

## Patient information sheet – ICD insertion

Your doctor has recommended an Implantation of an Internal Cardiac Defibrillator (ICD). An ICD is an electronic device that can regulate your heart by treating dangerous and life threatening fast heart rhythms. It can also act as a pacemaker preventing your heart from beating too slowly. It consists of a battery/electronic device (box) which connects to the heart via leads (wires) along which electrical impulses pass between the ICD and the heart. The procedure is performed in a hospital. The risks and benefits of having an ICD will be discussed with you prior to the procedure.

You must notify your doctor if you:

- take **blood thinners** such as aspirin, clopidogrel, warfarin, dabigatran (pradaxa), apixaban (eliquis), rivaroxaban (xarelto), clexane, enoxaparin OR **certain diabetic and heart medications** especially dapagliflozin, empagliflozin, metformin – as these may need to be ceased prior to the procedure.
- have **allergies** to antibiotics or medical contrast dyes.

### Prior to the procedure:

You will be admitted to the hospital, usually on the day of your procedure. Men may require hair from the chest to be clipped. You will have an antiseptic wash and blood tests will be taken prior to the procedure. Antibiotics will be administered through a vein to minimise the risk of infection.

### Operative procedure:

ICD implantation is usually performed under sedation / anaesthesia together with local anaesthesia. Local anaesthetic is injected into the skin under the collar bone, where the ICD will be positioned. Slight discomfort can be felt with the administration of the local anaesthetic. Further anaesthetic is administered if any discomfort is felt. The leads are inserted into a vein (under the collar bone) through which they are passed into the heart. Between one and three such leads are inserted, depending on your condition. The defibrillator may be tested to ensure that it functions appropriately. This may involve giving your heart an electric shock (you will be anaesthetised and you will not be aware of this).

### After the procedure:

Mild discomfort or pain can occur after the local anaesthetic wears off. It is usually adequately controlled with simple pain killers (e.g. paracetamol, panadeine) and typically settles over a few days. A few hours after the procedures or the morning after the procedure you will have a chest x-ray and an ICD check. If all is well you will be able to go home. A further ICD check will be arranged 2-6 weeks after the procedure.

### Potential complications:

Bruising ~ 5%. Bleeding, infection, puncture of the lung, lead dislodgement ~ 1% or less. Puncture of the heart <0.5%. Blood clot in arm <1%. Stroke, heart attack, death <0.1%. Problem with the ICD <1% (This is not a complete list, and other complications which are less common can also occur). The ICD does take up "space", and hence a "lump" may be visible in the location of the ICD.

### Wound care, dressing and follow up:

You should avoid showering or bathing for the first 24 hours after the procedure. Showering after this is OK, but direct water contact on the dressing is best avoided for 1 week. The dressing may be removed after 7 days, typically by your GP. The stitches will dissolve and do not usually require removal. Bruising at the site of the operation is not uncommon and usually settles on its own. Any signs of redness, warmth, localised pain, swelling, oozing, discharge must be reported to the doctor immediately (or your GP or emergency department if your doctor is not available). You will require a post operative review and an ICD check

Information in this sheet is of a general nature only. Specific details of the procedure will be discussed with you, prior to the procedure.

within a few 2-4 weeks of the procedure with the doctor. Regular ICD will be required on an ongoing basis after that.

**If you receive a shock from the device:**

You should contact your doctor or be reviewed in a hospital. You should not drive until you are reviewed by a doctor and have had your ICD checked.

**Activity restrictions:**

It is important to avoid heavy lifting (>4 kg) and raising your arm above the level of your shoulder for the first 6 weeks. It is however important for you to move your arm gently using every day movements to prevent a frozen/stiff shoulder. Driving restrictions apply – these are typically for 2 weeks, but can be longer, and they will be discussed with you. These restrictions are based on government / driving guidelines.

**Remote monitor/transmitter:**

Your ICD may be supplied with a wireless monitor/transmitter. The technology involved allows transmission of certain ICD related information to the ICD manufacturer, which can then be passed on to your doctor. The aim of this is to allow notification of serious ICD related issues. This is **NOT AN EMERGENCY** service, transmissions are always delayed, they are never immediate and are only reviewed during business hours. If you develop any symptoms or feel unwell for whatever reason, you should seek medical attention from your doctor, ambulance or hospital, and **you should NOT expect anyone to contact you, just because you have an ICD monitor / transmitter.** Furthermore, the remote transmissions **DO NOT REPLACE** regular in person checks performed by your doctor.

**Magnetic resonance imaging (MRI):**

It is not uncommon for patients to require an MRI scan to be requested / performed at some stage, for cardiac, or more commonly, issues unrelated to your heart or ICD. Modern ICDs and leads are MRI compatible. MRIs can usually be safely performed 6 weeks post ICD implantation. There are however some circumstances which make the ICD, MRI non-compatible, based on current guidelines. Prior to an MRI being performed, the radiology department will typically require a “MRI - ICD approval form” to be completed, by the doctor looking after your ICD. To allow the completion of the relevant form, patients are required to have had a recent (within 3 months) ICD check.

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