



## Do I have a penicillin allergy? Does my child have a penicillin allergy? Information for patients and parents

You have been given this information leaflet because you/your child have a label of a penicillin allergy and have been invited to have an oral penicillin challenge. This leaflet explains more about penicillin allergy, why it is important to test whether you/your child are allergic to penicillin, and what the test involves. Once you have read the information, if you are happy to go ahead with the challenge you will be asked to sign a consent form. Please ask the team looking after you if you are unsure or if you have any questions about what you have read.

### What is penicillin?

Penicillin is a type of antibiotic that is used to treat common bacterial infections such as ear infections, chest infections/pneumonia, tonsillitis, skin infections and urinary tract infections. Examples of penicillin antibiotics include:

- Amoxicillin
- Phenoxymethylpenicillin (Penicillin V)
- Flucloxacillin
- Co-Amoxiclav (Augmentin)

### What is a penicillin allergy?

A penicillin allergy is caused by the body's immune system responding unusually to a penicillin antibiotic. For most people, an allergic reaction can cause a mild skin rash, hives or swelling that can develop slowly over hours or days, after taking penicillin. Sometimes a more severe reaction can occur, called anaphylaxis. This is rare. Symptoms of anaphylaxis include swelling of the throat or tongue, difficulty breathing, cough or wheeze; or a change in conscious level or collapse.

### What is the difference between an allergy and side effects?

All medicines can potentially cause unpleasant side effects such as skin rashes, nausea, vomiting or diarrhoea. Side effects are different to allergic reactions. Having side effects to penicillin, although might be unpleasant, does not mean that penicillin needs to be avoided completely. This is particularly true in severe infections where penicillin may be the best treatment option.

### **How common is penicillin allergy?**

**1 in 10** people have either been told or assume that they have a penicillin allergy

**9 in 10** people who have a label of penicillin allergy are not actually allergic when tested

**1 in 100** people have a genuine penicillin allergy

**1 in 10,000** people who take penicillin may have a severe allergic reaction or anaphylaxis

### **Can penicillin allergy run in families?**

Penicillin allergy does not run in families. If you/your child have a relative who is allergic (or suspects that they are allergic), that does not mean that you/your child, or other family members are allergic.

### **Why might I have been labelled as allergic to penicillin if I'm not really allergic?**

There are a number of reasons why penicillin allergy is over-reported including:

- mistaken diagnosis due to an incidental viral rash or immune response to infection
- labelling of side effects or intolerance to penicillin as an allergy
- 80% of people with a true penicillin allergy will outgrow this over time

### **What are the risks associated with being labelled as allergic to penicillin?**

Penicillin is a very effective antibiotic used to treat many common infections. Being labelled as allergic to penicillin means that you/your child are more likely to receive an alternative, broad-spectrum antibiotic, which may not be as effective, may result in needing to be treated for longer, and may increase the risk of developing an antibiotic-resistant infection in future.

### **What are the benefits of finding out if I am truly allergic to penicillin?**

A simple test (or oral challenge) can be carried out to confirm if you/your child are allergic to penicillin or not. If the test (challenge) shows that you/your child are not allergic to penicillin then your/their medical records will be updated, and you/they will be able to receive a penicillin antibiotic if and when really needed. This means that more treatment options are available if you/they have an infection or need antibiotics.

### **What does a penicillin challenge involve?**

Before the challenge you will be asked questions about symptoms which occurred that led to you/your child being labelled as penicillin allergic. This information will be used by the doctors to decide whether you/they are at low risk of having an allergic reaction to penicillin. The potential risks of doing the challenge will be explained to you and you will be asked to sign a consent form. If you agree to go ahead you/your child will be given a dose of penicillin under supervision. You/your child will be monitored for 1 hour after taking the dose.

Some people might be asked to take more penicillin after they have been discharged home to check that it is tolerated and there is no delayed reaction. Enough antibiotic to complete the course will be provided along with instructions on when to stop. You will also be provided with contact details for the team in case you have any questions or concerns about possible delayed allergic reaction.

### **What happens after the challenge?**

At the end of the challenge the team will discuss the outcome with you and explain what it means. If you/your child have not experienced an allergic reaction, a letter will be sent to the GP informing them of the result. The GP will be asked to remove the penicillin allergy label from your/your child's GP record. You will also be provided with a letter to take home with you explaining the results.

If the test confirms that you/your child are allergic to penicillin, then you will be advised to avoid penicillins in future. The GP will be informed of this outcome and your/your child's medical records updated.

### **Do I have to have the challenge?**

It is your decision whether you would like to go ahead with the challenge. The risks and benefits have been explained in this leaflet, but please ask the team if you have any questions or concerns, as they may be able to give more information to help you make a decision.

### **Are there any risk or side effects?**

There is a small chance that you/your child might experience an unpleasant side effect such as nausea or vomiting, or you/your child may experience an allergic reaction. Allergic reactions are usually mild and cause a rash or swelling. More severe reactions involving breathing difficulties or collapse are rare. You/your child will be monitored closely by staff who are trained in the recognition and treatment of allergic reactions and other possible side effects. If you/your child experience any symptoms you/they will be assessed and treated appropriately.

### **What will happen if I have the challenge?**

If you decide to go ahead with the challenge, you will be asked to sign a consent form. A member of the team will also sign this form and it will be kept in the medical notes as a record of your agreement.

### **What will happen if I don't have the challenge?**

If you decide not to have the challenge, your/your child's medical notes will continue to state that you/they are allergic to penicillin. You/they will not be given penicillin. Any treatment that you/they receive will not be affected by the decision not to have the challenge. You can re-consider having the test at any time if you change your mind.