

Patient advice sheet

External Electrical Cardioversion – Consent Information for Patients

(Also known as Direct Current Cardioversion (DCCV))

Cardioversion is a day case procedure used to treat abnormal heart rhythms such as an irregular or fast heart rate like atrial fibrillation. Your cardiologist has suggested this treatment for you.

This information leaflet is designed to help you understand the procedure and help you prepare for it – please read it carefully.

Before the cardioversion

Your doctor may refer you for cardioversion treatment after seeing you in a clinic or after you attend our emergency departments. You will be placed on the waiting list, however, before the procedure can be booked you will need an ultrasound scan of the heart (echocardiogram) and sometimes a heart monitor that you wear for 24 hours. If required, these tests will be arranged for you.

You will need to be taking a blood thinner such as warfarin OR an alternative drug.

If you take Warfarin: you must have your Warfarin level checked every week for 4 consecutive weeks before the cardioversion (this is test is also called INR – normally done as a finger prick blood test by your GP or Warfarin clinic). These must be recorded in your yellow book (a record kept by each patient). If any of those results the INR level is less than 2 you must inform the cardioversion team.

OR

If you take an alternative drug such as Apixaban, Dabigatran, Rivaroxaban or Edoxaban: you must be taking the medicine for a minimum of 4 weeks and must not miss any dose. It is very important to follow these instructions in order to reduce the risk of stroke.

Some patients may also need to take an additional drug called Amiodarone for 4 weeks before the cardioversion. You will be informed if this applies to you.

When all the above requirements are completed your cardioversion and telephone pre-assessment can be booked. The purpose of this call is to ensure that you are fit and prepared for the procedure. You will also be able to ask any questions you have about the cardioversion treatment. Please ensure you have a list of your current medication available. Please note, the cardioversion can't go ahead without completing the telephone pre-assessment.

Arrangements will then be made for you to have blood tests and a covid test prior to your cardioversion. These are required a few days before you attend for your cardioversion.

If you take a drug called **Digoxin**, you will need to **stop taking it 48hrs before your cardioversion.**

What happens during the cardioversion?

On the day of the procedure you should report to the cardiac day unit, upper ground floor, Wycombe hospital at the time stated on your letter.

If you have a morning appointment you should have nothing to eat from midnight but please take your morning medications with sips of water before 06 AM. If you have an afternoon appointment you can have breakfast with your morning medication before 08 AM. You should have nothing to eat after that but can have sips of water until 10 AM.

On arrival you will be asked to change into a hospital gown. A nurse or doctor will come to prepare you for the procedure. They will ask you some questions, record an ECG (electrocardiogram – trace of the hearts' electricity) and insert a cannula (small plastic tube) in your arm. They will also explain the benefits and risks of cardioversion, answer any questions you may have and will then ask you to sign a consent.

You will then be taken to theatre where the procedure takes place. The cardioversion is carried out under a short general anesthetic, so you will be asleep and not aware of the procedure. An anesthetic doctor will ensure you are fit before the anesthetic is given to you.

While you are asleep (this is normally about 5 to 10 min) a nurse or doctor will carry out the cardioversion. Sticky pads placed on your chest and back are connected to a machine (defibrillator) and used to deliver a controlled electrical shock across your heart. Normally, we can deliver the shock up to three times to try to restore the normal heart rhythm.

After the treatment is completed you will be taken to recovery where you will be monitored until you are fully awake.

Benefits

Cardioversion is intended to restore a normal heart rhythm and relieve any symptoms that might be associated with abnormal heart rhythms (for example atrial fibrillation) such as palpitations, breathlessness and tiredness. If affected, the hearts' pumping function (called ejection fraction) may improve once the normal heart rhythm is established. You may also notice improvement in your ability to exercise.

Risks

Cardioversion is successful in restoring normal rhythm in approximately 90% of patients. However, it is important to note that cardioversion is not a cure and the abnormal heart rhythm is likely to re-occur in many patients. On some occasions, the abnormal heart rhythm may return within the first hours or days after the cardioversion. If this happens your specialist will discuss further treatment options at your next appointment.

