Effective Health Care

Screening for Food Sensitivity
Nomination Summary Document

Results of Topic Selection Process & Next Steps

- *Screening for Food Sensitivity* was found to be addressed by a series of systematic reviews and accompanying clinical guidelines (based on the systematic reviews) from the European Academy of Allergy and Clinical Immunology (EAACI) Food Allergy and Anaphylaxis Guidelines Group. Given that the existing reviews and guidelines cover this nomination, no further activity will be undertaken on this topic.

  The protocols for the systematic reviews, the completed systematic reviews, and the accompanying clinical guidelines can be accessed at http://www.eaaci.org/resources/food-allergy-and-anapyhlaxis-guidelines.html.

  Systematic Reviews

  - Salvilla SA, Dubois AEJ, Flokstra-de Blok BMJ, et al. Disease-specific health-related quality of life instruments for IgE-mediated food allergy. Allergy 2014; 69: 834–844
  - de Silva D, Geromi M, Halken S, et al. Primary prevention of food allergy in children and adults: systematic review. Allergy 2014; 69: 581–589.
  - de Silva D, Geromi M, Panesar SS, Muraro A, Werfel T, et al. Acute and long-term management of food allergy: systematic review. Allergy 2014; 69: 159–167.
  - Soares-Weiser K, Takwoingi Y, Panesar SS, et al. The diagnosis of food allergy: a systematic review and meta-analysis. Allergy 2014; 69: 76–86.
  - Nwaru BI, Hickstein L, Panesar SS, et al. The epidemiology of food allergy in Europe: a systematic review and meta-analysis. Allergy 2014; 69: 62–75.
  - Dhami S, Panesar SS, Roberts G, et al. Management of anaphylaxis: a systematic review. Allergy 2014; 69: 168–175.

  Clinical Guidelines

  - Muraro A, Werfel T, Hoffmann-Sommergruber K, et al. EAACI Food Allergy and Anaphylaxis Guidelines. Diagnosis and management of food allergy. Allergy 2014; DOI: 10.1111/all.12429.
  - Muraro A, Halken S, Arshad SH, et al. Primary prevention of food allergy. Allergy 2014; 69: 590–601.
  - Muraro A, Roberts G, Worm M, et al. Anaphylaxis: guidelines from the European Academy of Allergy and Clinical Immunology. Allergy 2014; DOI: 10.1111/all.12437.
  - Muraro A, Agache I, Clark A, et al. EAACI Food Allergy and Anaphylaxis Guidelines: managing patients with food allergy in the community. Allergy 2014; DOI: 10.1111/all.12441.
  - Muraro A1, Hoffmann-Sommergruber K, Holzhauser T, et al.. EAACI Food Allergy and Anaphylaxis Guidelines. Protecting consumers with food allergies: understanding food consumption, meeting

regulations and identifying unmet needs. Allergy. 2014 May 30. doi: 10.1111/all.12453. [Epub ahead of print]

Topic Description

Nominator(s): Individual

Nomination Summary: The nominator is interested in the comparative effectiveness of treatments for patients with food sensitivities, and in identifying treatments that have the best impact with the fewest side effects. The nominator suggested a comparison of various prevention and treatment options, including screening and diagnostic procedures, pharmaceuticals, as well as behavioral interventions (e.g., rotating foods, educating patients, keeping a food diary).The nominator also suggested an investigation of prevention and treatment effectiveness for 20-50 year old patients suffering with atopic dermatitis related to food sensitivities.

Staff-Generated PICO:
Population(s): Patients showing signs of negative health-related outcomes related to food sensitivities/allergies/intolerance
Intervention(s): Interventions that prevent or treat negative health outcomes related to food sensitivities/allergies/intolerance, including: pharmaceuticals, avoidance of food culprit, rotating foods, creating food diaries to identify food sensitivity/allergy, and testing for food reactions.
Comparator(s): All other treatment options
Outcome(s): Increases in healthy outcomes for patients with food sensitivities/allergies/intolerance, including physical and emotional health, and quality of life; decreases in patient morbidity and health-related side effects.

