Your doctor has recommended that your ICD or CRT-D generator needs to be replaced, in order to keep your ICD or CRT-D working.

What happens before the appointment?

We will send you the date for the procedure to change your generator. This is usually done as a day case procedure, so you should not need to be in hospital overnight.

Please check the details on your admission letter or, if you are already in hospital, please ask your nurse if there are any special instructions to follow before you come for the procedure.

Please make sure you have a shower or bath before you come into hospital. This helps to make sure your skin is clean before the procedure.

Before the procedure you will be advised what medication you need to stop taking.
What happens before the procedure?

Information about how to prepare for your appointment is provided in your admission letter; please follow the instructions.

You should not have anything to eat from 6 hours before your procedure. You can continue to drink clear fluids (without milk) up until 2 hours before the time of your procedure.

On the day of your procedure you will need to come to the Cardiac Angiography Suite. This is on Level -1 of the Oxford Heart Centre at the John Radcliffe Hospital. The procedure is carried out in the Cardiac Catheter labs.

The doctor will explain the investigation to you, including the risks and benefits, and then you will be asked to sign a consent form to confirm you are happy for the procedure to go ahead.

You will need to change into a hospital gown for the procedure. You can keep your lower clothes on if they have no metal parts (such as belt buckles or rivets on jeans). If you are wearing any jewellery or have any body piercings these must also be removed.

Before the procedure, a small tube (cannula) will be inserted into a vein in your arm so that we can give you sedation during the procedure. The sedation will make you feel relaxed and sleepy. You will also be given antibiotics through this cannula before the procedure, to reduce the risk of infection.

If you have any concerns, please do not hesitate to ask, as we would like you to be as relaxed as possible about the procedure. We will be happy to answer any queries you might have.
What happens during the procedure?

You will be lying on a narrow firm table under an X-ray camera. It is important that you lie still during the procedure so that we can get clear pictures and also so that you are not at risk of falling off the table.

We will connect you to monitoring equipment to check on your heart rate, blood pressure and the level of oxygen in your blood.

We will clean your skin with an antiseptic solution and you will be covered in sterile drapes. This helps us to keep the wound as clean as possible.

The replacement of your ICD or CRT-D generator is carried out using local anaesthetic and sedation. The local anaesthetic will be given as an injection under your skin around the generator. This may sting at first but will then go numb.

You will be offered some sedation to help you to relax. This will make you feel calm and sleepy.

A new cut will be made near or over your previous ICD or CRT-D scar and your current ICD or CRT-D generator will be unplugged and removed.

The ICD or CRT-D leads will be checked to make sure they are working correctly. A new generator will then be attached to your current leads and the wound stitched closed with either dissolvable or non-dissolvable stitches. You will be told which stitch has been used.

The procedure will take between 45 minutes and an hour and 30 minutes.

What are the benefits?

The main benefit of having your ICD or CRT-D generator replaced is to keep it working to continue to protect you from the symptoms and dangers of fast heart rhythms.
What are the risks?

All medical procedures have risks of complications. There are some risks associated with an ICD or CRT-D generator replacement that are important to know about:

• 1 in 100 people experience lead failure or movement after the procedure. If this happened you would need a further operation to replace the faulty lead or reposition the lead that has moved.

• 5 in 100 people experience wound pain, bleeding, bruising or a haematoma (collection of blood under the skin) close to the wound area after the procedure.

• 1 in 100 people develop a wound infection. If this happens the ICD or CRT-D and leads may need to be removed. To minimise this risk, you will be given antibiotics before the generator replacement.

• 5 in 100 people experience inappropriate shocks from the ICD/ CRT-D.

• Having an ICD or CRT-D can mean you have to follow certain driving restrictions. The team will have discussed these with you when the ICD or CRT-D was initially implanted. You will have to stop driving for one week after the generator replacement. This is a DVLA requirement and your insurance would not cover you if you were to drive.

What are the alternatives?

Your generator needs to be replaced in order for it to continue to work properly. If you wish to discuss the possibility of not replacing your generator please call the ICD Nurses using the number at the end of this leaflet.
What happens after an ICD or CRT-D generator replacement?

Once you are fully awake, you should be able to eat and drink. We will continue to monitor you for the next few hours to make sure you recover safely.

You will normally be able to go home on the same day as the procedure, but will need to have someone to take you home and stay overnight with you, just in case there are any complications. If you have had sedation this can make you feel drowsy for up to 24 hours after the procedure.

You should not go home on public transport after this procedure. You will need to be taken home by car. This will be more comfortable for you and also quicker for you to return to the hospital if there are any complications on the journey home.

In the next 24 hours:
• do not go to work
• do not operate machinery
• do not make important decisions
• do not sign legally binding documents
• do not drink alcohol.

You will normally be seen in the outpatient clinic about 8 weeks after your ICD or CRT-D generator replacement. You will then continue with regular follow-ups as before.
Things to look out for:

If you notice swelling, redness, bleeding, pus or any other discharge from the wound, you should immediately contact the Cardiac Rhythm Management office at the John Radcliffe Hospital. Contact numbers are at the back of this leaflet.

If you experience any inappropriate shocks please contact the Cardiac Rhythm Management office, or go to your local hospital – whichever is most convenient. If you experience two shocks call an ambulance, even if you are feeling well.

How to contact us:

**ICD Nurses**
Tel: 01865 221 667
(8.00am to 5.00pm, Monday to Friday)

**Cardiac Rhythm Management Office (Pacemaker Office)**
Tel: 01865 220 981
(8.00am to 5.00pm, Monday to Friday)

**Cardiac Angiography Suite**
Tel: 01865 572 615
(Monday to Friday, 7:30am to 9:00pm)

**Cardiology Ward**
Tel: 01865 572 675
(24 hours)
Further information

For further information we recommend the following support groups:

**British Heart Foundation**
Website: www.bhf.org.uk
Tel: 0300 330 3311

**British Cardiovascular Society**
Website: www.bcs.com
Tel: 0207 383 3887

**Arrhythmia Alliance**
Website: www.heartrhythmcharity.org.uk
Tel: 01789 867 501

**Please note:**
The department where your procedure will take place regularly has professional observers. The majority of these observers are health care professionals, qualified or in training, and on occasions, specialist company representatives. If you do not wish these people to be present during your procedure please tell a doctor or nurse.

If you have a specific requirement, need an interpreter, a document in Easy Read, another language, large print, Braille or audio version, please call 01865 221 473 or email PALS@ouh.nhs.uk

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