

Cardioversion

Introduction

This leaflet has been written for people who have an irregular heart rhythm called atrial fibrillation or atrial flutter and are awaiting a procedure called cardioversion.

Please read it carefully, paying particular attention to the section titled **"Are there any risks"**.

Prior to the cardioversion procedure you will get a phone call from our pre-assessment nurse who will discuss the procedure in detail with you.

The cardioversion will be performed in a day case unit. As this is a short stay day case facility, the service could be provided for both men and women simultaneously. Beds are divided by curtains and every effort is made to maintain your dignity and privacy.

Why am I having a cardioversion?

Cardioversion is used to treat people who have an irregular heart beat called atrial fibrillation or atrial flutter. The procedure aims to return the heart to a regular rhythm.

What are the potential benefits of returning the heart to a normal rhythm?

1. The symptoms that some people feel when in atrial fibrillation/flutter, such as palpitations, fatigue and shortness of breath, may be reduced or go completely.
2. Direct oral anticoagulation (DOAC) and Warfarin, rate control medications when in atrial fibrillation/flutter, **may** no longer be required. However, the majority of the patients will need to continue their drugs

even if the cardioversion has been successful. This will be assessed for each patient according to their individual needs.

Who will perform the cardioversion?

A doctor or a specialist cardiac nurse will perform the procedure. An anaesthetist will also be present.

How do I prepare for the cardioversion?

After the pre-assessment phone call, you will receive a letter in post with the date, time, location of the procedure.

You will need to arrange transport to bring you to the hospital, **you will not be able to drive yourself home after the anaesthetic**. The Park and Ride facility is not suitable, as you ideally should not travel on public transport following the procedure. You need to have a responsible adult collecting you after the procedure and stay with you for the first 24 hours as you have had general anaesthesia.

There are now several different types of anticoagulation medication that can be used for people with atrial fibrillation/flutter, Apixaban, Dabigatran, Rivaroxaban, Edoxaban.

It is paramount not to miss a single dose of your anticoagulant drug within 4 weeks leading up to the Cardioversion. Should this occur please call us and we will reschedule the procedure. If this is the case and you attend, we will cancel the procedure due to an increased risk of stroke.

DOAC does not need weekly INR testing. These drugs achieve constant anticoagulation levels and do not need monitoring.

Warfarin needs to be taken for at least 6 weeks before the cardioversion can be performed.

You must have your INR levels checked at weekly intervals for four consecutive weeks before the cardioversion.

INR must be greater than 2 on all four blood checks prior to the cardioversion to ensure that we can carry out the procedure safely. Please call us weekly with the results within 4 weeks of cardioversion.

If the INR level is not consistently greater than 2 for the four weeks before the procedure, your cardioversion will be rescheduled.

The INR monitoring should be carried out at your GP surgery and the decision about how much Warfarin you need to take will be made by the staff at your surgery.

The cardioversion is carried out under a general anaesthesia, therefore, you must **not** eat anything 6 hours before the procedure. You may drink black tea, black coffee up to 2 hours of the procedure. You can have sensible amounts of water up to the procedure. Please take all your medications unless advised otherwise during the pre-assessment phone call.

Fasting guidelines

6 Hours	Solid food and milk
2 Hours	Clear fluids (including tea and coffee with small amounts of milk < 2 tbsp)
Unrestricted	Water (still and unflavoured)

What does the procedure involve?

On arrival to the hospital, the nursing staff perform an ECG (tracing of the heart) and check your personal details.

You may need to have repeat blood tests taken if your INR readings or potassium levels have been unstable.

An anaesthetist and doctor/specialist cardiac nurse will examine you to check you are fit enough for the procedure. Please call us urgently on **01392 403813** if at any stage prior to the date of the procedure if you have any concerns.

We're always happy to discuss again and you decide to cancel, we are able to offer the date to someone else.

You will be asked to sign a consent form.

You will be given a hospital gown to wear.

A small plastic tube will be inserted into a vein in your hand. This will be used to give a light general anaesthetic.

During the procedure you will be anaesthetised and will not experience any pain or discomfort.

2 pads are placed on your chest that help to conduct the electricity and deliver the shock. The shock is designed to re-set the heart's electrical supply, and return the heart to a normal rhythm.

Occasionally a medicine called Atropine may be given via the tube in your hand, this will help to prevent your heart from going too slow.

We can deliver a maximum of 3 shocks in order to restore sinus rhythm.

The cardioversion takes minutes to perform, you will only be under anaesthesia for a short time.

If you fail to revert to a normal rhythm after 3 shocks, you will be taken back to your bed space to recover from the anaesthetic in exactly the same way as a successful one.

After the cardioversion the nurse will closely monitor your blood pressure and pulse and repeat a heart tracing.

