Frequency, severity and causes of unexpected allergic reactions to food, a systematic literature review

A Versluis
UMC Utrecht

A Knulst
UMC Utrecht, a.c.knulst@umcutrecht.nl

A Kruizinga
TNO, Zeist, the Netherlands

A Michelsen
UMC Utrecht

G Houben
TNO, Zeist, the Netherlands

See next page for additional authors
Frequency, severity and causes of unexpected allergic reactions to food, a systematic literature review

A Versluis¹*, A Knulst¹, A Kruizinga², A Michelsen¹, G Houben², J Baumert³, H Van Os-Medendorp¹,¹

From Food Allergy and Anaphylaxis Meeting (FAAM 2013)
Nice, France. 7-9 February 2013

Background
Food allergic patients have to deal with their diet. However, confusing labelling terms of precautionary labels can result in risk-taking behaviour. Even those patients that strictly adhere to their diet experience mild but also severe unexpected allergic reactions to food during their life. The aim of this study was to describe the frequency, severity and causes of unexpected allergic reactions to food in food allergic patients, aged >12 years, in order to improve health care for these patients.

Methods
A systematic review was carried out. A search was performed by two researchers, in six electronic databases (CINAHL, Cochrane, EMBASE, Medline, Psychinfo and Scopus). The search was performed with keywords relating to the frequency, severity and causes of unexpected allergic reactions to food.

Results
Eighteen studies met the inclusion criteria; thirteen observational and five qualitative studies. Little is known about the frequency of unexpected reactions. Peanut, tree nuts and milk are the main causal foods. Severe reactions and even fatalities occur, but prevalence data are scarce. Most reactions take place at home, but a significant number also take place when eating at friends or in restaurants. Labelling issues, but also attitude and risky behaviour of patients can attribute to unexpected reactions.

Conclusion
Prospective studies are needed to get more insight in the prevalence, severity, quantity of unintended allergen ingested and causes of unexpected allergic reactions to food, to be able to optimize strategies to support patients in dealing with their food allergy.

Disclosure of interest
None declared.

Author details
¹Dermatology & Allergology, UMC Utrecht, Utrecht, the Netherlands. ²TNO, Zeist, the Netherlands. ³Food Science and Technology Department, University of Nebraska-Lincoln, Lincoln, NE, USA.

Published: 25 July 2013

doi:10.1186/2045-7022-3-S3-P134

Cite this article as: Versluis et al.: Frequency, severity and causes of unexpected allergic reactions to food, a systematic literature review. Clinical and Translational Allergy 2013 3(Suppl 3):P134.