Intermacs

PreImplant

PreImplant Status

Patient Information

Admission Date for This Hospitalization

ST= ○ Not Applicable, Patient Still Hospitalized
○ Unknown

Height
Enter the height of the patient at the time of implantation in inches or centimeters.

in
cm

Weight
Enter the weight of the patient at the time of implantation in the appropriate space, in pounds or kilograms.

lbs
kg

BSA 1.98 m^2

BMI 24.07 kg/m^2

BloodType

○ O
○ A
○ B
○ AB
○ Unknown

Payor

☐ Government Health Insurance
☐ Commercial Health Insurance
☐ Health Maintenance Organization
☐ Non-U.S. Insurance
☐ None / Self
☐ Unknown

National Provider Identifier (NPI) Information

Surgeon First Name

ST: ○ Unknown

Surgeon Middle Name

ST: ○ Unknown

Surgeon Last Name

ST: ○ Unknown

Surgeon NPI

ST: ○ 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

Enter UNOS waitlist ID number

ST: ○ 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
○ 4 or more
○ Unknown

History of Cardiac Arrhythmia

○ Yes
○ No
○ Unknown

Current ICD device in place?

○ Yes
○ No
○ Unknown

If yes:

○ ICD Only
○ CRT Only
○ ICD/CRT

Primary Cardiac Diagnosis
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 Artesia with IVS
- ○ Congenital Heart Disease: Single Ventricle: Pulmonary Artesia 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
- ○ Non-Compaction 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

Clinical Events and Interventions BEFORE Implant Hospitalization

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 it is okay to use cardiac biopsy removed during the implant operation. If no biopsy is known, select “no biopsy known”.

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

Prior Cardiovascular Intervention (non-surgical)
Select all non-surgical interventions that the patient has had prior to this implant hospitalization.

- ☐ Percutaneous Coronary Intervention
- ☐ Permanent Pacemaker
- ☐ Prior medical history of ICD (if pt. currently has ICD in place, please document in question 'Current ICD Device in place?' in medical support status section and do not duplicate here).
- ☐ Prior medical history of CRT (if pt. currently on CRT, please document in question 'Current ICD Device in place?' in medical support status section and do not duplicate here).
- ☐ CardioMEMS
- ☐ Mitraclip
- ☐ TAVR
- ☐ Other, Specify
- ☐ Unknown
- ☐ None

Prior medical history of dialysis?

- ○ Yes
- ○ No
- ○ Unknown

Prior Cardiovascular Intervention (surgical)
Select all cardiac operations that the patient has had prior to this implant hospitalization.

- ☐ None
- ☐ CABG
- ☐ Aneuryomectomy (DOR)
- ☐ Aortic Valve replacement / repair
- ☐ Mitral valve replacement / repair
- ☐ Triscuspid replacement /repair
- ☐ Congenital cardiac surgery
- ☐ LVAD, Temporary
- ☐ LVAD, Durable implantable
- ☐ RVAD, Durable implantable
- ☐ RVAD, Temporary
- ☐ TAH
- ☐ Previous heart transplant
- ☐ Previous ECMO
- ☐ Complex Aortic Surgery
- ☐ Unknown
- ☐ Other, specify (INCLUDE ONLY OPERATIONS ACTUALLY PERFORMED ON HEART OR GREAT VESSELS)

Initial Reason for the Current Hospitalization

- ○ Decompensated heart failure
- ○ Open heart, cardiac surgical procedure
- ○ Non-cardiac medical problem
- ○ VAD placement, planned
- ○ TAH placement, planned
- ○ Acute MI
- ○ Non-cardiac surgery
- ○ Cardiogenic Shock
- ○ Other cardiology
- ○ Unknown

Did this patient test positive for COVID-19 prior to admission?

- ○ Yes
- ○ No
- ○ Unknown

Clinical Events and Interventions DURING Implant Hospitalization

Clinical Events and Interventions this hospitalization (Pre-implant)
Pertaining to this current hospitalization, select all events and interventions that occurred.

