Your Hospital Stay After Your TAVR

What to expect

This handout explains what to expect during your hospital stay after your transcatheater aortic valve replacement (TAVR). It explains the care and medicines you will receive and gives important information about self-care after you go home.

How long will I stay in the hospital after TAVR?

- Right after your TAVR, you will be moved to the Cardiothoracic Intensive Care Unit (ICU) on 5-Southeast. There, nurses will monitor you closely. Most patients stay in the ICU for 1 day after the procedure. We will keep you in the ICU only as long as you need to be there. We want to help you recover safely and as quickly as you are able.

- From the ICU, you will go to a “cardiac telemetry” room on a cardiology unit of the hospital, on either 5-Northeast or 6-Northeast.
  - Most patients who have transfemoral aortic valve replacement stay in the hospital for 3 to 4 days after the procedure.
  - Most patients who have transapical aortic valve replacement stay in the hospital for 4 to 5 days after surgery.
  - Some patients, if they are well enough, may be able to go home directly from the ICU.

The Cardiothoracic Intensive Care Unit

After you leave the operating room, you will go to the Cardiothoracic Intensive Care Unit (ICU). Highly skilled cardiac nurses will monitor and care for you there.

Most patients stay in the ICU for 1 to 2 nights after TAVR. How long you are in the ICU will depend on how you are doing. Your time in the ICU is when the most important changes in your condition occur.
Can I have visitors in the ICU?
Family and close friends can visit you in the ICU. They can take the Cascade elevators to the 5th floor.

Family and close friends may visit any time, but we encourage them to leave the hospital at night to get some rest. They should leave a phone number where we can reach them.

Family may call the ICU at 206-598-6500 any time if they have questions or concerns or would like to know how you are doing. We ask that only one family member makes these phone calls to the ICU and then shares this information with your other family members and friends.

What care and monitoring will I receive in the ICU?
Highly skilled cardiac nurses will care for you in the important hours after surgery. A doctor from the cardiac surgery team will also be available at all times.

Checking Your Vital Signs
During your stay in the ICU, your heart rate, rhythm, and blood pressure (*vital signs*) will be monitored at all times. This is done using patches placed on your chest and *catheters* (thin, flexible plastic tubes) inserted into an artery or vein.

IV Catheters
You will also have several *intravenous* (IV) catheters. These IVs allow the nurse to give you medicines, fluids, and blood transfusions as needed. We will also draw blood samples for testing through these catheters. About 12 hours after surgery, most of these IVs are usually removed. One small IV catheter is left in place until you are discharged home.

Pacemaker Wire
During TAVR, your doctor will place a pacemaker wire through an IV catheter in a large vein that ends in your heart. This pacemaker wire is used short-term to increase your heart rate as needed during the procedure. Usually this wire is removed right after TAVR, while you are still under general anesthesia. Removing this IV catheter and pacemaker wire is painless.

Sometimes, if a patient’s heart rate is slow, the doctor leaves the pacemaker wire in place. Rarely, in about 6% of patients (about 6 out of 100 patients), the heart rate remains slow and a permanent pacemaker is needed.

If you need a permanent pacemaker, your doctor will talk with you and your family about the procedure. If needed, the pacemaker will be placed during your hospital stay.
For Transapical TAVR Patients

If you had transapical TAVR, fluid may build up in your chest after surgery, and it will need to be drained. During TAVR, your surgeon will put a chest tube in place to drain this fluid.

It is normal to have a small amount of bleeding in the chest tube drainage during the first 24 hours after surgery. These chest tubes are usually removed within 24 to 48 hours after surgery.

Urinary Catheter

During surgery, a small rubber catheter will be inserted into your bladder to drain urine. It is usually removed about 24 hours after surgery.

Breathing and Coughing

When you are in the ICU after surgery, the breathing tube that you had during surgery will still be in your throat. The tube will be connected to a breathing machine (ventilator).

You will need to be on the ventilator until your anesthesia wears off and you are able to breathe on your own. You will not be able to talk or drink anything until the breathing tube is removed.

The breathing tube is usually removed a few hours after TAVR, or as soon as it is safe to do so. When it is removed:

- You will receive oxygen through a face mask or nasal prongs. Leave the mask or prongs in place. They give you the extra oxygen your body needs at this time.

