

## Receiving the Call

1. Don't panic.
2. Call your care partner to drive you to the hospital. You **MUST** have someone drive you to the hospital.
3. Be ready to leave and travel to the hospital after taking the call. Do not race to the hospital. Obey speed limits and get here as soon as you are able.
4. Don't eat or drink anything (unless otherwise directed by your coordinator).
5. Don't take any blood thinners.
6. Grab your "go bag."
7. Bring all of your VAD equipment with you if applicable.
8. Bring your medication list.
9. Go to the Clarkson Tower main entrance located off 42<sup>nd</sup> and Dewey streets, and check in at the Access desk on the main level.

## Heart Transplant Surgery

### Waiting for Surgery

After you get to the hospital and check in, you will be taken to your hospital room where you will wait until surgery. A team of people will be getting you prepared and ready for surgery. If you are on Warfarin (blood thinner), nurses will give you medications to reverse the effects of those medications so you do not bleed too much during surgery. Your family may wait with you before you are taken to the operating room.

Remember this is a long process and you may have to wait based on many factors:

- Travel distance for the organ
- Time spent recovering the organ
- Testing to make sure the organ is suitable

### Ideas for your "Go Bag"

- List of your medications
- Eyeglasses, hearing aids, dentures
- Pillow
- Phone charger
- Toiletries:
  - » Toothpaste
  - » Toothbrush
  - » Floss
  - » Lip balm
- Gum and/or mints
- Entertainment ideas:
  - » Books or magazines
  - » iPad or tablet (Disclaimer: The hospital is not responsible for your valuables. Please be mindful of all personal items in your room and have a family member watch over them while you are in the intensive care unit and/or away from the floor at procedures.)
  - » Notepad and pen (can be helpful to write down any questions)
- Comfy pants to wear under your hospital gown
- Comfortable shoes or slippers for walking the halls after your procedure
- Women – supportive bra. A bra with a front clasp is most convenient
- If you have an LVAD, bring all of your equipment
- Your CPAP machine, mask and tubing, if you have one
- A copy of your advanced directive or living will if not already on file

Schedules may change so please be patient and flexible. Even though you may be moved to the operating room and given anesthesia, you will not undergo surgery until the donor team visually and manually inspects the donor heart and gives the final approval. If at any time the heart does not look good enough for you, we will cancel your transplant. It is important to understand that if your transplant is cancelled, you will not lose your place on the transplant waiting list.

## Preparing for the Surgery

*What takes place in the operating room during your surgery?* When you reach the operating room, you will be attached to heart and blood pressure monitors. You may be given medicine right before the surgery, which makes you feel sleepy and more relaxed. A belt may be put over your legs for safety. If you get cold, ask for more blankets. General anesthesia is given to keep you completely asleep and free from pain during surgery.

Before your operation, much of your body hair will be shaved, especially from your chest (if you're a man) and legs. Your skin will be cleaned with a special soap and water from your chin to your toes. This soap may make your skin yellow, but it is cleaned off later. Sheets are put over you to keep the surgery area clean.

In the meantime, the donor organ harvesting team has been transported to the hospital where the donor heart is located. If the surgical team determines that it is an acceptable heart, it is removed from the donor's chest and placed in a special cold fluid for transportation. There is constant communication between the team getting the donor heart and the transplant team to coordinate your operation with the timing of the heart's arrival. When the new heart is on its way to Nebraska Medical Center, the transplant surgeons begin preparing for the removal of your diseased heart.

The surgeon will start by opening the chest through an incision in the breast bone. Once the chest is opened, the outer layer of the heart (called the pericardium) is opened and your heart is separated from it. When the new heart arrives, you will be connected to the heart-lung machine and it will take over the function of the heart and lungs for the rest of the procedure.

## Surgery

In an orthotopic heart transplantation, the surgeon removes your failing heart except for the back wall of the left atrium, one of the heart's upper chambers, and the large blood vessels attached to it. The donor heart is then attached to the left atrium and those large blood vessels using a technique known as a bicaval approach.

The new atrium is not connected to your nervous system. The right atrium contains important tissue called the sinus or SA node. The sinus node is the normal pacemaker of the heart and it keeps your heart beating. It is normally under the influence of a branch of the nervous system called the autonomic nervous system. This system causes your heart rate to increase and decrease as your body's needs change. Your native sinus node will not have any influence on your donor heart. The donor heart will have its own sinus node that will be "denervated." This means that it will beat automatically but the heart rate will not be controlled by the nervous system. It also means that your heart rate after surgery will be more rapid than normal and it will not be as able to speed up and slow down. This can affect the medications you are allowed to take and your body's response to position changes and exercise.

After the heart is attached, surgeons then connect the blood vessels, allowing blood to flow through the heart and lungs. As the heart warms up, it begins beating. Surgeons check all the connected blood vessels and heart chambers for leaks before removing you from the heart-lung machine. Then the clamp on the main blood vessel leaving your heart (aorta) is removed, which causes your heart to start beating normally. If it starts beating abnormally (fibrillating), your heart is given an electrical shock to correct the rhythm. The clamps are removed from your other blood vessels, allowing blood to flow normally to your new heart. The heart-lung machine is turned off, leaving your new heart to work by itself.

Your breastbone is fastened together using heavy steel wire. Your chest incision is closed with stitches. Chest tubes will be placed to collect the fluid as a result of surgery.

## Family Visitation During Surgery

During the transplant surgery, your family will be taken to the surgery waiting area and the operating room staff will be in touch with your family to give them an update on your condition. Once the operation is over, the surgeon will meet with your family to tell them about your procedure. After surgery you are taken to the intensive care unit where you will be watched very closely. No sick or ill feeling family members should visit you while in the hospital.

Visitors may be limited right after surgery. But, as you start to feel better, you can look forward to having company. Immediate family and/or significant others are welcome to see you after your surgery, however, there are no more than two visitors at a time. Visitation may be further limited due to tests, procedures, nursing cares, or the promotion of rest needed for your recovery.

## After Surgery Care

Following surgery, you will wake up in the intensive care unit. Anesthetics wear off at different rates, so it is hard to say when you will wake up. It is not unusual for your mind and body to be uncoordinated at first. For example, at first some people can hear and open their eyes before they can move their arms or legs. Do not be alarmed, in a short time your body and mind will be back on track. You will be watched closely by the doctors and nurses who have been trained to recognize any problems you may have with your new heart.

## What to Expect in the Intensive Care Unit

**Endotracheal tube and ventilator:** A breathing tube (endotracheal tube) will be placed prior to surgery and you will continue to have it in the ICU. The tube goes in your mouth, by your vocal chords and into your windpipe. It may feel uncomfortable and will keep you from talking. For the first 24 to 48 hours you will be on a breathing machine until the effects of anesthesia wear off and you start to breathe well on your own. During this time you will be asked to communicate with your nurse and family by nodding your head and/or writing messages on a tablet. The breathing tube will be removed when you no longer need help breathing.