Reducing allergy risk

Health care professionals have an opportunity to play a key role in reducing allergy risk. This supplement outlines the problem of allergic disease. It also gives strategies to help identify which children or families may be at greatest risk of allergy, and how to deal with these issues.

Current and projected allergy incidence
The incidence of allergic disease has trebled over the last 20 years. Now, 12 million people need treatment for allergic disease every year. Allergic disease affects one in three people in the UK.

Up to 35% of children in industrialized areas are reported to be affected by allergy, and approximately 60% of allergies appear during the first year of life. Paediatric allergy is a growing problem, but what people don’t realise is that any infant could develop an allergic disease. In particular, food allergy is one of the most common forms of allergy in infants. A recent study on the Isle of Wight (Pereira et al.) confirmed that 2.3% of 11- and 15-year-old children, and 6.5% of 1-3-year-olds, have food hypersensitivity.

Treatment of diseases such as food allergy, eczema, rhinitis and asthma places a particularly intense burden on the NHS because of the increasing prevalence, severity and complexity of these conditions. We need to identify, and use, prevention measures so that the burden of allergy can be lessened.

Describing allergy and sensitivity correctly
First, it’s important to clarify the prevention strategies that health care professionals can follow. Primary allergy prevention describes measures that are taken to prevent sensitisation. In other words, following a strategy to stop an infant’s immune system from producing immunoglobulin (Ig)E in response to a particular protein.

Secondary allergy prevention describes measures taken to stop the already sensitised, asymptomatic individual from becoming clinically allergic. This includes preventing further allergic disease in an infant who is already sensitised to a specific allergen (e.g. pollen, dust mite).

Therefore, prevention of allergic disease does not include treatment of infants already clinically allergic, such as those suffering from food allergy, asthma, eczema or rhinitis/hayfever.

Cows’ milk is usually the first source of foreign antigen encountered in infancy, either through dairy foods eaten by the breast-feeding mother, infant formula or weaning foods. Around 50% of infants with atopic dermatitis or food sensitizations will eventually develop respiratory diseases (Figure 1). This process is referred to as the atopic march.

In order to prevent allergic disease, especially food allergy, the correct nomenclature and definitions should be used.

A European Academy of Allergy and Clinical Immunology task force (Johansson SG et al.) suggested that any adverse reactions to food should be called food hypersensitivity. When immunological mechanisms have been demonstrated, they suggest that the appropriate term is food allergy. Where the role of IgE is confirmed, they suggest that it is known as IgE-mediated food allergy. The task force also

Figure 1: An interpretation of the allergic march. Around half of all babies with atopic dermatitis or food sensitizations will go on to develop respiratory diseases.

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