- Your throat may be sore and your voice may be hoarse. These symptoms are from the breathing tube, which passed between your vocal cords and down your throat. The soreness and hoarseness should lessen with time. Sucking on ice chips may help if your mouth is dry.

- Incision pain may restrict your breathing and cause you to take shallow breaths. You must take deep breaths and cough up secretions because:
  - If secretions stay in your lungs, bacteria may build up and cause pneumonia (a lung infection).
  - If you take shallow breaths, your lungs may partly collapse, and this may keep you from getting enough oxygen.

Use the incentive spirometer as you were taught before surgery. It will show you how you are breathing and encourage you to breathe more deeply.
Managing Pain

Pain from your incision will make coughing uncomfortable. Take your pain medicine regularly. It will reduce the soreness so that you can cough up secretions more easily.

As soon as you are able to, your nurse will help you sit on the edge of your bed or in a chair. Sitting also helps with deep breathing and coughing.

Moving to the Cardiac Telemetry Floor: On the Road to Recovery

When you are stable (usually 12 to 48 hours after surgery), you will be moved from the ICU to a “cardiac telemetry” floor of the hospital, on either 5-Northeast or 6-Northeast.

Here, your heart rate and rhythm will be monitored with a portable transmitter called a telemetry box. Specially trained nurses will help you as you recover.

From now on, you will be responsible for much of your recovery, and the staff caring for you will guide you. You will be expected to actively take part in your own care. This will include:

- **Deep breathing.** Taking slow, deep breaths (at least 10 times an hour with your incentive spirometer) helps you fully expand your lungs. This will help release trapped secretions so you can cough them up. Clearing your lungs this way helps prevent pneumonia, helps you feel better, and speeds recovery.

- **Walking and increasing your activity.** Activity helps you breathe more deeply. It also strengthens your muscles and helps your body recover faster.

- **Eating healthy foods to nourish your body.** Protein, vitamins, and minerals will help you heal faster. You will receive a regular diet after surgery. Even if you do not feel hungry, we will encourage you to eat. Walking and increasing activity will help you build an appetite.

If you have high blood sugar, you will be on a special diet until your blood sugar levels get back to normal. This diet controls the amount of carbohydrates you eat. It will help lower your infection risk and improve your healing.

Activity Precautions

For 2 weeks after your TAVR, do **NOT**:

- Lift, push, or pull anything heavier than 10 pounds, including groceries, children, pets, garbage, etc. (A gallon of water weighs about 8 pounds.)

- Garden, including lawn mowing and raking.
For transapical TAVR patients:

- Do not reach your arms behind your back or above your shoulder level for 2 weeks. It is important not to stretch the skin and muscle in your chest so that your incision can heal faster.

Getting Ready to Go Home

Your cardiac team will assess your progress and prepare you and your family for discharge. Discharge is when you leave the hospital.

Most patients stay in the hospital for 3 to 5 days after TAVR surgery. During your stay, you and your family will receive instructions to help you prepare for your discharge. Before discharge, be sure to ask your cardiac care team members any questions you may have.

You will likely meet with a nurse, dietitian, pharmacist, and physical therapist. You and your family will learn about:

Exercise

Make daily exercise part of your life. Exercise helps keep your joints flexible, builds strength and endurance, and helps your body heal and stay healthy. Your physical therapist will review exercises with you.

Slowly increase your activity as you prepare for discharge. Once you are home, keep doing the exercises you learned in the hospital.

Medicine

The medicines you will take after surgery help you recover. These medicines are prescribed for you and must be taken as directed.

Your medicines at discharge may be different from the ones you are used to. Also, these medicines may be adjusted or changed when you are discharged and in your follow-up visits. A pharmacist or a nurse will teach you about your medicines and answer any questions you may have.

Nutrition

What you eat affects your health. A registered dietitian or diet technician can help you learn how to eat for a healthy heart. They can give you and your family tips on heart-healthy food choices, shopping, and cooking. Ask your nurse how to set up an appointment with a dietitian.

