A. Demographics

Seq. #: 2000 **Name:** Last Name

Coding Instructions: Indicate the patient's last name. Hyphenated names should be recorded with a hyphen.

Target Value: The value on arrival at this facility

Selections: (none)

Supporting Definitions: (none)

Seq. #: 2010 **Name:** First Name

Coding Instructions: Indicate the patient's first name.

Target Value: The value on arrival at this facility

Selections: (none)

Supporting Definitions: (none)

Seq. #: 2020 **Name:** Middle Name

Coding Instructions: Indicate the patient's middle name.

Note(s):

It is acceptable to specify the patient's middle initial.

If the patient does not have a middle name, leave field blank.

If the patient has multiple middle names, enter all of the middle names sequentially.

Target Value: The value on arrival at this facility

Selections: (none)

Supporting Definitions: (none)

Seq. #: 2030 **Name:** SSN

Coding Instructions: Indicate the patient's United States Social Security Number (SSN).

Note(s):

If the patient does not have a US Social Security Number (SSN), leave blank and check "SSN N/A".

Target Value: The value on arrival at this facility

Selections: (none)

Supporting Definitions: (none)

A. Demographics

Seq. #: 2031 **Name:** SSN N/A

Coding Instructions: Indicate if the patient does not have a United States Social Security Number (SSN).

Target Value: The value on arrival at this facility

Selections:

Selection Text	*Definition*
No	
Yes	Patient does 'not' have a SSN.

Supporting Definitions: (none)

Seq. #: 2040 **Name:** Patient ID

Coding Instructions: Indicate the number created and automatically inserted by the software that uniquely identifies this patient.

Target Value: The value on arrival at this facility

Selections: (none)

Supporting Definitions: (none)

Seq. #: 2045 **Name:** Other ID

Coding Instructions: Indicate optional patient identifier, such as medical record number, that can be associated with the patient.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 2050 **Name:** Birth Date

Coding Instructions: Indicate the patient's date of birth.

Target Value: The value on arrival at this facility

Selections: (none)

Supporting Definitions: (none)

A. Demographics

Seq. #: 2060 **Name:** Sex

Coding Instructions: Indicate the patient's sex at birth.

Target Value: The value on arrival at this facility

Selections:

Selection Text	*Definition*
Male	
Female	

Supporting Definitions: (none)

Seq. #: 2070 **Name:** Race - White

Coding Instructions: Indicate if the patient is White as determined by the patient/family.

Note(s):

If the patient has multiple race origins, specify them using the other race selections in addition to this one.

Target Value: The value on arrival at this facility

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: **White (race):**

Having origins in any of the original peoples of Europe, the Middle East, or North Africa.

Source: U.S. Office of Management and Budget. Classification of Federal Data on Race and Ethnicity

---

Seq. #: 2071 **Name:** Race - Black or African American

Coding Instructions: Indicate if the patient is Black/African American as determined by the patient/family.

Note(s):

If the patient has multiple race origins, specify them using the other race selections in addition to this one.

Target Value: The value on arrival at this facility

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: **Black/African American (race):**

Having origins in any of the black racial groups of Africa. Terms such as "Haitian" or "Negro" can be used in addition to "Black or African American."

Source: U.S. Office of Management and Budget. Classification of Federal Data on Race and Ethnicity

A. Demographics

Seq. #: 2072 **Name:** Race - Asian

Coding Instructions: Indicate if the patient is Asian as determined by the patient/family.

Note(s):

If the patient has multiple race origins, specify them using the other race selections in addition to this one.

Target Value: The value on arrival at this facility

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: **Asian (race):**

Having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

Source: U.S. Office of Management and Budget. Classification of Federal Data on Race and Ethnicity

Seq. #: 2073 **Name:** Race - American Indian or Alaskan Native

Coding Instructions: Indicate if the patient is American Indian or Alaskan Native as determined by the patient/family.

Note(s):

If the patient has multiple race origins, specify them using the other race selections in addition to this one.

Target Value: The value on arrival at this facility

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: **American Indian or Alaskan Native (race):**

Having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.

Source: U.S. Office of Management and Budget. Classification of Federal Data on Race and Ethnicity

A. Demographics

Seq. #: 2074 **Name:** Race - Native Hawaiian or Pacific Islander

Coding Instructions: Indicate if the patient is Native Hawaiian/Other Pacific Islander as determined by the patient/family.

Note(s):

If the patient has multiple race origins, specify them using the other race selections in addition to this one.

Target Value: The value on arrival at this facility

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: **Native Hawaiian or Pacific Islander (race):**

Having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

Source: U.S. Office of Management and Budget. Classification of Federal Data on Race and Ethnicity

Seq. #: 2076 **Name:** Hispanic or Latino Ethnicity

Coding Instructions: Indicate if the patient is of Hispanic or Latino ethnicity as determined by the patient/family.

Target Value: The value on arrival at this facility

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: **Hispanic or Latino Ethnicity:**

A person of Cuban, Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin, regardless of race. The term, "Spanish origin," can be used in addition to "Hispanic or Latino."

Source: U.S. Office of Management and Budget. Classification of Federal Data on Race and Ethnicity

Seq. #: 2500 **Name:** Auxiliary 1

Coding Instructions: Reserved for future use.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

A. Demographics

Seq. #: 2501 **Name:** Auxiliary 2

Coding Instructions: Reserved for future use.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

B. Episode of Care

Seq. #: 3000 **Name:** Arrival Date

Coding Instructions: Indicate the date the patient arrived at your facility.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 3001 **Name:** Arrival Time

Coding Instructions: Indicate the time the patient arrived at your facility

Note(s):

Indicate the time (hours:minutes) using the military 24-hour clock, beginning at midnight (00:00 hours).

If the patient came to your facility for an elective or outpatient procedure and the time was not documented, code the scheduled time of arrival.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 3003 **Name:** Residence on Arrival

Coding Instructions: Indicate the primary residence of the patient prior to arrival. If the primary residence is not available, code not documented.

Target Value: The value on arrival at this facility

Selections:

Selection Text	*Definition*
Home with no health-aid	
Home with health aid	
Long term care	
Other	
Not Documented	

Supporting Definitions: (none)

B. Episode of Care

Seq. #: 3005 **Name:** Insurance Payors - Private Health Insurance

Coding Instructions: Indicate if the patient's insurance payor(s) included private health insurance.

Note(s):

A health maintenance organization (HMO) is considered private health insurance.

Target Value: The value on arrival at this facility

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions:

Private Health Insurance:

Private health insurance is coverage by a health plan provided through an employer or union or purchased by an individual from a private health insurance company.

Source: U.S. Census Bureau

Seq. #: 3006 **Name:** Insurance Payors - Medicare

Coding Instructions: Indicate if the patient's insurance payor(s) included Medicare.

Target Value: The value on arrival at this facility

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions:

Medicare:

Medicare is the Federal program which helps pay health care costs for people 65 and older and for certain people under 65 with long-term disabilities.

Source: U.S. Census Bureau

Seq. #: 3007 **Name:** Insurance Payors - Medicaid

Coding Instructions: Indicate if the patient's insurance payor(s) included Medicaid.

Target Value: The value on arrival at this facility

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions:

Medicaid:

Medicaid is a program administered at the state level, which provides medical assistance to the needy. Families with dependent children, the aged, blind, and disabled who are in financial need are eligible for Medicaid. It may be known by different names.

Source: U.S. Census Bureau

B. Episode of Care

Seq. #: 3008 **Name:** Insurance Payors - Military Health Care

Coding Instructions: Indicate if the patient's insurance payor(s) included Military Health Care.

Target Value: The value on arrival at this facility

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions:

Military Health Care:

Military Health care - Military health care includes TRICARE/CHAMPUS (Civilian Health and Medical Program of the Uniformed Services) and CHAMPVA (Civilian Health and Medical Program of the Department of Veterans Affairs), as well as care provided by the Department of Veterans Affairs (VA).

Source: U.S. Census Bureau

Seq. #: 3009 **Name:** Insurance Payors - State-Specific Plan (Non Medicaid)

Coding Instructions: Indicate if the patient's insurance payor(s) included State-Specific Plan (non Medicaid).

Target Value: The value on arrival at this facility

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions:

State Specific Plan:

Some states have their own health insurance programs for low-income uninsured individuals. These health plans may be known by different names in different states.

Source: U.S. Census Bureau

Seq. #: 3010 **Name:** Insurance Payors - Indian Health Service

Coding Instructions: Indicate if the patient's insurance payor(s) included Indian Health Service (IHS).

Target Value: The value on arrival at this facility

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions:

Indian Health Service:

Indian Health Service (IHS) is a health care program through which the Department of Health and Human Services provides medical assistance to eligible American Indians at IHS facilities. In addition, the IHS helps pay the cost of selected health care services provided at non-IHS facilities.

Source: U.S. Census Bureau

B. Episode of Care

Seq. #: 3011 **Name:** Insurance Payors - Non-US Insurance

Coding Instructions: Indicate if the patient's insurance payor(s) included Non-US Insurance.

Target Value: The value on arrival at this facility

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: **Non-US Insurance:**

Non-US insurance refers to individuals with a payor that does not originate in the United States.

Source: U.S. Census Bureau

Seq. #: 3012 **Name:** Insurance Payors - None

Coding Instructions: Indicate if the patient has no insurance payor(s).

Target Value: The value on arrival at this facility

Selections:

Selection Text	*Definition*
No	
Yes	The patient has no insurance.

Supporting Definitions: **None:**

'None' refers to individuals with no or limited health insurance. Thus, the individual is the payor regardless of ability to pay.

Source: NCDR

Seq. #: 3015 **Name:** Health Insurance Claim Number

Coding Instructions: Indicate the patient's Health Insurance Claim (HIC) number.

Target Value: The value on arrival at this facility

Selections: (none)

Supporting Definitions: **Health Insurance Claim Number::**

The Health Insurance Claim (HIC) number is the unique identifier issued to all Medicare eligible beneficiaries by the Social Security Administration (SSA). The Railroad Retirement Board (RRB) can also assign HIC to those receiving RRB benefits.

Source: Center for Medicare and Medicaid Services

B. Episode of Care

Seq. #: 3020 **Name:** Auxiliary 3

Coding Instructions: Reserved for future use.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 3025 **Name:** Auxiliary 4

Coding Instructions: Reserved for future use.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 3030 **Name:** Patient Enrolled in Research Study

Coding Instructions: Indicate if the patient is enrolled in a research study for the index procedure or the episode of care.

Note(s):

Code 'Yes' only for those patients enrolled in an STS/ACC TVT Registry research study. If the patient is in other studies unrelated to the TVT Registry, leave blank or Code 'No'.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 3031 **Name:** Research Study Name

Coding Instructions: Indicate the research study name as provided by the research study protocol or STS/ACC TVT Registry staff.

Note(s):

Study names must follow the format indicated by the research protocol or STS/ACC TVT Registry staff. Deviations may result in an error message.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

B. Episode of Care

Seq. #: 3032 **Name:** Research Study Patient ID

Coding Instructions: Indicate the research study patient identification number as assigned by the research protocol or STS/ACC TVT Registry staff.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

C. History & Risk Factors

Seq. #: 4000 **Name:** Infective Endocarditis

Coding Instructions: Indicate whether the patient has a history of infective endocarditis documented by one of the following:

1. Positive blood cultures
2. Vegetation on echocardiography and/or other diagnostic modality
3. Documented history of infective endocarditis

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 4005 **Name:** Infective Endocarditis Type

Coding Instructions: Indicate the type of endocarditis.

Target Value: The last value between birth and the procedure

Selections:

Selection Text	*Definition*
Treated	The patient has been treated previously for endocarditis and is not taking antibiotics for the infection (other than prophylactic medications).
Active	The patient is currently being treated for endocarditis.

Supporting Definitions: (none)

Seq. #: 4006 **Name:** Heart Failure Hospitalization Within Past Year

Coding Instructions: Indicate if the patient has been admitted to the hospital for an inpatient admission with a diagnosis of heart failure within the past year.

Target Value: Any occurrence between one year prior to the procedure and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	
Not Documented	

Supporting Definitions: (none)

C. History & Risk Factors

Seq. #: 4010 **Name:** Permanent Pacemaker

Coding Instructions: Indicate if the patient currently has a permanent pacemaker or had a permanent pacemaker that was implanted at any time prior to arrival at this facility. This includes patients that had a permanent pacemaker previously, but the device is no longer in place.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 4012 **Name:** Most Recent Pacemaker Date

Coding Instructions: Indicate the date the pacemaker was implanted.

Note(s):

If the month or day is unknown, enter 01

Target Value: The last value between birth and the first procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 4013 **Name:** Cardiac Resynchronization Therapy

Coding Instructions: Indicate if the pacemaker type includes cardiac resynchronization therapy (CRT). A CRT is a biventricular pacemaker that sends electrical signals to both ventricles that resynchronizes the heart chambers and helps it pump more effectively. It may or may not have an atrial pacing wire.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 4015 **Name:** Previous ICD

Coding Instructions: Indicate if the patient had a previous implantable cardioverter defibrillator (ICD). This includes patients that had an ICD previously, but the device is no longer in place.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

C. History & Risk Factors

Seq. #: 4016 **Name:** Cardiac Resynchronization Therapy Defibrillator

Coding Instructions: Indicate if the ICD includes a cardiac resynchronization therapy device. A cardiac resynchronization therapy defibrillator (CRT-D) has dual capabilities. It is a biventricular pacemaker that sends electrical signals to both ventricles as well as a defibrillator. It may or may not have an atrial pacing wire.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 4020 **Name:** Prior PCI

Coding Instructions: Indicate if the patient had a previous percutaneous coronary intervention.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: **Percutaneous Coronary Intervention:**

Percutaneous coronary intervention (PCI) is the placement of an angioplasty guide wire, balloon, or other device (e.g. stent, atherectomy, brachytherapy, or thrombectomy catheter) into a native coronary artery or coronary artery bypass graft for the purpose of mechanical coronary revascularization.

