**Demographics**

### Height
Enter the height of the patient at the time of implantation in inches or centimeters. The height must fall between 10 and 96 inches or 25 and 244 centimeters.

- **ST=** Unknown
- **Not Done**

### Weight
Enter the weight of the patient at the time of implantation in the appropriate space, in pounds or kilograms. The weight must fall between 5 and 600 pounds or 2 and 273 kilograms.

- **ST=** Unknown
- **Not Done**

### Blood Type
- O
- A
- B
- AB
- Unknown

**Medical Support Status**

### Current Device Strategy at time of implant
This should be determined in conjunction with the heart failure cardiologist and surgeon at the time of the implant. This determination will be re-visited and recorded at 3 months, 6 months, and every 6 months thereafter.

- Bridge to Recovery
- Rescue Therapy
- Bridge to Transplant (patient currently listed for transplant)
- Possible Bridge to Transplant - Likely to be eligible
- Possible Bridge to Transplant - Moderate likelihood of becoming eligible
- Possible Bridge to Transplant - Unlikely to become eligible
- Destination Therapy (patient definitely not eligible for transplant)
- Other, specify

### List Date for Transplant

- **ST=** Unknown

### Current ICD device in place?
- Yes
- No
- Unknown

### Time since first cardiac diagnosis
The length of time that the patient had any known cardiac diagnosis. For example, the time since the patient had a myocardial infarction, congenital heart disease was noted or the patient was noted to have heart failure.

- < 1 month
- 1 month - 1 year
- 1-2 years
- > 2 years
- Unknown

### Number of cardiac hospitalizations in the last 12 months
- 0-1
- 2-3
### Cardiac diagnosis / Primary
Select primary reason for cardiac dysfunction

- Cancer
- Congenital Heart Disease: Biventricular: CAVC/VSD/ASD
- Congenital Heart Disease: Biventricular: Congenitally Corrected Transposition (I-TGA) (CC-TGA)
- Congenital Heart Disease: Biventricular: Ebstein's Anomaly
- Congenital Heart Disease: Biventricular: Kawasaki Disease
- Congenital Heart Disease: Biventricular: Left Heart Valve/Structural Hypoplasia
- Congenital Heart Disease: Biventricular: TOF/TOF Variant
- Congenital Heart Disease: Biventricular: Transposition of the Great Arteries (d-TGA)
- Congenital Heart Disease: Biventricular: Truncus Arteriosus
- Congenital Heart Disease: Single Ventricle: Heterotaxy / Complex CAVC
- Congenital Heart Disease: Single Ventricle: Hypoplastic Left Heart
- Congenital Heart Disease: Single Ventricle: Other
- Congenital Heart Disease: Single Ventricle: Pulmonary Arteria with IVS
- Congenital Heart Disease: Single Ventricle: Pulmonary Arteria with IVS (RVDC)
- Congenital Heart Disease: Single Ventricle: Unspecified
- Coronary Artery Disease
- Dilated Myopathy: Adriamycin
- Dilated Myopathy: Alcoholic
- Dilated Myopathy: Familial
- Dilated Myopathy: Idiopathic
- Dilated Myopathy: Ischemic
- Dilated Myopathy: Myocarditis
- Dilated Myopathy: Other, Specify
- Dilated Myopathy: Post Partum
- Dilated Myopathy: Viral
- Hypertrophic Cardiomyopathy
- Restrictive Myopathy: Amyloidosis
- Restrictive Myopathy: Endocardial Fibrosis
- Restrictive Myopathy: Idiopathic
- Restrictive Myopathy: Other, specify
- Restrictive Myopathy: Sarcoidosis
- Restrictive Myopathy: Sec to Radiation/Chemotherapy
- Valvular Heart Disease
- Unknown
- None

### Dilated Myopathy: Other, Specify:

### Restrictive Myopathy: Other, Specify:

### Congenital Heart Disease: Single Ventricle: Other, Specify:

### Cardiac diagnosis / Secondary
Secondary reasons for cardiac dysfunction. Check all that apply.

- Cancer
- Congenital Heart Disease: Biventricular: CAVC/VSD/ASD
- Congenital Heart Disease: Biventricular: Congenitally Corrected Transposition (I-TGA) (CC-TGA)
- Congenital Heart Disease: Biventricular: Ebstein's Anomaly
- Congenital Heart Disease: Biventricular: Kawasaki Disease
- Congenital Heart Disease: Biventricular: Left Heart Valve/Structural Hypoplasia
- Congenital Heart Disease: Biventricular: TOF/TOF Variant
- Congenital Heart Disease: Biventricular: Transposition of the Great Arteries (d-TGA)
- Congenital Heart Disease: Biventricular: Truncus Arteriosus
- Congenital Heart Disease: Single Ventricle: Heterotaxy / Complex CAVC
- Congenital Heart Disease: Single Ventricle: Hypoplastic Left Heart
- Congenital Heart Disease: Single Ventricle: Other
- Congenital Heart Disease: Single Ventricle: Pulmonary Arteria with IVS
- Congenital Heart Disease: Single Ventricle: Pulmonary Arteria with IVS (RVDC)
- Congenital Heart Disease: Single Ventricle: Unspecified
- Coronary Artery Disease
- Dilated Myopathy: Adriamycin
- Dilated Myopathy: Alcoholic
- Dilated Myopathy: Familial
- Dilated Myopathy: Idiopathic
- Dilated Myopathy: Ischemic
- Dilated Myopathy: Myocarditis
- Dilated Myopathy: Other, Specify
- Dilated Myopathy: Post Partum
- Dilated Myopathy: Viral
- Hypertrophic Cardiomyopathy
- Restrictive Myopathy: Amyloidosis
- Restrictive Myopathy: Endocardial Fibrosis
- Restrictive Myopathy: Idiopathic
- Restrictive Myopathy: Other, specify
- Restrictive Myopathy: Sarciodosis
- Restrictive Myopathy: Sec to Radiation/Chemotherapy
- Valvular Heart Disease
- Unknown
- None

