NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

SCOPE

1 Guideline title

Food allergy: diagnosis and assessment of food allergy in children and young people in primary care and community settings

1.1 Short title

Food allergy in children and young people

2 The remit

The Department of Health has asked NICE: ‘To produce a short clinical guideline on the diagnosis and assessment of food allergy in children in primary care and community settings.'

3 Clinical need for the guideline

3.1 Epidemiology

a) Food allergy is an adverse immune response to food allergens. It can be classified into IgE mediated, non-IgE mediated (including T cell, IgG and eosinophil mediated) and mixed IgE mediated allergy. The IgE mediated reactions are acute, frequently have rapid onset and are characterised by:

- anaphylaxis
- angioedema
- asthma or respiratory symptoms, such as wheezing
- conjunctivitis
- oral allergy syndrome
- rhinitis
- urticaria.

Non-IgE mediated food allergy reactions are generally in the form of food intolerance and are characterised by:

- atopic eczema
- chronic pulmonary disease
- constipation
- enterocolitis
- enteropathy
- eosinophilic oesophagitis
- faltering growth
- gastro-oesophageal reflux disease
- proctitis
- proctocolitis.

These are frequently delayed onset conditions and may need to be confirmed by of a paediatrician or paediatric gastroenterologist.

b) Sensitisation to food and inhalant allergens increases with increasing severity of eczema, suggesting a role for the skin barrier in initiating allergic disease.

c) Food allergy in the population is among the most common of the allergic disorders and has been recognised as a major paediatric health problem in western countries. This is because of the severity of reactions and a dramatic increase in prevalence over recent decades.

d) The prevalence of food allergy in Europe and North America, has been reported to range from 6% to 8% in children up to the age of 3 years.

e) In the UK there have been concerns expressed about the prevalence of food allergy in the general population, especially from people affected by food allergy and their families, healthcare staff, schools, food producers and retailers, and government departments.

f) There has also been discrepancy between self-reported food allergy and confirmed correct diagnoses of food allergy. In view of this, there is inconsistency in the reported prevalence of food allergies in children and young people.

g) Only 25–40% of self-reported food allergy is confirmed as true clinical food allergy by an oral food challenge.

h) The following are the most common foods to which children and young people are allergic:

- cows' milk
- fish
- hens' eggs
- kiwi fruit
- peanuts
- sesame
- shellfish
- soy
- tree nuts
- Wheat.

Less commonly, there are reported allergies to certain fruits, for instance, banana.

i) Recent evidence suggests that the prevalence of self-reported food allergy differs for individual foods and ranges from 3% to 35%.

j) Correct diagnosis of food allergy, followed by counselling and advice based on reliable criteria, is important because it will help decrease the incidence of adverse food reactions resulting from true food allergies and also help prevent the unnecessary dietary exclusion of foods which are safe and which should be eaten as part of a normal, healthy diet.

3.2 Current practice

a) In 'A review of services for allergy: the epidemiology, demand for and provision of treatment and effectiveness of clinical interventions' (2006), the Department of Health concluded that there was considerable variation in current practice for allergy care, with no agreed treatment pathways, referral criteria or service models. Specifically it was reported that many people with allergy practised self-care, using alternative sources of support rather than NHS services (for example, complementary services with non-validated tests and treatments).

In the NHS, most allergy care takes place within primary care. People with a clear diagnosis, and mild but persistent symptoms, are usually managed in general practice without referral to a specialist service. Some people with allergies, and parents and/or carers of children and young people with allergies, also purchase over-the-counter medicines from community pharmacies or high street chains. However, if there is diagnostic doubt or more severe disease the GP may consider referral for a specialist opinion. Depending on the local service provision this may be delivered:

- in an allergy clinic run by an allergist or a paediatric allergist
- in an allergy clinic run by a consultant in another specialty (such as respiratory or immunology)
- within children's services (although many children are seen within adult services).

b) The Department of Health review also suggested, following consensus, that primary care practitioners have limited knowledge or awareness of allergy, are not sufficiently trained in allergy, may overlook multi-system atopy, and lack guidelines for therapy and referral.

c) The Map of Medicine pathway for suspected food allergy shows that on clinical presentation of food allergic symptoms, primary care practitioners should:

- carry out a thorough clinical history, including symptoms, history of episodes, family history of atopy or food allergy, other possible causes, current diet, recent changes in diet and feeding history in young children
- conduct a physical examination to assess factors such as nutritional status and growth patterns, signs of atopy and/or comorbidity
- consider differential diagnoses, such as non-IgE mediated immune reactions, toxic reactions and asthma
- consider referral to an allergy specialist when, for instance, there is doubt about the diagnosis, a history of anaphylaxis or severe reaction, or the need for several and/or nutritionally important foods to be eliminated.

d) There is currently no evidence-based clinical guideline for use in England, Wales and Northern Ireland that addresses the diagnosis and assessment of food allergies in children and young people.

4 The guideline

The guideline development process is described in detail on the NICE website (see section 6, ‘Further information’).

