If you wish to go ahead with having TAVR:

- We send you information about preparing for the procedure, and what to expect while in the hospital.
- We ask that you continue to have your symptoms of aortic stenosis monitored and treated by your family doctor or heart specialist (cardiologist).

Call the TAVR coordinator at 604 374-4600 if:

- You have any questions about TAVR.
- Your heart symptoms change quite a bit from what it was during your clinic visit before your scheduled date for your TAVR.

If we are not able to speak to you when you call, we do our best to call you back as soon as we can. We may not be able to call you back for a couple of days.

**Questions I have:**
Please bring these with you to ask during your visit.
Your doctor has asked the Royal Columbian Hospital Transcatheter Heart Valve Program team to see if having a special procedure called a **transcatheter aortic valve replacement (TAVR)** would help you. Transcatheter aortic valve replacement is a new way of repairing the aortic valve in your heart. In the past, we could only replace the aortic valve by doing open heart surgery.

Please read this booklet, share it with your family, and bring it with you when you come for your appointment in our clinic. Think about questions you might want to ask and write them down on the last page. We will review the information with you and explain anything you are not sure about.

This booklet has a lot of information about TAVR as a possible option for treating your heart valve disease. We hope it helps you understand how we decide which option is the best option for you, and your part in that decision.

Take your time to read this important information, share it with your family, and write down any questions you may have.

‘**Transcatheter’** means we use a catheter (a small flexible and hollow tube) to place a new aortic valve in the heart. We do this by making a small opening in an artery, then threading the catheter and the new valve into the right position (replacing the valve). Unlike open heart surgery, there is no need to open the chest for this procedure, but a general anaesthetic is needed.

**Why might you need your aortic valve replaced?**

Your doctor has told us that you have a heart valve disease called **aortic stenosis**.

The aortic valve is one of four valves in your heart. When blood leaves the heart, it flows through your aortic valve. Stenosis means a narrowing of the aortic valve opening. Aortic stenosis mostly happens as people age. Over time, the valve stiffens and cannot open enough to let blood through. This may cause you to feel short of breath, to have chest pain, or to feel faint or very tired.

Until now, the usual treatment for severe aortic stenosis has been open heart surgery. Open heart means the person’s chest is opened so the doctor can operate directly on the heart. The doctor removes the diseased valve and replaces it with a new valve. While this surgery is being done, the person’s blood is circulated outside the body through a special machine, called a heart-lung bypass machine. This is called **surgical aortic valve replacement**.

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**How to say it:**

- Aortic: sounds like aye-or-tic
- Stenosis: sounds like sten-oh-sis

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**Deciding the best option – Is TAVR for you?**

After your clinic visits, the TAVR team meets to review all the information we have about you, including your assessment and the results of your heart tests. From this information, the team determines which option would be the best choice for treating your aortic stenosis.

The best option could be:

- **Medical management:** This means your aortic stenosis is managed without surgery. Your family doctor or heart specialist (cardiologist) would continue to monitor and treat your aortic stenosis with medicines.

- **Surgical aortic valve replacement:** This means open heart surgery is the best option for you to have your aortic valve replaced. A cardiac surgeon’s office would contact you to discuss this more with you.

- **Transcatheter Aortic Valve Replacement (TAVR):** This means TAVR is the best option for you to have your aortic valve replaced. This procedure can be done in different ways. We would let you know which way we think would be best for you.
  - Transfemoral TAVR - means inserting the catheter into the femoral artery in the groin
  - Transapical TAVR - means inserting the catheter through a small opening in the chest (‘apical’ meaning chest)
  - Subclavian TAVR - means inserting the catheter into the subclavian artery in the upper chest
  - Transaortic TAVR - means inserting the catheter into the aorta in the upper chest

**When will you know?**

We call you as soon as we have a decision on what the team believes is the best option. We also send your doctor a letter. Take time to talk further with your doctor or cardiologist about what we recommend.

**If we feel TAVR is the best option for you**

When we call you, we will let you know how long the waiting list is. We figure out the waiting time from the date the team decided TAVR was the best option, as well as when you tell us that are ready, willing and able to have the procedure.
A cardiac angiogram: ('Cardiac' meaning heart, 'angio' meaning blood vessels, and 'gram' meaning a print out.)

A cardiac angiogram (also called a ‘cardiac cath’) is a test to check the blood vessels around the heart and the blood pressure inside the heart. A doctor who specializes in the diseases of the heart (a cardiologist) inserts a long flexible catheter (a small hollow, flexible tube) into an artery in your groin through a small needle. Contrast (also called x-ray dye) is injected through the catheter so we can see your blood vessels better.

The test takes about one to two hours, but you stay in the hospital for about 4 to 6 hours after the test. To help you learn more about this test and how to prepare, we will give you a patient information booklet before the test.