**Dilated Myopathy: Other, Specify:**

**Restrictive Myopathy: Other, Specify:**

**Congenital Heart Disease: Single Ventricle: Other, Specify:**

**Known Cardiac biopsy**
If the patient has had an endomyocardial or direct myocardial biopsy, select from the diagnoses listed in the drop down. If the patient has had more than one biopsy (within their lifetime), the one closest to implantation date should be listed if it is okay to use cardiac biopsy removed during the implant operation. If no biopsy is known, select “no biopsy known”.

- Other, specify
- No biopsy known
- Sarcoidosis
- Giant cell myocarditis
- Eosinophilic myocarditis
- Other myocarditis
- Hemochromatosis
- Mitochondrial myopathy

**Previous cardiac operation**
Select all cardiac operations that the patient has had prior to MCSD implantation.

- None
- CABG
- Aneurysmectomy (DOR)
- Aortic Valve replacement / repair
- Mitral valve replacement / repair
- Tricuspid replacement /repair
- Congenital cardiac surgery
- LVAD
<table>
<thead>
<tr>
<th>RVAD</th>
<th>TAH</th>
<th>Previous heart transplant</th>
<th>Previous ECMO</th>
<th>Other, specify (INCLUDE ONLY OPERATIONS ACTUALLY PERFORMED ON HEART OR GREAT VESSELS)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Congenital cardiac surgery**  
Check all that apply

- Congenitally Corrected Transposition Repair (double switch)
- Congenitally Corrected Transposition Repair (classic)
- PA Banding
- TOF/DORV/RVOTO Repair
- Ebstein's Anomaly Repair
- VSD Repair
- Norwood Stage I
- Glenn, Bi-directional
- Glenn, Classical
- Fontan Procedure
- d- Transposition of the Great Vessels Repair – arterial switch operation
- d- Transposition of the Great Vessels Repair – atrial switch (Senning/Mustard)
- Truncus Arteriosus Repair
- Complete AV Septal Defect Repair
- AP Shunt
- ASD Repair
- Damus Kaye Stansel (DKS)
- Other, specify

**Admitting Diagnosis or Planned Implant**

- Heart failure
- Cardiac surgery
- Non-cardiac medical problem
- VAD Placement
- TAH Placement
- Other cardiology
- Acute MI
- Non-cardiac surgery
- Unknown

**Clinical Events and Interventions this hospitalization (Pre-implant)**

Pertaining to this implant hospitalization select all events and interventions that occurred more than 48 hours before the implant.

- Cardiac arrest
- Dialysis
- Intubation
- Major MI
- Cardiac surgery, other
- Positive blood cultures
- Other surgical procedures
- Major Infections
- Unknown
- None
- IABP
- Ultrafiltration
- Ventilator
- Feeding tube
- ECMO
- CABG
- Aortic Valve replacement / repair
- Mitral valve replacement / repair
- Congenital cardiac surgery
- LVAD
- RVAD
TAH

Aneursyomectomy (DOR)

Select Type of infection:
- Bacterial
- Fungal
- Viral
- Protozoan
- Unknown

Select Location of infection:
- Blood
- Endocarditis, native
- Line Sepsis
- Mediastinum
- Pneumonia
- Urine
- Unknown
- Other

Congenital cardiac surgery
Check all that apply
- Congenitally Corrected Transposition Repair (double switch)
- Congenitally Corrected Transposition Repair (classic)
- PA Banding
- TOF/DORV/RVOTO Repair
- Ebstein's Anomaly Repair
- VSD Repair
- Norwood Stage I
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- Complete AV Septal Defect Repair
- AP Shunt
- ASD Repair
- Damus Kaye Stansel (DKS)
- Other, specify

IV inotrope therapy within 48 hours of implant
If the patient has gone to the operating room for the purpose of the implant and is on intravenous inotropes of any sort, the answer should be Yes. If an agent is known to have been used but discontinued within 48 hours prior to arriving in the operating room, Yes should also be checked.

If Yes, IV inotrope therapy agents:
- Yes
- No
- Unknown
- Dobutamine
- Dopamine
- Milrinone
- Levosimendan
- Epinephrine
- Norepinephrine
- Isoproterenol
- Other, Specify
- Unknown
**Interventions within 48 hours of implant**
Select all interventions that occurred within the 48 hour time period prior to the implant.

