



Dorset Cardiac Centre

Ajmaline Test Brugada Syndrome

Why I have been referred for an ajmaline test?

Generally, this test is offered if:

- You have had symptoms such as unexplained blackouts or dizziness, and there are some abnormalities on your ECG tracing suggestive of Brugada syndrome (see below)
- You have survived a cardiac arrest and no cause has been clearly established
- There is a diagnosis of Brugada syndrome in your immediate family and as a result you have been offered screening for this condition

What is Brugada syndrome?

Brugada syndrome is an uncommon but potentially serious inherited condition that affects the electrical conduction system of the heart. The heart is otherwise structurally normal. The syndrome can cause abnormal heart rhythms (arrhythmias). Some people may be at risk of developing fast heart rhythms that can result in 'blackouts' or very rarely sudden death. If a doctor suspects that you may have Brugada Syndrome, they may advise you to have an ajmaline test to confirm or exclude the syndrome. Brugada syndrome is identified by changes on your ECG (electrocardiogram) that records the electrical signals from inside your heart. The ECG changes that show Brugada Syndrome are not always visible but may become obvious when a drug called ajmaline is given.

Where will it be done?

It will take place in the cardiology department of Dorset County Hospital (South Wing One Entrance).

How do I prepare for the test?

All patients who have not had a recent echocardiogram scan will have one arranged prior to the ajmaline test taking place. This is a painless scan to look at the structure of the heart.

We will arrange for you to have a blood test at your GP surgery a few days before the ajmaline challenge test in order to check the level of potassium in your blood and your liver function.

You should have nothing to eat for six hours before admission on the day of your ajmaline challenge. You can have plain water up until two hours before admission.

What happens during the test?

On the day of your appointment, you will be met on the day-case unit by the arrhythmia specialist nurses. They will explain the test and answer any questions that you may have.

Once you understand the procedure and any questions you have are answered, you will be asked to sign a consent form confirming that you understand the procedure and its associated risks.

It is important to tell your nurse or doctor if you have any allergies or have had a previous reaction to any drugs or other tests.

You will be given a hospital gown to wear as we will need to attach ECG electrodes to your chest in order to record the electrical signals from your heart during the test.

You will also be attached to a heart monitor.

The nurse will record your blood pressure and pulse, and then insert a cannula (small plastic tube) into a vein in your arm. The cannula is required in order to give you the medication.

An ECG will be recorded every minute for the duration of the test, and at regular intervals following the test for up to 10 minutes. Do not be concerned if the nurse is looking very closely at your ECG during the test, it does not necessarily mean that anything is wrong but it is important that any changes are recognised.

Will I feel any pain or discomfort?

You may experience a stinging sensation when the cannula (small plastic tube) is placed into your arm or hand. During the drug challenge you may notice these common side-effects that tend not to last very long. It is common to experience a metallic taste in the mouth during the administration of ajmaline. You may also experience visual disturbances and feel hot. If you do have uncomfortable symptoms such as chest pain, dizziness or shortness of breath, please inform the arrhythmia nurse specialists.

How long does it take?

Please allow at least three hours for the test. This includes getting you ready, the initial checks required, performing the test and monitoring you for one hour afterwards.

The actual infusion of the drug will take around five minutes.

Consent

We must by law obtain your written consent to this procedure beforehand. Staff will explain all the risks, benefits and alternatives before asking you to sign a consent form. If you are unsure about any aspect of the treatment proposed, please do not hesitate to speak with a senior member of staff.

Are there any risks involved?

A very small proportion of patients being tested can develop potentially serious heart rhythm problems during the test. If we see warning signs on your ECG during the test that suggests that this could happen, we will end the test early as a precaution. Usually, no further treatment is required, other than monitoring, whilst the drug wears off.

Very rarely, a serious heart rhythm can require urgent treatment with cardioversion (a controlled electrical shock to restore normal heart rhythm). Cardioversion is a well-established and effective treatment for fast heart rhythms. Before the cardioversion you may be given a sedative via the cannula in your arm to make you sleepy. Once you are asleep, a machine called a defibrillator is used to send electrical energy through the heart muscle to restore its normal rhythm and rate. There is an extremely small risk of death during the test.

Your doctor will only recommend that you have an ajmaline challenge if they feel that the benefits clearly outweigh any risks.

What happens after the investigation?

After the procedure you will be given a drink and something to eat and the cannula will be removed before you go home. You should be able to leave an hour after the test and will be able to resume normal activities following the test. We do, however, recommend that you have a responsible adult to collect you. The doctor and arrhythmia nurse specialists will speak to you about the findings of the test before you go home.

In the rare cases, where you have had a cardioversion, you will need to be monitored for a longer period of time, but if you remain stable, you should be able to go home later that day with a responsible adult (but in this case you would not be able to drive for 48 hours due to the sedation).

What are the treatment options if I do have Brugada Syndrome?

Your ongoing treatment and management plan will depend on the results of the test, your medical and family history. You may require further investigation and/or referral to the genetic screening service. You will be advised of medications to avoid and lifestyle measures that can reduce the risk of abnormal heart rhythm problems (arrhythmia). In some cases a specialised pacemaker device might be recommended. Your consultant and arrhythmia nurse specialist will be able to discuss these more fully with you at your clinic appointment.

Are there any lifestyle issues if I do have Brugada Syndrome?

If you have a diagnosis of Brugada syndrome you will be advised to avoid excessive alcohol intake and heavy meals and these may trigger arrhythmias. Also, prompt treatment if you get a high temperature is important, for the same reason.

Contact Numbers:

Arrhythmia nurse specialists: 01305 254920 (voicemail) or 01305 251150 bleep 498
Email: ArrhythmiaNurseSpeci@dchft.nhs.uk

Useful Websites:

Arrhythmia Alliance (A-A)
www.heartrhythmcharity.org.uk

British Heart Foundation
www.bhf.org.uk

Cardiac Risk in the Young
www.c-r-y.org.uk

Sudden Arrhythmic Death Syndrome (SADS UK)
www.sadsuk.org.uk

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If you have feedback regarding the accuracy of the information contained in this leaflet,
please email pals@dchft.nhs.uk.



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