Computed Tomography: ('Computed' meaning using a computer, 'tomo' meaning a slice or section, and 'graphy' meaning an image or print out)

Computed Tomography (also called a ‘CT scan’ or ‘CAT Scan’) is a special x-ray that takes many pictures of your heart and blood vessels in small “slices”. The computer puts these pictures together to create a three-dimensional (3D) view of your heart and blood vessels.

During the test, we give you contrast (special x-ray dye) to outline the heart and blood vessels so they can clearly be seen. To do this, we start an intravenous (intra meaning ‘into’ and venous meaning ‘vein’, commonly called an IV). We inject the contrast into your bloodstream through the intravenous.

It takes about 30 minutes to complete this test.

Some people may also have this test:

Transesophageal echocardiogram: ('Trans' meaning through, ‘esophageal’ meaning the passageway tube from mouth to stomach)

A transesophageal echocardiogram (also called a ‘TEE’) is done when the doctors feel they need a more detailed look at your heart. It is similar to a regular echocardiogram, but the ultrasound probe is passed through your mouth and down your esophagus.

This test takes about 60 minutes. We give you some medicine to make you sleepy during the test. We send you a patient information booklet so you can learn more about this test and how to prepare.

A surgical aortic valve replacement may not be the best option if:

- You are older and have other diseases like kidney or lung disease.
- You have had one or more open heart surgeries in the past.
- You are not well enough for a major surgery such as this.
- You have had radiation to your chest.

Is TAVR the best option for you?

We don’t know yet. In order for us to decide whether TAVR would be the best option for you, we need a lot of information about you, your heart, and your general health.

Also, it is not just our decision. If we recommend TAVR for you, you can choose to continue with your current treatment instead, or talk to your doctor about other options. It is important, however, to make your decision after we have seen you and given you information about your options.

Every person goes through a thorough review before we can decide if TAVR is an option. If you decide you want to know if TAVR is an option, you will need to come to the hospital for a clinic visit with the TAVR coordinator. If you are from out of town, you will need to make your own travel and hotel arrangements for these days. If you are in hospital right now we will bring you to RCH for the tests that need to be completed.

The review process

Step 1: We schedule you for an appointment in our clinic for a TAVR Assessment.

Step 2: You attend the clinic for your TAVR Assessment. This takes around 1 – 2 hours.

Step 3: The team reviews the results of your clinic visit and recommends the best option for treating your aortic stenosis.

Step 4: We notify you and your doctor with our team’s decision.

If a TAVR is the option of choice, we book you for your procedure to have your aortic valve implanted.
TAVR Assessment

In order for us to get a complete picture of you and your health, we must see you in our clinic in person.

Since we ask a lot of questions and do some tests, the clinic visit can be quite tiring. Plan to rest in the evening.

If you are in hospital right now at Royal Columbian Hospital, the TAVR nurse or the cardiologist will explain the plan to you and answer your questions.

If you do not speak or understand English well enough to have conversations about your health or to make medical decisions, you will need to have an interpreter.

• Ask someone in your doctor’s office, or someone you know who speaks English, to call us at least 3 to 5 days before the appointment to discuss the appointment particulars.

What to bring to your appointment

☐ This booklet with your questions written. It is a good idea to keep all your TAVR information and documents in one folder, and bring the folder with you to all of your TAVR appointments.

☐ A list of all the medicines you are taking. You can either ask your pharmacy to print the list or use the ‘List of Medications’ form we send you.

☐ The completed ‘TAVR Questionnaire’.

☐ A list of questions you and your family have for us

☐ A person who knows you well, such as your spouse or an adult child or good friend. This person meets the team with you, helps give information about you, and gives you support through the assessment process.

What to expect during the clinic visits

• We review what TAVR is, how TAVR is done, and the difference between surgical aortic valve replacement and TAVR

• You have time to ask your questions.

• We give you information about how the team decides which treatment option is the best one for you.

• We arrange for you to have different heart tests as appropriate.

• You answer questions about your every day life, what you can and cannot do for yourself, your living situation, and your heart symptoms.

• You do a walking test and a memory test.

• A doctor gives you a medical check-up and asks you questions about your heart and your health.

• Our heart surgeon reviews your health record. The doctor may wish to examine you further.

• We take pictures of you. This helps us when the team meets after your clinic visit to discuss your options. The pictures are kept in your chart.

Heart tests to expect

We may ask you to have a number of heart tests. These tests help us decide whether TAVR is the best option for you. You may have already had some of these tests done in the past. However, we do them again because the focus of the test this time is specific to TAVR.

Everyone who is being considered for a TAVR has:

• An echocardiogram: (‘Echo’ meaning using sound waves, ‘cardio’ meaning heart, and ‘gram’ meaning a print out.)

An echocardiogram (also called an ‘Echo’) is an ultrasound test. High-pitched sound waves are bounced off different parts of the heart, creating pictures. This test allows us to look at the heart muscle, the valves of the heart, the blood vessels of the heart, and how blood flows through the heart. While you are lying down on a bed, we slide an ultrasound probe (special camera) across your chest with the help of clear gel.

It takes about 30 to 60 minutes to complete this test.