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Having an ajmaline test to check for Brugada syndrome in the heart

Cardiac Rhythm Team

Information for Patients

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Introduction

Your doctor has recommended that you have an ajmaline challenge. This is a test to see if you have Brugada syndrome. This is a disorder that affects the cells of the heart, causing it to have an altered rhythm.

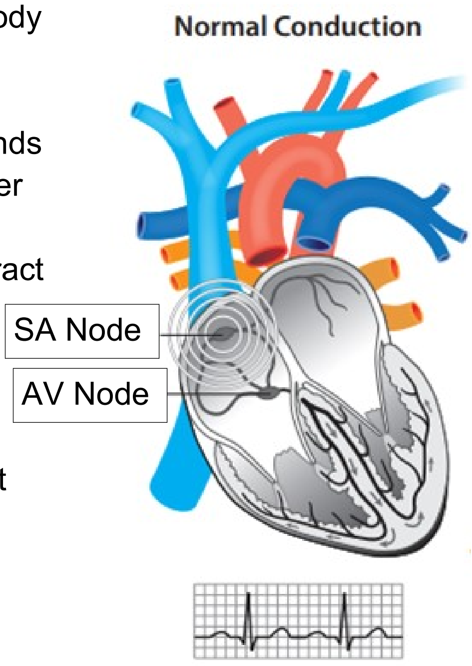
This leaflet will help you understand why it has been suggested you have an ajmaline test. It will tell you what you expect, when you come in for the test, the risks and benefits of the test and after care when you go home.

How does the heart work normally?

The heart is a pump. It helps move the blood around your body and to your brain.

Your heart has a special part called the sinus node. This sends tiny electrical signals to make it beat. This is in the right upper part of the heart called the right atrium. The signals spread through the upper chambers (atria) making the muscle contract and squeeze the blood into the bottom of the heart.

The signals then reach the atrio-ventricular (AV) node which is the middle junction box in the heart. The signal is slowed down as it passes down to the bottom chambers of the heart (ventricles). The ventricles contract and squeeze the blood around the body and brain from the left side or to the lungs from the right side.



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What is Brugada?

- Brugada syndrome is a rare inherited heart condition. It affects the way the electrical signals pass through the cells of the heart. The heart is often structurally normal.
- It is often caused by a faulty gene that is inherited by a child from a parent. We can do a simple heart test to see if you have it. This test is called an ajmaline provocation test.
- Some patients with Brugada syndrome may be at risk of getting abnormal heart rhythms called arrhythmias. This can cause blackouts or very rarely, sudden cardiac death.
- Arrhythmias are when the heart beats in an abnormal and ineffective way. This causes symptoms such as weakness, dizziness, chest pain, palpitations (heart flutter), shortness of breath or even collapse.
- You and your relatives must be screened for Brugada syndrome if:
  - you have a close family member who has been diagnosed with Brugada syndrome,
  - or have had a family member who has died at a young age from a suspected heart condition.
- Most of the people who have Brugada syndrome on an electrocardiogram (ECG) do not experience arrhythmia and feel well.
- Ajmaline is a drug which can help to show up ECG changes if you have Brugada syndrome.
- If you have normal cardiac cells, ajmaline will have little or no effect on the ECG results.

Symptoms of Brugada syndrome

Many people with Brugada syndrome do not have any symptoms. They do not realise they have it.

Some people experience:

- blackouts
- fits (seizures)
- sometimes noticeable heartbeats (palpitations)
- chest pain
- breathlessness
- dizziness

You can get symptoms at any time, but they are sometimes triggered by something such as a high temperature, drinking lots of alcohol, or dehydration.

Symptoms often first appear during adulthood, but they can happen at any age. They are more common in men than women or children.

Before admission into hospital

Often we see all patients having an ajmaline test at the Cardiac Rhythm Pre-Assessment Clinic. This is so that you will know what to expect on the day of the test. We may contact you by phone.

At your pre-assessment appointment we will talk to you about:

- your medical history and current symptoms
- the ajmaline provocation test
- your medicines. We will let you know about any medicines you should stop before the test.
- when to stop eating and drinking

Please ask any questions that you may have.

Please bring to your pre-assessment appointment:

- your current medicines or recent prescription
- your record of INR blood tests if you take warfarin
- list of allergies (including antibiotics, other drugs and metals).
- If you are diabetic please bring information about your treatment and any glucose test results you may have.
- If you are asthmatic bring your inhalers or a list of what you take and when.

How do I prepare myself?

Your admission time on the day of the test will normally be in the morning. Your admission time will be on your admission letter. We will talk about this with you at pre-assessment appointment.

Eating and drinking (fasting)

- Do not eat anything from midnight (12am) the night before your test.
- You can have **water only** up to 2 hours before your admission time. You cannot eat or drink after this.
- Do not chew gum on the day of your test.
- Do not smoke or vape on the morning of the day of your test.