- IABP
- Dialysis
- Ultrafiltration
- Ventilator
- Feeding tube
- ECMO
- None
- CABG
- Aortic Valve replacement / repair
- Mitral valve replacement / repair
- Congenital card surg
- LVAD
- RVAD
- TAH
- Aneursyomectomy (DOR)

**Congenital Cardiac Surgery**
Select all that Apply:

- Congenitally Corrected Transposition Repair (double switch)
- Congenitally Corrected Transposition Repair (classic)
- PA Banding
- TOF/DORV/RVOTO Repair
- Ebstein's Anomaly Repair
- VSD Repair
- Norwood Stage I
- Glenn, Bi-directional
- Glenn, Classical
- Fontan Procedure
- d- Transposition of the Great Vessels Repair – arterial switch operation
- d- Transposition of the Great Vessels Repair – atrial switch operation (Senning/Mustard)
- Truncus Arteriosus Repair
- Complete AV Septal Defect Repair
- AP Shunt
- ASD Repair
- Damus Kaye Stansel (DKS)
- Other, specify

**Is this implant the primary MCSD (LVAD or TAH) for this patient?**
- Yes
- No

The INTERMACS® Patient Profiles are required at pre-implant and at all times when an implant occurs even if this is NOT the primary LVAD or TAH implant.

**INTERMACS® Patient Profile at time of implant**
Select one. These profiles will provide a general clinical description of the patients receiving primary LVAD or TAH implants. If there is significant clinical change between the initial decision to implant and the actual implant procedure, then the profile closest to the time of implant should be recorded. Patients admitted electively for implant should be described by the profile just prior to admission.

- **1** *Critical cardiogenic shock* describes a patient who is "crashing and burning", in which a patient has life-threatening hypotension and rapidly escalating inotropic pressor support (see the Site Users Guide, Section II. 2.4 Pre-Implant Form, INTERMACS Patient Profiles for more details)
- **2** *Progressive decline* describes a patient who has been demonstrated "dependent" on inotropic support but nonetheless shows signs of continuing deterioration (see the Site Users Guide, Section II. 2.4 Pre-Implant Form, INTERMACS Patient Profiles for more details)
- **3** *Stable but inotrope dependent* describes a patient who is clinically stable on mild-moderate doses of intravenous inotropes (or has a temporary circulatory support device) after repeated documentation of failure to wean without symptoms (see the Site Users Guide, Section II. 2.4 Pre-Implant Form, INTERMACS Patient Profiles for more details)
4 “Resting symptoms” describes a patient who is at home on oral therapy but frequently has symptoms of congestion at rest or with ADL. (see the Site Users Guide, Section II. 2.4 Pre-Implant Form, INTERMACS Patient Profiles for more details)

5 “Exertion Intolerant” describes a patient who is comfortable at rest but unable to engage in any activity, living predominantly within the house or household (see the Site Users Guide, Section II. 2.4 Pre-Implant Form, INTERMACS Patient Profiles for more details)

6 “Exertion Limited” also describes a patient who is comfortable at rest without evidence of fluid overload, but who is able to do some mild activity (see the Site Users Guide, Section II. 2.4 Pre-Implant Form, INTERMACS Patient Profiles for more details)

7 “Advanced NYHA Class 3” describes a patient who is clinically stable with a reasonable level of comfortable activity, despite history of previous decompensation that is not recent (see the Site Users Guide, Section II. 2.4 Pre-Implant Form, INTERMACS Patient Profiles for more details)

<table>
<thead>
<tr>
<th>MODIFIERS of the INTERMACS® Patient Profiles</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A - Arrhythmia</strong></td>
</tr>
<tr>
<td>☐ Yes</td>
</tr>
<tr>
<td>☐ No</td>
</tr>
<tr>
<td>☐ Unknown</td>
</tr>
</tbody>
</table>

| **TCS – Temporary Circulatory Support**     |
| ☐ Yes                                        |
| ☐ No                                         |
| ☐ Unknown                                    |

| **FF – Frequent Flyer Home.**                |
| ☐ Yes                                        |
| ☐ No                                         |
| ☐ Unknown                                    |

| **FF – Frequent Flyer.**                     |
| ☐ Yes                                        |
| ☐ No                                         |
| ☐ Unknown                                    |
General Hemodynamics

**Heart rate**

beats per min

ST= ☐ Unknown
☐ Not done

**Systolic blood pressure**

(millimeters of mercury) should be determined from auscultation or arterial line if necessary.

mmHg

ST= ☐ Unknown
☐ Not done

**Diastolic blood pressure**

(millimeters of mercury) should be determined from auscultation or arterial line if necessary

mmHg

ST= ☐ Unknown
☐ Not done

**Doppler Opening Pressure**

Record the pressure on the BP cuff at the time of sound on the Doppler as the cuff is released and this is the Doppler opening pressure which may correspond to the MAP.

mmHg

ST= ☐ Unknown
☐ Not done
☐ Not applicable

**Peripheral edema**

☐ Yes
☐ No
☐ Unknown

**Ascites**

☐ Yes
☐ No
☐ Unknown

**ECG rhythm**

Cardiac rhythm

☐ Sinus
☐ Atrial fibrillation
☐ Atrial Flutter
☐ Paced: Atrial pacing
☐ Paced: Ventricular pacing
☐ Paced: Atrial and ventricular pacing
☐ Not done
☐ Unknown
☐ Other, specify

Echo Findings

**Mitral regurgitation**

Mitral regurgitation should be recorded on a qualitative scale (if “trivial” then assign as mild). Moderate-severe would be recorded as “severe”.

