The urgent need for a harmonized severity scoring system for acute allergic reactions


The accurate assessment and communication of the severity of acute allergic reactions are important to patients, clinicians, researchers, the food industry, and public health and regulatory authorities. Severity has different meanings to different stakeholders with patients and clinicians rating the significance of particular symptoms very differently. Many severity scoring systems have been generated, most focusing on the severity of reactions following exposure to a limited group of allergens. They are heterogeneous in format, none has used an accepted developmental approach, and none has been validated. Their wide range of outcome formats has led to difficulties with interpretation and application. Therefore, there is a persisting need for an appropriately developed and validated severity scoring system for allergic reactions that work across the range of allergenic triggers and address the needs of different stakeholder groups. We propose a novel approach to develop and then validate a harmonized scoring system for acute allergic reactions, based on a data-driven method that is informed by clinical and patient experience and other stakeholders' perspectives. We envisage two formats: (i) a numerical score giving a continuum from mild to severe reactions that are clinically meaningful and are useful for allergy healthcare professionals and researchers, and (ii) a three-grade-based ordinal format that is simple enough to be used and understood by other professionals and patients. Testing of reliability and validity of the new approach in a range of settings and populations will allow eventual implementation of a standardized scoring system in clinical studies and routine practice.