Source: NCDR

Seq. #: 4025 **Name:** Most Recent PCI Date

Coding Instructions: Indicate the date of the most recent PCI.

Note(s):

If the month or day are unknown, enter 01.

Target Value: The last value between birth and the procedure

Selections: (none)

Supporting Definitions: (none)

C. History & Risk Factors

Seq. #: 4030 **Name:** Prior CABG

Coding Instructions: Indicate if the patient had a previous coronary artery bypass graft (CABG) surgery.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 4035 **Name:** Most Recent CABG Date

Coding Instructions: Indicate the date of the most recent coronay artery bypass graft (CABG).

Note(s):

If month or day are unknown, enter 01.

Target Value: The last value between birth and the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 4040 **Name:** Prior Other Cardiac Surgery

Coding Instructions: Indicate if the patient had prior other cardiac surgery. Other cardiac surgery includes surgeries not otherwise specified in the cardiac history. It includes, but is not limited to:

1. Previous congenital heart surgery and/or percutaneous procedure (e.g. VSD, ASD, TOF and PFO repair).

2. Previous surgery on the thoracic aorta.

3. Previous intrapericardial or great vessel (e.g., aorta, superior vena cava, inferior vena cava, pulmonary arteries and veins) procedure performed. This may include, but is not limited to LVA, acquired VSD, SVR, TMR, cardiac trauma, pericardial window, pericardiectomy, cardiac tumor, myectomy or heart transplant.

Note(s):

Do not include aortic or non-aortic valve procedures. See Seq Num 4095, Prior Other Non-Aortic Valve Procedure and Seq Num 4060, Prior Aortic Valve Procedure.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

C. History & Risk Factors

Seq. #: 4055 **Name:** Number of Previous Cardiac Surgeries

Coding Instructions: Indicate the number of open heart cardiac surgeries the patient has had prior to this procedure. This includes open heart coronary artery bypass, or valve replacement/repairs.

Note(s):

Do not include other open chest surgical procedures (not accessing the heart, such as surgery on the thoracic aorta or lung) or other cardiac interventional procedures (such as a PCI, or balloon valvuloplasty).

Target Value: The total between birth and the procedure

Selections:

Selection Text	*Definition*
0	
1	
2	
3	
>=4	

Supporting Definitions: (none)

Seq. #: 4060 **Name:** Prior Aortic Valve Procedure

Coding Instructions: Indicate whether the patient had a previous surgical or interventional replacement and/or repair of the aortic valve.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 4065 **Name:** Most Recent Aortic Valve Procedure Date

Coding Instructions: Indicate the date of the most recent prior aortic valve procedure.

Note(s):

If month or day are unknown, enter 01.

Target Value: The last value between birth and the procedure

Selections: (none)

Supporting Definitions: (none)

C. History & Risk Factors

Seq. #: 4070 **Name:** Previous Aortic Valve Replacement - Surgical

Coding Instructions: Indicate whether a previous procedure included a surgical aortic valve replacement.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 4075 **Name:** Previous Aortic Valve Procedure Type

Coding Instructions: Indicate the type of aortic valve replacement.

Target Value: The last value between birth and the procedure

Selections:

Selection Text	*Definition*
Bioprosthetic stented	
Bioprosthetic stentless	
Not Documented	

Supporting Definitions: (none)

Seq. #: 4078 **Name:** Aortic Valve Model ID

Coding Instructions: Indicate the model ID of the prosthetic aortic valve.

Target Value: The last value between birth and the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 4080 **Name:** Previous Aortic Valve Repair - Surgical

Coding Instructions: Indicate whether a previous procedure included a surgical aortic valve repair.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

C. History & Risk Factors

Seq. #: 4085 **Name:** Previous Procedure - Aortic Valve Balloon Valvuloplasty

Coding Instructions: Indicate whether a previous procedure included an aortic balloon valvuloplasty.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 4090 **Name:** Previous Procedure - Aortic Valve Transcatheter Valve Replacement

Coding Instructions: Indicate whether a previous procedure included a transcatheter aortic valve replacement procedure.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 4091 **Name:** Previous Procedure - Aortic Valve Transcatheter Valve Intervention

Coding Instructions: Indicate whether a previous procedure included a transcatheter aortic valve intervention (such as a procedure that deploys an occluder or plug for aortic regurgitation).

Note(s):

This does not include surgical aortic valve repair/replacements, transcatheter AV replacments or AV balloon valvuloplasties.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 4092 **Name:** Previous Procedure - AV Transcatheter Valve Model ID

Coding Instructions: Indicate the model ID implanted in the transcatheter aortic valve replacement procedure.

Target Value: Any occurrence between birth and the procedure

Selections: (none)

Supporting Definitions: (none)

C. History & Risk Factors

Seq. #: 4095 **Name:** Prior Non-Aortic Valve Procedure

Coding Instructions: Indicate whether the patient had a previous surgical or interventional replacement and/or repair of a valve (excluding the aortic valve).

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 4097 **Name:** Prior Mitral Valve Procedure Date

Coding Instructions: Indicate the date of the most recent prior mitral valve procedure, if performed.

Target Value: Any occurrence between birth and the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 4100 **Name:** Previous Procedure - Mitral Valve Replacement - Surgical

Coding Instructions: Indicate whether a previous procedure included a surgical mitral valve replacement.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

C. History & Risk Factors

Seq. #: 4105 **Name:** Prior Non-Aortic Valve Procedure - Mitral Valve Type

Coding Instructions: Indicate the type of mitral valve replacement.

Target Value: The last value between birth and the procedure

Selections:

Selection Text	*Definition*
Mechanical	
Bioprosthetic	Retired in v2.0
Bioprosthetic stented	
Bioprosthetic stentless	
Not Documented	

Supporting Definitions: (none)

Seq. #: 4106 **Name:** Previous Procedure - Mitral Valve Replacement Model ID

Coding Instructions: Indicate the model ID of the prosthetic mitral valve.

Target Value: The last value between birth and the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 4110 **Name:** Previous Procedure - Mitral Valve Repair - Surgical

Coding Instructions: Indicate whether a previous procedure included a surgical mitral valve repair.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

C. History & Risk Factors

Seq. #: 4111 **Name:** Prior Mitral Annuloplasty Ring - Surgical

Coding Instructions: Indicate if the patient had a prior mitral annuloplasty ring implanted surgically.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes - partial	
Yes - circumferential	
Not documented	

Supporting Definitions: (none)

Seq. #: 4112 **Name:** Prior Mitral Valve Transcatheter Intervention

Coding Instructions: Indicate whether a previous procedure included a transcatheter mitral valve intervention.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 4113 **Name:** Prior Mitral Transcatheter Type

Coding Instructions: Indicate the type of transcatheter mitral valve intervention.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
Leaflet clip	
Direct annulopasty intervention	
Coronary sinus based intervention	
Valve-in-native valve	
Valve-in-valve	
Other	

Supporting Definitions: (none)

C. History & Risk Factors

Seq. #: 4116 **Name:** Valve or Ring Model

Coding Instructions: Indicate the model ID of the prosthetic mitral valve.

Target Value: The value between birth and the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 4118 **Name:** Prior Tricuspid Valve Replacement/Repair

Coding Instructions: Indicate if the patient had a prior tricuspid valve replacement or repair.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 4119 **Name:** Prior Pulmonic Valve Replacement/Repair

Coding Instructions: Indicate if the patient had a prior pulmonic valve replacement or repair.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 4120 **Name:** Prior Stroke

Coding Instructions: Indicate if the patient has a history of a stroke.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: **Stroke:**

A 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.

Source: Standardized Definitions for Cardiovascular Endpoints in Clinical Trials (FDA Draft)

C. History & Risk Factors

Seq. #: 4125 **Name:** Most Recent Stroke Date

Coding Instructions: Indicate the date of the most recent stroke.

Note(s):

If the month or day is unknown, enter 01.

Target Value: The last value between birth and the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 4130 **Name:** Transient Ischemic Attack

Coding Instructions: Indicate if the patient has a history of a transient ischemic attack.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions:

Transient Ischemic Attack:

Transient ischemic attack (TIA) is defined as a transient episode of focal neurological dysfunction caused by brain, spinal cord, or retinal ischemia, without acute infarction.

Source: Standardized Definitions for Cardiovascular Endpoints in Clinical Trials (FDA Draft)

Seq. #: 4135 **Name:** Carotid Stenosis Assessment

Coding Instructions: Indicate which carotid artery was determined from any diagnostic test to be greater or equal to 50% stenotic.

Target Value: The highest value between birth and the procedure

Selections:

Selection Text	*Definition*
None	Neither carotid artery is >=50% stenotic.
Right	There is >=50% stenosis in the right carotid artery.
Left	There is >=50% stenosis in the left carotid artery.
Both	There is >=50% stenosis in both the right and left carotid artery.
Not assessed	Carotid stenosis was not assessed and is not known.

Supporting Definitions: (none)

C. History & Risk Factors

Seq. #: 4140 **Name:** Prior Carotid Artery Surgery or Stent

Coding Instructions: Indicate whether the patient has a history of previous carotid artery surgery and/or stenting.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 4141 **Name:** Severity of Stenosis - Right Carotid Artery

Coding Instructions: Indicate the best estimate of the most severe percent stenosis in the right carotid artery.

Target Value: The highest value between birth and the procedure

Selections:

Selection Text	*Definition*
50%-79%	
80% to 99%	
100 %	
Stenosis % not available	

Supporting Definitions: (none)

Seq. #: 4142 **Name:** Severity of Stenosis - Left Carotid Artery

Coding Instructions: Indicate the best estimate of the most severe percent stenosis in the left carotid artery.

Target Value: The highest value between birth and the procedure

Selections:

Selection Text	*Definition*
50%-79%	
80% to 99%	
100%	
Stenosis % not available	

Supporting Definitions: (none)

C. History & Risk Factors

Seq. #: 4145 **Name:** Peripheral Arterial Disease

Coding Instructions: Indicate if the patient has a history of peripheral arterial disease (PAD) (includes upper and lower extremity, renal, mesenteric, and abdominal aortic systems).

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions:

Peripheral Arterial Disease:

Peripheral arterial disease can include:
1. Claudication, either with exertion or at rest.
2. Amputation for arterial vascular insufficiency.
3. Vascular reconstruction, bypass surgery, or percutaneous intervention to the extremities (excluding dialysis fistulas and vein stripping).
4. Documented aortic aneurysm with or without repair.
5. Positive non-invasive test (e.g., ankle brachial index <=0.9); ultrasound, magnetic resonance, computed tomography, or angiographic imaging of > 50% diameter stenosis in any peripheral artery (e.g., renal, subclavian, femoral, iliac).

For purposes of the Registry, peripheral arterial disease excludes disease in the carotid and cerebrovascular arteries.

Source: STS and NCDR

Seq. #: 4150 **Name:** Current/Recent Smoker (w/in 1 year)

Coding Instructions: Indicate if the patient has smoked cigarettes anytime during the year prior.

Target Value: Any occurrence between 1 year prior to the procedure and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

C. History & Risk Factors

Seq. #: 4155 **Name:** Hypertension

Coding Instructions: Indicate whether the patient has a diagnosis of hypertension.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions:

Hypertension:

Hypertension is defined by any one of the following:
1. History of hypertension diagnosed and treated with medication, diet and/or exercise
2. Prior documentation of blood pressure greater than 140 mm Hg systolic and/or 90 mm Hg diastolic for patients without diabetes or chronic kidney disease, or prior documentation of blood pressure greater than 130 mm Hg systolic and/or 80 mm Hg diastolic on at least two occasions for patients with diabetes or chronic kidney disease
3. Currently on pharmacologic therapy for treatment of hypertension.

Source: ACCF/AHA 2011 Key Data Elements and Definitions of a Base Cardiovascular Vocabulary for Electronic Health Records (JACC 2011;58;202-222)

Seq. #: 4165 **Name:** Diabetes Mellitus

Coding Instructions: Indicate if the patient has a history of diabetes mellitus regardless of duration of disease or need for antidiabetic agents.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions:

Diabetes:

The American Diabetes Association criteria include documentation of the following:
1. A1c >=6.5%; or
2. Fasting plasma glucose >=126 mg/dl (7.0 mmol/l); or
3. Two-hour plasma glucose >=200 mg/dl (11.1 mmol/l) during an oral glucose tolerance test; or
4. In a patient with classic symptoms of hyperglycemia or hyperglycemic crisis, a random plasma glucose >=200 mg/dl (11.1 mmol/l)

This does not include gestational diabetes.

Source: American Diabetes Association

C. History & Risk Factors

Seq. #: 4170 **Name:** Diabetes Therapy

Coding Instructions: Indicate the most aggressive diabetes control therapy.

Note(s):

Patients placed on a pre-procedure diabetic pathway of insulin drip after arrival but were not not insulin therapy (treated by diet or oral method) are not coded as insulin treatment.

If a patient had a pancreatic transplant, code "other", since the insulin from the new pancreas is not exogenous insulin.

Do not include "non-insulin" injectables that may improve blood sugar (such as Byetta) as insulin treatment.