Eating healthy foods will help you heal faster. Your body needs the proteins, vitamins, and minerals that healthy foods supply. Remember, even if you are not hungry, we encourage you to eat regular meals. Walking and other activity will help you build an appetite.
**Antiplatelet or Anticoagulation Therapy (Blood-thinning)**

You will need to take medicine to keep blood clots from forming on your new valve after TAVR. Most patients take:

- **Low-dose aspirin** (81 mg) every day for the rest of their life to thin their blood,
  and
- **Clopidogrel** (Plavix), 75 mg, every day for 1 to 6 months after TAVR to prevent blood clots from forming.

If you were taking aspirin and clopidogrel before TAVR, you will keep taking them to treat the condition you first started taking them for.

If you were taking warfarin (Coumadin) before TAVR, you will probably take it after TAVR. You might be asked to take aspirin for a short time, too.

**Bleeding**

Tell your cardiologist, primary doctor, or other health care providers if you have any signs of bleeding. These include:

- Bloody nose
- Tenderness in your abdomen
- Dark, bloody stool (poop), or stool that smells unusual
- Bloody urine

**Risk of Infection**

Your new man-made valve can become infected. The American Heart Association recommends that you take antibiotics to lower your risk of infection before you have:

- Dental cleaning and any type of dental procedure
- A surgery or procedure that involves your lungs, bladder, or digestive system

Tell your dentist, doctor, alternative medical providers, and all other health care providers that you have an artificial heart valve.

**What are the signs of a valve infection?**

Tell your health care provider **right away** if you have any of these signs of infection:

- Fever higher than 100°F (37.8°C)
- Tenderness in your abdomen
• Bloody urine
• New shortness of breath
• New swelling around your legs or ankles
• Weight gain of 2 to 5 pounds over 3 days

High Blood Sugar and Diabetes
Many patients who were not diagnosed with diabetes before surgery will need insulin after surgery. Sometimes this is from a side effect from a medicine, such as prednisone. Other people may have had higher-than-normal blood sugar before surgery but did not know it.

If you have high blood sugar, you will be on a carbohydrate-managed diet until your blood sugar levels return to normal. This diet will help lower your risk of infection and help your body heal.

If you have diabetes, your blood sugar will be closely monitored and treated, usually with insulin. If you did not need insulin before TAVR but are receiving it afterward, do not be alarmed. This is to prevent the problems that can happen with uncontrolled blood sugar. Your usual oral diabetes medicine and insulin regimen will be restarted as needed. Your diabetes medicine may be changed or adjusted at discharge and in your follow-up visits.

Medical Alert Jewelry
We recommend you wear a medical alert bracelet or necklace after heart valve surgery and if you are taking blood thinners. Some people prefer to carry a wallet card with this information.

Many drugstores and some jewelry stores carry this type of identification. Another source for medical alert jewelry is:

Medic Alert Foundation International
2323 Colorado Ave., Turlock, CA 95382
www.medicalert.org
888-633-4298

Getting the Information You Need
Before you are discharged, a nurse will review pain management, activity guidelines, incision care, when to call the doctor, emotional reactions after surgery, and discharge planning with you. You will also receive a handout that explains these things.

If you have questions or concerns, please ask. We want to make sure you are fully prepared to go home. Some patients and family members learn well by watching educational videotapes. We have many videos that you and your family members may watch.
Follow-up Visits

After discharge, our team will work with your heart doctor to monitor you closely. We want to make sure you are making good progress so that you do not need to be readmitted to the hospital.

A nurse will meet with you before discharge to set up your follow-up visits. Your schedule will likely include appointments:

- **2 weeks after discharge**, with your cardiac surgeon at UWMC.
- **30 days after TAVR**, with a nurse practitioner. This visit will include:
  - An *echocardiogram* (ultrasound of the heart) to check how your valve is working
  - An activity/walk test
  - A symptom questionnaire
- **Once a year.** Like your 30-day visit, this annual visit will include:
  - An *echocardiogram*
  - An activity/walk test
  - A symptom questionnaire
- **If you are part of a research study**, you may have appointments more often.

Questions?

Your questions are important. Call your doctor or health care provider if you have questions or concerns.

Regional Heart Center Clinic: Call 206-598-4300 during clinic hours.

After clinic hours or on holidays or weekends: Call 206-598-6190 and ask for the Cardiac Surgery Clinic RN, Nurse Practitioner, or Cardiac Surgeon on call to be paged.

TAVR Patient Care Coordinator: Call 206-598-7117.