☐ 0 (none)
☐ 1 (mild)
☐ 2 (moderate)
☐ 3 (severe)
☐ Not Recorded or Not Documented
### Tricuspid regurgitation
Tricuspid regurgitation should be recorded on a qualitative scale (if “trivial” then assign as mild). Moderate-severe would be recorded as “severe”.

- 0 (none)
- 1 (mild)
- 2 (moderate)
- 3 (severe)
- Not Recorded or Not Documented

### Aortic regurgitation
Aortic regurgitation should be recorded on a qualitative scale (if “trivial” then assign as mild). Moderate-severe would be recorded as “severe”.

- 0 (none)
- 1 (mild)
- 2 (moderate)
- 3 (severe)
- Not Recorded or Not Documented

### LVEF
Left ventricular ejection fraction

- > 50 (normal)
- 40-49 (mild)
- 30-39 (moderate)
- 20-29 (moderate/severe)
- < 20 (severe)
- Not Recorded or Not Documented
- Unknown

If a number or range is available, check the number range that best applies. For example, a reported ejection fraction of 30-35 would be entered as 30-40. Occasionally the LVEF may be described only as “left ventricular function” or “systolic function” in words. “Mild impairment, mildly reduced, or mild decrease” would all be characterized as “mild”.

### LVEDD

<table>
<thead>
<tr>
<th>cm</th>
<th>ST=</th>
<th>Not Recorded or Not Documented</th>
</tr>
</thead>
</table>

### RVEF

- Normal
- Mild
- Moderate
- Severe
- Not Done
- Not Applicable
- Unknown

RV Function is generally NOT measured in numbers, as it is difficult to quantify. It may be described as “right ventricular function” or “right ventricular contractility”. “Mild impairment, mildly reduced, or mild decrease” would all be characterized as “mild”. Again, mild-moderate would be recorded as moderate, and moderate-severe would be recorded as “severe”.

### Swan Hemodynamics

#### Pulmonary artery systolic pressure

<table>
<thead>
<tr>
<th>mmHg</th>
<th>ST=</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

#### Pulmonary artery diastolic pressure

<table>
<thead>
<tr>
<th>mmHg</th>
<th>ST=</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

#### Mean Pulmonary artery wedge pressure

<table>
<thead>
<tr>
<th>mmHg</th>
<th>ST=</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

#### Mean RA Pressure

<table>
<thead>
<tr>
<th>mmHg</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Parameter</td>
<td>Value</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Central venous pressure (CVP)</td>
<td>mmHg</td>
</tr>
<tr>
<td>Cardiac Index</td>
<td>L/min/m² (by Swan)</td>
</tr>
<tr>
<td><strong>Was Cardiac Index Measured by Fick or Thermodilution?</strong></td>
<td>Yes/No/Unknown</td>
</tr>
<tr>
<td>Cardiac output</td>
<td>L/min</td>
</tr>
<tr>
<td><strong>Was Cardiac Output Measured by Fick or Thermodilution?</strong></td>
<td>Yes/No/Unknown</td>
</tr>
<tr>
<td>Test</td>
<td>Result</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Sodium</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Blood urea nitrogen</td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Creatinine</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>SGPT/ALT (alanine aminotransferase/ALT)</td>
<td></td>
</tr>
<tr>
<td>SGOT/AST (aspartate aminotransferase/AST)</td>
<td></td>
</tr>
<tr>
<td>LDH</td>
<td></td>
</tr>
<tr>
<td>Total bilirubin</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Albumin</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Test</td>
<td>Units</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td><strong>Pre-albumin</strong></td>
<td>mg/dL</td>
</tr>
<tr>
<td><strong>Total Cholesterol</strong></td>
<td>mg/dL</td>
</tr>
<tr>
<td><strong>Brain natriuretic peptide BNP</strong></td>
<td>pg/mL</td>
</tr>
<tr>
<td><strong>NT pro brain natriuretic peptide Pro-BNP</strong></td>
<td>pg/mL</td>
</tr>
<tr>
<td><strong>White blood cell count</strong></td>
<td>x10³/uL</td>
</tr>
<tr>
<td><strong>Hemoglobin</strong></td>
<td>g/dL</td>
</tr>
<tr>
<td><strong>Hemoglobin A1C</strong></td>
<td>%</td>
</tr>
<tr>
<td><strong>Estimated Average Glucose (eAG):</strong></td>
<td>mg/dL</td>
</tr>
<tr>
<td><strong>Platelets</strong></td>
<td>x10³/uL</td>
</tr>
<tr>
<td>Test</td>
<td>Value</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td><strong>INR</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Sensitivity CRP</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Lupus Anticoagulant</strong></td>
<td>Positive, Negative, Unknown</td>
</tr>
<tr>
<td><strong>Uric acid</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Lymphocyte Count</strong></td>
<td></td>
</tr>
</tbody>
</table>
**Intermacs**

**PreImplant**

**Concerns and Contraindications**

Checking any of these contraindications/co-morbidities/concerns does not necessarily mean that a condition is a contraindication or concern for the patient. No specific thresholds are provided for these concerns or contraindications. They should represent the results of formal discussion with the medical and surgical transplant team prior to the decision for device implantation. If there are no contraindications or concerns specified then select No.