Target Value: The last value between birth and prior to the procedure

Selections:

Selection Text	*Definition*
None	No treatment for diabetes.
Diet	Diet treatment only.
Oral	Oral agent treatment (includes oral agent with/without diet treatment).
Insulin	Insulin treatment (includes any combination with insulin).
Other	Other adjunctive therapy

Supporting Definitions: (none)

Seq. #: 4175 **Name:** Currently on Dialysis

Coding Instructions: Indicate if the patient is currently undergoing either hemodialysis or peritoneal dialysis on an ongoing basis as a result of renal failure.

Note(s):

If the patient is receiving continuous veno-venous hemofiltration (CVVH) as a result of renal failure (and not as treatment to remove fluid for heart failure), code "yes".

Target Value: The value on the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

C. History & Risk Factors

Seq. #: 4180 **Name:** Chronic Lung Disease

Coding Instructions: Indicate if the patient has a history of chronic lung disease, and severity, if present.

Target Value: The value on the procedure

Selections:

Selection Text	*Definition*
None	No documented chronic lung disease.
Mild	FEV1 60% to 75% of predicted, and/or on chronic inhaled or oral bronchodilator therapy.
Moderate	FEV1 50% to 59% of predicted, and/or on chronic steroid therapy aimed at lung disease.
Severe	FEV1 <50% predicted, and/or Room Air pO2 < 60 or Room Air pCO2 > 50.

Supporting Definitions:

Chronic Lung Disease:

Chronic lung disease can include patients with chronic obstructive pulmonary disease, chronic bronchitis, or emphysema. It can also include a patient who is currently being chronically treated with inhaled or oral pharmacological therapy (e.g., beta-adrenergic agonist, anti-inflammatory agent, leukotriene receptor antagonist, or steroid). Patients with asthma or seasonal allergies are not considered to have chronic lung disease.

Source: NCDR

Seq. #: 4181 **Name:** Home Oxygen

Coding Instructions: Indicate whether patient uses supplemental oxygen at home.

Target Value: The value on arrival at this facility

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

C. History & Risk Factors

Seq. #: 4182 **Name:** Hostile Chest

Coding Instructions: Indicate if the patient has a medical condition that precludes an open chest procedure and that is documented in the medical record. This can include any of the following or other reasons that make redo operation through sternotomy or right anterior thoracotomy prohibitively hazardous:

1. Evidence of abnormal chest wall anatomy due to severe kyphoscoliosis or other skeletal abnormalities (including thoracoplasty, Potts' disease, sternal bone destruction, evidence of indetectable plane between posterior sternal table and important mediastinal structures)

2. Complications from prior surgery

3. Prior radiation involving the mediastinum/thoracic, or evidence of severe radiation damage (e.g., skin burns, bone destruction, muscle loss, lung fibrosis or esophageal stricture)

4. History of multiple recurrent pleural effusions causing internal adhesions.

5. Chronic, ongoing open skin defects or extremely severe soft tissue atrophy.

6. Complete absence of reconstructive options based on plastic surgeon consult.

Target Value: The value on the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 4185 **Name:** Immunocompromise Present

Coding Instructions: Indicate whether immunocompromise is present due to immunosuppressive medication therapy. This includes, but is not limited to systemic steroid therapy, anti-rejection medications and chemotherapy. This does not include topical steroid applications, one time systemic therapy, inhaled steroid therapy or preprocedure protocol.

Target Value: The value between 30 days prior to the procedure and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 4200 **Name:** Prior Medications ID at Home

Coding Instructions: Indicate whether the patient received the medication at home prior to this hospitalization.

Target Value: The value on arrival at this facility

Selections: (none)

Supporting Definitions: (none)

C. History & Risk Factors

Seq. #: 4205 **Name:** Prior Medications Administered at Home

Coding Instructions: Indicate whether the patient received the medication at home prior to this hospitalization.

Target Value: The value on arrival at this facility

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 4210 **Name:** Prior Home Medication Dose

Coding Instructions: Specify the total daily dose of the medication the patient was taking routinely at home prior to this hospitalization.

Note(s):

Document the lasix equivalent for all loop diurectic dosages (1mg of Bumex = 40mg of Lasix, 20mg of Torsemide = 40mg of Lasix).

If the patient is on more than one loop diuretic, add all Lasix equivalants together to calculate the total dose of loop diuretic dose. For example, if the patient was taking 1mg of Bumex and 40mg of Lasix daily, the total daily dose = 80mg.

Target Value: The value on arrival

Selections: (none)

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5000 **Name:** CAD Presentation

Coding Instructions: Indicate the patient's coronary artery disease (CAD) presentation. Choose the worst status.

Target Value: The highest value between 7 days prior to the procedure and the procedure

Selections:

Selection Text	*Definition*
No Sxs, no angina	No symptoms. No angina.
Sx unlikely to be ischemic	Pain, pressure or discomfort in the chest, neck or arms NOT clearly exertional or NOT otherwise consistent with pain or discomfort of myocardial ischemic origin. This includes patients with non-cardiac pain (e.g.pulmonary embolism, musculoskeletal, or esophageal discomfort), or cardiac pain not caused by myocardial ischemia (e.g., acute pericarditis).
Stable angina	Angina without a change in frequency or pattern for the 6 weeks prior to this cath lab visit. Angina is controlled by rest and/or oral or transcutaneous medications.
Unstable angina	One of three principal presentations of unstable angina: 1. Rest angina (occurring at rest and prolonged, usually >20 minutes); 2. New-onset angina (within the past 2 months, of at least Canadian Cardiovascular Society Class III severity); or 3. Increasing angina (previously diagnosed angina that has become distinctly more frequent, longer in duration, or increased by 1 or more Canadian Cardiovascular Society class to at least CCS III severity).
Non-STEMI	The patient was hospitalized for a non-ST elevation myocardial infarction (STEMI) as documented in the medical record. Non-STEMIs are characterized by the presence of both criteria: a. Cardiac biomarkers (creatinine kinase-myocardial band, Troponin T or I) exceed the upper limit of normal according to the individual hospital's laboratory parameters with a clinical presentation which is consistent or suggestive of ischemia. ECG changes and/or ischemic symptoms may or may not be present. b. Absence of ECG changes diagnostic of a STEMI (see STEMI).

STEMI	The patient presented with a ST elevation myocardial infarction (STEMI) or its equivalent as documented in the medical record. STEMIs are characterized by the presence of both criteria: a. ECG evidence of STEMI: New or presumed new ST-segment elevation or new left bundle branch block not documented to be resolved within 20 minutes. ST-segment elevation is defined by new or presumed new sustained ST-segment elevation at the J-point in two contiguous electrocardiogram (ECG) leads with the cut-off points: >=0.2 mV in men or >= 0.15mV in women in leads V2-V3 and/or >= 0.1 mV in other leads and lasting greater than or equal to 20 minutes. If no exact ST-elevation measurement is recorded in the medical chart, physician's written documentation of ST-elevation or Qwaves is acceptable. If only one ECG is performed, then the assumption that the ST elevation persisted at least the required 20 minutes is acceptable. Left bundle branch block (LBBB) refers to new or presumed new LBBB on the initial ECG. b. Cardiac biomarkers (creatinine kinase-myocardial band, Troponin T or I) exceed the upper limit of normal according to the individual hospital's laboratory parameters a clinical presentation which is consistent or suggestive of ischemia.

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5005 **Name:** Prior MI

Coding Instructions: Indicate if the patient has had at least one documented previous myocardial infarction.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions:

Myocardial Infarction:

A myocardial infarction is evidenced by any of the following:

1. A rise and fall of cardiac biomarkers (preferably troponin) with at least one of the values in the abnormal range for that laboratory [typically above the 99th percentile of the upper reference limit (URL) for normal subjects] together with at least one of the following manifestations of myocardial ischemia:
a. Ischemic symptoms.
b. ECG changes indicative of new ischemia (new ST-T changes, new left bundle branch block, or loss of R wave voltage).
c. Development of pathological Q waves in 2 or more contiguous leads in the ECG (or equivalent findings for true posterior MI).
d. Imaging evidence of new loss of viable myocardium or new regional wall motion abnormality.
e. Documentation in the medical record of the diagnosis of acute myocardial infarction based on the cardiac biomarker pattern in the absence of any items enumerated in a-d due to conditions that may mask their appearance (e.g., peri-operative infarct when the patient cannot report ischemic symptoms; baseline left bundle branch block or ventricular pacing).

2. ECG changes associated with prior myocardial infarction can include the following (with or without prior symptoms):
a. Any Q-wave in leads V2-V3 >=0.02 seconds or QS complex in leads V2 and V3.
b. Q-wave >=0.03 seconds and >=0.1 mV deep or QS complex in leads I, II, aVL, aVF, or V4-V6 in any two leads of a contiguous lead grouping (I, aVL, V6; V4-V6; II, III, and aVF).
c. R-wave >=0.04 seconds in V1-V2 and R/S >=1 with a concordant positive Twave in the absence of a conduction defect.

3. Imaging evidence of a region with new loss of viable myocardium at rest in the absence of a non-ischemic cause. This can be manifest as:
a. Echocardiographic, CT, MR, ventriculographic or nuclear imaging evidence of left ventricular thinning or scarring and failure to contract appropriately (i.e., hypokinesis, akinesis, or dyskinesis).
b. Fixed (non-reversible) perfusion defects on nuclear radioisotope imaging (e.g., MIBI, thallium).

4. Medical records documentation of prior myocardial infarction.

Source: Joint ESC-ACC-AHA-WHF 2007 Task Force consensus document "Universal Definition of Myocardial Infarction".

Seq. #: 5010 **Name:** Prior MI Timeframe

Coding Instructions: Indicate the timeframe of the myocardial infarction.

Target Value: The last value between birth and the procedure

Selections:

Selection Text	*Definition*
< 30 Days	
>= 30 Days	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5012 **Name:** Cardiomyopathy

Coding Instructions: Indicate if the patient has a history of cardiomyopathy.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes - Ischemic	
Yes - Non-ischemic	

Supporting Definitions: (none)

Seq. #: 5020 **Name:** Heart Failure w/in 2 Weeks

Coding Instructions: Indicate if there is physician documentation or report that the patient has been in a state of heart failure within the past 2 weeks.

Target Value: Any occurrence between 2 weeks prior to the procedure and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: **Heart Failure:**

Heart failure is defined as physician documentation or a report of any of the following clinical symptoms of heart failure described as unusual dyspnea on light exertion, recurrent dyspnea occurring in the supine position, fluid retention, or the description of rales, jugular venous distention, pulmonary edema on physical examination, or pulmonary edema on chest x- ray presumed to be cardiac dysfunction.

A low ejection fraction alone, without clinical evidence of heart failure, does not qualify as heart failure.

Source: ACCF/AHA 2011 Key Data Elements and Definitions of a Base Cardiovascular Vocabulary for Electronic Health Records (JACC 2011;58;202-222)

D. Pre-Procedure Status

Seq. #: 5025 **Name:** NYHA Class w/in 2 Weeks

Coding Instructions: Indicate the patient's functional class, coded as the New York Heart Association (NYHA) classification within the past 2 weeks.

Target Value: The highest value between 2 weeks prior to the procedure and the procedure

Selections:

Selection Text	*Definition*
Class I	Patient has cardiac disease but without resulting limitations of ordinary physical activity. Ordinary physical activity (e.g., walking several blocks or climbing stairs) does not cause undue fatigue, palpitation, dyspnea, or anginal pain. Limiting symptoms may occur with marked exertion.
Class II	Patient has cardiac disease resulting in slight limitation of ordinary physical activity. Patient is comfortable at rest. Ordinary physical activity such as walking more than two blocks or climbing more than one flight of stairs results in limiting symptoms (e.g., fatigue, palpitation, dyspnea, or anginal pain).
Class III	Patient has cardiac disease resulting in marked limitation of physical activity. Patient is comfortable at rest. Less than ordinary physical activity (e.g., walking one to two level blocks or climbing one flight of stairs) causes fatigue, palpitation, dyspnea, or anginal pain.
Class IV	Patient has dyspnea at rest that increases with any physical activity. Patient has cardiac disease resulting in inability to perform any physical activity without discomfort. Symptoms may be present even at rest. If any physical activity is undertaken, discomfort is increased.

Supporting Definitions: (none)

Seq. #: 5030 **Name:** Cardiogenic Shock w/in 24 Hours

Coding Instructions: Indicate if the patient has been in a state of cardiogenic shock within 24 hrs of procedure.

Target Value: Any occurrence between 24 hours prior to the procedure and up to the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions:

Cardiogenic Shock:

Cardiogenic shock is a clinical state of end organ hypoperfusion due to cardiac failure according to the following criteria: persistant hypotension (Systolic BP < 80-90 or mean arterial pressure 30 mmHg lower than baseline) and severe reduction in Cardiac Index (< 1.8 without support or <2.2 with support).

Source: STS

D. Pre-Procedure Status

Seq. #: 5035 **Name:** Cardiac Arrest w/in 24 Hours

Coding Instructions: Indicate if the patient has had an episode of cardiac arrest within 24 hours of the procedure.

Target Value: Any occurrence between 24 hours prior to the procedure and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: **Cardiac Arrest:**

"Sudden" cardiac arrest is the sudden cessation of cardiac activity so that the victim becomes unresponsive, with no normal breathing and no signs of circulation. If corrective measures are not taken rapidly, this condition progresses to sudden death. Cardiac arrest should be used to signify an event as described above that is reversed, usually by CPR, and/or defibrillation or cardioversion, or cardiac pacing. Sudden cardiac death should not be used to describe events that are not fatal.

