Advanced Therapies Evaluation
Providence Heart Institute
Center for Advanced Heart Failure
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Normal Heart Function

How the heart works:
The heart pumps blood out to the entire body and to all the organs:

1. Blood without oxygen is brought into the Right Atrium of the heart from the veins
2. Blood goes through the Right Atrium and into the Right Ventricle
3. From the Right Ventricle, blood moves to the lungs to pick up oxygen
4. Blood then moves from the lungs to the left side of the heart
5. Blood enters the Left Atrium
6. From the Left Atrium, blood moves into the Left Ventricle
7. Blood is then pushed from the Left Ventricle to the aorta and then out to the rest of the body
Heart Failure

Heart Failure is caused by the heart muscle becoming weak. Because the heart is weakened, it cannot adequately pump blood to the rest of the body. This causes fatigue, fluid build-up, and trouble breathing. It is measured in classes. Class I and II are the early classes. Class III and IV are the advanced classes.

![New York Heart Association (NYHA) Heart Failure Classification](Image)

Source: www.medcomic © 2018 Jorge Muniz
Heart Failure – Structural

- Normal heart
- Dilated cardiomyopathy
- Hypertrophic cardiomyopathy
- Restrictive cardiomyopathy

Types of Cardiomyopathy

Aorta
Mitral valve
Aortic valve
Left ventricle
Septum
Enlarged ventricle
Enlarged stiff septum
Walls of ventricles become stiff
Restrictive cardiomyopathy
Heart Failure Management

This disease is **not curable**, but is **treatable** with:

- Nutritional Modifications
- Oral Medicines
- Pacemakers/AICD defibrillator
- Heart Transplant
- Left Ventricular Assist Device (VAD) placement
- Other surgical or invasive procedures

A multidisciplinary team consisting of heart failure doctors, heart surgeons, palliative care team, nurse coordinators, social workers, dietitians, financial counselors and pharmacists meet regularly to assess severe heart failure patients and their need for advanced therapies including heart transplant and VAD placement.

As you read through this patient evaluation guidebook, please know our multidisciplinary team is here to take care of you and help you through the evaluation process. We are honored to be a part of your journey.
Benefits of Advanced Therapies

- Enhance quality of life
- Resume daily life activities (ADLs)
- Return to work
- Provide a chance for long-term survival
Risks Related to Evaluation and Treatment

The medical team will review all risks and benefits in detail with you once a therapy has been recommended. VAD and Heart Transplant each have unique risks associated with them.

- Infections
- Blood Clot
- Stroke
- Bleeding
- Diabetes
- High Blood Pressure
- Cancer
- Surgical Complications
Learning about what you are agreeing to is a process called Informed Consent. To protect your rights as a patient, you will be asked to sign a document which describes:

- Explanation of the evaluation testing
- Explanation of consults needed to determine candidacy
- Multidisciplinary team involvement for advanced therapies
- Expectations of a potential candidate
- Expectations from the multidisciplinary team
- Risks and benefits of advanced therapies
- Any other possible options to treat your heart

The purpose of the advanced therapies evaluation is to determine the best treatment options for you.
Advanced Therapies Evaluation

- A **psychosocial evaluation** is completed by a social worker to assess the social support system and your ability to manage the complex medical regimen required. A strong support system is required to receive advanced therapies to treat heart failure. Some therapies that may be recommended require a caregiver be available for a period after the procedure.

- A **financial evaluation** is completed by a financial coordinator to assess financial needs. They will ensure you are educated on all possible out-of-pocket costs associated with advanced therapies. They will be a resource to assist with financial and insurance concerns as you go through the evaluation. They will also address insurance coverage for treatment, as well as continued follow-up care.

- A **nutritional evaluation** is completed by a dietician to review nutrition history and any barriers that may need addressed.

- A **pharmacological history** is completed by a pharmacist who has received special training in advanced heart failure to ensure the complex medication regimen that may be required is manageable.

- A physician who specializes in **palliative care** will consult with you on goals for managing your heart failure and focus on your quality of life.

- A **cardiothoracic surgeon** will meet with you and review any surgical barriers that may need addressed.

- A group of **heart failure cardiologists** provide care for you throughout the evaluation process and afterwards.
Advanced Therapies Evaluation

Evaluation testing includes drawing many tubes of blood and completing several invasive and non-invasive tests. The transplant team will review any recent testing and lab work you have had done and avoid any unnecessary repeats. Below is an example of what you can expect during your evaluation:

**Laboratory Testing:**

- Blood counts, electrolytes, kidney and liver function, lipid panel, blood type (2), tissue typing (HLA), tobacco and substance abuse screening
- Infectious disease testing is done to help determine how to prevent or treat infections after transplant or VAD:
  - Toxoplasmosis
  - HIV
  - Cytomegalovirus (CMV)
  - Varicella
  - Herpes Simplex
  - Tuberculosis
  - Epstein Barr
  - Covid 19

**Non-Invasive Testing:**

- Chest X-ray
- CT Scans
- EKG
- Echocardiogram
- Metabolic Stress Test
- Ultrasound (abdomen, carotid, groin)
- Mammogram
- Pulmonary Function Test
Advanced Therapies Evaluation

Invasive Testing:

- Right Heart Catheterization
- Left Heart Catheterization
- Endoscopy
- Colonoscopy
- Pap Smear

