



White paper on peanut allergy: treatment pathway

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Summary

Background Peanuts are a member of the legume family (botanical family Leguminosae) and peanut allergies are the most common cause of food anaphylaxis in many countries. The prevalence of peanut allergy is increasing.

Methods Experts from Germany and Austria performed a standardized literature search and published their consensus recommendations in a White Paper on Peanut Allergy, which this care pathway is based upon, thus, providing a comprehensive diagnosis and treatment algorithm.

Results The most important diagnostic key elements include a detailed clinical medical history, evidence of peanut-specific sensitization by means of skin prick

testing and/or in vitro determination of the peanut (extract)-specific IgE and/or the molecular component diagnostics (most important Ara h 2-specific IgE, sometimes also Ara h 1-, 3-, 6-, 8- and 9-specific IgE) as well as the gold standard, the double-blind, placebo-controlled food challenge. The diagnostic algorithms were created for the following constellations: Suspected primary peanut allergy with a clear history of systemic immediate-type reaction, suspected primary peanut allergy with questionable symptoms, suspected secondary (possibly pollen-associated) peanut allergy with a history of solely oropharyngeal symptoms and incidental finding of sensitization and no peanut ingestion so far.

Conclusions After established diagnosis the standard of care is counseling to avoid peanut contact and prescription of emergency medications (oral antihistamines, oral steroids, inhaled β 2-agonists, injectable intramuscular epinephrine) as needed. Instruction on the use of these emergency medications should be provided. A preparation for oral immunotherapy (OIT) for 4 to 17 years old peanut allergic children/adolescents has been recently approved by the regulatory authorities. OIT for peanut allergy shows high efficacy and an acceptable safety profile, improves quality of life, and health economic aspects. Thus it offers a therapeutic option for peanut allergic children and adolescents.

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Peanut allergy

Compared to most other foods, peanut has a particularly high allergenic potential and can therefore reduce the quality of life ongoing of those affected [1]. Thus, it is important to have targeted diagnostics that

