



POSTER PRESENTATION

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Treatment of initial allergic reactions to peanut inside and outside of health care facilities

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Background

Recent studies suggest increased admission rates for food-related anaphylaxis. The only effective treatment for anaphylaxis is prompt administration of epinephrine.

Objectives

To characterize treatment practices of initial allergic reactions inside and outside health care facilities (HCF).

Methods

Individuals with an allergist-confirmed peanut allergy were recruited from the Montreal's Children Hospital and Canadian food allergy advocacy organizations. Data were collected on initial allergic reactions to peanut and treatment inside and outside HCFs.

Results

Of 751 individuals who had an allergic reaction to peanut, 613 responded (81.6%). Initial reactions were mild in 28.4% (95% CI, 25.0-32.1%), moderate in 50.6% (46.6-54.6%), and severe in 20.9% (17.8-24.3%). Average age of initial reaction was 2.1 years (2.0-2.3). Among participants, 11.6% (9.1-14.7%) were diagnosed with peanut allergy (based on skin and IgE testing) prior to the initial reaction. Of the 613 participants, 32.1% (28.5-36.0%) were treated in HCFs only, 51.7% (47.7-55.7) outside HCFs only, and 16.2% (13.4-19.3%) in both. 21.3% (17.0-26.3%) of all reactions treated in HCFs received epinephrine (table) versus only 3% (1.8-5.1%) treated outside. Of those with moderate or severe initial reactions, 58.2% (53.5-62.8%) were treated in HCFs, and 23.9% (19.1-29.6%) of these received epinephrine. See table 1.

Table 1

	% of Respondents Receiving each Treatment in HCF			% of Respondents Receiving each Treatment outside HCF		
	Epinephrine +/- other medications% (95% CI)	Other medications (excluding epinephrine)	None	Epinephrine +/- other medications	Other medications (excluding epinephrine)	None
All reactions	21.3 (17.0-26.3)	50.7 (45.0-56.4)	28.0 (23.2-33.5)	3.0 (1.8-5.1)	47.2 (42.6-51.8)	49.8 (45.2-54.4)
Severity						
Mild	4.9 (1.5-16.2)	39.0 (25.6-54.4)	56.1 (40.1-70.2)	0.0 (0.0-2.6)	50.4 (41.1-58.5)	49.6 (41.5-57.8)
Moderate	15.1 (10.4-21.5)	54.1 (46.3-61.7)	30.8 (24.1-38.4)	4.3 (2.3-7.8)	46.8 (40.4-53.2)	48.9 (42.5-55.4)
Severe	38.5 (29.4-48.6)	50.0 (40.1-59.9)	11.5 (6.5-19.4)	4.5 (1.8-11.2)	43.2 (33.3-53.7)	52.3 (41.9-62.5)
Peanut allergy diagnosed prior to reaction						
Yes	17.2 (7.7-34.8)	48.3 (31.3-65.7)	34.5 (20.0-52.9)	6.5 (2.3-17.6)	67.4 (52.8-79.2)	26.1 (15.6-40.4)
No	20.9 (16.0-26.8)	53.6 (47.0-60.2)	25.5 (20.1-31.6)	2.7 (1.4-5.0)	44.7 (39.4-50.0)	52.6 (47.3-58.0)

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Conclusion

Almost 50% of individuals with potentially life-threatening initial reactions are not treated in HCFs. Further, for those with moderate and severe reactions treated in HCFs, there is substantial underuse of epinephrine. Thus, it is crucial to establish, distribute, and monitor treatment guidelines that would improve treatment practices of food-related allergic reactions.

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