

# Stress Echocardiography

Patient's guide and  
agreement to consent form

Your doctor has decided that you should have a stress echocardiogram.

This could be either a pharmacological stress echocardiogram (intravenous medication is administered to mimic the effect of exercise on the heart) or an exercise echocardiogram (the patient is asked to exercise on a treadmill or exercise bike), both of which will be described below.

### **What is an echocardiogram?**

An echocardiogram or 'echo' is a scan that uses ultrasound (sound waves) to produce pictures of the heart. The test is painless and does not use radioactivity.

### **Why is it being done?**

A stress echo is performed as it allows your doctor to understand how the heart copes when it is made to work harder.

A stress echo is useful to diagnose whether you have angina or not. It can also give your doctor information about the severity of a valve problem, and it can help your doctor to decide whether your heart function will improve after a by-pass operation.

### **What does it involve?**

You will be taken into a darkened room. Two or three people will usually be present when you have the test - a doctor, a sonographer (specialised healthcare worker who performs diagnostic medical test) and occasionally an assistant.

You will be asked to undress to the waist and put on a gown that should be left open to the front. You will be asked to lie on a couch on your left hand side.

Stickers will be attached to your chest and connected to the machine. These will be used to monitor your heart rate. Your blood pressure will also be checked regularly throughout the test.

## **Pharmacological stress echo**

During a pharmacological stress echo, your doctor will give you some medicine to make the heart beat harder and faster whilst pictures are taken of your heart. This medicine will be administered through a cannula in your arm.

During the test the doctor may also inject a contrast agent into the drip in your arm. This helps to improve the quality of the pictures that are being recorded.

When your heart has been made to work hard enough, the doctor will stop the medicine. The sonographer will continue to take pictures of the heart, and you will continue to be monitored until the effects of the stress medicine have worn off. This may take several minutes.

### **Are there any special precautions that I need to take before the pharmacological stress echo?**

**You must NOT take beta-blocker or calcium-channel blocker tablets for 48 hours before the test.**

Beta-blocker tablets include Atenolol, Bisoprolol and Carvedilol, although there are others. Calcium-channel blockers are called Diltiazem and Verapamil.

These tablets prevent the stress medicine from making the heart work harder. If you do continue with beta-blocker or calcium-channel blocker drugs, the Stress Echo may need to be postponed.

If you have any doubts, please contact the hospital switchboard 01480 830541 and ask for the Cardiac Physiology department.

**You should continue to take your other medication, UNLESS your doctor tells you otherwise.**

**You must NOT eat for two hours before the test, but you may drink water.**

## Are there any risks in having the pharmacological stress echo?

A pharmacological stress echo is extremely safe, but there are some risks you need to be aware of:

- It is not unusual to feel slightly sick or dizzy as a result of the stress medicine. This will settle down very quickly once the medicine has been stopped. You may also develop some chest pain or tightness during the examination.
- Rarely in around 1 in 1000 patients, the stress medicine may make the heart develop an abnormal rhythm. If this occurs, it will often settle down by simply stopping the stress medicine, but occasionally you may need additional treatment for this.
- There is a very small risk of less than 1 in 2000 of a bad angina attack or heart attack occurring during the test.
- There is an extremely small risk of less than 1 in 10,000 of developing an allergic reaction to one of the medicines used.

**If you have had allergic reactions to any medicine before please inform your doctor before starting the test.**

## Exercise stress echo

During an exercise echo your doctor will ask you to walk on a treadmill or ride on an exercise bike whilst pictures are taken of your heart.

For those undergoing an exercise stress echo, following baseline pictures of your heart you will then be asked to exercise by either walking on a treadmill or riding an exercise bike.

The exercise will be gentle at first but will get progressively more strenuous. Occasionally pictures of your heart maybe recorded whilst you are exercising.

When the doctor has decided that you have performed enough exercise, or if you are unable to continue, the doctor will ask you to lie back on the couch and more images of the heart will be recorded.

You will continue to have your heart rate and blood pressure monitored until you have fully recovered, which may take several minutes.

Overall the stress echo tests take around 45 minutes to complete.

## Are there any special precautions that I need to take before the exercise stress echo?

**You should continue to take your medication, UNLESS your doctor tells you otherwise.**

If you have any doubts, please contact the hospital switchboard 01480 830541 and ask for the Cardiac Physiology department.