### Overall Status

<table>
<thead>
<tr>
<th>Concerns/Contraindications</th>
<th>Is condition present?</th>
<th>Limitation for transplant listing?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced age</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Frailty</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Patient does not want transplant</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Musculoskeletal limitation to ambulation</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Contraindication to immunosuppression</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Allosensitization</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Chronic Renal Disease</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
</tbody>
</table>

### Cardiothoracic issues

<table>
<thead>
<tr>
<th>Concerns/Contraindications</th>
<th>Is condition present?</th>
<th>Limitation for transplant listing?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequent ICD Shocks</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Pulmonary Disease</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Pulmonary Hypertension</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Recent Pulmonary Embolus</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>History Of Atrial Arrhythmia</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Unfavorable Mediastinal Anatomy (includes sternotomies, sternal resection, radiation, flail chest, etc)</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Thoracic Aortic Disease</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
</tbody>
</table>

### Nutritional/GI

<table>
<thead>
<tr>
<th>Concerns/Contraindications</th>
<th>Is condition present?</th>
<th>Limitation for transplant listing?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large BMI</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Severe Diabetes</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Malnutrition Cachexia</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>History Of GI Ulcers</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>History Of Hepatitis</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Liver Dysfunction</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
</tbody>
</table>

### Vascular issues
### Oncology/infection issues

<table>
<thead>
<tr>
<th>Concerns/Contraindications</th>
<th>Is condition present?</th>
<th>Limitation for transplant listing?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heparin Induced Thrombocytopenia</td>
<td>❌ Yes ❌ No</td>
<td>❌ Yes ❌ No</td>
</tr>
<tr>
<td>Chronic Coagulopathy</td>
<td>❌ Yes ❌ No</td>
<td>❌ Yes ❌ No</td>
</tr>
<tr>
<td>Major Stroke</td>
<td>❌ Yes ❌ No</td>
<td>❌ Yes ❌ No</td>
</tr>
<tr>
<td>Other Cerebrovascular Disease</td>
<td>❌ Yes ❌ No</td>
<td>❌ Yes ❌ No</td>
</tr>
<tr>
<td>Peripheral Vascular Disease</td>
<td>❌ Yes ❌ No</td>
<td>❌ Yes ❌ No</td>
</tr>
</tbody>
</table>

### Psychosocial issues

<table>
<thead>
<tr>
<th>Concerns/Contraindications</th>
<th>Is condition present?</th>
<th>Limitation for transplant listing?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited Cognition/Understanding</td>
<td>❌ Yes ❌ No</td>
<td>❌ Yes ❌ No</td>
</tr>
<tr>
<td>Limited Social Support</td>
<td>❌ Yes ❌ No</td>
<td>❌ Yes ❌ No</td>
</tr>
<tr>
<td>Repeated Noncompliance</td>
<td>❌ Yes ❌ No</td>
<td>❌ Yes ❌ No</td>
</tr>
<tr>
<td>History Of Illicit Drug Use</td>
<td>❌ Yes ❌ No</td>
<td>❌ Yes ❌ No</td>
</tr>
<tr>
<td>History Of Alcohol Abuse</td>
<td>❌ Yes ❌ No</td>
<td>❌ Yes ❌ No</td>
</tr>
<tr>
<td>Narcotic Dependence</td>
<td>❌ Yes ❌ No</td>
<td>❌ Yes ❌ No</td>
</tr>
<tr>
<td>History Of Smoking</td>
<td>❌ Yes ❌ No</td>
<td>❌ Yes ❌ No</td>
</tr>
<tr>
<td>Currently Smoking</td>
<td>❌ Yes ❌ No</td>
<td>❌ Yes ❌ No</td>
</tr>
<tr>
<td>Severe Depression</td>
<td>❌ Yes ❌ No</td>
<td>❌ Yes ❌ No</td>
</tr>
<tr>
<td>Other Major Psychiatric Diagnosis</td>
<td>❌ Yes ❌ No</td>
<td>❌ Yes ❌ No</td>
</tr>
<tr>
<td>Other Comorbidity</td>
<td>❌ Yes ❌ No</td>
<td>❌ Yes ❌ No</td>
</tr>
</tbody>
</table>

### HIV History

- **HIV Diagnosis Date**
  - MM/DD/YYYY
  - ST= ❌ Unknown
  - ❌ Not Done

- **Plasma HIV-1 RNA (Viral load)**
  - Closest to implant
  - copies/ml
  - ST= ❌ Not Done