Source: ACCF/AHA 2011 Key Data Elements and Definitions of a Base Cardiovascular Vocabulary for Electronic Health Records (JACC 2011;58;202-222)

Seq. #: 5040 **Name:** Cardiac Procedure w/in 30 Days

Coding Instructions: Indicate if the patient has had an interventional, transcatheter or surgical cardiac procedure within 30 days prior to the procedure.

Target Value: Any occurrence between 30 days prior to the procedure and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5045 **Name:** Porcelain Aorta

Coding Instructions: Indicate if the patient has a porcelain aorta as documented by findings on a chest x-ray, CT scan, fluoroscopy at the time of cardiac catheterization or noted during previous cardiothoracic surgery.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: **Porcelain Aorta:**

A porcelain aorta is defined as "severe atherosclerosis of the aorta, calcification may be severe and diffuse, causing an eggshell appearance seen on chest x-ray or CT".

Source: ACCF/AHA/AATS/ACR/ASA/SCA/SCAI/SIR/STS/SVM Guidelines for the Diagnosis and Management of Patients With Thoracic Aortic Disease (JACC, 2010; 55:27-129)

D. Pre-Procedure Status

Seq. #: 5050 **Name:** Atrial Fibrillation/Flutter

Coding Instructions: Indicate if the patient has a history of atrial fibrillation and/or atrial flutter documented in the medical record.

Target Value: Any occurrence between birth and the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: **Atrial Fibrillation and Atrial Flutter:**

Atrial Fibrillation is a supraventricular tachyarrhythmia characterized by uncoordinated atrial activity with consequent deterioration of atrial mechanical function. On the electrocardiogram (ECG), atrial fibrillation is characterized by the replacement of consistent P waves with rapid oscillations or fibrillation waves that vary in amplitude, shape and timing, associated with an irregular, frequently rapid ventricular response when atrioventricular conduction is intact.

Atrial Flutter is characterized by a sawtooth pattern of regular atrial activation called flutter waves on the ECG, particularly visible in leads II, III, aVF and v1.

Source: ACC/AHA 2006 Data Standards for Measuring Clinical Managementand Outcomes of Patients with Atrial Fibrillation

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Seq. #: 5052 **Name:** Atrial Fibrillation Classification

Coding Instructions: Indicate whether AFib/Aflutter is paroxysmal or continuous/persistent within 30 days prior to the procedure

Target Value: The value between 30 days prior to procedure and procedure

Selections:

Selection Text	*Definition*
None	(No afib/flutter within the past 30 days)
Persistent	Persistent atrial fib can also be described as longstanding, permanent or continuous.
Paroxysmal	Paroxysmal can sometimes be described as sporadic or intermittent. It can terminate spontaneously without pharmacological therapy or electrical cardioversion.

Supporting Definitions: (none)

Seq. #: 5055 **Name:** Conduction Defect

Coding Instructions: Indicate if the patient has a conduction defect as evidenced by a right or left bundle branch block, sick sinus syndrome, or 1st, 2nd or 3rd degree heart block on ECG.

Target Value: Any occurrence on Procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5085 **Name:** Five Meter Walk Test Performed

Coding Instructions: Indicate whether the five meter walk test was performed.

Target Value: The last value between 30 days prior to the procedure and the procedure

Selections:

Selection Text	*Definition*
Not performed	
Yes	The five meter walk test was performed.
Unable to walk	Five meter walk was not performed because the patient is unable to walk.

Supporting Definitions: (none)

Seq. #: 5090 **Name:** Five Meter Walk Time 1

Coding Instructions: Indicate the time in seconds it takes the patient to walk 5 meters for the first of three tests.

Target Value: The last value between 30 days prior to the procedure and the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5095 **Name:** Five Meter Walk Time 2

Coding Instructions: Indicate the time in seconds it takes the patient to walk 5 meters for the second of three tests.

Target Value: The last value between 30 days prior to the procedure and the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5100 **Name:** Five Meter Walk Time 3

Coding Instructions: Indicate the time in seconds it takes the patient to walk 5 meters for the third of three tests.

Target Value: The last value between 30 days prior to the procedure and the procedure

Selections: (none)

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5105 **Name:** Aortic Valve Replacement - STS Risk Score

Coding Instructions: Indicate the patient's predicted risk of mortality for surgical aortic valve replacement as determined by the Heart Team and based on the Society for Thoracic Surgeon's risk model.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5106 **Name:** Mitral Valve Replacement - STS Risk Score

Coding Instructions: Indicate the patient's predicted risk of mortality for surgical mitral valve replacement as determined by the Heart Team and based on the Society for Thoracic Surgeon's risk model.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5107 **Name:** Mitral Valve Repair - STS Risk Score

Coding Instructions: Indicate the patient's predicted risk of mortality for surgical mitral valve repair as determined by the Heart Team and based on the Society for Thoracic Surgeon's risk model.

Note(s):

If LA volume index is documented, LA volume is not required. Need to add a requirement that if one is coded the other can be null.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5115 **Name:** Six Minute Walk Test Performed

Coding Instructions: Indicate whether the six minute walk test was performed.

Target Value: The last value between 30 days prior to the procedure and the procedure

Selections:

Selection Text	*Definition*
Performed	
Not Performed - non cardiac reason	
Not performed - cardiac reason	
Not performed - patient not willing to walk	
Not performed by site	

Supporting Definitions: (none)

Seq. #: 5116 **Name:** Six Minute Walk Test Date

Coding Instructions: Indicate the date the six minute walk test was performed.

Target Value: The last value between 30 days prior to the procedure and the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5117 **Name:** Total Distance

Coding Instructions: Indicate the total distance, in feet, the patient walked.

Target Value: The last value between 30 days prior to the procedure and the procedure

Selections: (none)

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5169 **Name:** KCCQ-12 Patient Questionnaire Performed

Coding Instructions: Indicate if the baseline Kansas City Cardiomyopathy Questionnaire (KCCQ-12) was performed.

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 5182, KCCQ-12 Overall Summary Score.

Target Value: Any occurrence on start of procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5170 **Name:** KCCQ-12 Question 1a

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 1a.

Heart Failure Limitation - Showering/bathing

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 5182, KCCQ-12 Overall Summary Score.

Target Value: The value on start of procedure

Selections:

Selection Text	*Definition*
Extremely limited	
Quite a bit limited	
Moderately limited	
Slightly limited	
Not at all limited	
Limited for other reasons or did not do the activity	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5171 **Name:** KCCQ-12 Question 1b

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 1b.

Heart Failure Limitation - Walking 1 block on level ground

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 5182, KCCQ-12 Overall Summary Score.

Target Value: The value on start of procedure

Selections:

Selection Text	*Definition*
Extremely limited	
Quite a bit limited	
Moderately limited	
Slightly limited	
Not at all limited	
Limited for other reasons or did not do the activity	

Supporting Definitions: (none)

Seq. #: 5172 **Name:** KCCQ-12 Question 1c

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 1c.

Heart Failure Limitation - Hurrying or jogging

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 5182, KCCQ-12 Overall Summary Score.

Target Value: The value on start of procedure

Selections:

Selection Text	*Definition*
Extremely limited	
Quite a bit limited	
Moderately limited	
Slightly limited	
Not at all limited	
Limited for other reasons or did not do the activity	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5173 **Name:** KCCQ-12 Question 2

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 2.

Symptom Frequency - swelling in legs

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 5182, KCCQ-12 Overall Summary Score.

Target Value: The value on start of procedure

Selections:

Selection Text	*Definition*
Every morning	
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	

Supporting Definitions: (none)

Seq. #: 5174 **Name:** KCCQ-12 Question 3

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 3.

Symptom Frequency - fatigue

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 5182, KCCQ-12 Overall Summary Score.

Target Value: The value on start of procedure

Selections:

Selection Text	*Definition*
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	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5175 **Name:** KCCQ-12 Question 4

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 4.

Symptom Frequency - shortness of breath

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 5182, KCCQ-12 Overall Summary Score.

Target Value: The value on start of procedure

Selections:

Selection Text	*Definition*
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	

Supporting Definitions: (none)

Seq. #: 5176 **Name:** KCCQ-12 Question 5

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 5.

Symptom Frequency - sleep sitting up due to shortness of breath

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 5182, KCCQ-12 Overall Summary Score.

Target Value: The value on start of procedure

Selections:

Selection Text	*Definition*
Every night	
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	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5177 **Name:** KCCQ-12 Question 6

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 6.

Quality of Life - effect on enjoyment of life due to heart failure

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 5182, KCCQ-12 Overall Summary Score.

Target Value: The value on start of procedure

Selections:

Selection Text	*Definition*
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	

Supporting Definitions: (none)

Seq. #: 5178 **Name:** KCCQ-12 Question 7

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 7.

Quality of life - remaining life with heart failure

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 5182, KCCQ-12 Overall Summary Score.

Target Value: The value on start of procedure

Selections:

Selection Text	*Definition*
Not at all satisfied	
Mostly dissatisfied	
Somewhat satisfied	
Mostly satisfied	
Completely satisfied	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5179 **Name:** KCCQ-12 Question 8a

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 8a.

Social limitation - hobbies, recreational activities

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 5182, KCCQ-12 Overall Summary Score.

Target Value: The value on start of procedure

Selections:

Selection Text	*Definition*
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	

Supporting Definitions: (none)

Seq. #: 5180 **Name:** KCCQ-12 Question 8b

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 8b.

Social limitation - working or doing household chores

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 5182, KCCQ-12 Overall Summary Score.

Target Value: The value on start of procedure

Selections:

Selection Text	*Definition*
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	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5181 **Name:** KCCQ-12 Question 8c

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 8c.

Social limitation - visiting family or friends

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 5182, KCCQ-12 Overall Summary Score.

Target Value: The value on start of procedure

Selections:

Selection Text	*Definition*
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	

Supporting Definitions: (none)

Seq. #: 5182 **Name:** KCCQ Overall Summary Score

Coding Instructions: (Auto Calculated) This field is auto-populated by your application.

Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Overall Summary Score.

Note(s):

The 12 patient responses are reduced into four summary scores (Physical Limitation Score, Symptom Frequency Score, Quality of Life Score, Social Limitation Score). The four summary scores are used to calculate the Overall Summary Score.

For more information, please refer to the KCCQ-12 Scoring Instructions document provided by the STS/ACC TVT Registry.

Target Value: The value on start of procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5200 **Name:** Height

Coding Instructions: Indicate the patient's height in centimeters.

Target Value: The first value between arrival at this facility and the procedure

Selections: (none)

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5205 **Name:** Weight

Coding Instructions: Indicate the patient's weight in kilograms.

Target Value: The last value between arrival at this facility and the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5250 **Name:** Pre-Procedure Hemoglobin

Coding Instructions: Indicate the preprocedure hemoglobin level in g/dL.

Target Value: The last value between 30 days prior to procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5251 **Name:** Pre-Procedure Hemoglobin Not Drawn

Coding Instructions: Indicate if a pre-procedure hemoglobin level was not drawn.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	Code "Yes" if the lab was not drawn.

Supporting Definitions: (none)

Seq. #: 5255 **Name:** Pre-Procedure Creatinine

Coding Instructions: Indicate the creatinine level closest to the date and time prior to the procedure but prior to anesthetic management (induction area, cath lab or operating room), in mg/dL.

Note(s):

A creatinine level should be collected on all patients, even if they have no prior history. A creatinine value is a high predictor of a patient's outcome and is used in the predicted risk models.

Target Value: The last value between 30 days prior to procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5256 **Name:** Pre-Procedure Creatinine Not Drawn

Coding Instructions: Indicate if a preprocedure creatinine level was not drawn.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	Code "Yes" if the lab was not drawn.

Supporting Definitions: (none)

Seq. #: 5260 **Name:** Platelet Count

Coding Instructions: Indicate the pre-procedure platelet count in microliters.

Target Value: The last value between 30 days prior to procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5261 **Name:** Platelet Count Not Drawn

Coding Instructions: Indicate if a platelet count was not drawn prior to the procedure.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	Code "Yes" if the lab was not drawn.

Supporting Definitions: (none)

Seq. #: 5265 **Name:** INR

Coding Instructions: Indicate the pre-procedure International Normalized Ratio (INR).

Target Value: The last value between 30 days prior to procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5266 **Name:** INR Not Drawn

Coding Instructions: Indicate if the pre-procedure International Normalized Ratio (INR) was not drawn.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	Code "Yes" if the lab was not drawn.

Supporting Definitions: (none)

Seq. #: 5270 **Name:** Albumin

Coding Instructions: Indicate the total albumin (in g/dL) closest to the date and time prior to the procedure but prior to anesthetic management (induction area, cath lab or operating room).

Target Value: The last value between 30 days prior to procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5271 **Name:** Total Albumin Not Drawn

Coding Instructions: Indicate if the total albumin level was not drawn.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	Code "Yes" if the lab was not drawn.

Supporting Definitions: (none)

Seq. #: 5275 **Name:** Bilirubin

Coding Instructions: Indicate the total bilirubin (in mg/dL) closest to the date and time prior to the procedure but prior to anesthetic management (induction area, cath lab or operating room).

Target Value: The last value between 30 days prior to procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5276 **Name:** Total Bilirubin Not Drawn

Coding Instructions: Indicate if the total bilirubin level was not drawn.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	Code "Yes" if the lab was not drawn.

Supporting Definitions: (none)

Seq. #: 5277 **Name:** BNP

Coding Instructions: Indicate the patient's brain natriuretic peptide (BNP) level in pg/ml.

Note(s):

If BNP was not drawn, leave blank and code 'Yes' for BNP or NT-proBNP or Not Drawn.

Target Value: The last value between 6 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5278 **Name:** NT-proBNP

Coding Instructions: Indicate the patient's NT-pro- brain natriuretic peptide (BNP) level in pg/ml.