- ☐ Cardiac arrest
- ☐ Dialysis
- ☐ Intubation/Ventilator
- ☐ Myocardial Infarction
- ☐ Positive blood cultures
- ☐ Major Infection
- ☐ IABP
- ☐ Ultrafiltration
- ☐ Feeding tube
- ☐ ECMO
- ☐ CABG
- ☐ Aortic Valve replacement / repair
- ☐ Mitral valve replacement / repair
- ☐ Congenital cardiac surgery
- ☐ LVAD, Temporary
- ☐ RVAD, Durable implantable
- ☐ TAH
- ☐ Percutaneous Coronary Intervention
- ☐ Permanent Pacemaker
- ☐ CardioMEMS
- ☐ Mitraclip
- ☐ TAVR
- ☐ Unknown
- ☐ None
- ☐ LVAD, Durable implantable
- ☐ RVAD, Temporary

Was IV inotrope or vasopressor therapy used 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.

- ○ Yes
- ○ No
- ○ Unknown

If Yes, select therapy agents

- ☐ Dobutamine
- ☐ Dopamine
- ☐ Milrinone
- ☐ Levosimendan
- ☐ Epinephrine
- ☐ Norepinephrine
- ☐ Isoproterenol
- ☐ Phenylephrine
- ☐ Vasopressin
- ☐ Angiotensin II
- ☐ Other, Specify

  _____
- ☐ Unknown

Is this implant the primary MCSD (LVAD or TAH) for this patient?

- ○ Yes
- ○ No

Did this patient test positive for COVID-19 during this pre-implant admission?

- ○ Yes
- ○ No
- ○ Unknown

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

- ○ 1 "Critical cardiogenic shock" describes a patient who is "crashing and burning", in which a patient has life-threatening hypotension and rapdily

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.

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)

Clinical Findings

Ascites

- ○ Yes
- ○ No
- ○ Unknown

Peripheral Edema

- ○ Yes
- ○ No
- ○ Unknown

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Hemodynamics

All data collected on this form should be collected at the same time.

General Hemodynamics

General Hemodynamics Date

ST= ○ Unknown
○ Not Done

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

Mean arterial blood pressure

mmHg
ST: ○ Unknown
○ Not done
○ Not applicable

ECG rhythm
Cardiac rhythm

○ Sinus
○ Atrial fibrillation
○ Atrial Flutter
○ Atrial dysrhythmia, Other
○ Atrial paced, Ventricular sensed
○ Atrial sensed, Ventricular paced
○ Atrial paced, Ventricular paced
○ Junctional
○ Not done
○ Unknown
○ Other, specify

Echo Findings

Echo Hemodynamics Date

ST= ○ Unknown
○ Not Done

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

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

LVEDD

cm
ST: ○ Not Recorded or Not Documented

RVEF

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

Swan Hemodynamics

Swan Hemodynamics Date

ST= ○ Unknown
○ Not Done

Pulmonary artery systolic pressure

mmHg

ST: ○ Unknown
○ Not done

Pulmonary artery diastolic pressure

mmHg
ST: ○ Unknown
○ Not done

Mean Pulmonary Artery Capillary Wedge Pressure

mmHg
ST: ○ Unknown
○ Not done

Central Venous Pressure (CVP) or Right Atrial Pressure

mmHg
ST: ○ Unknown
○ Not done

Cardiac Index

L/min/M2 (by Swan)
ST: ○ Unknown
○ Not done

Was Cardiac Index Measured by Fick or Thermodilution?

○ Yes
○ No
○ Unknown

Choose Method

☐ Fick
☐ Thermodilution

Cardiac output

L/min
ST: ○ Unknown
○Not done

Was Cardiac Output Measured by Fick or Thermodilution?

○ Yes
○ No
○ Unknown

Choose Method

☐ Fick
☐ Thermodilution

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Laboratory

Sodium

mEq/L

mmol/L

ST= ○ Unknown

○ Not done

Potassium

mEq/L

mmol/L

ST= ○ Unknown

○ Not done

Blood urea nitrogen

mg/dL

mmol/L

ST= ○ Unknown

○ Not done

Creatinine

mg/dL

umol/L

ST= ○ Unknown

○ Not done

SGPT/ALT (alanine aminotransferase/ALT)

u/L

ST= ○ Unknown

○ Not done

SGOT/AST (aspartate aminotransferase/AST)

u/L

ST= ○ Unknown

○ Not done

LDH

units/L, U/L, ukat/L

ST= ○ Unknown

○ Not done

Total bilirubin

mg/dL

umol/L

ST= ○ Unknown

○ Not done

Albumin

g/dL

g/L

ST= ○ Unknown
○ Not done

Pre-albumin

mg/dL
mg/L
ST= ○ Unknown
○ Not done

Total Cholesterol

If value is outside given range, please see 'Status (ST=)' drop down field.
If < 50 mg/dl, select from the 'Status (ST=)' drop down field.