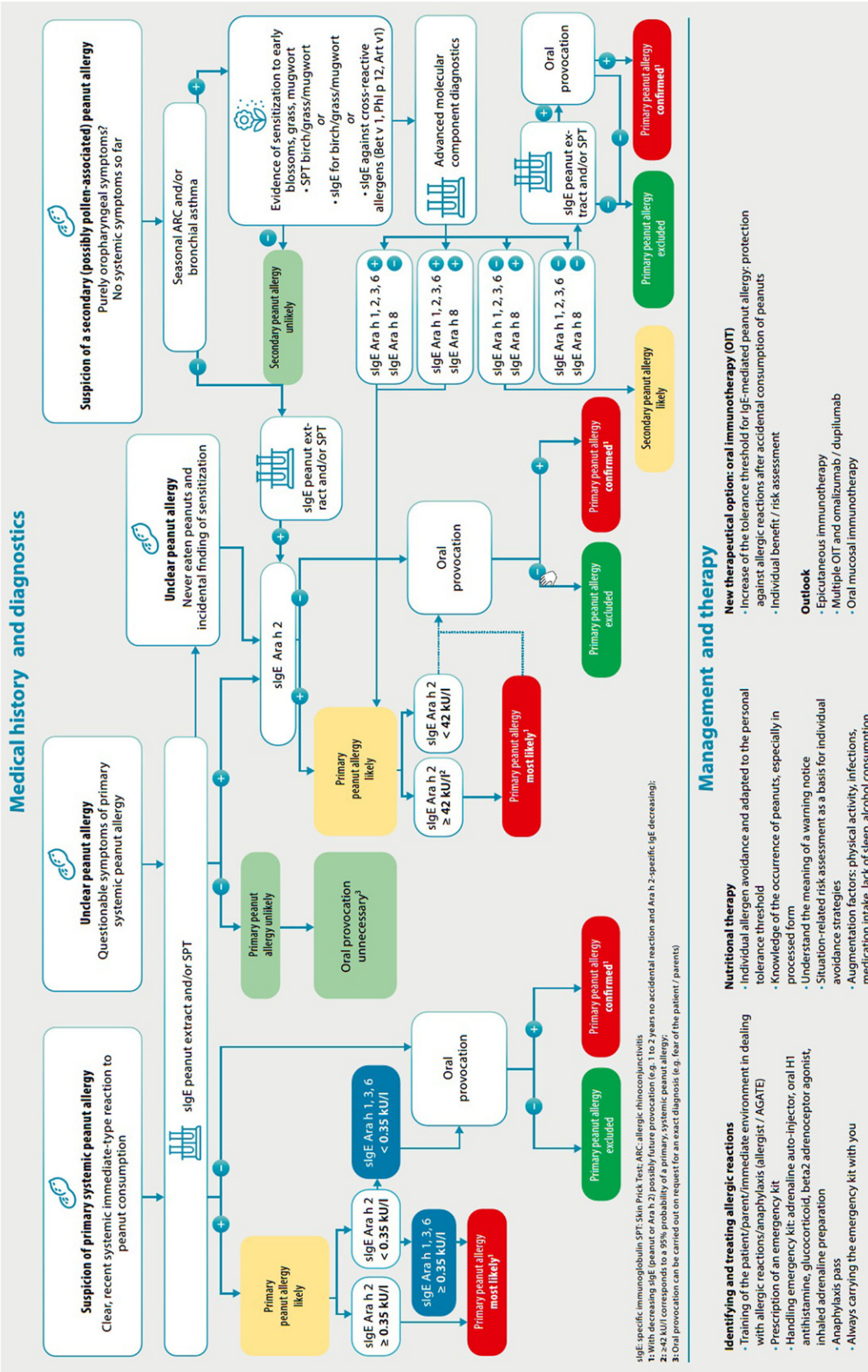


Fig. 1 Diagnostic, management and treatment pathway for peanut allergy

can safely confirm or exclude a primary peanut allergy. Peanut allergy management, in turn, aims to enable the patients to live well with their allergy in everyday life. In order to achieve this, knowledge of the medical history and diagnostics as well as management and therapy are essential. The treatment algorithm (Fig. 1; for full-size PDF see Supplementary Information) clearly summarizes everything relevant to peanut allergy.

Medical history and diagnostics [2]

The most important diagnostic key elements include a detailed clinical medical history, evidence of peanut-specific sensitization by means of skin prick testing and/or in vitro determination of the peanut (extract)-specific IgE and/or the molecular component diagnostics as well as the gold standard, the double-blind, placebo-controlled food challenge. The flow diagram was created for the following constellations:

- Suspected primary peanut allergy with a clear history of systemic immediate-type reaction
- Suspected primary peanut allergy with questionable symptoms
- Suspected secondary (possibly pollen-associated) peanut allergy with a history of solely oropharyngeal symptoms
- Incidental finding during sensitization testing and no peanut ingestion so far.

Management and therapy—nutritional therapy [3]

- Education about the occurrence of the offending food
- Align avoidance strategies individually according to the tolerance threshold
- Avoidance of peanuts—show the possibilities and limits of the food information regulation
- Maintain or restore quality of life through successful disease management in everyday life
- Meet the worries and fears of those affected and their families
- The risk for experiencing an allergic reaction and the severity of this reaction is dependent on the individual disposition.
- Possible augmentation factors: physical activity, infections, drug intake (e.g., non-steroidal anti-inflammatory drugs), lack of sleep, alcohol consumption

Management and therapy—oral immunotherapy with Palforzia® [4]

- Patients aged 4–17 years with a confirmed diagnosis of primary peanut allergy
- Palforzia (Aimmune Therapeutics Ireland Limited, Dublin, Ireland) ® is a powder (peanut protein as

a defatted powder from *Arachis hypogaea* L., semen).

- Peanuts must continue to be avoided throughout therapy.
- The initial doses as well as each new dose level must be taken under medical supervision.

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