTH: Significant swelling of the tongue and/or lips		GUT: Mild nausea/discomfort
	SKIN: Many hives over body, widespread redness		
	GUT: Repetitive vomiting or severe diarrhea		
	OTHER: Feeling something bad is about to happen, anxiety, confusion		

1. **INJECT EPINEPHRINE IMMEDIATELY.**

2. **Call 911. Request ambulance with epinephrine.**

Do not depend on antihistamines. When in doubt, give epinephrine and call 911.

- 1 Form fist around EpiPen® and PULL OFF BLUE SAFETY CAP.
- 2 POSITION ORANGE END about 10cm away from outer mid-thigh*. * Either clothed, or unclothed, avoiding seams and pocket areas.
- 3 SWING AND JAB ORANGE TIP into thigh at 90° angle and hold in place for 10 seconds.
- 4 REMOVE EpiPen® Massage injection site for 10 seconds*. *After use the orange needle cover automatically extends to cover the injection needle.

Learning Objectives

- Identify the need to apply evidence-based research on epinephrine administration training into the care of children with life-threatening food allergies.
- Compare current epinephrine administration training process to current evidence-based practice on epinephrine auto injector training during primary care visits.
- Develop an epinephrine administration protocol for private practice.

Protocol

1. Identify child with a life-threatening food allergy.
2. At each yearly physical review action plan and proper use of epinephrine.
3. When completing medication administration forms review action plan and proper use of epinephrine.
4. Education is done by a nurse who meets with the patient/family to review the proper technique for administration of an epinephrine auto injector, along with reviewing the emergency action care plan.

Conclusion

- Implementation of an epinephrine auto injector training protocol in private practice will enhance the lives of children with life-threatening food allergies at risk for anaphylaxis.
- The literature review supports the fact that the number of children with life-threatening food allergies in this country is on the rise.
- Children with life-threatening food allergies are at risk of suffering an anaphylactic reaction which could result in death.
- Prompt administration of an epinephrine auto injector is the first line treatment of anaphylaxis and a life-saving measure.
- Review and education on proper administration technique of epinephrine auto-injectors by primary care providers is a life-saving action and promotes the well-being of children with life-threatening food allergies.
- Changing practice protocols, based on evidence-based research, to incorporate the epinephrine auto injector training in private practice enhances the quality of care provided to children with life-threatening food allergies.
- Further studies need to be done to determine the effectiveness of epinephrine auto-injector training in private practice, and coding/reimbursement of the education and training provided.

References

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