mg/dL
mmol/L
ST= ○ < 50 mg/dL
○ Unknown
○ Not done

Brain natriuretic peptide BNP

If value is outside given range, please see 'status (ST=)' drop down field.
If > 7500 pg/mL, select from the 'Status (ST=)' drop down field.

pg/mL
ng/L
ST= ○ > 7500 pg/mL
○ Unknown
○ Not done

NT pro brain natriuretic peptide Pro-BNP

pg/mL
ng/L
ST= ○ Unknown
○ Not done

White blood cell count

$x10^3$/uL
$x10^9$/L
ST= ○ Unknown
○ Not done

Hemoglobin

g/dL
g/L
mmol/L
ST= ○ Unknown
○ Not done

Platelets

$x10^3$/uL
$x10^9$/L
ST= ○ Unknown
○ Not done

Hemoglobin A1C

%
mmol/mol

Estimated Average Glucose (eAG):

mg/dL

	____ mmol/L ST= ○ Unknown ○ Not Done
INR	____ international units ST= ○ Unknown ○ Not done
Sensitivity CRP (C Reactive Protein)	____ mg/L ST= ○ Unknown ○ Not done
Lupus Anticoagulant	○ Positive ○ Negative ○ Unknown
Uric acid	____ mg/dL ____ umol/L ST= ○ <1 mg/dL ○ Unknown ○ Not done
Lymphocyte Count	____ % ____ $x10^3$ cells/µL ____ $x10^9$ cells/liter ST= ○ Unknown ○ Not done ○<2%

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Comorbidities

Which comorbidities were present at the time of the durable MCSD implant?

Cardiothoracic issues

Frequent ICD Shocks
If a patient has 3 or more shocks in a 24 hour episode

- ○ Yes
- ○ No
- ○ Unknown

Chronic Lung Disease Definition: Indicate whether the patient has chronic lung disease, and the severity level according to the following classification:

- Mild: FEV1 60% to 75% of predicted or on chronic inhaled or oral bronchodilator therapy.
- Moderate: FEV1 50% to 59% of predicted or on chronic oral/systemic steroid therapy aimed at lung disease.
- Severe: FEV1 < 50% or Room Air pO2 < 60 or pCO2 > 50.
- CLD present, severity not documented.
- Unknown

Time Frame: Do not use values obtained more than 12 months prior to the date of surgery.
Spirometry results that have not been interpreted by a pulmonologist may be used to quantify chronic lung disease.

Chronic Lung Disease

- ○ Yes
- ○ No
- ○ Unknown

Type of Chronic Lung Disease

- ○ Obstructive
- ○ Restrictive
- ○ Obstructive/Restrictive
- ○ Unknown
- ○ Other, specify

Degree of Dysfunction

- ○ Mild (FEV 60 -75% predicted and/or on chronic inhaler/oral meds)
- ○ Moderate (FEV 50-59% predicted and/or on chronic steroid)
- ○ Severe (FEV < 50% predicted or RA pO2 <60 or pCO2>50)
- ○ Severity not documented

Pulmonary Hypertension Definition: Indicate whether there is physician documentation of Pulmonary Hypertension as documented by:

- Right heart catheterization: mean pulmonary arterial pressure (PAP) > 25 mmHg at rest
- Echocardiographic diagnosis: PA systolic pressure (PASP) >50 mmHg
- Mean Pulmonary Artery Pressure greater than 25mmHg obtained from most recent right heart catheterization of right ventricular systolic pressure greater than 50mmHg obtained from the most recent right heart catheterization or most recent echocardiogram

Pulmonary Hypertension Intent/Clarification: High blood pressure in the arteries that supply the lungs is called pulmonary hypertension (PHT). The blood vessels that supply the lungs constrict and their walls thicken, so they cannot carry as much blood. This information may be found on a preoperative cardiac catheterization or echocardiogram. If the value is not known or documented, the data sheet should be marked accordingly.
RV systolic pressure may be used if no PA pressure is available, provided there is no pulmonary stenosis. It is preferable to use pressures measured pre-op, prior to induction of anesthesia.
A comment in a CT scan of an “enlarged pulmonary artery” suggestive of pulmonary hypertension is not adequate for this diagnosis

Pulmonary Hypertension

- ○ Yes
- ○ No

○ Unknown

Recent Pulmonary Embolus
Defined as a pulmonary embolus occurring within 3 months of durable VAD implantation

○ Yes
○ No
○ Unknown

History of Atrial Arrhythmia

○ Yes
○ No
○ Unknown

Thoracic Aortic Disease
Defined as the presence of an aortic aneurysm, previous history or current history of aortic dissection, or history of aortic ulcer.