Note(s):

If NT-proBNP was not drawn, leave blank and code 'Yes' for BNP or NTproBNP Not Drawn.

Target Value: The last value between 6 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5279 **Name:** BNP or NT-proBNP Not Drawn

Coding Instructions: Indicate if a BNP or NT-proBNP level was not drawn.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5280 **Name:** Forced Expiratory Volume (FEV1) % Predicted

Coding Instructions: Indicate the FEV1 % predicted from the most recent pulmonary function test prior to procedure

Target Value: The last value between 6 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5281 **Name:** Forced Expiratory Volume (FEV1) % Predicted Not Performed

Coding Instructions: Indicate whether % predicted Forced Expiratory Volume (FEV1) was not performed or the patient did not have a pulmonary function test prior to the procedure.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	Code "Yes" if the test was not performed.

Supporting Definitions: (none)

Seq. #: 5285 **Name:** Adjusted DLCO

Coding Instructions: Indicate the adjusted value of % predicted diffusion capacity of the lung for carbon monoxide (DLCO) value obtained for the patient. This is reported in charts as DLCO/VA% (adjusted value) or D/Vasb (for volume surface body area).

Target Value: The last value between 6 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5286 **Name:** DLCO Not Performed

Coding Instructions: Indicate if a lung diffusion test (DLCO) was not performed

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	Code "Yes" if the test was not performed.

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5290 **Name:** QRS Duration (Non-Ventricular Paced Complex)

Coding Instructions: Indicate the duration of the non-ventricular paced or intrinsic QRS complex, in milliseconds, that was derived from the surface electrocardiogram (ECG). Surface ECGs are obtained from the surface of the body and do not include intracardiac ECGs.

Note(s):

Do not code QRS measurements from an intracardiac ECG.

If more than one ECG is available, code the value on the ECG closest to the procedure.

Target Value: The last value between birth and prior to the first procedure.

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5291 **Name:** Only Ventricular Paced QRS Complexes Present

Coding Instructions: Indicate if there were only ventricular paced QRS complexes present.

Note(s):

If the patient has some intrinsic ventricular complexes present, code 'No'.

Target Value: The last value between birth and prior to the first procedure.

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5400 **Name:** Pre-Procedure Medication

Coding Instructions: Indicate which medications the patient received 24 hours prior to the procedure.

Note(s):

For patients requiring IV inotropic support, indicate positive inotropes only.

Target Value: Any occurrence between 24 hours prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5405 **Name:** Pre-Procedure Medication Administered

Coding Instructions: Indicate whether the patient received the medication within 24 hours preceding the procedure.

Note(s):

If a medication is contraindicated it needs to be documented in the chart by the physician or other responsible care giver. The reason for contraindication does not need to be documented.

Target Value: Any occurrence between 24 hours prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
No	
Yes	
Contraindicated	
Blinded	

Supporting Definitions: (none)

Seq. #: 5500 **Name:** Diagnostic Catheterization

Coding Instructions: Indicate whether diagnostic cardiac catheterization was performed.

Target Value: The last value between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5505 **Name:** Diagnostic Catheterization Date

Coding Instructions: Indicate the date the diagnostic catheterization was performed.

Target Value: The last value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5506 **Name:** Number of Diseased Vessels

Coding Instructions: Indicate the number of diseased major native coronary vessel systems: LAD system, Circumflex system, and/or Right system with >= 50% narrowing of any vessel preoperatively.

Note(s):

Left main disease (>=50%) is counted as TWO vessels (LAD and Circumflex, which may include a Ramus Intermedius). For example, left main and RCA would count as three total.

Target Value: The highest value between birth and start of the procedure

Selections:

Selection Text	*Definition*
None	No significant coronary obstructive disease
1	
2	
3	

Supporting Definitions: (none)

Seq. #: 5507 **Name:** Left Main >=50%

Coding Instructions: Indicate whether the patient has Left Main Coronary Disease. Left Main Coronary Disease is present when there is >= 50% compromise of vessel diameter preoperatively.

Target Value: The last value between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5508 **Name:** Prox LAD >=70%

Coding Instructions: Indicate whether the percent luminal narrowing of the proximal left anterior descending artery at the point of maximal stenosis is greater than or equal to 70%.

Target Value: The last value between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5565 **Name:** Left Ventricle Ejection Fraction

Coding Instructions: Indicate the percentage of the blood emptied from the left ventricle at the end of the contraction.

Note(s):

Use the most recent determination prior to the surgical intervention documented on a diagnostic report. Enter a percentage in the range of 1 - 99.

If a percentage range is reported, report a whole number using the "mean" (i.e., 50-55%, is reported as 53%).

If only a descriptive value is reported, (i.e., normal), enter the corresponding percentage value from the list below:
Normal = 60%
Good function = 50%
Mildly reduced = 45%
Fair function = 40%
Moderately reduced = 30%
Poor function = 25%
Severely reduced = 20%

Target Value: The last value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: **Left Ventricular Ejection Fraction (LVEF):**

The left ventricular ejection fraction is the percentage of the blood emptied from the left ventricle at the end of the contraction.

Source: ACC Clinical Data Standards, The Society of Thoracic Surgeons

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Seq. #: 5566 **Name:** Left Ventricle Ejection Fraction Not Assessed

Coding Instructions: Indicate whether the left ventricular ejection fraction was not assessed or not measured prior to the induction of anesthesia.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	Code "yes" if LVEF was not assessed.

Supporting Definitions: (none)

Seq. #: 5567 **Name:** Cardiac Output

Coding Instructions: Indicate the cardiac output in L/min, documented by pre-procedure diagnostic cardiac cath findings.

Target Value: The last value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5568 **Name:** Right Ventricular Systolic Pressure

Coding Instructions: Indicate the highest right ventricular systolic pressure in mmHg recorded prior to the start of the procedure.

Note(s):

If a value is available from both echo and cardiac cath, code the value from the cardiac cath.

Target Value: The last value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5569 **Name:** Cardiac Output Not Performed

Coding Instructions: Indicate whether the cardiac output was not measured pre-procedure.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5590 **Name:** Pulmonary Capillary Wedge Pressure

Coding Instructions: Indicate the pre-procedure pulmonary capillary wedge pressure, in mmHg.

Note(s):

If more than one PCWP is available, code the value determined by cardiac catheterization.

Target Value: The last value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5591 **Name:** Pulmonary Capillary Wedge Pressure Not Measured

Coding Instructions: Indicate if the pulmonary capillary wedge pressure was not measured pre-procedure.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5593 **Name:** Pulmonary Artery Pressure (Mean)

Coding Instructions: Indicate the pre-procedure pulmonary artery mean pressure, in mmHg.

Target Value: The last value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5594 **Name:** Pulmonary Artery Pressure (Mean) Not Measured

Coding Instructions: Indicate if the pre-procedure pulmonary artery mean pressure was not measured pre-procedure.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5595 **Name:** Left Ventricular Internal Systolic Dimension

Coding Instructions: Indicate the pre-procedure left ventricular internal systolic dimension in cm.

Note(s):

If more than one LV internal systolic diameter is available, code the value determined by echocardiography.

Using a 2D method, it is recommended that LV internal dimensions (LVIDd and LVIDs, respectively) be measured at the level of the LV minor dimension, at the mitral chordae level.

Target Value: The last value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions:

General Principles for Linear and Volumetric LV Measurements:

To obtain accurate linear measurements of interventricular septal wall thickness (SWT), posterior wall thickness (PWT), and LV internal dimension, recordings should be made from the parasternal long-axis acoustic window. It is recommended that LV internal dimensions (LVIDd and LVIDs, respectively) and wall thicknesses be measured at the level of the LV minor axis, approximately at the mitral valve leaflet tips. These linear measurements can be made directly from 2D images or using 2D-targeted M-mode echocardiography.

Source: Recommendations for Chamber Quantification: A Report from the American Society of Echocardiography's Guidelines and Standards Committee and the Chamber Quantification Writing Group, Developed in Conjunction with the European Association of Echocardiography, a Branch of the European Society of Cardiology, Journal of the American Society of Echocardiography. Volume 18 Number 12

D. Pre-Procedure Status

Seq. #: 5596 **Name:** Pulmonary Artery Pressure (Systolic)

Coding Instructions: Indicate if the pre-procedure pulmonary artery systolic pressure, in mmHg.

Target Value: The last value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5597 **Name:** Pulmonary Artery Pressure (Systolic) Not Measured

Coding Instructions: Indicate if the pre-procedure pulmonary artery systolic pressure was not measured pre-procedure.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5598 **Name:** Right Atrial Pressure/CVP (Mean)

Coding Instructions: Indicate the pre-procedure right atrial pressure or central venous pressure (CVP), in mmHg.

Target Value: The last value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5599 **Name:** Right Atrial Pressure/CVP (Mean) Not Measured

Coding Instructions: Indicate if the pre-procedure right atrial pressure or central venous pressure (CVP) was not measured pre-procedure.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5600 **Name:** Left Ventricular Internal Diastolic Dimension

Coding Instructions: Indicate the pre-procedure left ventricular internal diastolic dimension in cm. If more than one LV internal diastolic diameter is available, code the value determined by echocardiography.

Note(s):

Using a 2D method, it is recommended that LV internal dimensions (LVIDd and LVIDs, respectively) be measured at the level of the LV minor dimension, at the mitral chordae level.

Target Value: The last value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: **General Principles for Linear and Volumetric LV Measurements:**

To obtain accurate linear measurements of interventricular septal wall thickness (SWT), posterior wall thickness (PWT), and LV internal dimension, recordings should be made from the parasternal long-axis acoustic window. It is recommended that LV internal dimensions (LVIDd and LVIDs, respectively) and wall thicknesses be measured at the level of the LV minor axis, approximately at the mitral valve leaflet tips. These linear measurements can be made directly from 2D images or using 2D-targeted M-mode echocardiography.

Source: Recommendations for Chamber Quantification: A Report from the American Society of Echocardiography's Guidelines and Standards Committee and the Chamber Quantification Writing Group, Developed in Conjunction with the European Association of Echocardiography, a Branch of the European Society of Cardiology, Journal of the American Society of Echocardiography. Volume 18 Number 12

Seq. #: 5601 **Name:** Left Ventricular End Systolic Volume

Coding Instructions: Indicate the left ventricular end systolic volume in ml, documented by pre-procedure echocardiogram.

Target Value: The last value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5602 **Name:** Left Ventricular End Systolic Volume Not Measured

Coding Instructions: Indicate if the left ventricular end systolic volume was not measured pre-procedure.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5603 **Name:** Left Ventricular End Diastolic Volume

Coding Instructions: Indicate the left ventricular end diastolic volume in ml, documented by pre-procedure echocardiogram.

Target Value: The last value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5604 **Name:** Left Ventricular End Diastolic Volume Not Measured

Coding Instructions: Indicate if the left ventricular end diastolic volume was not measured pre-procedure.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5605 **Name:** Septal Wall Thickness

Coding Instructions: Indicate the pre-procedure septal wall thickness, in cm, measured at end-diastole.

Note(s):

If more than one septal wall thickness is available, code the value determined by echocardiography.

Target Value: The last value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5606 **Name:** Left Atrial Volume

Coding Instructions: Indicate the left atrial volume in ml, documented by pre-procedure echocardiogram.

Note(s):

If LA volume is documented, LA volume index is not required.

Target Value: The last value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5607 **Name:** Left Atrial Volume Index

Coding Instructions: Indicate the left atrial volume index in mL/m2, documented by pre-procedure echocardiogram.

Note(s):

If the left atrial volume is documented, leave this field blank.

Target Value: The last value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5608 **Name:** Left Ventricular Internal Systolic Dimension Not Measured

Coding Instructions: Indicate if the left ventricular internal systolic dimension was not measured pre-procedure.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5609 **Name:** Left Ventricular Internal Diastolic Dimension Not Measured

Coding Instructions: Indicate if the left ventricular internal diastolic dimension was not measured pre-procedure.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5610 **Name:** Posterior Wall Thickness

Coding Instructions: Indicate the pre-procedure posterior wall thickness, in cm, measured at end-diastole.

Note(s):

If more than one posterior wall thickness is available, code the value determined by echocardiography.

Target Value: The last value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5620 **Name:** Aortic Valve Disease - Disease Etiology

Coding Instructions: Indicate primary etiology of aortic valve disease.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
Degenerative	Degenerative includes calcific, senile, and leaflet prolapse.
Endocarditis	
Congenital	
Rheumatic fever	
Primary aortic disease	
LV outflow tract obstruction	
Supravalvular aortic stenosis	
Tumor	
Trauma	
Other	

Supporting Definitions: (none)

Seq. #: 5630 **Name:** Aortic Valve Disease - Aortic Regurgitation

Coding Instructions: Indicate the severity of aortic valve regurgitation.

Note(s):

Code mild-moderate as mild and moderate-severe as moderate.

Reference:
Bonow, R.O, et al. 2008 Focused Updated Incorporated into ACC/AHA 2006 Guidelines for the Management of Patients with Valvular Heart Disease: A Report of the American College of Cardiology /American Heart Association Task force on Practice Guidelines. JACC, vol 52, No. 13, 2008, p. e1-e142.