Complications following a cardioversion are rare. The most common complication is temporary skin redness or irritation in the area where the sticky pads are placed on your chest and back. Skin burn in this area are less common. This may resolve without treatment or by using a simple skin cream, such as an unperfumed moisturizer.

Serious complications are very rare:

- A slow heart rhythm (bradycardia) can occur following cardioversion. Occasionally drugs are required to speed the heart up and in rare circumstances temporary pacing (external electrical impulse to stimulate the heartbeat) may be required. Very rarely a permanent pacemaker may be required to treat this slow heart rhythm.
- The development of a fast heart rhythm originating in the lower chambers of heart (ventricular tachycardia or fibrillation) may require further shocks whilst under a general anesthetic.
- The risk of stroke is between 0.5% to 0.8% as long as you have taken your blood-thinning medication correctly for 4 weeks prior to the cardioversion.

The risks of the general anaesthetic are rare and will be discussed with you by the anaesthetist on the day of the procedure.

Alternatives

Your doctors have recommended this as the most appropriate treatment for your condition as they feel the benefits outweigh the risks. If you wish to discuss alternatives, please speak to your doctor or nurse.

After the cardioversion

Once you are completely awake you will be taken back to the cardiac day unit where you will be able to eat and drink. If you recover well, you will normally be able to go home within a couple of hours. Before your discharge, another ECG will be recorded and the cannula will be removed. A nurse will then explain the result of the procedure and give you a discharge letter.

The general anesthetic takes some time to clear from your system. You must not drink alcohol, sign legally binding documents or make important decisions for 24 hours after the cardioversion.

You also cannot drive for 48 hours following a general anesthetic. You must go home with a relative or friend and must have a responsible adult with you overnight. You should travel by car and not use public transport.

An outpatient clinic appointment will be arranged within 6-8 weeks and, if your heart pumping function is affected, you will also have an echocardiogram. You must continue to take the blood-thinning medication at least until you are reviewed in clinic.

If you have any queries or have symptoms you are concerned about you can contact the cardioversion team. However, if you feel unwell and need urgent care you should contact 111, your GP or 999.

Preparation Checklist -To prepare you for the procedure.

	Read Information leaflet
	Write down any questions to ask during your pre-assessment appointment
	Arrange someone to bring you in and collect you after the cardioversion
	Arrange someone to stay at home with you overnight
	You may need to arrange some time off work (especially the day after the Cardioversion and if your work involves driving)
	If you take Warfarin – Arrange weekly INR (warfarin level) readings for 4 weeks before the cardioversion. Contact the cardioversion team if any of these are below 2.0
	If you take one of the newer blood thinning medications (such as Apixaban, Dabigatran, Rivaroxaban or Edoxaban) – Ensure you are taking these without missing any doses for a minimum of 4 weeks
	Attend the telephone pre-assessment appointment
	Attend appointment for blood and covid tests
	For patients on Digoxin – Stop taking digoxin 48 hours before the procedure
	Ensure you are aware and follow fasting requirements prior to the cardioversion

How to Contact Us

Cardioversion Nurse 01494 323 411 (Available Monday and Thursday 09:00 to 11:30) bht.cardioversion@nhs.net

Cardiac Day Unit – 01494 425 278

Bookings Coordinators - 01494 324 175 / 01494 324 464

Useful patient information

<https://www.heartrhythmalliance.org/afa/uk/>

Please remember that this leaflet is intended as general information only. We aim to make the information as up to date and accurate as possible, but please note that it is subject to change. Please therefore always check specific advice on any concerns you may have with your doctor.

How can you help reduce healthcare associated infections?

Infection prevention & control is important to the well-being of our patients and for that reason we have infection prevention & control procedures in place. Keeping your hands clean is an effective way of preventing the spread of infections. We ask that you, and anyone visiting you, use the hand sanitiser available at the entrance to every ward before coming in to and after leaving the ward. In some situations hands may need to be washed at the sink using soap and water rather than using the hand sanitiser as hand sanitisers are not suitable for use when dealing with patients who have symptoms of diarrhoea.

If you need advice or further assistance, please contact our patient advice and liaison service (PALS): call 01296 316042 or email bht.pals@nhs.net