Indicate whether the patient has a history of disease of the thoracic or thoracoabdominal aorta. Abdominal aortic disease without thoracic involvement is captured in peripheral artery disease.

○ Yes
○ No
○ Unknown

Prior Sternotomy

○ Yes
○ No
○ Unknown

If yes, how many

ST: ○Unknown

Nutritional/GI issues

Severe Diabetes
Defined as a Hemoglobin A1c greater than 8 mg/dl or associated with diabetic nephropathy, vasculopathy, oculopathy

○ Yes
○ No
○ Unknown

Malnutrition/Cachexia
Weight loss greater than 5% of present body mass in 12 months or less

○ Yes
○ No
○ Unknown

History of GI Ulcers

○ Yes
○ No
○ Unknown

Liver Dysfunction
Indicate whether the patient has a history of hepatitis B, hepatitis C, cirrhosis, portal hypertension, esophageal varices, chronic alcohol abuse or congestive hepatopathy. Exclude NASH in the absence of cirrhosis.

Intent/Clarification: LFTs or a MELD score alone cannot be used to code "Yes" to liver disease since other conditions impact these lab values. Liver fibrosis with recurrent ascites, supported by the MELD can be coded as liver disease.

○ Yes
○ No
○ Unknown

Hepatitis

○ Yes
○ No
○ Unknown

If yes, check all that apply

☐ Hepatitis B

☐ Hepatitis C

Hepatitis B Treated
○ Yes
○ No
○ Unknown

Hepatitis C Treated
○ Yes
○ No
○ Unknown

Vascular issues

Heparin Induced Thrombocytopenia
○ Yes
○ No
○ Unknown

Chronic Coagulopathy
Heparin induced thrombocytopenia
Protein C deficiency
Protein S deficiency
Anti-thrombin 3 deficiency
DIC
○ Yes
○ No
○ Unknown

Cerebrovascular Disease
○ Yes
○ No
○ Unknown

History of Stroke
Stroke is an acute episode of focal or global neurological dysfunction caused by brain, spinal cord, or retinal vascular injury as a result of hemorrhage or infarction, where the neurological dysfunction lasts for greater than 24 hours.
This does not include chronic (nonvascular) neurological diseases or other acute neurological insults such as metabolic and anoxic ischemic encephalopathy.
○ Yes
○ No
○ Unknown

Type of Stroke
○ Ischemic (embolic)
○ Hemorrhagic
○ Unknown

Timing of Stroke (most recent)
○ Recent (within 30 days of admission (mRs > 2 or NIHSS > 15))
○ Remote (greater than 30 days of admission)
○ Unknown

History of Transient Ischemic Attack (TIA)
Defined as a transient episode of focal neurological dysfunction caused by brain, spinal cord, or retinal ischemia, without acute infarction, where the neurological dysfunction resolves within 24 hours.
○ Yes
○ No
○ Unknown

Asymptomatic Severe Carotid Stenosis (80% -100%)
○ Yes
○ No
○ Unknown

Peripheral Arterial Disease (PVD) Definition: Indicate whether the patient has a history of peripheral arterial disease (includes upper and lower extremity, renal, mesenteric, and abdominal aortic systems). This can include:

- Claudication, either with exertion or at rest
- Amputation for arterial vascular insufficiency

- Vascular reconstruction, bypass surgery, or percutaneous intervention to the extremities (excluding dialysis fistulas and vein stripping)
- Documented abdominal aortic aneurysm with or without repair
- Positive noninvasive test (e.g., ankle brachial index =< 0.9, ultrasound, magnetic resonance or computed tomography imaging of > 50% diameter stenosis in any peripheral artery, i.e., renal, subclavian, femoral, iliac) or angiographic imaging

Peripheral arterial disease excludes disease in the carotid, cerebrovascular arteries or thoracic aorta.
PVD does not include DVT.