- **CD4 T-Cell Count**
  - Closest to implant
  - cells/mm3
  - ST= ❌ Not Done

**Erythrocyte Sedimentation Rate (ESR)**
C-Reactive Protein (CRP)

Antiretroviral Therapy

Check all that apply
- Abacavir (ABC) / Ziagen
- Atripla (FTC/EDV/TDF)
- Atazanavir (ATV) / Reyataz
- Combivir (3TC/ZDV)
- Complera (FTC/RPV/TDF)
- Darunavir (DRV) / Prezista
- Delavirdine (DLV) / Rescriptor
- Didanosine (ddI) / Videx EC
- Dolutegravir / Tivicay
- Efavirenz (EFV) / Sustiva
- Emtricitabine (FTC) / Emtriva
- Enfuvirtide (T20) / Fuzeon
- Epzicom (3TC/ABC)
- Etravirine (ETR) / Intelence
- Fosamprenavir (FPV) / Lexiva
- Indinavir (IDV) / Crixivan
- Kaletra (LPV/r)
- Lamivudine (3TC) / Epivir
- Maraviroc (MVC) / Selzentry
- Nelfinavir (NVP) / Viracept
- Nevirapine (NVP) / Viramune / Viramune XR
- Raltegravir (RAL) / Isentress
- Rilpivirine (RPV) / Edurant
- Ritonavir (RTV) / Norvir
- Saquinavir (SQV) / Invirase
- Stavudine (d4T) / Zerit
- Strivid (FTC/EVG/COBI/TDF)
- Tenofovir Disoproxil Fumarate (TDF) / Viread
- Tipranavir (TPV) / Aptivus
- Trizivir (3TC/ZDV/ABC)
- Truvada (FTC/TDF)
- Zidovudine (ZDV) / Retrovir
- Unknown
- None

Infection Prophylaxis

Check all that apply
- Atovaquone
- Azithromycin
- Dapsone
- Fluconazole
- Pentamidine, aerosolized
- Trimethoprim-sulfamethoxazole (TMP-SMX)
- Unknown
- None

History of Opportunistic Infection

Check all that apply
- Cryptococcosis
- Cytomegalovirus (CMV)
- Epstein Barr virus (EBV)
- Esophageal candidiasis
- Histoplasmosis
- Kaposi's sarcoma
- Mycobacterium avium complex (MAC), disseminated
- Pneumocystis jiroveci (carinii) pneumonia (PCP)
- Toxoplasmosis
- Tuberculosis
- None
<table>
<thead>
<tr>
<th><strong>History of Hepatitis B</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td></td>
</tr>
<tr>
<td>ST= Unknown</td>
<td></td>
</tr>
<tr>
<td>Not Done</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>History of Hepatitis C</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td></td>
</tr>
<tr>
<td>ST= Unknown</td>
<td></td>
</tr>
<tr>
<td>Not Done</td>
<td></td>
</tr>
</tbody>
</table>
**Internacs**

**PreImplant**

**Medications**

- **Currently using** - At the time of VAD placement.

- **Known previous use within the past year** - Is intended to capture the adequacy of medical therapy prior to determining heart failure to be refractory. For instance, ACEI, beta blockers, and diuretics are considered standard necessary therapy for heart failure but may be stopped due to hypotension or renal failure during a hospitalization for severely decompensated heart failure. If patients are known to have received these agents within the past year, please check known previous use.

- **No (not being used)** - If there is no reason to believe that they have taken those agents, and reasonable certainty that information is accurate, check No.

- **Unknown** - If it is not known whether the patient has taken those agents within the previous year, check Unknown.

<table>
<thead>
<tr>
<th>Medication</th>
<th>Currently using</th>
<th>Known previous use (within past year)</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Allopurinol</strong></td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Angiotensin receptor blocker drug</strong></td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Amiodarone</strong></td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ACE inhibitors</strong></td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Beta-blockers</strong></td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aldosterone antagonist</strong></td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Warfarin (coumadin)</strong></td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Antiplatelet therapy drug</strong></td>
<td>○</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Preimplant Medications

<table>
<thead>
<tr>
<th><strong>Known previous use (within past year)</strong></th>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nesiritide</strong></td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td><strong>Nitric oxide</strong></td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Document Flolan here</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Loop diuretics</strong></td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

#### If yes, enter dosage
Enter the total daily dose the patient received at home before hospitalization.

<table>
<thead>
<tr>
<th>Dose (mg/day)</th>
<th>ST=</th>
<th>Unknown</th>
</tr>
</thead>
</table>

**Type of Loop Diuretic:**
- Furosemide
- Torsemide
- Bumetanide
- Other

<table>
<thead>
<tr>
<th><strong>Outpatient (prior to admission) inotrope infusion:</strong></th>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Cardiac Resynchronization Therapy (CRT)</strong></th>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Is patient on Metalozone/Thiazide?</strong></th>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
</table>

#### If yes, then select (check one):
- Regular
- Intermittent

<table>
<thead>
<tr>
<th><strong>Is patient on Phosphodiesterase inhibitors?</strong></th>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please enter only for the indication of Pulmonary Hypertension or Right Heart Failure</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Quality Of Life

