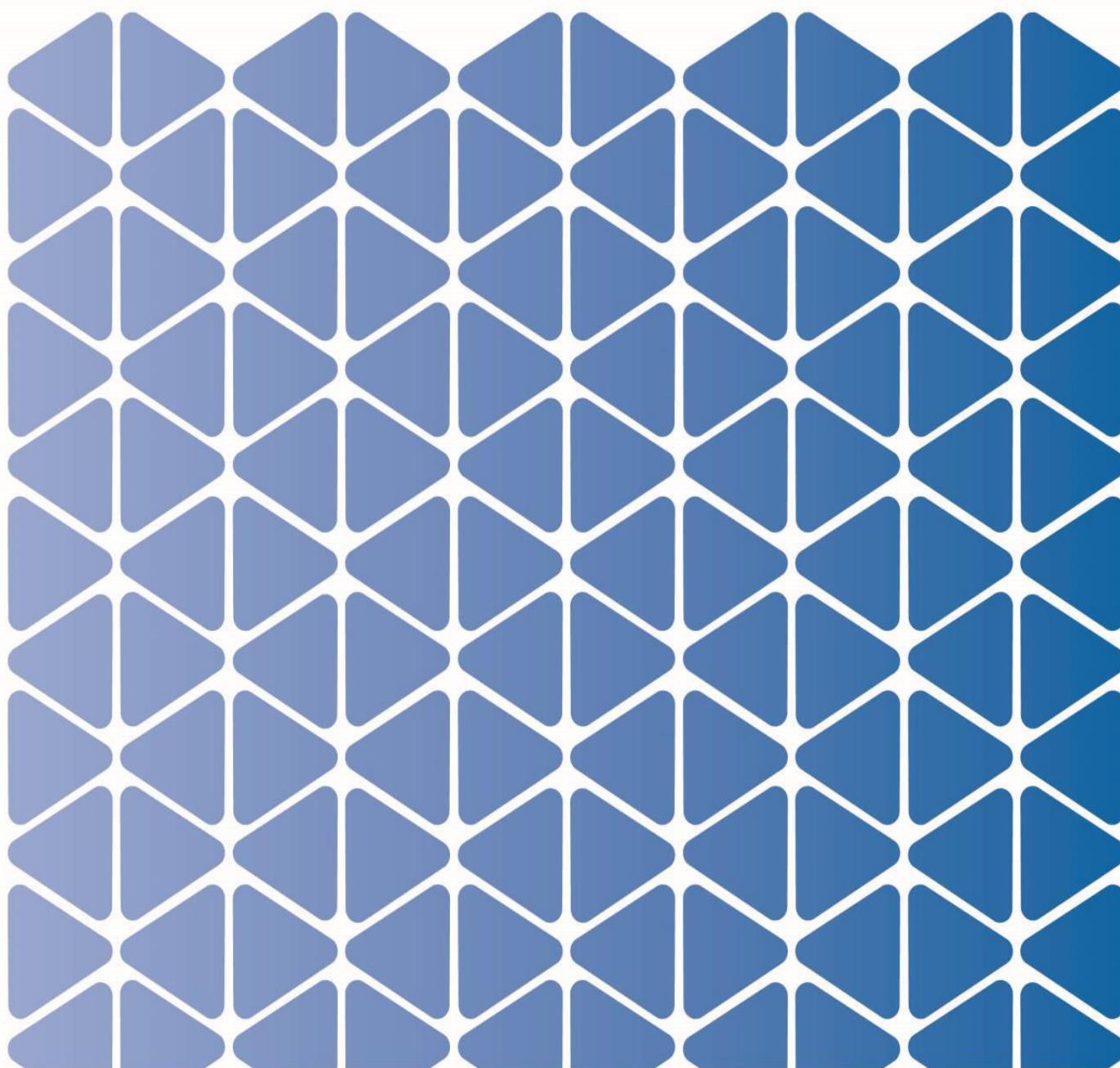


PATIENT INFORMATION**Department of Cardiology****IMPLANTABLE LOOP RECORDER (ILR)**

It has been recommended that you have a loop recorder device implanted.

When people have symptoms that might be due to a heart rhythm disturbance (for example blackouts or palpitations), it is usually necessary to see exactly what the heart rhythm is at the time of those symptoms in order to determine the best treatment. This can be achieved in a number of ways, typically requiring some form of heart rhythm monitor to be connected to the patient. If the symptoms are infrequent then this is usually best achieved by implanting a device to make the necessary recordings as it is not possible to wear a conventional monitor for a very long period of time.

Intended benefits of the procedure

The aim of the procedure is to insert a device to monitor the heart rhythm continuously for a number of months to years in order to determine the best treatment.

Limitations of having a loop recorder

The main purpose of loop recorder insertion in most people is to monitor the heart rhythm during normal activities for a long period of time. The device will not do anything to make you feel better (i.e. it is not a treatment but a test).