Target Value: The highest value between 12 months prior to the procedure and start of the procedure

Selections:	*Selection Text*	*Definition*
	None	
	Trace/Trivial	
	Mild	Mild aortic insufficiency or regurgitation is defined as the following: Qualitative Measurements: Angiographic grade of 1+; Color Doppler jet width (Central jet) <25% of LVOT; Dopplar vena contracta width <0.3 cm;. Quantitative Measures (cath or echo) Regurgitant volume <30 ml/beat; Regurgitant fraction <30%; Regurgitant orifice area <0.10 cm(2)
	Moderate	Moderate aortic insufficiency or regurgitation is defined as the following: Qualitative Measurements: Angiographic grade of 2+; Color Doppler jet width greater than mild but no signs of severe aortic regurgitation (insufficiency); Dopplar vena contracta width 0.3-0.6 cm; Quantitative Measures (cath or echo) Regurgitant volume 30-59 ml/beat; Regurgitant fraction 30-49%; Regurgitant orifice area 0.10-0.29 cm(2)
	Severe	Severe aortic insufficiency or regurgitation is defined as the following: Qualitative Measurements: Angiographic grade of 3-4+; Color Doppler jet width (Central jet) >65% of LVOT; Dopplar vena contracta width >0.6 cm;. Quantitative Measures (cath or echo) Regurgitant volume >=60 ml/beat; Regurgitant fraction >=50%; Regurgitant orifice area >=0.30 cm(2) Additional essential criteria: Left ventricular size is increased

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5640 **Name:** Aortic Valve Disease - Valve Morphology

Coding Instructions: Indicate the morphology of the aortic valve.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
Unicuspid	
Bicuspid	
Tricuspid	
Quadracuspid	
Uncertain	

Supporting Definitions: (none)

Seq. #: 5645 **Name:** Aortic Valve Disease - Annular Calcification

Coding Instructions: Indicate if annular calcification is present on the aortic valve.

Code yes if echo reports document calcificaton in the aortic valve leaflets, aorta adjacent to the AV, leaflets or the left ventricular outflow tract (LVOT), or if echo reports document AV calcific degeneration.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5650 **Name:** Aortic Valve Disease - AV Peak Velocity (CW)

Coding Instructions: Indicate the aortic valve peak velocity, in meters per second, as determined by continuous wave (CW) spectral velocity recording on echocardiography.

Target Value: The highest value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5655 **Name:** Aortic Valve Disease - AV Annulus Size

Coding Instructions: Indicate the size, in mm, of the aortic valve annulus.

Note(s):

If more than one size is reported, code the mean.

Target Value: The last value between 12 months prior to the procedure and prior to valve implant

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5660 **Name:** Aortic Valve Disease - AV Annulus Size Assessment Method

Coding Instructions: Indicate the method used to assess the aortic valve annulus size.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
TTE	Transthoracic Echocardiogram
TEE	Transesophageal echocardiogram
CTA	computerized tomographic angiography
Angiography	coronary angiography

Supporting Definitions: (none)

Seq. #: 5665 **Name:** Aortic Stenosis

Coding Instructions: Indicate whether aortic stenosis is present.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5670 **Name:** Aortic Stenosis - AV Area

Coding Instructions: Indicate the smallest aortic valve area (in cm squared) obtained from an echocardiogram or cath report.

Target Value: The lowest value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5675 **Name:** Aortic Stenosis - AV Mean Gradient

Coding Instructions: Indicate the highest MEAN gradient (in mmHg) across the aortic valve obtained from an echocardiogram or angiogram preoperatively.

Target Value: The highest value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5680 **Name:** Aortic Stenosis - AV Peak Gradient

Coding Instructions: Indicate the aortic valve peak gradient in mmHg.

Target Value: The highest value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5685 **Name:** Mitral Valve Disease

Coding Instructions: Indicate whether mitral valve disease is present.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5695 **Name:** Mitral Valve Disease - MV Regurgitation

Coding Instructions: Indicate the severity of mitral valve regurgitation according to the American Society of Echocardiography Guidelines integrated approach.

Target Value: The highest value between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
None	
Trace/Trivial	
Mild	1+/Mild
Moderate	2+/Moderate
Moderate-severe	3+/Moderate-severe
Severe	4+/Severe
Severe(Retired since 7/1/2014)	Retired TVT 2.00

Supporting Definitions: (none)

Seq. #: 5696 **Name:** Paravalvular Severity

Coding Instructions: Indicate the severity of paravalvular mitral regurgitation.

Target Value: The highest value between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
None	
Mild	
Moderate	
Severe	
Not Documented	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5697 **Name:** Valvular Severity

Coding Instructions: Indicate the severity of valvular mitral regurgitation.

Target Value: The highest value between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
None	
Mild	
Moderate	
Severe	
Not Documented	

Supporting Definitions: (none)

Seq. #: 5698 **Name:** Effective Orifice Area (EOA)

Coding Instructions: Indicate the effective orifice area (EOA), in cm2.

Target Value: The highest value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5699 **Name:** Method of Assessment

Coding Instructions: Indicate the method used to assess the effective orifice area. If multiple methods are available, code the 3D planimetry method first, then PISA.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
3D planimetry	Three-dimensional (3D) echocardiography
PISA	Proximal isovelocity surface area (PISA)
Quantitative doppler	
Other	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5705 **Name:** Mitral Valve Disease - Mitral Valve Stenosis

Coding Instructions: Indicate whether mitral stenosis is present.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5710 **Name:** Mitral Valve Stenosis - Mitral Valve Area

Coding Instructions: Indicate the smallest mitral valve area in centimeters squared.

Note(s):

If more than one measurement is available, code the area from the echocardiogram.

Target Value: The highest value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 5715 **Name:** Mitral Valve Mean Gradient

Coding Instructions: Indicate the highest mean gradient (in mm Hg) across the mitral valve.

Note(s):

If more than one measurement is available, code the area from the echocardiogram.

Target Value: The highest value between 12 months prior to the procedure and start of the procedure

Selections: (none)

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5735 **Name:** Tricuspid Valve Disease - Tricuspid Valve Regurgitation

Coding Instructions: Indicate whether there is evidence of tricuspid valve regurgitation. Enter level of valve function associated with highest risk (i.e., worst performance).

Note(s):

Code mild-moderate as mild and moderate-severe as moderate

Target Value: The highest value between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
None	
Trace/Trivial	
Mild	
Moderate	
Severe	Characterized by vena contracta width greater than 0.7 cm and systolic flow reversal in hepatic veins

Supporting Definitions: (none)

Seq. #: 5742 **Name:** Prosthetic Mitral Valve Dysfunction Etiology

Coding Instructions: Indicate the etiology of the prosthetic mitral valve dysfunction.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
Primary/degenerative bioprosthetic valve failure	
Pannus formation	
Thrombus formation	
Other	

Supporting Definitions: (none)

Seq. #: 5745 **Name:** Mitral Valve Disease Etiology - Functional Mitral Regurgitation

Coding Instructions: Indicate if the mitral valve disease etiology was functional. Typically the valve structures (i.e.. leaflets and chord tendinae) are normal in functional mitral regurgitation, but a variety of diseases (such as a prior myocardial infarction or cardiomyopathy) compromises the leaflets ability to coapt (i.e. form a tight seal when closed) and results in mitral regurgitation.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5746 **Name:** Mitral Valve Disease Etiology - Degenerative Mitral Regurgitation

Coding Instructions: Indicate if the mitral valve disease etiology was degenerative. Degenerative mitral valve disease is due to multiple conditions that lead to abnormal leaflets and/or chordae that result and mitral regurgitation. The leaflets may prolapse or flail into the left atrium.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5747 **Name:** Mitral Valve Disease Etiology - Post-Inflammatory

Coding Instructions: Indicate if the mitral valve disease etiology was post - inflammatory.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5748 **Name:** Mitral Valve Disease Etiology - Endocarditis

Coding Instructions: Indicate if the mitral valve disease etiology was endocarditis.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5749 **Name:** Mitral Valve Disease Etiology - Other/Indeterminate

Coding Instructions: Indicate if the mitral valve disease etiology was indeterminant or not otherwise specfied.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5755 **Name:** Functional Mitral Regurgitation Type

Coding Instructions: Indicate the type of functional mitral regurgitation.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
Ischemic-acute, post infarction	
Ischemic-chronic	
Non-ischemic dilated cardiomyopathy	
Restrictive cardiomyopathy	
Hypertrophic cardiomyopathy	
Pure annular dilation (with normal left ventricular systolic function)	
Not Documented	

Supporting Definitions: (none)

Seq. #: 5760 **Name:** Leaflet Prolapse

Coding Instructions: Indicate if there was leaflet prolapse.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
None	
Anterior	
Posterior	
Bi-leaflet	
Not Documented	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5765 **Name:** Leaflet Flail

Coding Instructions: Indicate if there was leaflet flail.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
None	
Anterior	
Posterior	
Bi-leaflet	
Not Documented	

Supporting Definitions: (none)

Seq. #: 5770 **Name:** Inflammatory Type

Coding Instructions: Indicate type of inflammatory mitral valve disease.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
Idiopathic	
Prior radiation therapy	
Collagen vascular disease	
Drug induced	
History of rheumatic fever	
Not Documented	

Supporting Definitions: (none)

Seq. #: 5775 **Name:** Leaflet Tethering

Coding Instructions: Indicate if there was leaflet tethering.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
None	
Anterior	
Posterior	
Bi-leaflet	
Not Documented	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5800 **Name:** Mitral Annular Calcification

Coding Instructions: Indicate if there was mitral annular calcification.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
No	
Yes	
Not Documented	

Supporting Definitions: (none)

Seq. #: 5810 **Name:** Mitral Leaflet Calcification

Coding Instructions: Indicate if there was mitral leaflet calcification.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
No	
Yes	
Not Documented	

Supporting Definitions: (none)

Seq. #: 5820 **Name:** Carpentier's Functional Class of Mitral Regurgitation

Coding Instructions: Indicate the Carpentier's Functional Class of mitral regurgitation.

Target Value: Any occurrence between 12 months prior to the procedure and start of the procedure

Selections:

Selection Text	*Definition*
Type I	
Type II	
Type IIIa	
Type IIIb	
Not Documented	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5900 **Name:** Leaflet Indication - Frailty

Coding Instructions: Indicate if the indication for the leaflet clip procedure was frailty. Frailty must be assessed by an in-person consultation by a cardiac surgeon.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5901 **Name:** Leaflet Indication - Hostile Chest

Coding Instructions: Indicate if the indication for the leaflet clip procedure was hostile chest.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5902 **Name:** Leaflet Indication - Severe Liver Disease (Cirrhosis or MELD score >12)

Coding Instructions: Indicate if the indication for the leaflet clip procedure was severe liver disease, documented by cirrhosis or a “model for end-stage liver disease (MELD) score >12 (which quantifies end stage liver disease).

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5903 **Name:** Leaflet Indication - Porcelain Aorta

Coding Instructions: Indicate if the indication for the leaflet clip procedure was porcelain aorta or extensively calcified ascending aorta. Porcelain aorta must be documented by findings on a chest x-ray, CT scan, fluoroscopy at the time of cardiac catheterization or noted during previous cardiothoracic surgery.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5904 **Name:** Leaflet Indication - Predicted STS MV Replacement Operative Mortality Risk >=8%

Coding Instructions: Indicate if the indication for the leaflet clip procedure was a predicted risk of mortality for surgical mitral valve replacement of >=8% as determined by the Heart Team and based on the Society for Thoracic Surgeon's risk model.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5905 **Name:** Leaflet Indication - Predicted STS MV Repair Operative Mortality Risk >=6%

Coding Instructions: Indicate if the indication for the leaflet clip procedure was a predicted risk of mortality for surgical mitral valve repair of >=6% as determined by the Heart Team and based on the Society for Thoracic Surgeon's risk model.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5906 **Name:** Leaflet Indication - Unusual Extenuating Circumstances

Coding Instructions: Indicate if the indication for the leaflet clip procedure was an unusual extenuating circumstance resulting in prohibitive risk for mitral valve surgery.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5907 **Name:** Other Extenuating Circumstance - Right Ventricular Dysfunction with Severe TR

Coding Instructions: Indicate if the unusual extenuating circumstance included right ventricular dysfunction with severe tricupsid regurgitation resulting in prohibitive risk for mitral valve surgery.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5908 **Name:** Other Extenuating Circumstance - Chemotherapy for Malignancy

Coding Instructions: Indicate if the unusual extenuating circumstance included chemotherapy for malignancy resulting in prohibitive risk for mitral valve surgery.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5909 **Name:** Other Extenuating Circumstance - Major Bleeding Diathesis

Coding Instructions: Indicate if the unusual extenuating circumstance included major bleeding diathesis resulting in prohibitive risk for mitral valve surgery.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5910 **Name:** Other Extenuating Circumstance - Immobililty

Coding Instructions: Indicate if the unusual extenuating circumstance included immobility resulting in prohibitive risk for mitral valve surgery.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5911 **Name:** Other Extenuating Circumstance - AIDS

Coding Instructions: Indicate if the unusual extenuating circumstance included acquired immunodeficiency syndrome (AIDS) resulting in prohibitive risk for mitral valve surgery.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5912 **Name:** Other Extenuating Circumstance - Severe Dementia

Coding Instructions: Indicate if the unusual extenuating circumstance included severe dementia resulting in prohibitive risk for mitral valve surgery.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

D. Pre-Procedure Status

Seq. #: 5913 **Name:** Other Extenuating Circumstance - High Risk of Aspiration

Coding Instructions: Indicate if the unusual extenuating circumstance included that the patient is at high risk for aspiration resulting in prohibitive risk for mitral valve surgery.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5914 **Name:** Other Extenuating Circumstance - IMA at High Risk of Injury

Coding Instructions: Indicate if the unusual extenuating circumstance includes the patient having an internal mammary artery (IMA) at high risk for injury resulting in prohibitive risk for mitral valve surgery.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5915 **Name:** Other Extenuating Circumstance - Other

Coding Instructions: Indicate if the unusual extenuating circumstance includes a reason, not otherwise specified resulting in prohibitive risk for mitral valve surgery.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 5916 **Name:** Other - Specify Reason Why Patient is Prohibitive Risk

Coding Instructions: Indicate if the patient is having a leaflet clip for an "other indication of unusual extenuating circumstance which was not otherwise specified" describe the reason why the patient is at prohibitive risk.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 26060 **Name:** Procedure Room Arrival Date (Mitral Repair)

Coding Instructions: Indicate the date the patient arrived into the procedure room.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 26061 **Name:** Procedure Room Arrival Time (Mitral Repair)

Coding Instructions: Indicate the time the patient arrived into the procedure room.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 26070 **Name:** Anesthesia Induction Time

Coding Instructions: Indicate the time of anesthesia induction.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 26071 **Name:** Anesthesia Discontinuation Time

Coding Instructions: Indicate the time of anesthesia discontinuation.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 26075 **Name:** Procedure Access (Or TEE) Start Time

Coding Instructions: Indicate the time of intravascular catheter or transesophageal echocardiogram (TEE) probe insertion (whichever is first)

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 26076 **Name:** Procedure Access (Or TEE) Stop Time

Coding Instructions: Indicate the time the last catheter, or transesophageal echocardiogram probe was removed (whichever was last).