Your chest may feel sore where the shocks were delivered. The nurses will apply cream to ease this.

If you are given Atropine, it may make your mouth feel dry and you might be sensitive to light for a short time.

Once awake, the doctor/cardiology specialist nurse will explain the results and next steps.

It is paramount to **continue DOAC or Warfarin for at least a further six weeks** after cardioversion, after this time you should arrange for a repeat heart tracing to be performed at your GP surgery.

After the procedure you will be offered something to eat and drink.

Whether successful or not, you can usually go home approximately an hour after the procedure providing:

1. You feel well and your blood pressure and heart rate are stable.
2. You need to have a responsible adult who can collect you from the day case unit and stay with you for the **first 24 hours after the procedure**. This is a precaution taken for anyone who has had a general anaesthetic. If you are unable to arrange this, please inform us well in advance of the cardioversion, in exceptional circumstances we might be able to offer overnight stay for you. We do however expect you to make all possible efforts for this not be necessary. It is also important to reiterate that prompt picking up post cardioversion would be much appreciated, as we have several intakes on the day and nowhere for patients to stay safely after discharge.

On discharge from the hospital you will be given a letter explaining what you have had done and the results. We will also send the same letter to your GP surgery.

Are there any risks?

No procedure is risk free. The potential risks associated with this procedure include:

- Approximately 1:500 risk of stroke.
- Short lived redness and mild soreness on the area where the shock was delivered.
- General anaesthetic has some risks, which may be increased if you have chronic medical conditions, but in general they are as follows:
 - Common temporary side effects (risk of 1:10 to 1:100) blurred vision, sickness; these can usually be treated and pass off quickly.
 - Infrequent complication (1:100 to 1:1000) include temporary breathing difficulties, muscular pains, headaches.

- Extremely rare and serious complications (risk of less than 1:10,000). These include severe allergic reaction, brain damage, kidney and liver failure, lung damage, permanent nerve or blood vessel damage, eye injury, death.
- The success of the procedure cannot be guaranteed. Some people return to a normal heart rhythm, some do not. However, the consultant would not recommend this procedure, unless there was a good chance of success and the benefits outweighed the potential risks.

How long will I be in hospital?

The usual time spent in hospital is a minimum of 3 hours. It can vary depending on how quickly you recover from the anaesthetic. Very occasionally, if the doctor/specialist nurse is concerned about you, an overnight stay may be required.

Summary of the main points prior to admission

Please arrange weekly INR levels prior to the cardioversion. If you are on an DOAC blood tests are not required.

DO NOT STOP YOUR ANTICOAGULATION MEDICATIONS.

We will order a renal function test for you. This will be performed either by your GP surgery or local hospital. You should hear either by telephone or post approximately a week prior to cardioversion. Please do contact us on **01392 403813** in case you have not been given a time and date for the blood test.

You should take all your normal morning medications and bring a repeat prescriptions with you unless advised any different at your pre-assessment phone call.

Do not consume any solid food 6 hours before the procedure. You may drink tea or coffee with minimal milk up to 2 hours before the cardioversion. **Do not chew chewing gum.** You can have sensible amounts of clear and still water up to the procedure.

IF YOU HAVE DIABETES please discuss with your GP or practice nurse, what you should do regarding your Diabetic medication on the day of your procedure.

Please leave valuables at home.

Going home

DO NOT DRIVE YOURSELF HOME.

An adult friend or relative must collect you from the day case unit.

Advice following an anaesthetic/ sedation

The anaesthetic drugs you will receive may remain in the body for at least 24 hours. This may temporarily affect your co-ordination and logical thinking, therefore:

It is essential that you travel home with another adult. Somebody should be with you for the first 24 hours after the procedure.

Do not drink any alcohol for 24 hours.

Do not drive or use machinery (including cookers) for 24 hours.

Do not make important decisions or sign important document for 24 hours.

Do not lock the bathroom door, or make yourself inaccessible to the person looking after you.

Drink plenty of fluids and eat a light diet.

Remember you will need to take time off work the following day.

We are not anticipating you will have any problems following the procedure, but if you do please contact your GP or ring **Taw ward** on **01392 402836**.

What to do if you think your heart has returned to an irregular rhythm

If you feel well, make an appointment at your GP surgery for a repeat heart tracing (ECG) which can then be forwarded to us for review. If you feel unwell, phone your GP surgery, 111 or 999. We are also able to provide advice from the arrhythmia nurses on 01392 403813 (working hours Monday – Friday 09:00-17:00).

The Trust cannot accept any responsibility for the accuracy of the information given if the leaflet is not used by Royal Devon staff undertaking procedures at the Royal Devon hospitals.

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