# Liverpool University Hospitals

## Patient information

## **Injection Immunotheraphy Desensitisation**

Allergy and Clinical Immunology

#### What is immunotherapy?

Allergies occur when the body reacts to foreign proteins (allergens). In allergic rhinitis, nose symptoms (runny, itchy or blocked nose) or eye symptoms (itchy watery eyes) occur after contact with these allergens e.g. grass or tree pollen, house dust mite, dogs and cats.

Immunotherapy is the only treatment that can change the underlying allergic disease. The alternative is to continue with medicines that dampen down the symptoms such as antihistamines and nasal steroids.

#### How is immunotherapy given?

Immunotherapy is given either by injection under the skin (subcutaneous immunotherapy [SCIT]), or as a drop or a tablet under the tongue (sublingual immunotherapy [SLIT]). Giving increasing amounts of the allergen trains the immune system to ignore the allergen (immune tolerance).

Subcutaneous immunotherapy (SCIT) is used by our allergy service, particularly for grass pollen and tree pollen allergies.

It is also used to treat patients with bee or wasp venom allergies.

SCIT for a grass and tree pollen allergy is used for people with very troublesome hay fever.

There are two different courses of treatment – continuous or pre-seasonal. The SCIT course usually starts in winter, before the pollen season starts, on three consecutive years.

- Continuous over a period of approximately one two to three months you have to come every week whilst we gradually increase the dose you are given. After that you have to come every four to six weeks for the next three years.
- Pre-seasonal (for pollen allergy only) a shorter course of four to seven injections given over several weeks once a year, for three years.

The treatment is for three years. You will be contacted by telephone after the first year of treatment, if it is for pollen allergy, or after six months if you are treated for house dust mite allergy to check your response to treatment and the improvement in your symptoms.

You will be asked to complete symptoms scoring sheet to assess your symptoms objectively. If there was no improvement in the symptoms, the treatment will be discontinued. If your symptoms have improved in the first year, the treatment will continue for three years.

#### What are the benefits of immunotherapy?

Immunotherapy offers the potential for long term reduction in allergy symptoms and the need to use conventional treatment. Nose and eye symptoms can improve by greater than 50%. This can have a huge impact on the quality of life.

SCIT will not work for everybody. It leads to "very good" or "good" improvement in three out of four pollen allergic patients. It also reduces the use of hay fever medicines.

#### How safe is SCIT?

SCIT is safe. The medicine is well tolerated in most patients.

- Very common side effects include a swelling, redness, pain and itching at the injection site. This happens in more than one out of ten people.
- Common side effects are rash, tiredness, wheeze, headache, sneezing, coughing, itching, stuffy or runny nose, itchy eyes. These happen in one out of 100 people.
- Serious side effects are rare, and occur in only one out 10,000 people. A severe anaphylactic reaction can happen very quickly after the injection (sometimes within a minute). Symptoms of this are flushing, itching all over, rash, swelling of the lips, throat and tongue, difficulty breathing, nausea, vomiting, low blood pressure, fast heart beat and fainting.

The staff in the clinic are experienced in treating these reactions and will deal with them immediately. These are the reasons we ask you to stay for half an hour after your injection.

If you have any concerns about any of these effects, you should discuss them with your doctor/nurse.

- You may take an antihistamine tablet before you come for your injection. This reduces the chance of any reactions
- If you are not well please do not attend as this may increase the risk of having a reaction to treatment
- You should take it easy for the rest of the day. The treatment is designed to be released slowly over the day. Any strenuous exercise will cause it to be absorbed more quickly and could result in a serious reaction

#### What happpens if I miss a dose?

If you are not able to have one of your injections, it will be given the following week.

#### What if it doesn't work?

SCIT works best if you are sensitised to one allergen and agree to regularly attend the hospital for your injections. We will also ensure that, if you have asthma, it is well controlled. Injection immunotherapy cannot be given to anyone with asthma because of the risk of causing a serious reaction.

If it doesn't work, patients usually return to relying on avoidance strategies and symptomatic treatment. Sometimes there are other allergies e.g. pet allergy or dust mite allergy that need to be sorted.

#### Are there any alternative treatments available?

Immunotherapy can also be given by drops or tablets under the tongue (SLIT)..

#### Feedback

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

### **Further information**

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Author: Allergy and Clinical Immunology Review date: July 2026 All Trust approved information is available on request in alternative formats, including other languages, easy read, large print, audio, Braille, moon and electronically.

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