Consults:

- Dermatology
- Infectious Disease
- Endocrinology
- Pulmonary
- Cardiothoracic Surgery
- Social Worker
- Psychiatry
- Pharmacy
- Palliative Care
- Nutrition
- Financial
- Dental

Additional testing and consults may be needed, the transplant team will discuss any referrals with you. Your coordinator will keep you updated, and the transplant team will review all evaluation results with you. Sometimes, during the evaluation process previously unrecognized conditions are discovered. The transplant team will refer you to the appropriate providers for treatment. Sometimes, the evaluation is paused while the condition is treated. Certain conditions make Advanced Heart Failure therapies too risky.
Barriers to Advanced Therapies

You will receive a copy of our centers inclusion and exclusion criteria for heart transplant during the evaluation. The purpose of an evaluation is to determine the best treatment for your heart failure.

Sometimes during the evaluation process previously unrecognized conditions are discovered. The transplant team will refer you to the appropriate providers for treatment. Sometimes the evaluation is paused while the condition is treated. Certain conditions make Advanced Heart Failure therapies too risky.

- Active infection
- Damage to other organs that can’t be reversed
- Active or recent cancer
- Overly reactive immune system
- High chance of dying with surgery
- Anatomy that makes cardiothoracic surgery too high risk
- Active drug use
- Active alcohol abuse
- Active tobacco use
- Inadequate social support
- Body mass index >38
- Non-Adherence to medical regimen
- Anytime the medical team feels the risk of potential therapies would be greater than the benefit
- Poor social support

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Multidisciplinary Approach

Patient

- Surgeons
- HF Cardiologist
- Cardiologist
- Nurse Practitioner
- ICU Team
- Dietician
- Social worker
- Pharmacist
- Palliative care
- Financial Services
- Coordinator
- Direct Care Nurse
- ID Team
- Anesthesia Team
- VAD Team

Providence Heart Transplant and VAD Clinic | 503-216-1182
Multidisciplinary Approach

Additional Physician Consults if needed

- Endocrinologist
- Pulmonologist
- Infectious Disease
- Neurologist
- Gastroenterologist
- Gynecologist
- Urologist
- Nephrologist
- Dermatologist
- Hematologist

We encourage you to maintain a relationship with your current Primary Care Provider, Cardiologist and any other specialists. Our team is happy to collaborate with other members of your care team.
Substance Abuse and Tobacco Abuse

It is recommended that you do not use:

- Alcohol
- Tobacco
- Illegal drugs

Upon initiation of evaluation, we will test to see if you have nicotine or drugs in your system

If these tests show drug or tobacco use:

- You may be asked to complete a tobacco or drug rehab program
- We will re-test you randomly at return visits
- You must abstain from tobacco, marijuana, and illegal drugs for 6 months to be listed for a heart transplant
- Your coordinator or physician will explain what you need to do in order to be eligible for advanced therapies
What kind of support will I need throughout the evaluation process?

- You cannot go through this process alone
- Successful therapy requires people in your life who are able to provide the support and help you will need
- At least one support person is needed to provide support through your evaluation
- Support person(s) must be active participants in your care
Your support person(s) will:

• Learn everything with you about Advanced Heart Failure Therapies and come to all your visits.

• Be present with you for appointments and testing and be available for teaching

• Learn how to care for your chest incision as you heal. Provide transportation to appointments, especially after surgery.

• Be ready to go with you to lab, procedure, and clinic appointments

• Learn about all your medicines, be able to help you take them and know what they do, and potential side effects

• If you receive an VAD, your support person will have in depth training of the device and equipment along with you

• Be able to help you fill your pill box, keep track of each medicine you take, and write in your medicine diary

• Help you report any concerns or symptoms
Team Committee Review & Decision

The Multidisciplinary team reviews completed evaluations weekly to determine candidacy for advanced therapies. Considerations and decisions include:

- Determine the degree of risk you may face
- Decide on the best treatment options personalized to your specific problems
- Create a list of recommendations and a care plan tailored to your needs
- The transplant team will communicate the plan to you, your referring provider, and your insurance company

You will receive communication throughout the process and your nurse coordinator and physician will review your case with the team.

You will receive notification of the decision, below are the potential outcomes:

- **Approved**—the committee has determined you are an acceptable candidate for advanced therapies (heart transplant or VAD)
- **Declined**—the committee has determined you are not a candidate for any advanced therapies
- **Deferred**—the committee has determined you are not an immediate candidate for advanced therapies and additional testing or consults or life modifications are needed before candidacy can be determined
Planning Ahead

• Continue to seek care for your heart failure
• Attend all scheduled appointments with the advanced heart failure team and any other specialists or primary care physicians
• Maintain a relationship with your support person
• Communicate with your care team any changes in how you are feeling, where you are living, any change to your phone number
• Communicate with your care team any changes to your support system or insurance changes
• Always ask questions! Continue educating yourself on advanced heart failure options

Let us know if you have any concerns or questions, we are here to partner with you. After your evaluation is completed, we will communicate any urgent findings and next steps with you.
Our Mission
As expressions of God’s healing love, witnessed through the ministry of Jesus, we are steadfast in serving all, especially those who are poor and vulnerable.

Values
Compassion, Dignity, Justice, Excellence, Integrity