Beth Israel Deaconess Medical Center
A teaching hospital of Harvard Medical School
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information

Internal cardiac defibrillator (ICD)

Information for patients

You have been scheduled to receive an internal cardiac defibrillator, or ICD. Your procedure is scheduled for:

_____

☏ Call us if you have questions

- Please call us at 617-632-7456 if you have any questions about these instructions.

Someone will call you one-two days before your procedure to tell you what time to arrive at the medical center. Your procedure is on the **west campus** of the medical center. West campus parking is available in the Pilgrim Road Garage (entrance is on Crossover Street, which is reached via Pilgrim Road or Autumn Street), or in the 110 Francis Street Garage (Lowry Building Garage), located on the corner of Brookline Avenue and Francis Street (and also accessible via the Riverway). The person driving should bring the parking ticket into the hospital. He/she must pay before returning to the car. In addition, the ticket can be validated in the Farr Lobby for a reduced rate.

Please go to the Farr Building entrance at 185 Pilgrim Road. (See enclosed map.) Once you are in the Farr lobby, take a **left** at the gift shop and follow the signs for the Baker elevators. Take the **Baker elevators to the 4th floor**, where you will check in at the reception desk.

What is an ICD?

An ICD is an electronic device implanted to help protect you if you have an abnormal, fast heart rhythm. It also has the ability to function as a pacemaker, making the heart beat if your heart rate is too slow. It has a generator implanted just below the collarbone underneath the skin and has wires which extend into the right-sided chambers of the heart. Some patients need only one wire in the bottom chamber (ventricle) and some require an additional wire in the top chamber (atrium).

Preparing for your ICD procedure

- **Several days before your procedure**
  - → If you take warfarin (Coumadin), your doctor will ask you to stop taking it several days before your ICD procedure. Please ask your doctor when you should stop taking your warfarin. Some patients (such as those who have had certain types of heart valve surgery) need to stay in the hospital while they are stopping their warfarin. Your doctor will let you know if this applies to you.
  - → Please continue to take other medicines your doctor has prescribed, including any aspirin or Plavix, unless your doctor tells you otherwise.
  - → A nurse from the cardiology department will be contacting you one-two days before your procedure. The nurse will talk with you about your medical history, and will ask you about your medications and any allergies you may have.

Please have a list of your medicines, including the doses, ready. The nurse may give you further instructions on changes in your daily medications that may be needed before your procedure.

- → The nurse will go over your preparations and can answer any questions you may have.

- → Please tell the nurse if you have had any recent infections, fever, or chills, or if you have been taking antibiotics for any reason.

- **The night before your procedure**
  - → **Please do not eat or drink anything after midnight the night before your procedure. Do not eat or drink until after your procedure is over.**

- **The morning of your procedure**
  - → Follow the instructions given to you by the nurse regarding what medicine to take and not to take on the morning of the procedure. You may have a small sip of water to swallow any medicine you may need. As noted above, you should not take warfarin (Coumadin). You should also not take diabetes pills or fluid pills (diuretics). If you take insulin, you will be asked to take less than usual since you will not be eating, and not to take any short-acting insulin.

  - → If you use inhalers or nebulizers, you may use these according to your regular schedule.

  - → Please bring a list of your medicines with you to the hospital. For prescription medicines, **please be sure to write down the following information as it appears on the medicine bottle: the exact name of the medicine, the strength, and the instructions on how to take the medicine.** Also bring a list of any non-prescription medicines you take – including over-the-counter medicines, vitamins, herbs, and supplements.

What to expect

- → After you check in, you will go to a holding area to wait for your procedure. To protect your privacy and that of all of our patients, families are not allowed in the holding area. Your family may wait in the reception area on the 4th floor.

- → In the holding area, you will change into a hospital gown and be asked to go to the bathroom to empty your bladder. You will rest on a stretcher in the holding area until it is time for your procedure. Here, you will meet nurses who work in the holding room, EP (electrophysiology) nurses, nurse practitioners, and the EP fellow (a cardiologist specializing in electrophysiology). These are the people who will be helping your doctor with the procedure. A nurse will connect you to a heart and blood pressure monitor and place an intravenous line (IV) in your arm. Some patients have blood drawn at this time. Men will have

their upper body shaved, and will have an external catheter (condom catheter) put in place.