Key Questions from Nominator:

1. For patients with food sensitivities, what is the comparative effectiveness of the most common prevention strategies and treatments?
2. Which treatments have the fewest side effects?

Considerations

- The topic meets EHC Program appropriateness and importance criteria. (For more information, see http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/.)
- The term “food hypersensitivity” describes adverse reactions to food, and there are two types: food allergy and food intolerance.
  - A food allergy is an abnormal immune-mediated response to a food or food additive, and symptoms can range from mild to severe, can develop rapidly, and can sometimes become life-threatening (known as anaphylaxis). Food allergy has become a serious health concern in the US, affecting up to 6% of young children and 3%-4% of adults.
  - Food intolerance is where the body’s reaction to food does not involve the immune system, and symptoms are not usually as serious as the symptoms of food allergy.

Larger amounts of foods are needed to cause a reaction and the amounts can vary from person to person. Food intolerance is sometimes also called non-allergic food hypersensitivity.

- Food hypersensitivity has become a serious health concern in the US, affecting both children and adults. There is currently no cure, and the available interventions are either prevention-focused (e.g., diagnosis, keeping a food diary) or treatment-focused (i.e., managing the symptoms as they appear). Individuals with food allergies can experience severe, life-threatening reactions.
- The topic is addressed by a series of systematic reviews and accompanying clinical guidelines from the European Academy of Allergy and Clinical Immunology (EAACI) Food Allergy and Anaphylaxis Guidelines Group. Collectively, the systematic reviews and guidelines completed by the EAACI Food Allergy and Anaphylaxis Guidelines Group appear to review the limited evidence on the diagnosis, treatment, and management of food allergies:

    - Salvilla et al. (2014), *Disease-specific health-related quality of life instruments for IgE-mediated food allergy*: The review identified seven validated, disease-specific HRQL instruments that were determined to be suitable establishing the impact of food allergy on HRQL.

    - de Silva et al. (2014), *Primary prevention of food allergy in children and adults: systematic review:* The review included 74 studies, one-third of which were considered high quality. The review did not identify good quality evidence to support dietary modifications for pregnant of breastfeeding women to prevent allergies in infants. There was mixed evidence regarding the preventative benefits of breastfeeding and no evidence to support the preventative benefits of soy milk or delayed introduction of solid foods. There was a lack of evidence for interventions for older children or adults.

    - de Silva et al. (2014), *Acute and long-term management of food allergy: systematic review*: The review included 84 studies, two-thirds of were considered to have a high-risk of bias. Overall, the review found that the evidence on pharmacological and non-pharmacologic interventions was limited. There was weak evidence to support the use of H1-antihistamines for non-life-threatening symptoms in children and adults. There was moderate evidence to support alternatives to cow milk's formula for infants with cow milk's allergy. There was no evidence on other foods or for how foods may be re-introduced to the diet.

    - Soares-Weiser et al. (2014), *The diagnosis of food allergy: a systematic review and meta-analysis*: The review compared skin prick tests (SPT), specific-IgE (sIgE), component-resolved diagnosis and the atopy patch test (APT). The authors concluded that the evidence base on the test was limited and weak. Overall, SPT and sIgE were found to be sensitive, but not specific for diagnosing IgE-mediated food allergy.

    - Nwaru et al. (2014), *The epidemiology of food allergy in Europe: a systematic review and meta-analysis*: The review found that the incidence of food allergies in Europe appeared stable over time. The review did not find any clear prognostic factors for the development of food allergies, but did note that sex, age, location, as well as personal and family history may be important factors.

- Dhami S, et al. (2014), *Management of anaphylaxis: a systematic review*: The review found a lack of robust evidence on the management of acute or long-term anaphylaxis. There was some evidence to support the immediate administration of adrenaline intramuscularly in the mid-thigh as a life-saving measure. Anaphylaxis management plans may reduce the severity of subsequent events.

- All of the reviews note that the available evidence on this topic appears to be of variable quality and that further research is needed.