Peripheral Arterial Disease
- ○ Yes
- ○ No
- ○ Unknown

If yes, check all that apply
- ☐ Abdominal aortic aneurysm
- ☐ Upper extremity disease
- ☐ Lower extremity disease
- ☐ Mesenteric disease
- ☐ Renovascular disease
- ☐ Source not documented

Oncology/infection issues

History of Solid Organ Cancer
- ○ Yes
- ○ No
- ○ Unknown

Currently have cancer
- ○ Yes
- ○ No
- ○ Unknown

History of Solid Organ Transplantation
- ○ Yes
- ○ No
- ○ Unknown

History of Hematopoietic Cancer
- ○ Yes
- ○ No
- ○ Unknown

History Of Bone Marrow Transplant BMT
- ○ Yes
- ○ No
- ○ Unknown

HIV
- ○ Yes
- ○ No
- ○ Unknown

Psychosocial issues

Psychosocial Issues
NOTE: Smoking History has been moved to this section.

This section includes, substance abuse disorders along with a detailed smoking history. Please read this section thoroughly and check the boxes accordingly.
- ○ Yes
- ○ No
- ○ Unknown

If yes, check all that apply
- ☐ Depression
- ☐ History of Severe Depression
- ☐ Alcohol Abuse

- ☐ Limited Cognition
- ☐ Limited Family Support
- ☐ Noncompliance
- ☐ History of Narcotic Dependence
- ☐ Active Illicit Drug Use
- ☐ History of Smoking
- ☐ Other Specify

Narcotic Dependence
- ○ Remote use (more than 3 months ago)
- ○ Recent use (within 3 months)
- ○ Unknown

Smoking
- ○ Remote use (more than 3 months ago)
- ○ Recent use (within 3 months)
- ○ Unknown

Alcohol Abuse
- ○ Remote use (more than 3 months ago)
- ○ Recent use (within 3 months)
- ○ Unknown

Potential Barriers to Heart Transplant

Advanced Age
- ○ Yes
- ○ No
- ○ Unknown
- ○ Not applicable: patient listed for transplant

Frailty
- ○ Yes
- ○ No
- ○ Unknown
- ○ Not applicable: patient listed for transplant

Patient does not want transplant
By checking yes, you are confirming that the patient does not want a heart transplant
- ○ Yes
- ○ No
- ○ Unknown
- ○ Not applicable: patient listed for transplant

Musculoskeletal limitation to ambulation
- ○ Yes
- ○ No
- ○ Unknown
- ○ Not applicable: patient listed for transplant

Contraindication to immunosuppression
- ○ Yes
- ○ No
- ○ Unknown
- ○ Not applicable: patient listed for transplant

Allosensitization
- ○ Yes
- ○ No
- ○ Unknown
- ○ Not applicable: patient listed for transplant

Chronic Renal Disease	○ Yes ○ No ○ Unknown ○ Not applicable: patient listed for transplant
Large BMI	○ Yes ○ No ○ Unknown ○ Not applicable: patient listed for transplant
Chronic Infectious Concerns	○ Yes ○ No ○ Unknown ○ Not applicable: patient listed for transplant

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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.

Allopurinol
- ○ Currently using
- ○ Known previous use (within past year)
- ○ No
- ○ Unknown

Angiotensin receptor blocker drug
- ○ Currently using
- ○ Known previous use (within past year)
- ○ No
- ○ Unknown

Amiodarone
- ○ Currently using
- ○ Known previous use (within past year)
- ○ No
- ○ Unknown

ACE inhibitors
- ○ Currently using
- ○ Known previous use (within past year)
- ○ No
- ○ Unknown

Beta-blockers
- ○ Currently using
- ○ Known previous use (within past year)
- ○ No
- ○ Unknown

Aldosterone antagonist
- ○ Currently using
- ○ Known previous use (within past year)
- ○ No
- ○ Unknown

Warfarin (coumadin)
- ○ Currently using
- ○ Known previous use (within past year)
- ○ No
- ○ Unknown

Antiplatelet therapy drug
- ○ Currently using
- ○ Known previous use (within past year)
- ○ No
- ○ Unknown

ARNi (Entresto)
- ○ Yes
- ○ No
- ○ Unknown

Nitric oxide
Document Flolan here
- ○ Yes
- ○ No
- ○ Unknown

Loop diuretics
- ○ Yes
- ○ No
- ○ Unknown

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

mg/day

ST= ○ Unknown

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

Outpatient (prior to admission) inotrope infusion:
- ○ Yes
- ○ No
- ○ Unknown

If Yes, select therapy agents:
- ☐ Dobutamine
- ☐ Dopamine
- ☐ Milrinone
- ☐ Levosimendan
- ☐ Epinephrine
- ☐ Norepinephrine
- ☐ Isoproterenol
- ☐ Phenylephrine
- ☐ Vasopressin
- ☐ Angiotensin II
- ☐ Other, Specify
- ☐ Unknown