QOL surveys cannot be administered after the visit date

## EuroQol (EQ-5D)

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Did the patient complete a EuroQol form?</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>How was the test administered?</strong></td>
<td>Self-administered</td>
<td>Coordinator administered</td>
<td>Family member administered</td>
</tr>
<tr>
<td><strong>Mobility:</strong></td>
<td>I have no problems in walking about</td>
<td>I have some problems in walking about</td>
<td>I am confined to bed</td>
</tr>
<tr>
<td><strong>Self care:</strong></td>
<td>I have no problems with self-care</td>
<td>I have some problems washing or dressing myself</td>
<td>I am unable to wash or dress myself</td>
</tr>
<tr>
<td><strong>Usual Activities (e.g. work, study, housework, family or leisure activities)</strong></td>
<td>I have no problems with performing my usual activities</td>
<td>I have some problems with performing my usual activities</td>
<td>I am unable to perform my usual activities</td>
</tr>
<tr>
<td><strong>Pain/discomfort:</strong></td>
<td>I have no pain or discomfort</td>
<td>I have moderate pain or discomfort</td>
<td>I have extreme pain or discomfort</td>
</tr>
<tr>
<td><strong>Anxiety/depression:</strong></td>
<td>I am not anxious or depressed</td>
<td>I am moderately anxious or depressed</td>
<td>I am extremely anxious or depressed</td>
</tr>
<tr>
<td><strong>Patient Visual Analog Status (VAS):</strong></td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td><strong>ST=</strong></td>
<td>Unknown</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Which of the following best describes your &quot;one&quot; main activity?</strong></td>
<td>Actively working</td>
<td>Retired</td>
<td>Keeping house</td>
</tr>
</tbody>
</table>
Please enter a number from 1 to 10 for the questions below:

Is this *one* main activity considered:
- Full time
- Part time
- Unknown

How many of your close friends or relatives do you see in person, speak to on the telephone or contact via the internet at least once a month? (please count each person 1 time)

Have you unintentionally lost more than 10 pounds in the last year?
- Yes
- No
- Unknown

Do you currently smoke cigarettes?
- Yes
- No
- Unknown

If Yes, How many cigarettes are you currently smoking, on average?
- Half a pack or less per day
- More than half to 1 pack per day
- 1 to 2 packs per day
- 2 or more packs per day

Do you currently smoke e-cigarettes?
- Yes
- No
- Unknown

How much stress related to your health issues do you feel you’ve been under during the past month?
(1-10) 1=No Stress, 10=Very Much Stress

How well do you feel you’ve been coping with or handling your stress related to your health issues during the past month?
(1-10) 1=Coping very poorly, 10=Coping very well

How confident are you that you can do the tasks and activities needed to manage your heart failure so as to reduce how much having heart failure affects your everyday life?
(1-10) 1=Not at all confident, 10=Totally confident

How satisfied are you with the outcome of your therapy for heart failure during the past 3 months?
(1-10) 1=Not satisfied, 10=Very satisfied
If No, Please select a reason why the EuroQol (EQ-5D) was not completed:
- Too sick (e.g., intubated/sedated, critically ill, on short-term VAD)
- Too tired
- Too stressed, anxious, and/or depressed
- Can't concentrate
- No time/too busy
- Too much trouble/don't want to be bothered/not interested
- Unwilling to complete instrument, no reason given
- Unable to read English and/or illiterate
- Administrative (check specific reason below)

If Administrative: Select a specific reason:
- Urgent/emergent implant, no time to administer QOL instruments
- Coordinator too busy or forgot to administer QOL instruments
- Unable to contact patient (i.e., not hospitalized or no clinic visit) within the window for QOL instrument completion
- Other reason (describe)

Kansas City Cardiomyopathy Questionnaire

Did the patient complete a KCCQ form?
- Yes
- No

How was the test administered?
- Self-administered
- Coordinator administered
- Family member administered

Heart Failure affects different people in different ways. Some feel shortness of breath while others feel fatigue. Please indicate how much you are limited by heart failure (shortness of breath or fatigue) in your ability to do the following activities over the past 2 weeks.

**Showering/Bathing**
- Extremely limited
- Quite a bit limited
- Moderately limited
- Slightly limited
- Not at all limited
- Limited for other reasons or did not do the activity
- Unknown

**Walking 1 block on level ground**
- Extremely limited
- Quite a bit limited
- Moderately limited
- Slightly limited
- Not at all limited
- Limited for other reasons or did not do the activity
- Unknown

**Hurrying or jogging (as if to catch a bus)**
- Extremely limited
- Quite a bit limited
- Moderately limited
- Slightly limited
- Not at all limited
- Limited for other reasons or did not do the activity
- Unknown

