

Allergy Immunotherapy

The term allergy or atopy is commonly used in the general and medical population. It can be confusing and easily misinterpreted.



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The genetic definition means there are certain diseases that can occur more frequently in each patient. In this situation, if they have one of these conditions they are more likely to have another. These conditions also run together in families. These conditions are Hayfever, asthma, eczema and food allergy.

When used by the general public, the term allergy is often meant to imply a type I hypersensitivity reaction.

Type I hypersensitivity reactions occur when there is IgE mediated histamine release from mast cells. The histamine along with other released mediators cause the allergic symptoms.

To diagnose if a patient has an allergy, there must be the usual allergic symptoms as well as a temporal association of the symptoms with the exposure to the allergen. The temporal association is usually minutes. In other words, the patient develops their allergic symptoms within minutes of their exposure to whatever it is they are allergic to. It can take maybe an hour or 2, but this is rare.

To confirm one's clinical suspicion of allergy, allergy testing is undertaken.

Allergy testing occurs in 2 main formats. Skin prick testing and blood testing. Skin prick testing is an in-vivo test whereby a drop of the allergen is placed on the skin. The skin is then punctured with a tiny lancet, to give access of the allergen to the mast cells that are in the skin. A positive test results in a small wheal/hive which occurs within minutes after the skin has been punctured by the lancet. Results are available within 20 minutes.

Alternatively, a blood test can be done, commonly referred to as a RAST test. This is an in vitro test, but results are not available for a matter of weeks.

Both the skin prick test and the blood test are essentially equally effective, with a 97% negative predictive value.

Skin prick testing is cheaper and results being more readily available. For these reasons, skin prick testing is often more preferable to the patient.

However, if testing for a substance that the patient has had a previous anaphylactic reaction to, then the blood test is preferable.

The number one treatment of allergy is avoidance where possible. This is done by instituting environmental control measures.

After instituting environmental measures, we have a number of medications, predominantly antihistamines and steroids.

Where these treatments fail, we can use immunotherapy.

Immunotherapy is where the doctor gives a little bit of whatever the patient is allergic to, and the patients body builds up an immunity to it. However, it takes time, months to years, for the body to build up immunity to the allergen.

Originally, this immunotherapy was in the form of subcutaneous injections, known as subcutaneous immunotherapy (SCIT). These injections were commonly referred to as "allergy shots". They are given every 2 to 4 weeks, for 3 years. This practice has not been available in Ireland for over 30 years, but it is still carried out extensively in the United States.

In Ireland, the UK and across Europe, immunotherapy is now taking the form of sublingual tablets that dissolve under the tongue. This is known as sublingual immunotherapy (SLIT).

Before embarking on a course of SLIT, the patient should have had a recent skin prick test or blood test confirming the allergy to the allergen they are about to undergo SLIT for.

SLIT is available in Ireland from 2 companies.

The first tablet of SLIT is given under medical supervision. The patient is then observed for one hour for possible side-effects. The tablet is allowed to dissolve under the tongue over the course of 1-2 minutes. It is a very safe form of treatment and the only common side-effect is mild itching or tingling in the mouth and throat. This is readily treated with administration of an oral antihistamine.

SLIT is available for grass pollen, dust mite and more recently tree pollen. The most commonly prescribed SLIT is grass pollen and is available as Grazax or Oralair.

Immuno therapy is very effective, resulting in much less symptoms and much less need for medication in 70-90% of patients. It has the potential to be curative. If after 1 year of taking SLIT the patient does not notice any difference, then it is simply stopped.

SLIT is not a substitute for environmental control measures, as one can overwhelm the effect of the SLIT with a large enough allergen exposure.

It is also not a substitute for medicine, but as time goes by the need for the medicine should get less.

SLIT for grass pollen can potentially treat food allergy syndrome (oral allergy syndrome), by desensitising the patient to the cross-reacting foods.

PHARMACY FOR SALE

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