

## INFORMATION FOR PATIENTS AND FAMILIES

### Adrenaline Challenge Test

#### **Why have I been referred for the test?**

Your Doctor has referred you for an adrenaline test. This test is used to help diagnose two rare conditions. The first is called long QT syndrome, the second is catecholaminergic (pronounced - cat-E-Chol-A-Mine-er-jick) polymorphic ventricular tachycardia or CPVT.

People with either one of these conditions may be at risk of developing serious abnormal heart rhythms (arrhythmia). These can cause symptoms including weakness, dizziness, chest pain, shortness of breath, passing out or in rare cases death. If you have a close family member who has been diagnosed with either of the above conditions or has died from a suspected arrhythmia (SADS) at a young age, it is important that you are offered screening for these conditions.

#### **What is Adrenaline?**

It is a hormone secreted by our bodies that increases the speed and force of the heartbeat; it has been found useful to aid in the diagnosis in Long QT syndrome and CPVT.

#### **How do I prepare for the test?**

You will need to have an empty stomach and so you must not have anything to eat or drink for 6 hours before the test. If you take medication known as beta blockers, then you will need to stop taking these 48 hours before the test.

#### **What happens during the Adrenaline Test?**

A doctor and a nurse will be present throughout the procedure. You can ask a family member or friend to accompany you during the test if you wish.

The test will take place on the Day ward. You will be met by a nurse who will record your blood pressure, pulse and temperature, and will insert a cannula (small plastic tube) into a vein in your arm and take a blood sample at the same time. The cannula is required so the medication can be given through a pump. You will be attached to a cardiac monitor and an ECG machine to record heart tracings during the infusion and up to 90 minutes following the infusion.

#### **How long does the test take?**

The adrenaline will be given via an infusion (through a cannula). The infusion of the drug can take up to 25 minutes. Following this there is then a further 30 – 90 minutes of monitoring required.

#### **Are there any side effects and risks?**

You might be aware that your heart is racing or that your heart beat might feel heavier or more forceful. You may experience a feeling of being anxious, a tremor or chest tightness. This is as a result of the adrenaline being given. These sensations will go away very quickly after the medications are stopped. Very rarely it can cause you to feel sick or give you a headache.

A very small proportion of the population may develop potentially serious heart rhythm problems (less than 1 in 100). If we see any warning signs on your ECG during the test then we will end the test immediately. Often no further treatment is required other than just monitoring whilst the drug wears off. On some occasions we give a drug to counteract the adrenaline and lower your heart rate.

On very rare occasions this heart rhythm may require urgent treatment with a procedure known as a cardioversion (a controlled electrical shock to restore normal heart rhythm). This is a well-established, safe and effective treatment for fast heart rhythms.

### **Benefits of the test**

The test will help us decide whether you have Long QT syndrome or CPVT. Knowing this is important as it may mean that you need other tests or treatment. However, if the test is negative it will provide re-assurance for you.

### **Are there any alternatives?**

This depends upon your condition and the doctor will be happy to discuss any alternative tests or investigations they feel would be appropriate for you.

### **Following the Adrenaline test**

After the test you will be given something to eat and drink, the cannula will be removed from your arm and you should be able to go home between 30 minutes to 2 hours after the test and will be able to resume normal activities following the test.

### **Can I drive?**

You will be able to drive to and from the test.

### **When will you get the results?**

The ECGs will need to be reviewed after the test by a specialist doctor called an Electrophysiologist to determine the result, so it may be that the doctor present during the test will not be able to tell you the result immediately. If this is so your consultant will either write to you with the results or, arrange a follow up appointment for you in clinic.

### **How to contact us**

If you require any further information please contact:

Heart Rhythm Nurse Specialist Monday-Friday 9.00 am - 5.00 pm on 0151 600 1270

### **For further information visit:**

[www.lhch.nhs.uk](http://www.lhch.nhs.uk)

[www.sads.org.uk](http://www.sads.org.uk)

[www.cry-csc.org.uk](http://www.cry-csc.org.uk)

[www.bhf.org.uk](http://www.bhf.org.uk)

[www.arrhythmiaalliance.org.uk](http://www.arrhythmiaalliance.org.uk)

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