The battery lasts about two to three years; removal is a straightforward procedure, similar to the implant procedure. The device may be removed after the battery is depleted, for example if the required information has been obtained (i.e. a diagnosis has been reached), or if you would like to have it removed for other reasons.

The technicians will provide you with further information and explanation before you leave hospital after your loop recorder insertion, but if you have any questions or concerns about what you can and cannot do please be sure to ask.

Serious or frequent risks

Everything we do in life has risks. A loop recorder insertion is considered to be an extremely safe procedure. Occasionally minor complications can arise. These include:

- **Bleeding and bruising**

Bleeding from the incision can occur occasionally. This bleeding will usually stop on its own or with pressing over the incision. If it continues after the first few hours, it is very occasionally necessary to perform further minor surgery to stop the bleeding.

Some bruising around or below the site of the incision is not uncommon but is not usually painful and does not usually require any treatment. Sometimes the bruising may be more extensive, but usually fades after a few weeks

- **Infection**

There is a small risk of infection at the site where the device is fitted. We take careful precautions to keep this risk to a minimum. If this occurs, it must be treated and may require removal of the loop recorder as well as antibiotic treatment. **If there is any suspicion of infection at any stage after your procedure you should come back to the hospital urgently so that your cardiologist can assess it and ensure that you receive prompt treatment.**

- **Other procedures that are available**

There are no alternative procedures available. Conventional monitoring (using electrodes stuck to the chest wall / arms) can be used to monitor the heart but generally the longest this can be done for is about 2 weeks. If symptoms are very prolonged (for example an hour or more) then it may be possible to come to hospital for an ECG (electrical heart trace) to be taken at the time of symptoms instead of having a monitor inserted. For continuous monitoring for months to years an implantable loop recorder is the only realistic option.

- **Implantable loop recorders: how they work and how to make the most of them**

Loop recorders are sophisticated heart rhythm monitors that are implanted under the skin of the chest wall. The battery typically lasts around 2-3 years. There are different companies that make implantable loop recorders and the way that you record your symptoms will be slightly different, depending on which model of ILR you have. After your procedure someone will explain how to record a symptom. You will also have some printed information given to you and phone numbers to call to troubleshoot or ask questions about your ILR.

The device is constantly on and is recording everything the heart does whilst it is in. It cannot store all the vast amounts of data that this generates and so it will delete data as it goes along. It will make a more permanent recording if either

- (i) The device interprets the heart rhythm as being significantly abnormal
- (ii) The patient (or someone else who knows how to) makes a manual recording using an activator or app on a smartphone

At any moment in time, the short term memory of the device has the most recent few minutes of the heart rhythm traces stored; as time moves forward the oldest data is wiped to create space for the new information. If the device is activated using the electronic activator or smartphone app, all this short term memory is saved to longer term storage and will be available for the technicians to access.

- **What to do if you have your symptoms**

Try to remember to activate the device as soon as you realise that something has happened. The way you record your symptoms is slightly different depending on which device you have. This will all be explained to you on the day of your procedure.

The implanted loop recorder can only store three to four patient-activated recordings so it may be necessary to download these episodes before recording subsequent episodes; to avoid losing any of your recordings.

If you don't manage to activate the device, you should use the transmitter to send a download, as it may well have made an automatic recording; take a note of the date and time of your symptoms as that may help the technicians determine if any rhythm disturbance occurred.

How to prepare before you have symptoms

It is a good idea to make some preparations:

- Keep your activator or phone close to you as much of the time as possible
- If you live with someone or spend significant amounts of time with the same people, consider explaining to them what to do if you have symptoms and that they know how to activate your monitor in the event you are unable to.

Before you come into hospital

- **Instructions for eating and drinking**

You can eat and drink normally prior to the procedure.

- **Your usual medicines**

We will usually ask you to continue with your usual medication including if you are on blood thinners. But do let us know if you are two blood thinners. **We kindly ask that you have an INR the day before your procedure if you are on warfarin and to let us know if it is above 3.0.**

- **Diabetes**

You do not need to follow any specific instructions other than the above. Take your normal medications and / or insulin with food, as you would on a normal day.

What to do if you feel unwell before attending for your procedure

If you don't feel well and have a cough, a cold or any other illness when you are due to come into hospital for your procedure, we need to know; we will advise you whether or not your procedure should be delayed.

On the day of the procedure

We kindly ask the male patients to shave your whole chest if you have any chest hair, to minimise infection and to ensure the dressing would stick.

On arrival we go through the procedure with you including explaining and signing the consent form. A healthcare assistant will then assist getting you ready. For example, helping you with your clothes (top half to be removed only) and uncovering your chest area. We would of course keep you covered as much as possible until the sterile drape can be put on.

During the procedure

The procedure typically takes less than 15 minutes. You will be awake during the procedure and the procedure is carried out under local anaesthetic.

