

A comparison of the burden of allergies to priority versus both priority and non-priority allergens in children with multiple food allergies

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Conclusions: Caregivers of children with both priority and non-priority allergies report greater wish for tolerance, worry when eating out, and overall burden for non-priority allergens, but describe limited family anxiety and stress compared to those with priority allergies only.

Objective: To compare the burden of priority allergens only versus those with both priority and non-priority allergies in Canadian children with multiple food allergies.

Background: Canadian labelling regulations require priority allergens to be listed if used as a component or an “ingredient within an ingredient;” however, there are no such requirements for other foods or non-priority allergens. This suggests a gap in non-priority allergen labelling, which may differentially affect how families perceive the burden of non-priority allergy compared to priority allergy.

Methods:

- Data were from NUANCES: multidimensional Burden of Allergies in Canadian Children and adults, an online survey of adults/children with multiple food allergies
- Our study population was restricted to children only.
- Families reporting a single food allergy were excluded.
- Quantitative data were described using n/N and %.
- Qualitative data were analyzed using thematic analysis, which involved reading for surface content and then for latent meaning.

Results:

- In our sample of 123, 42(34.1%) children reported allergies to both priority and non-priority foods, while 81(65.9%) were allergic to priority allergens only.
- Amongst those with priority and non-priority allergy, there were various non-priority allergens reported, with legumes predominating. Notably, 11/42(26.2%) reported pea allergy.
- Qualitative data were available for 66 participants (81.5%) with allergies to priority foods only, and 31 (73.8%) with both priority and non-priority allergies.
- Within each of the groups, amongst those with milk allergy, the words “milk” or “dairy” were used to describe burden by twice as many with allergies to priority foods only, compared to those with both priority and non-priority allergies (28/45; 62.2% vs. 6/18; 33.3%, respectively).
- Amongst those with both priority and non-priority allergies and who did not qualitatively describe milk as burdensome (n=25), 7 specifically referred to non-priority allergens as being the most burdensome. None of these 7 reported having milk allergy.
- Despite many allergens, a common theme was identified: Limited labels and ubiquitous use

Results cont'd:

Table 1. Burden of food allergy amongst those with allergies to only priority allergens, and those with allergies to both priority and non-priority allergens

Type of burden	Only priority allergens (N=69)*		Priority and non-priority allergens (N=34)		p-value‡	
	n	%	Allergen†	n		%
Family anxiety	28	40.6	Milk	8	23.5	0.09
Stress at school, childcare	33	47.8	Milk	8	23.5	0.02
Time consuming	32	46.4	Non-priority	10	29.4	0.10
Expensive	33	47.8	Milk	10	29.4	0.08
Label reading	27	39.1	Non-priority	14	41.2	0.79
Procurement challenges	28	40.6	Tree nuts	17	50.0	0.04
Wish for tolerance	35	50.7	Non-priority	9	26.5	0.02
Worry when eating out	28	40.6	Non-priority	7	20.6	0.04
Most burdensome overall§	33	47.8	Non-priority	8	23.5	0.02

*Milk was the allergen identified for all different types of burden amongst those allergic to only priority allergens.

†Allergen with the highest reported burden for each corresponding category

‡Comparison of the most burdensome allergen between the two groups

§Which of your child’s food allergies causes the most burden to your family?