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 26080 **Name:** Transseptal Access Start Time

Coding Instructions: Indicate the time the septum was accessed.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 26081 **Name:** Septum Crossed Time

Coding Instructions: Indicate the time the septum was crossed.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 26086 **Name:** Steerable Guiding Cath in Intra-Atrial Septum Time

Coding Instructions: Indicate the time the steerable guiding catheter was in the intra-atrial septum.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 26091 **Name:** Delivery System Retracted Time

Coding Instructions: Indicate the time the last delivery system was retracted into the steerable guiding catheter.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 26096 **Name:** Steerable Guiding Cath Device Removal (From Femoral Vein)

Coding Instructions: Indicate the time the steerable guiding catheter was retracted from the femoral vein.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 26105 **Name:** Conversion to Open Heart Surgery (Mitral Repair)

Coding Instructions: Indicate if conversion to open heart surgical access was required.

Target Value: Any occurrence on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 26140 **Name:** Mechanical Assist Device (Mitral Repair)

Coding Instructions: Indicate if the patient was placed on a mechanical assist device.

Target Value: The value between arrival and discharge

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 26141 **Name:** Mechanical Assist Device Timing (Mitral Repair)

Coding Instructions: Indicate when the mechanical assist device was inserted.

Target Value: The value between arrival and discharge

Selections:

Selection Text	*Definition*
Pre-procedure	
Intraprocedure	
Postprocedure	

Supporting Definitions: (none)

Seq. #: 26142 **Name:** Mechanical Assist Device Type (Mitral Repair)

Coding Instructions: Indicate the type of mechanical assist device that was inserted.

Target Value: N/A

Selections:

Selection Text	*Definition*
IABP	
Catheter-based assist device	

Supporting Definitions: (none)

Seq. #: 26180 **Name:** Steerable Guide Model ID

Coding Instructions: Indicate the steerable guide cath model ID utilized during the current procedure.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 26182 **Name:** Steerable Guide Cath Serial Number

Coding Instructions: Indicate the manufacturer serial number for the steerable guide used during the procedure.

Target Value: The value on the current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 26240 **Name:** Leaflet Clip Counter (Mitral Repair)

Coding Instructions: The leaflet clip counter is used to distinguish between multiple leaflet clips attempted or deployed.

Note(s):

The software-assigned leaflet clip counter should start at one and be incremented by one for each clip. The leaflet clip counter is reset back to one for each new Leaflet Clip procedure.

The leaflet clip counter is used to distinguish between multiple clips used during a procedure. At least one clip must be specified for each leaflet clip procedure.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 26245 **Name:** Leaflet Clip Model ID (Mitral Repair)

Coding Instructions: Indicate all leaflet clip model IDs utilized during the current procedure.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 26250 **Name:** Leaflet Clip Serial Number (Mitral Repair)

Coding Instructions: Indicate the leaflet clip delivery system serial number.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 26255 **Name:** Leaflet Clip UDI Direct Identifier (Mitral Repair)

Coding Instructions: [Reserved for Future Use] Indicate the direct identifier portion of the Unique Device Identifier (UDI) associated with the device used during the procedure. This ID is provided by the device manufacturer, and is either a GTIN or HIBBC number.

Note(s):

The direct identifier portion of the UDI (unique device identifier) is provided by the manufacturer, specified at the unit of use. This is not the package barcode. The value should be mapped from your supply chain or inventory management system into this field. Depending on the device and manufacturer, this number could be between 12 to 25 digits.

- GTIN / GS1 standard: numeric, 12 – 14 characters
- HIBCC standard: alphanumeric, 25 characters
- ISBT-128: alphanumeric, 25 characters

If a device was not used, leave blank.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: **UDI:**

An identifier that is the main (primary) lookup for a medical device product and meets the requirements to uniquely identify a device through its distribution and use. This value is supplied to the FDA by the manufacturer.

Http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/UniqueDeviceIdentification/default.htm

Source: FDA.gov

Seq. #: 26260 **Name:** Leaflet Clip UDI Lot Number (Mitral Repair)

Coding Instructions: [Reserved for Future Use] Indicate the lot number associated with the device used during the leaflet clip procedure. This lot number is provided by the device manufacturer, and should be available within your supply chain or EHR system. Lot numbers indicate the specific manufacturing source or process.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 26265 **Name:** Leaflet Clip UDI Expiration Date (Mitral Repair)

Coding Instructions: [Reserved for Future Use] Indicate the expiration date associated with the leaflet clip device used during the procedure. This expiration date is provided by the device manufacturer, and should be available within your supply chain or EHR system.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 26270 **Name:** Location (Mitral Repair)

Coding Instructions: Indicate the location on the mitral valve where the leaflet clip was attached.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
A1P1	
A2P2	
A3P3	

Supporting Definitions: (none)

Seq. #: 26275 **Name:** Leaflet Clip Deployed (Mitral Repair)

Coding Instructions: Indicate if the leaflet clip was deployed.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 26280 **Name:** Leaflet Clip Reason Not Deployed (Mitral Repair)

Coding Instructions: Indicate the reason why the leaflet clip was not deployed.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
Inability to grasp leaflets	
Inability to reduce mitral regurgitation	
Mitral stenosis	
Mitral valve injury	
Device malfunction	
Adverse event	
Other	

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 26285 **Name:** Post-Implant Mitral Regurgitation (Mitral Repair)

Coding Instructions: Indicate the severity of mitral valve regurgitation.

Note(s):

Code mild-moderate as mild.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
None	
Trace/Trivial	
Mild	1+/Mild
Moderate	2+/Moderate
Moderate-severe	3+/Moderate-severe
Severe	4+/Severe

Supporting Definitions: (none)

Seq. #: 26290 **Name:** Post-Implant MV Mean Gradient (Mitral Repair)

Coding Instructions: Indicate the mitral valve mean gradient, in mm Hg.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 26325 **Name:** Auxiliary 9

Coding Instructions: Reserved for future use.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 26330 **Name:** Auxiliary 10

Coding Instructions: Reserved for future use.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 29115 **Name:** Mitral Replacement - Operator Reason for Procedure

Coding Instructions: Indicate the operator's reason for the transcatheter valve replacement procedure.

Note(s):

If choosing between multiple reasons, choose the "most important" or "highest significant" reason or factor.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
Low Risk	Low risk includes patients with a predicted <4% risk of 30 day mortality based on the risk model developed by the Society of Thoracic Surgeons.
Intermediate Risk	Intermediate risk includes patients with a predicted 4%-7% risk of 30 day mortality based on the risk model developed by the Society of Thoracic Surgeons.
High Risk	High risk includes a predicted >=8% risk of mortality within 30 days after the procedure based on the risk model developed by the Society for Thoracic Surgeons.
Inoperable/Extreme Risk	Inoperable/extreme risk includes technically inoperable, co-morbid and debilitated pts.

Supporting Definitions: (none)

Seq. #: 29120 **Name:** Mitral Replacement - Procedure Aborted

Coding Instructions: Indicate whether the current case was canceled or aborted after patient entered the procedure location.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 29125 **Name:** Mitral Replacement - Procedure Aborted Reason

Coding Instructions: Indicate the reason why the current aortic procedure was canceled or aborted.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
Navigation issue after successful access	
Other	
Access related issue	
New clinical findings	
Device or delivery system malfunction	
Patient status/complication of procedure	
Consent issue	
System issue	
Transseptal access related	

Supporting Definitions: (none)

Seq. #: 29127 **Name:** Mitral Replacement - Procedure Aborted Action

Coding Instructions: Indicate the reason or action take as a result of the aborted aortic procedure.

Target Value: The value on the current procedure

Selections:

Selection Text	*Definition*
Balloon Valvuloplasty	
Rescheduled transcatheter procedure	
Conversion to open heart surgery	
Converted to medical therapy	
Converted to clinical trial	
Open heart surgery scheduled	
Other	

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 29130 **Name:** Mitral Replacement - Conversion to Open Heart Surgery

Coding Instructions: Indicate if conversion to open heart surgical access was required.

Note(s):

Open heart surgical access is the creation of an incision to open the chest and provide direct access to the heart. It may or may not involve placing the patient on cardiopulmonary bypass.

Target Value: Any occurrence on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 29135 **Name:** Mitral Replacement - Conversion to Open Heart Surgery Reason

Coding Instructions: Indicate the reason for conversion to open heart surgical access (mitral procedures).

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
Access related problem/injury	
Inability to position device	
Valve injury	
Device embolization	
Tamponade/bleeding in the heart	
Other	

Supporting Definitions: (none)

Seq. #: 29140 **Name:** Mitral Replacement - Mechanical Assist Device

Coding Instructions: Indicate if the patient was placed on a mechanical assist device.

Target Value: The value between arrival and discharge

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 29145 **Name:** Mitral Replacement - Mechanical Assist Device Timing

Coding Instructions: Indicate when the mechanical assist device was inserted.

Target Value: The first value between arrival and discharge

Selections:

Selection Text	*Definition*
Pre-procedure	
Intraprocedure	
Postprocedure	

Supporting Definitions: (none)

Seq. #: 29146 **Name:** Mechanical Assist Device Type

Coding Instructions: Indicate the type of mechanical assist device that was inserted.

Target Value: N/A

Selections:

Selection Text	*Definition*
IABP	
Catheter-based assist device	

Supporting Definitions: (none)

Seq. #: 29180 **Name:** Mitral Replacement - Procedure Access Site

Coding Instructions: Indicate the access site used to perform the mitral procedure.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
Transseptal	
Transapical	
Direct left atrium	
Femoral artery	
Other	

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 29185 **Name:** Pre-Implant Balloon Inflation Performed

Coding Instructions: Indicate if pre-implant balloon inflation was performed.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 29190 **Name:** Significant Hemodynamic Deterioration After Inflation

Coding Instructions: Indicate if significant hemodynamic deterioration occurred after inflation.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 29195 **Name:** Post-Implant Balloon Inflation Performed

Coding Instructions: Indicate if post-implant balloon inflation was performed.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 29200 **Name:** MVR - Device Counter

Coding Instructions: This is a software-assigned value. The counter will start at one and be incremented by one for each device or system used.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 29201 **Name:** MVR - Device Used

Coding Instructions: Indicate all devices (valves, sheaths and delivery systems) utilized during the current procedure. If the valve, sheath and delivery system were separate components, code the manufacturer, model name and number for the sheath and delivery system as well as the manufacturer, model name and number, and serial number for all valves attempted and deployed during the procedure.

Note(s):

Specify the devices in the order they were used.

If a kit is used, do not code the separate components within the kit. Specify the serial number of the valve used from the kit.

If more than one valve is placed (valve-in-valve) during the procedure, specify all devices and corresponding serial numbers (Seq Num 29205).

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 29205 **Name:** MVR - Device Serial Number

Coding Instructions: Indicate the serial number of all valves attempted or implanted into the patient.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 29210 **Name:** MVR - Valve Device UDI Direct Identifier

Coding Instructions: [Reserved for Future Use] Indicate the direct identifier portion of the Unique Device Identifier (UDI) associated with the device used during the procedure. This ID is provided by the device manufacturer, and is either a GTIN or HIBBC number.

Note(s):

The direct identifier portion of the UDI (unique device identifier) is provided by the manufacturer, specified at the unit of use. This is not the package barcode. The value should be mapped from your supply chain or inventory management system into this field. Depending on the device and manufacturer, this number could be between 12 to 25 digits.

- GTIN / GS1 standard: numeric, 12 – 14 characters
- HIBCC standard: alphanumeric, 25 characters
- ISBT-128: alphanumeric, 25 characters

If a device was not used, leave blank.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: **UDI:**

An identifier that is the main (primary) lookup for a medical device product and meets the requirements to uniquely identify a device through its distribution and use. This value is supplied to the FDA by the manufacturer.