## Are there any risks in having the exercise stress echo?

- The exercise echo scan is extremely safe as it is just like exercising as if you were at home.
- There is an extremely small risk of less than 1 in 10,000 of developing an allergic reaction if contrast is used. **If you have had allergic reactions to any medicines before please inform your doctor before starting the test.**
- If you suffer with angina, there is an extremely small risk of less than 1 in 10,000 you may have a small heart attack during the test.
- There is a very small risk of developing an abnormal heart rhythm of less than 1 in 10,000.

Please affix patient label or complete details below.

Full name:

Hospital number:

NHS number:

DOB:

# Consent xxx Patient agreement to stress echocardiography

## Intended procedure/surgery

### Statement of health professional

(To be filled in by a health professional with appropriate knowledge of proposed procedure, as specified in consent policy). I have explained the procedure to the patient. *In particular I have explained:*

#### The intended benefits

- As detailed on page 1 of this booklet

#### Significant, unavoidable or frequently occurring risks.

Abnormal heart rhythm ..... %

Angina ..... %

Myocardial infarction ..... %

Allergy to medication ..... %

#### Any extra procedures, which may become necessary during the procedure:

Other procedure - please specify below:

.....

.....

I have also discussed what the procedure is likely to involve, the benefits and risks of any available alternative treatments (including no treatment) and any particular concerns of this patient.

### Consultant/Performer

Signed: .....

Date: .....

Name (PRINT): .....

Job title: .....

#### Contact details

If you require further information at a later date, please contact switchboard on 01480 830541 and ask to speak to your consultant's secretary.

### Statement of patient

*Please read the patient information and this form carefully.*

If your treatment has been planned in advance, you should already have your own copy which describes the benefits and risks of the proposed treatment. If not, you will be offered a copy now.

If you have any further questions, do ask - we are here to help you. *You have the right to change your mind at any time, including after you have signed this form.*

- **I understand** what the procedure is and I know why it is being done, including the risks and benefits.
- **I agree** to the procedure or course of treatment described on this form and have read the information leaflet on 'Stress Echocardiography' (PI 175) and had the opportunity to ask questions.
- **I agree** to the use of photography for the purpose of diagnosis and treatment and I agree to photographs being used for medical teaching and education.
- **I understand** that any procedure in addition to those described on this form will be carried out only if necessary to save my life or to prevent serious harm to my health.
- I have listed below any procedures **which I do not wish to be carried out** without further discussion:

.....

.....

.....

.....

Please affix patient label or complete details below.

Full name:

Hospital number:

NHS number:

DOB:

- I have been told in the past by Public Health that I am at increased risk of CJD (Creutzfeldt-Jakob disease) or vCJD (variant Creutzfeldt-Jakob disease).

Yes (*Health professional to refer to Trust CJD procedure DN92.*)

No

### Patient

Patient signature: .....

Date: .....

Name (PRINT): .....

### Confirmation of consent

(To be completed by a health professional when the patient is admitted for the procedure, if the patient has signed the form in advance).

*On behalf of the team treating the patient, I have confirmed with the patient that they have no further questions and wish the procedure to go ahead.*

Signed: .....

Date: .....

Name (PRINT): .....

Job title: .....

### Statement of interpreter (where appropriate).

I have interpreted the information above to the patient to the best of my ability and in a way which I believe he/she can understand.

Signed: .....

Date: .....

Name (PRINT): .....

### Important notes (tick if applicable).

Patient has advance decision to refuse treatment (e.g. Jehovah's Witness form)

Patient has withdrawn consent (ask patient to sign/date here)

Patient signature: .....

Date: .....

Name (PRINT): .....

**A witness should sign below if the patient is unable to sign but has indicated his or her consent. Young people/children may also like a parent to sign here (see notes).**

Signed: .....

Date: .....

Name (PRINT): .....



### **At the end of your stress echo**

After the echo you will occasionally be asked just to sit quietly for around 20 minutes to make sure that you have no untoward side-effects following the test.

You will be able to return home after this. It is advisable that you do not drive yourself for the remainder of the day, so you may need a friend or relative to transport you.

### **Will I be aware of anything during the stress echo?**

You may notice your heart beat harder and faster and this might make you feel sick or dizzy. Let your doctor know of any symptoms that you notice.

### **For patients who have been diagnosed with Hypertrophic Cardiomyopathy (HCM)**

There is a very small risk of developing an abnormal heart rhythm (less than 1 in 500). If this occurs, it will often settle down by simply stopping the test, but occasionally you may need additional treatment for this.

If you have an ICD (defibrillator) fitted this may need to be reprogrammed prior to the test. However, the ICD settings will be returned to normal at the end of the test before you leave the department

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