Survey of allergen labelling and allergen content of processed foods

Area of research interest: Food hypersensitivity
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Conducted by: Reading Scientific Services

Background

The current regulatory framework within the European Union mandates the declaration of 14 allergens as constituent ingredients (i.e. peanuts, nuts, soybeans, mustard, eggs, lupin, milk, fish, cereals containing gluten, sesame, celery, sulphur dioxide, molluscs and crustaceans) in pre-packed foods. This legislation does not cover unintentional cross-contamination with allergens or the resultant use of advisory labelling.

We introduced ‘best practice’ guidance on managing food allergens in 2006 to assist the food industry in the use of advisory labelling. However, due to the lack of standardisation in allergen risk assessment methodology and inconsistencies in allergen management practices, the application of advisory labelling varies in the way it is presented to consumers.

These variations have led some allergic consumers to believe that different types of advisory statements convey different levels of risk (i.e. ‘made in a factory that also handles X allergen’, versus ‘made on a line that also handles X’ allergen).

It was anticipated that the results of this survey will help to inform the development of proportionate risk based allergen management thresholds (known as action levels). It was envisaged that action levels will be used by the food industry as well as by regulatory and enforcement bodies to inform decisions about allergen management, and enable the appropriate use of allergen advisory statements, such as ‘not suitable for those with X allergy’ on pre-packed foods. Furthermore, it was anticipated that action levels will help food businesses make evidence-based decisions on the use of factual statements about whether or not a food is suitable for consumption by someone with a food allergy.

Research Approach

Five hundred and eight pre-packed processed foods were purchased in duplicate (two samples with identical batch/production codes giving a total of 1,016 products) from a range of retail outlets across the UK, including major and smaller national supermarkets as well as independent retailers. Products with allergen advisory statements and an equal number of comparable products without such statements were purchased.

Samples were tested for the unintentional presence and quantity of one or more of the following four major food allergens: milk, gluten, peanut and hazelnut. These allergens were chosen due to the large number of incidents we received over the past few years and because of their importance to public health.

The survey examined the different types of advisory statements used on pre-packed foods and compared the use of these phrases to the levels of allergens present. It was anticipated this may help to establish whether the use of certain advisory statements are linked to the level of allergen present and indicate whether different types of statements convey different levels of risk to the consumer. In addition, the survey examined whether the suggested advisory labelling statements set out in our Best Practice Guidance were being used by industry.

Results

The snapshot nature of this survey and sampling methodology means that it may not be representative of the entire UK retail market; it is therefore difficult to extrapolate findings to the UK retail market as a whole. The main findings are as follows:

Undeclared allergen cross-contamination in the UK is lower than previously found in studies in other countries, notably Ireland and the USA. The percentage of samples with detectable allergen (both with and without advisory labelling) and where that allergen was not present as an intentional ingredient, were as follows: gluten - 6.1% (33/542); milk - 8.2% (39/474); hazelnut - 2.9% (29/988); peanut - 0.21% (2/950).

The percentage of samples with detectable allergen, where that allergen was not present as an intentional ingredient and which did not carry an advisory label were as follows: gluten 3.3% (18/542); milk - 2.1% (10/474); hazelnut - 0% (0/988); peanut - 0% (0/950). The percentage of samples in which no allergen was detected but carried an advisory label were as follows: gluten - 19% (97/509); milk - 18% (77/435); hazelnut - 44% (427/959); and peanut - 45% (430/948).

The wording of the advisory label did not reflect the level of cross contamination found (for any of the four allergens across any product category).

A wide variety of different statements were used across the product categories. The most frequently used advisory label was 'may contain traces' (38% (418/1106)). The second most frequently used was 'may contain' (20.6% (228/1106)).

Our guidance recommends the use of 'may contain X' or 'not suitable for someone with X allergy'. These two statements were found on 20.6% and 7.2% (80/1106) of products, respectively.

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