This scope defines what the guideline will (and will not) examine, and what the guideline developers will consider. The scope is based on the referral from the Department of Health.

The areas that will be addressed by the guideline are described in the following sections.

4.1 Population

4.1.1 Groups that will be covered

a) Children and young people up to their 19th birthday presenting with suspected food allergy and symptoms such as atopic eczema, anaphylaxis, urticaria, rhinitis, conjunctivitis, asthma, gastrointestinal symptoms and oral allergy syndrome on eating certain foods. Children will be separated into age specific subgroups (0–6 months, 6–12 months, 1–2 years, 2–5 years, 5–10 years and 10–18 years) as appropriate.

b) Children and young people up to their 19th birthday who are at higher risk of developing a food allergy, specifically:

- children with existing atopic diseases such as asthma, atopic eczema and allergic rhinitis
- children with a first degree relative (that is, a parent or sibling) with a food allergy or other atopic disease.

4.1.2 Groups that will not be covered

a) Adults aged 19 years and over.

b) Children and young people with non-immunologically mediated (that is, non-allergic) food intolerance such as an intolerance to lactose.

c) Children and young people with a toxic reaction to food, such as protease inhibitors in legumes.

d) Children and young people with a pharmacological reaction to food, such as tyramine in cheese and pickled herrings.

e) Children and young people with a psychological reaction to food, such as food avoidance.

4.2 Healthcare setting

a) Primary care NHS settings.

b) Community settings including the home environment and health visits, preschools, schools, children's centres and other childcare health settings, community pharmacy, community dietitian and community paediatrician services.

4.3 Clinical diagnosis

4.3.1 Key clinical issues that will be covered

a) Physical examination and assessment, including clinical history for the diagnosis of food allergy.

b) Use of child or parent diaries of episodes of suspected food allergy, including symptoms and food ingested.

c) Evaluation of the following diagnostic tests either alone or in combination, in the diagnosis and assessment of food allergy:

- atopy patch test
- food elimination
- serum specific IgE
- skin prick test (fresh foods and commercial extracts will be assessed)
- double-blind placebo-controlled food challenge will be included as the comparator for the above tests.

d) Determination of a differential diagnosis for IgE, non-IgE and mixed-IgE mediated food allergy to specific foods.

e) Referral to secondary care or other services, such as allergists, dietitians, respiratory medicine specialists, ENT, immunologists and general paediatricians, as appropriate.

f) The specific information and support needs of children with suspected food allergy and their parents or carers

g) Evaluation of the following alternative diagnostic tools, either alone or in combination, in the diagnosis of food allergy:

- Vega test
- applied kinesiology
- hair analysis
- leucocytotoxic test
- IgG test.

4.3.2 Clinical issues that will not be covered

a) Diagnosis of food intolerance.

b) Diagnosis of food allergy in adults aged 19 years and over.

c) Diagnosis of food allergy in children and young people in secondary and tertiary care.

d) Prevention and treatment of food allergy in children and young people in primary care and community settings

4.4 Main outcomes

a) Utility of various tools, history taking and physical examination for the correct diagnosis and assessment of IgE, non-IgE or mixed-IgE mediated food allergy in children and young people.

b) Rates of referral to secondary or specialist care.

c) Adverse events associated with diagnostic tools.

d) Health-related quality of life associated with diagnosis or misdiagnosis of food allergy.

e) Resource use and costs.

4.5 Economic aspects

Developers will take into account both clinical and cost effectiveness when making recommendations involving a choice between alternative tests. A review of the economic evidence will be conducted and analyses will be carried out as appropriate. The preferred unit of effectiveness is the quality-adjusted life year (QALY), and the costs considered will usually only be from an NHS and personal social services (PSS) perspective. Further detail on the methods can be found in 'The guidelines manual' (see ‘Further information’).

4.6 Status

4.6.1 Scope

This is the final scope.

4.6.2 Timing

The development of the guideline recommendations will begin in March 2010.

5 Related NICE guidance

- Coeliac disease. NICE clinical guideline 86 (2009). Available from www.nice.org.uk/guidance/CG86
- Diarrhoea and vomiting in children. NICE clinical guideline 84 (2009). Available from www.nice.org.uk/guidance/CG84
- Atopic eczema in children. NICE clinical guideline 57 (2007). Available from www.nice.org.uk/guidance/CG57
- Inhaled corticosteroids for the treatment of chronic asthma in children under the age of 12 years. NICE technology appraisal guidance 131 (2007). Available from www.nice.org.uk/guidance/TA131

5.1 Guidance under development in parallel with NICE

The Royal College of Paediatrics and Child Health is currently developing the following related guidance:

- Food and gastrointestinal allergy care pathway. The Royal College of Paediatrics and Child Health. Publication expected December 2010.

6 Further information

Information on the guideline development process is provided in:

- ‘How NICE clinical guidelines are developed: an overview for stakeholders the public and the NHS’
- ‘The guidelines manual’.

These are available from the NICE website (www.nice.org.uk/GuidelinesManual). Information on the progress of the guideline will also be available from the NICE website (www.nice.org.uk).