- When it is time for your procedure, you will be taken into the EP lab. You will be connected to more monitors and may receive oxygen. You will receive medicine through your IV to help you relax, as well as an antibiotic. As the sedative takes effect, you will feel very sleepy and comfortable, but you will not be unconscious. The nurses will scrub your shoulder with a cleaning solution and place clean cloths over your chest and part of your face. Your hair will be covered in a hat.

- Your attending cardiologist will be present in the room for the more critical aspects of the procedure.

- Before the device is placed under your skin, the EP fellow will administer numbing medicine to the area. You may feel tugging or pulling, but no pain. If you feel discomfort, please tell the nurse.

- The device will be placed under the skin and the wires will be threaded into your heart. During the procedure, you may feel some extra heartbeats which is expected.

- The final phase is testing the device to make sure it is working properly. You will be given additional sedative and the doctor will stimulate the heart to cause a rhythm problem. The device will then deliver a brief shock, restoring your rhythm to normal.

- When the procedure is finished , the nurses will place a bandage over the area where the device was inserted and will put a sling on that arm. You will then be taken back to the holding area where you will wait for your inpatient bed.

- The whole procedure takes approximately two-four hours.

Your stay in the hospital

You will stay one night in the hospital. You'll need to stay in bed with your head elevated until the next day. The nurses will provide your usual medicines as well as any pain medicine you may need. You may get an x-ray in your room. You will continue to get antibiotics by IV. In the morning, you will go to the x-ray department for a chest x-ray and the EP fellow or NP will check your device. Once this is done, you may get up and begin walking with the nurse's help, and you will no longer need the sling on your arm.

Your recovery and follow-up

You will receive detailed discharge instructions before you leave the hospital. These will include information on:

- **Driving** - Depending on your medical condition and the reason for your device implant, you may be restricted from driving for at least two weeks. Please ask your doctor if you may drive after your procedure.

- **Showering** - You will not be allowed to shower for one week.

- **Pain management** - Most patients do not have much pain once they go home. The area may be slightly sore. Usually, mild medicine such as acetaminophen (Tylenol) controls the discomfort.

- **Wound care -** If your wound becomes reddened, swollen, more painful, or develops drainage from the site, call your MD or the nurses at the device clinic (617-667-9383) as you should be evaluated in the office urgently. The site may be slightly uncomfortable for a few days and you may require Tylenol as needed. Frequently there are steri-strips on the site which should be allowed to fall off with time and not be pulled off. Once you are able to shower (after your 1 week device clinic appointment), do not allow water to directly contact the steri-strips; just let it rinse over the wound.

- **Activity** - Activities involving the arm near the device will not be allowed for 6-8 weeks, including reaching, golf, tennis, and swimming. You will not be able to lift more than 5 pounds for 6-8 weeks. After this, you have only a few restrictions in activities to avoid things that could interfere with your device. You may not have MRI (magnetic resonance imaging), and arc welding is not allowed. Microwaves are ok. You may use cellphones and remote controls and other electronic devices, but these must be held at least one foot from the ICD. You will be given instructions about walking through security gates or being scanned with security wands.

- **Medications** – You will remain on antibiotics for a short period of time after discharge. Patients who take warfarin (Coumadin) will need blood tests within 5 days of discharge.

- **Follow-up** – You will have appointments in the device clinic one week after discharge, again in 2 months, and then every 3-6 months. You'll be given detailed instructions about what to do if your device delivers a shock.

Common questions

When my device works, will I feel the shock? What does it feel like*?* Most patients feel the ICD firing (shock). Fortunately, it is very quick, but it can be uncomfortable. It has been described as feeling like getting kicked in the chest, but it lasts less than a second. (Remember, the ICD should only go off if you have a serious rhythm problem.)

How long does the battery last? The battery usually lasts 5-8 years. After that time, we change the generator. This is usually done as an outpatient procedure.

How will I know if the ICD is working right? Your device checks itself every day. If it detects any problems with the leads, the battery, or the device itself, it will sound a beeping alarm. If you hear the alarm, you should call 617-667-9383.

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