The health care professional (HCP) would get scrubbed up to ensure sterility. The area of the chest is cleaned with antiseptic solution and a clean drape is applied to the area. Local anaesthetic is used to numb the area. A small cut is made and the device is inserted by 'injecting' it under the skin of the chest wall, usually to the left of your breastbone. The skin is closed either with glue or 'steri-strips' (sticky strips to hold the skin edges together). A dressing is placed over the incision. If in the rare event a stitch was used, we would inform you and kindly ask you have this removed via your GP after 7 days.

After your procedure

You will be able to get up and dressed and walk around straight away. You will then see the technicians who will check your device, provide you with further advice and information such as your ID card and details regarding your follow-up appointment. If this is provided on the day you would get an appointment nearer the time in the post. The technicians will ensure you are happy with 'activating' if you have a symptom, such as a palpitation or blackout.

Leaving hospital

- **Length of stay**

The procedure is done as a day case; you should be able to leave as soon as the device is checked and you have been given all relevant information. You are generally in hospital for around 1-1.5hours.

- **Convalescence**

How long it takes for you to fully recover from your loop recorder insertion varies from person to person. Some people feel a slight bruised sensation in the region of the device for the first few days. You can take a simple pain killer such as paracetamol if required.

- **Incision (cut)**

If you experience any obvious bleeding from the incision or any swelling or troublesome pain over the implant site, you should seek further help and advice via Clinical Investigations 01905 760690 (Mon-Fri 9-5pm). If you are unable to wait until the following working day A&E is an option e.g., excessive bleeding which has resulted in the dressing coming off.

The dressing should be left in place for 5 days and you can peel the dressing and strips (if applicable) yourself.

- **Personal hygiene**

We advise to keep the area dry for 5 days. Avoid direct showering hitting the implant area until the dressing is removed. If you have a bath, do not immerse the wound / dressing under the water until the dressing is removed. When you do wash the area (after dressing removal), do not rub vigorously over the incision and dab it gently dry afterwards.

- **Exercise**

Advised to wait until the dressing was removed as sweating may remove the dressing to the area.

- **Driving**

There are no other driving restrictions related to the procedure, but obviously if the condition that led to the implant (e.g. blackouts) carries a driving restriction then that will still apply.

- **Work**

When you return to work will depend on your job. If your job involves heavy manual work you may be advised to take 2 days off. If your job does not include manual work or lifting you may be able to return to work the following day.

- **Communication**

A report of your procedure will be sent to your doctor (GP) electronically within a few days.

Further hospital visits

You will receive a follow up appointment to visit Clinical Investigations at Worcestershire Royal Hospital. If this has not been given to you on the day of the implant this will be posted to you in due course. This is important both to check that your device is working, and also so that we can look for any rhythm disturbances that the device may have detected. In addition, we will check the wound site.

Contact details

If you have any specific concerns that you feel have not been answered and need explaining, please contact Clinical Investigations (Mon-Fri 9-5pm) on 01905 760 690 or 01905 768999.

Additional Information

The following Internet websites contain additional information that you may find useful:

- www.worcestershirehealth.nhs.uk/acute_trust
Worcestershire Acute Hospitals NHS Trust
- www.patient.co.uk
Information fact sheets on health and disease.
- www.nhsdirect.nhs.uk
On-line Health Encyclopaedia and Best Treatments website.
- www.bhf.org.uk
British Heart Foundation website.

If your symptoms or condition worsens, or if you are concerned about anything, please call your GP, 111, or 999.

Patient Experience

We know that being admitted to hospital can be a difficult and unsettling time for you and your loved ones. If you have any questions or concerns, please do speak with a member of staff on the ward or in the relevant department who will do their best to answer your questions and reassure you.

Feedback

Feedback is really important and useful to us – it can tell us where we are working well and where improvements can be made. There are lots of ways you can share your experience with us including completing our Friends and Family Test – cards are available and can be posted on all wards, departments and clinics at our hospitals. We value your comments and feedback and thank you for taking the time to share this with us.

Patient Advice and Liaison Service (PALS)

If you have any concerns or questions about your care, we advise you to talk with the nurse in charge or the department manager in the first instance as they are best placed to answer any questions or resolve concerns quickly. If the relevant member of staff is unable to help resolve your concern, you can contact the PALS Team. We offer informal help, advice or support about any aspect of hospital services & experiences.

Our PALS team will liaise with the various departments in our hospitals on your behalf, if you feel unable to do so, to resolve your problems and where appropriate refer to outside help.

If you are still unhappy you can contact the Complaints Department, who can investigate your concerns. You can make a complaint orally, electronically or in writing and we can advise and guide you through the complaints procedure.

How to contact PALS:

Telephone Patient Services: 0300 123 1732 or via email at: wah-tr.PALS@nhs.net

Opening times:

The PALS telephone lines are open Monday to Friday from 8.30am to 4.00pm. Please be aware that you may need to leave a voicemail message, but we aim to return your call within one working day.

If you are unable to understand this leaflet, please communicate with a member of staff.