How to ensure the safety of your labeling choices for allergens

Food allergic patients need to avoid allergens in their diet by relying on the allergen information present on the label of food products. Proper harmonized labeling practices would contribute to a safer world for food allergic consumers. However, current warning practices for potential unintentional presence of allergens in products are unreliable or not transparent. This is leading to unexpected allergic reactions that can be life-threatening in nature.

Recent advances allow for quantitative allergen management based on the reference doses derived by TNO and FARRP[1] together with the Allergen Bureau of Australia/ New-Zealand. This approach is increasingly being used by companies as well as authorities worldwide in making decisions for levels that demand Precautionary Allergen Labeling (PAL). However, acceptance and implementation is still not common due to 2 main open questions: 1) what food intake data to use in calculating action levels for PAL; 2) how safe are the Reference Doses?

TNO Shared Research Program Food Allergy

TNO works towards stakeholder acceptance of risk based PAL and allergy management for the benefit for the allergic patient. In a Public Private Partnership we aim to solve the two major issues that hamper the global use of a harmonized quantitative allergen management system. Our program has 2 main goals:

Goal 1: Tool for appropriate food intake data to calculate Action Levels for PAL

The goal is to develop an on-line food consumption tool to guide food companies to optimal food intake data for use in systems like VITAL. Our research so far led to development of a peer-reviewed method to derive the optimal food intake, 2 food consumption databases (Netherlands, United States) and substantiation that food allergic patients eat similar quantities of food as the general population. For the next few years we aim to develop a food consumption database of additional regions of the world and generate the on-line intake tool.

Goal 2: To underpin the safety of Reference Doses

Reference doses are based on the principle that zero-risk is not possible. Part of the stakeholder groups worry about the symptoms that might occur in the most sensitive part of the allergic population. Our unique threshold database developed in collaboration with our US-based partner FARRP, enables us to further characterize the residual risk for the small proportion of the allergic population that might experience a reaction at these low levels and provide further input to allow the selection of the most appropriate Reference Doses based on the desired protection level.

Call to action

In order to achieve our goals, we are looking for additional partners. Are you also struggling with the lack of proper guidance, please contact us to discuss potential collaborations and partnership.

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[1] Taylor et al 2014, *Food Chemical Toxicology* 63, p 9-17.