Over the past 2 weeks, how many times
- Every morning
<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
</table>
| Did you have swelling in your feet, ankles or legs when you woke up in  | 3 or more times a week, but not every day  
| the morning?                                                            | 1-2 times a week  
|                                                                        | Less than once a week  
|                                                                        | Never over the past 2 weeks  
|                                                                        | Unknown                                                                                     |
| Over the past 2 weeks, on average, how many times has fatigue limited   | All of the time  
| your ability to do what you want?                                       | Several times per day  
|                                                                        | At least once a day  
|                                                                        | 3 or more times per week but not every day  
|                                                                        | 1-2 times per week  
|                                                                        | Less than once a week  
|                                                                        | Never over the past 2 weeks  
|                                                                        | Unknown                                                                                     |
| Over the past 2 weeks, on average, how many times has shortness of      | All of the time  
| breath limited your ability to do what you wanted?                      | Several times per day  
|                                                                        | At least once a day  
|                                                                        | 3 or more times per week but not every day  
|                                                                        | 1-2 times per week  
|                                                                        | Less than once a week  
|                                                                        | Never over the past 2 weeks  
|                                                                        | Unknown                                                                                     |
| Over the past 2 weeks, on average, how many times have you been forced  | Every night  
| to sleep sitting up in a chair or with at least 3 pillows to prop you  | 3 or more times a week, but not every day  
| up because of shortness of breath?                                       | 1-2 times a week  
|                                                                        | Less than once a week  
|                                                                        | Never over the past 2 weeks  
|                                                                        | Unknown                                                                                     |
| Over the past 2 weeks, how much has your heart failure limited your      | It has extremely limited my enjoyment of life  
| enjoyment of life?                                                       | It has limited my enjoyment of life quite a bit  
|                                                                        | It has moderately limited my enjoyment of life  
|                                                                        | It has slightly limited my enjoyment of life  
|                                                                        | It has not limited my enjoyment of life at all  
|                                                                        | Unknown                                                                                     |
| If you had to spend the rest of your life with your heart failure the    | Not at all satisfied  
| way it is right now, how would you feel about this?                     | Mostly dissatisfied  
|                                                                        | Somewhat satisfied  
|                                                                        | Mostly satisfied  
|                                                                        | Completely satisfied  
|                                                                        | Unknown                                                                                     |
| How much does your heart failure affect your lifestyle? Please indicate   | Severely limited  
| how your heart failure may have limited your participation in the        | Limited quite a bit  
| following activities over the past 2 weeks?                             | Moderately limited  
|                                                                        | Slightly limited  
|                                                                        | Did not limit at all  
|                                                                        | Does not apply or did not do for other reasons  
|                                                                        | Unknown                                                                                     |
### Working or doing household chores
- Severely limited
- Limited quite a bit
- Moderately limited
- Slightly limited
- Did not limit at all
- Does not apply or did not do for other reasons
- Unknown

### Visiting family or friends out of your home
- Severely limited
- Limited quite a bit
- Moderately limited
- Slightly limited
- Did not limit at all
- Does not apply or did not do for other reasons
- Unknown

### If No, Please select a reason why the KCCQ was not completed:
- Too sick (ex., intubated/sedated, critically ill, on short-term VAD)
- Too tired
- Too stressed, anxious, and/or depressed
- Can't concentrate
- No time / too busy
- Too much trouble / don't want to be bothered / not interested
- Unwilling to complete instrument, no reason given
- Unable to read English and/or illiterate
- Administrative (check specific reason below)

### If Administrative: Select a specific reason:
- Urgent/emergent implant, no time to administer QOL instruments
- Coordinator too busy or forgot to administer QOL instruments
- Unable to contact patient (ie., not hospitalized or no clinic visit) within the window for QOL instrument completion
- Other reason (describe)
This requires an inside hall for which distances (in FEET) should be measured, preferably as long as possible to avoid frequent turns. Patients are instructed to walk steadily to cover as much distance as possible during the 6 minutes. They are advised that they may stop if necessary during the 6 minutes. The staff member performing the test should walk behind the patient to avoid undue influence on the pace. The distance covered during the 6 minutes in feet will be recorded here. NOTE: You may use the time from the first 15 feet of the 6 minute walk for the Gait speed test listed below (please see instructions for the gait speed test below.)

Instructions: Record the time (seconds) required for the patient to walk the first 15 feet of the 6 minute walk. The “starting” line and the 15 foot line should be clearly marked. Record the time to the first footfall at 0 feet and ends with the first footfall at 15 feet in the nearest 0.1 sec with a stopwatch. NOTE: You may use the time from the first 15 feet of the 6 minute walk for the Gait speed test.

Maximum volume of oxygen the body can consume during exercise (mL/kg/min) is the mL/kg/min of oxygen consumed during symptom-limited exercise testing either on a bicycle or treadmill. The values recorded during the bicycle are usually 1-2 mL/min lower than for the treadmill, but it is assumed that most institutions will use only one instrument. If both are available, the bicycle is preferable as the mode easiest to standardize.

R Value at peak is the respiratory quotient of carbon dioxide production divided by oxygen consumption, and is used as an index of how vigorously the patient exercised. A value above 1.05 is generally considered to represent an adequate effort.

## Trailmaking

**Status:**
- Completed
- Attempted but not completed
- Not attempted
- Completed but invalid (scores not entered)

**Time:** seconds

## Medical Condition

**NYHA Class**
New York Heart Association Class for heart failure
- Class I: No limitation of physical activity; physical activity does not cause fatigue, palpitation or shortness of breath.
Class II: Slight limitation of physical activity; comfortable at rest, but ordinary physical activity results in fatigue, palpitations or shortness of breath.
Class III: Marked limitation of physical activity; comfortable at rest, but less than ordinary activity causes fatigue, palpitation or shortness of breath.
Class IV: Unable to carry on minimal physical activity without discomfort; symptoms may be present at rest.
Unknown