Where will I need to be for the test?

We will admit you into ward 32 for the test. This is on Level 1, Glenfield Hospital You can get to the ward from either the East or South entrance.

What happens on the ward?

- When you arrive on ward 32 the nurse will meet you. This will be the nurse who will be caring for you. They will show you to the radial lounge or your bed space. This will depend on what is needed.
- The nurse will ask you some questions. They will take your blood pressure, pulse, and temperature. They will place a plastic tube (cannula) into a vein in your arm. This will mostly likely be in the left arm at the elbow.
- A doctor will come and talk about the test with you. They will tell you about the risks and benefits. They will ask you to sign a consent form. This is to confirm you understand the test and risks and are happy to go ahead. If you have any worries or questions about the test please ask these before you sign the consent form.
- We will do the test in the Catheter Lab.

What will happen during the test?

- We will ask you to lie on the bed or trolley.
- We will put ECG stickers on your chest and arms. Once you are comfortable the nurse will record your heart rhythm on the ECG. This is painless.
- The ECG will record how your heart responds to the ajmaline. This will let the team collect very detailed information.
- After the first ECG the doctor will give you a small doses of the ajmaline into the tube in your arm.
- The doctor will continue to give a small dose of the ajmaline every 2 minutes. They will record your ECG a minute after this has been given. They will do this until all the dose has been given or if any changes happen on the ECG.
- We will monitor your blood pressure.
- The test will take around 30 minutes. But this will depend on an individual basis.
- After the last of the ajmaline has been given we will record your ECG until it returns to normal.
- When the test is over, we will return you to Ward 32. We will give you a drink and something to eat.

Additional equipment will be in the room to help keep you safe.

Benefits

- It will help us know if you have Brugada syndrome.
- It will help us give you the right treatment.
- It will help prevent problems related with the syndrome.
- The syndrome is passed on from parents to children. If you are found to have it then other members of your family may need to be tested too.
- A negative test result means it is unlikely you have Brugada syndrome. This can be reassuring.

Are there any side effects or risks?

The ajmaline challenge is safe. However, as with some tests, there are possible risks. Complications related to the test are very rare. They can be treated and are rarely life threatening.

During the test:

- It is common to have a metallic taste in your mouth while you are being given the ajmaline.
- You may also have a warm sensation in your body and visual disturbance, such as double vision.

These are harmless and often go away after the test is finished.

- Very rarely, less than 1% of patients, may get a fast heart rhythm. This often needs no treatment other than monitoring you while the ajmaline wears off. Rarely this heart rhythm can need urgent treatment with a controlled electrical shock to restore normal heart rhythm (cardioversion).

After the test:

- There is a very low risk that you may get an arrhythmia after we have stopped giving the ajmaline.
- We will need keep you in hospital until your ECG has returned to normal. This takes around 30 to 60 minutes before you can return to the ward before going home.

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

After the ajmaline challenge

- A specialist doctor called an Electro-physiologist will review the ECG results.
- The doctor/team giving you the ajmaline may not be able to tell you the result of the test right away. They will tell you as much as they can.
- The team will make sure that you have a follow up appointment with the doctors team that referred you for the test.

Driving

Please have someone drop you off and collect you on the day of your test.

There is not always room to wait on ward 32 so visitors/relatives are kindly asked to not stay and instead collect you afterwards.

You will be able to drive home if your test is negative.

If you are found to have Brugada syndrome you will have to tell the DVLA. The cardiac rhythm Team will be able to advise you and give you the right information and signposting to support and help.

Contact details

If you have any questions or concerns about the ajmaline test please contact:

- **Cardiac Rhythm Nurses**
    - call: **0116 258 3848**, Monday to Friday, 8am to 5.00 pm, (excluding Bank holidays / answer phone available out of hours)
    - or email: **uhl-tr.cardiacrrhythmnurses@nhs.net**
- **Inherited Cardiac Conditions Team**
    - call: **0116 258 3297**
    - or email: **uhl-tr.inheritedcardiacconditions@nhs.net**

These numbers are not an emergency number. Depending on your symptoms please contact your GP or 111, for medical emergencies call 999.

More information

British Heart Foundation

Website: www.bhf.org.uk

Tel: **0300 330 3311**

Arrhythmia Alliance

Website: https://heartrhythmalliance.org

Tel: **01789 867 501**

If you have any questions, write them down here to remind you what to ask:

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على هذه المعلومات بلغةٍ أُخرى، الرجاء الاتصال على رقم الهاتف الذي يظهر في الأسفل
જો તમને અન્ય ભાષામાં આ માહિતી જોઈતી હોય, તો નીચે આપેલ નંબર પર કૃપા કરી ટેલિફોન કરો

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