Is patient on Metalozone/Thiazide?
within 60 days of the implant date
- ○ Yes
- ○ No
- ○ Unknown

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

Is patient on Phosphodiesterase inhibitors?
Please enter only for the indication of Pulmonary Hypertension or Right Heart Failure
- ○ Yes
- ○ No
- ○ Unknown

Is patient on direct oral anticoagulants (DOACs) or novel oral anticoagulants (NOACs)?

Such as: dabigatran (Pradaxa), rivaroxaban (Xarelto), apixaban (Eliquis), edoxaban (Savaysa), and betrixaban (Bevyxxa)

- ○ Yes
- ○ No
- ○ Unknown

Intermacs

PreImplant

Quality Of Life

QOL surveys cannot be administered after the visit date

EuroQol (EQ-5D)

Did the patient complete a EuroQol form?
- ○ Yes
- ○ No
- ○ Unknown

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

Mobility:
- ○ I have no problems in walking about
- ○ I have some problems in walking about
- ○ I am confined to bed
- ○ Unknown

Self care:
- ○ I have no problems with self-care
- ○ I have some problems washing or dressing myself
- ○ I am unable to wash or dress myself
- ○ Unknown

Usual Activities (e.g. work, study, housework, family or leisure activities)
- ○ I have no problems with performing my usual activities
- ○ I have some problems with performing my usual activities
- ○ I am unable to perform my usual activities
- ○ Unknown

Pain/discomfort:
- ○ I have no pain or discomfort
- ○ I have moderate pain or discomfort
- ○ I have extreme pain or discomfort
- ○ Unknown

Anxiety/depression:
- ○ I am not anxious or depressed
- ○ I am moderately anxious or depressed
- ○ I am extremely anxious or depressed
- ○ Unknown

Patient Visual Analog Status (VAS):

[ ] (0-100) 0=Worst, 100=Best

ST= ○ Unknown

Which of the following best describes your *one* main activity?
- ○ Actively working
- ○ Retired
- ○ Keeping house
- ○ Student
- ○ Seeking work
- ○ Too sick to work (disabled)

○ Unknown
○ Other

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)

ST= ○ Unknown

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

Please enter a number from 1 to 10 for the questions below:

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

ST= ○ Unknown

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

ST= ○ Unknown

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

ST= ○ Unknown

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

ST= ○ Unknown

If No, Please select a reason why the EuroQol (EQ-5D) 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)

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 did you have swelling in your feet, ankles or legs when you woke up in the morning?

- ○ Every morning
- ○ 3 or more times a week, but not every day
- ○ 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 your ability to do what you want?

- ○ All of the time
- ○ 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 breath limited your ability to do what you wanted?

- ○ All of the time
- ○ 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 to sleep sitting up in a chair or with at least 3 pillows to prop you up because of shortness of breath?

- ○ Every night
- ○ 3 or more times a week, but not every day
- ○ 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 enjoyment of life?

- ○ It has extremely limited my 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 way it is right now, how would you feel about this?

- ○ Not at all satisfied
- ○ Mostly dissatisfied
- ○ Somewhat satisfied
- ○ Mostly satisfied
- ○ Completely satisfied
- ○ Unknown

How much does your heart failure affect your lifestyle? Please indiciate how your heart failure may have limited your participation in the following activites over the past 2 weeks?

Hobbies, recreational activities

- ○ 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

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)

Intermacs

PreImplant

Exercise Function and Trailmaking Data

6 minute walk _____ feet

ST= ○ Not done: too sick
○ Not done: other
○ Not done: patient refused to walk
○ Unknown

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 6minute walk for the Gait speed test listed below (please see instructions for the gait speed test below.)**

Gait Speed (1st 15 foot walk) _____ seconds

ST= ○ Not done: too sick
○ Not done: other
○ Not done: patient refused to walk
○ Unknown

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.**

Peak VO2 Max _____ mL/kg/min

ST= ○ Not done: too sick
○ Not done: other
○ Unknown

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 _____ %

ST= ○ Unknown
○ Not done

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