Http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/UniqueDeviceIdentification/default.htm

Source: FDA.gov

E. Procedure Information

Seq. #: 29215 **Name:** MVR - Valve Device UDI Lot Number

Coding Instructions: [Reserved for Future Use] Indicate the lot number associated with the device used to close the access site. This lot number is provided by the device manufacturer, and should be available within your supply chain or EHR system. Lot numbers indicate the specific manufacturing source or process.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 29220 **Name:** MVR - Valve Device UDI Expiration Date

Coding Instructions: [Reserved for Future Use] Indicate the expiration date associated with the device used to close the access site. This expiration date is provided by the device manufacturer, and should be available within your supply chain or EHR system.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 29225 **Name:** Mitral Replacement - Device Implanted Successfully

Coding Instructions: Indicate if there is correct positioning of a single prosthetic heart valve in the proper anatomical location.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 29285 **Name:** Mitral Replacement - Post-Implant Mitral Regurgitation

Coding Instructions: Indicate the severity of mitral valve regurgitation.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
None	
Trace/Trivial	
Mild	
Moderate	
Moderate-severe	
Severe	

Supporting Definitions: (none)

Seq. #: 29290 **Name:** Mitral Replacement - Post-Implant MV Mean Gradient

Coding Instructions: Indicate the mitral valve mean gradient, in mm Hg.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 29295 **Name:** Mitral Replacement - Contrast Volume

Coding Instructions: Indicate the volume of contrast (ionic and non-ionic) used in milliliters (ml). The volume recorded should be the total volume for the procedure.

Target Value: The total between start of the procedure and end of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 29325 **Name:** Auxiliary 11

Coding Instructions: Reserved for future use.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 29330 **Name:** Auxiliary 12

Coding Instructions: Reserved for future use.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 6000 **Name:** TVT Operator A Last Name

Coding Instructions: Indicate the last name of TVT implant operator A.

Note(s):

At least one operator is required.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 6005 **Name:** TVT Operator A First Name

Coding Instructions: Indicate the first name of TVT implant operator A.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 6010 **Name:** TVT Operator A Middle Name

Coding Instructions: Indicate the middle name of TVT implant operator A.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 6015 **Name:** TVT Operator A NPI

Coding Instructions: Indicate the National Provider Identifer (NPI) of TVT implant operator A.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 6020 **Name:** TVT Operator B Last Name

Coding Instructions: Indicate the last name of TVT implant operator B.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 6025 **Name:** TVT Operator B First Name

Coding Instructions: Indicate the first name of TVT implant operator B.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 6030 **Name:** TVT Operator B Middle Name

Coding Instructions: Indicate the middle name of TVT implant operator B.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 6035 **Name:** TVT Operator B NPI

Coding Instructions: Indicate the National Provider Idenifier (NPI) of TVT implant operator B.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 6040 **Name:** Procedure Start Date

Coding Instructions: Indicate the date of the procedure. The index procedure is defined as the initial transcatheter valve procedure of the hospitalization.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 6041 **Name:** Procedure Start Time

Coding Instructions: Indicate the time the procedure started.

Target Value: N/A

Selections: (none)

Supporting Definitions: **Procedure Start Time:**

The time the procedure started is defined as the time at which local anesthetic was first administered for vascular access, or the time of the first attempt at vascular access for the procedure (use whichever is earlier).

Code the skin incision time for transapical approaches (or procedure room/OR entry time if skin incision time is not documented). Code the procedure room/OR entry time as the procedure start time for aborted cases that had no local anesthesia or vascular access.

Source: NCDR

Seq. #: 6045 **Name:** Procedure Stop Date

Coding Instructions: Indicate the date the patient exits the procedure room.

Target Value: The last value on current procedure

Selections: (none)

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 6046 **Name:** Procedure Stop Time

Coding Instructions: Indicate the time the patient exits the procedure room.

Note(s):

Indicate the time (hours:minutes) using the military 24-hour clock, beginning at midnight (00:00 hours).

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 6050 **Name:** Procedure Location

Coding Instructions: Indicate the location where the procedure was performed.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
Hybrid OR Suite	A hybrid room situated in the surgical suite.
Hybrid Cath Lab Suite	A hybrid procedure room situated in the catheterization laboratory.
Cath Lab	
Other	

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 6055 **Name:** Procedure Status

Coding Instructions: Indicate the clinical status of the patient prior to the procedure.

Target Value: The highest value on current procedure

Selections:

Selection Text	*Definition*
Elective	The patient's cardiac function has been stable in the days or weeks prior to the operation. The procedure could be deferred without increased risk of compromised cardiac outcome.
Urgent	Procedure required during same hospitalization in order to minimize chance of further clinical deterioration. Examples include but are not limited to: Worsening, sudden chest pain, HF, acute myocardial infarction (AMI), anatomy, IABP, unstable angina (USA) with intravenous (IV) nitroglycerin (NTG) or rest angina.
Emergency	Patients requiring emergency operations will have ongoing, refractory (difficult, complicated, and/or unmanageable) unrelenting cardiac compromise, with or without hemodynamic instability, and not responsive to any form of therapy except cardiac surgery. An emergency operation is one in which there should be no delay in providing operative intervention.
Salvage	The patient is undergoing CPR en route to the procedure or prior to anesthesia induction or has ongoing ECMO to maintain life.

Supporting Definitions: (none)

Seq. #: 6060 **Name:** Primary Procedure Indication

Coding Instructions: Indicate the PRIMARY indication for the procedure. (Choose the most significant if more than one is present.)

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
Primary Aortic Stenosis	
Primary Aortic Insuffiency	
Mixed AS/AI	
Failed Bioprosthetic Valve	

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 6065 **Name:** Valve-in-Valve Procedure

Coding Instructions: Indicate if a "valve-in-valve" procedure was performed during the procedure.

Note(s):

A "valve-in-valve" procedure implies that the patient has a previously implanted bioprosthetic valve, and the procedure you are documenting is now an additional bioprosthetic valve replacement.

Target Value: Any occurrence on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 6070 **Name:** Valve-in-Valve Status

Coding Instructions: Indicate the status of the valve-in-valve procedure.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
Elective	A planned TAVR typically for degenerated previously surgically implanted bioprosthesis. Elective procedures can also include a previously TAVR valve.
Immediate intraprocedure	An unplanned TAVR usually when a first TAVR has been implanted but immediately it is recognized that there is either acute valve failure or the implant was too high or too low immediately requiring a second TAVR.

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 6071 **Name:** Operator Reason for Procedure

Coding Instructions: Indicate the operator's reason for the transcatheter valve replacement procedure.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
Low Risk	Low risk includes patients with a predicted <4% risk of 30 day mortality based on the risk model developed by the Society of Thoracic Surgeons.
Intermediate Risk	Intermediate risk includes patients with a predicted 4%-7% risk of 30 day mortality based on the risk model developed by the Society of Thoracic Surgeons.
High risk	High risk includes a predicted >=8% risk of mortality within 30 days after the procedure based on the risk model developed by the Society for Thoracic Surgeons.
Inoperable/Extreme Risk	Inoperable/extreme risk includes technically inoperable, co-morbid and debilitated pts.
Patient preference	Retired TVT 2.00
Inoperable (technical)	Retired TVT 2.00 Inoperable (technical) Examples can include situations where the surgeon may decide that the operation cannot be performed successfully because of technical considerations such as prior mediastinal irradiation, porcelain aorta, severe periannular calcification, severe aortic atheromatous disease, prior cardiac operations, internal mammary artery crossing the midline.
Prohibitive risk (debilitated/deconditioned patient)	Retired TVT 2.00 Examples can include frailty and related conditions of advanced age, debility and deconditioning that are known to result in the inability to recover from surgical AVR. Prohibitive risk includes a predicted >=50% risk of mortality or irreversible mortality at 30 days based on the STS risk calculator.
Prohibitive risk (co-morbid conditions)	Retired TVT 2.00 Examples can include presence of endocarditis, history of previous cardiac surgery, pulmonary hypertension/chronic obstructive pulmonary disease, presence of hepatic dysfunction/ primary liver disease, malignancy, dementia and other conditions that lead to a limited life expectency. Prohibitive risk includes a predicted >=50% risk of mortality or irreversible mortality at 30 days based on the STS risk calculator.
Other	Retired TVT 2.00

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 6072 **Name:** Evaluation of Suitability for Open AVR by Two Surgeons

Coding Instructions: Indicate if two surgeons evaluated the suitability for open heart aortic valve replacement surgery.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 6075 **Name:** Procedure Aborted

Coding Instructions: Indicate whether the current case was canceled or aborted after patient entered the procedure location.

Target Value: Any occurrence on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 6080 **Name:** Procedure Aborted Reason

Coding Instructions: Indicate the reason why the current aortic procedure was canceled or aborted.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
Access related issue	Examples include difficult access (arterial access, transapical or transaortic access).
Navigation issue after successful access	Examples include inability to advance through ilio-femoral system due to vessel size/tortuousity/calcification/disease; inability to navigate aorta; and inability to cross aortic valve.
New clinical findings	New clinical findings include findings that are not access or navigation related issues. Examples include annulus too large or small, thrombus or vegetation on valve, aortic valve not felt to be severely stenosed.
Device or delivery system malfunction	Examples include malfunction of either the device or delivery system.
Patient status/complication of procedure	Examples include a patient becoming hemodynamically unstable during the procedure, a patient having an adverse medication or other reaction, or a patient experiencing another complication prior to completion of the procedure.
Consent issue	Examples include patient/family or physician decision after start of case.
System issue	Examples can include an equipment (not device) malfunction (such as x-ray system equipment malfunction), or a situation where an emergency surgical case causes the transcatheter case to be aborted and rescheduled after the patient was in the room but prior to the case starting.
Other	

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 6082 **Name:** Procedure Aborted Action

Coding Instructions: Indicate the reason or action take as a result of the aborted aortic procedure.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
Balloon valvuloplasty	
Rescheduled transcatheter procedure	
Conversion to open heart surgery	
Converted to medical therapy	
Converted to clinical trial	
Other	

Supporting Definitions: (none)

Seq. #: 6085 **Name:** Conversion to Open Heart Surgery

Coding Instructions: Indicate if conversion to open heart surgical access was required.

Note(s):

Open heart surgical access is the creation of an incision to open the chest and provide direct access to the heart. It may or may not involve placing the patient on cardiopulmonary bypass.

Target Value: Any occurrence on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 6090 **Name:** Conversion to Open Heart Surgery Reason (Aortic)

Coding Instructions: Indicate the reason for conversion to open heart surgical access (aortic procedures).

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
Valve dislodged to aorta	
Valve dislodged to left ventricle	
Venticular rupture	
Annulus rupture	
Aortic dissection	
Coronary occlusion	
Other	

Supporting Definitions: (none)

Seq. #: 6095 **Name:** Mechanical Assist Device in Place at Start of Procedure

Coding Instructions: Indicate if that patient had a mechanical assist device in place at the start of the procedure.

Target Value: The value on start of procedure

Selections:

Selection Text	*Definition*
No	No mechanical assist device was in place at the start of the procedure.
Yes - IABP	Intra-aortic balloon pump in place at the start of the procedure.
Yes - Catheter-based assist device	Catheter based assist device in place at start of the procedure. Examples include Impella and Tandem Heart.

Supporting Definitions: (none)

Seq. #: 6100 **Name:** CardioPulmonary Bypass Used

Coding Instructions: Indicate if cardiopulmonary bypass or coronary perfusion was used during the procedure.

Target Value: Any occurrence on the procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 6101 **Name:** CardioPulmonary Bypass Status

Coding Instructions: Indicate if the use of cardiopulmonary bypass was elective or emergent.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
Elective	Cardiopulmonary bypass was planned as part of the procedure.
Emergent	Cardiopulmonary bypass was unplanned, and was initiated during the procedure.

Supporting Definitions: (none)

Seq. #: 6105 **Name:** Cardiopulmonary Bypass Time

Coding Instructions: Indicate the total number of minutes that systemic return is diverted into the cardiopulmonary bypass (CPB) circuit and returned to the systemic system. This time period (Cardiopulmonary Bypass Time) includes all periods of cerebral perfusion and sucker bypass. This time period (Cardiopulmonary Bypass Time) excludes any circulatory arrest and modified ultrafiltration periods. If more than one period of CPB is required during the procedure, the sum of all the CPB periods will equal the total number of CPB minutes.

Target Value: The total between start of the procedure and end of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 6110 **Name:** Anesthesia Type

Coding Instructions: Indicate the type of anesthesia used for the procedure.

Target Value: The value on start of procedure

Selections:

Selection Text	*Definition*
Moderate sedation	
General anesthesia	
Epidural	
Combination	

Supporting Definitions:

Moderate Sedation/Analgesia ("Conscious Sedation"):

Moderate Sedation/Analgesia ("Conscious Sedation") is a drug-induced depression of consciousness during which patients respond purposefully** to verbal commands, either alone or accompanied by light tactile stimulation. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is usually maintained.

Source: American Society of Anesthesiologists http://www.asahq.org/publicationsAndServices/standards/20.pdf

General Anesthesia:

General Anesthesia is a drug-induced loss of consciousness during which patients are not arousable, even by painful stimulation. The ability to independently maintain ventilatory function is often impaired. Patients often require assistance in maintaining a patent airway, and positive pressure ventilation may be required because of depressed spontaneous ventilation or drug-induced depression of neuromuscular function. Cardiovascular function may be impaired.

Source: American Society of Anesthesiologists http://www.asahq.org/publicationsAndServices/standards/20.pdf

E. Procedure Information

Seq. #: 6120 **Name:** Intra-Procedure Medication

Coding Instructions: Indicate which medications the patient received during the procedure.

Target Value: Any occurrence between start of the procedure and end of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 6125 **Name:** Intra-Procedure Medication Administered

Coding Instructions: Indicate whether the patient received the medication during the procedure.

Note(s):

If a medication is contraindicated it needs to be documented in the chart by the physician or other responsible care giver. The reason for contraindication does not need to be documented.

Target Value: Any occurrence between start of the procedure and end of the procedure

Selections:

Selection Text	*Definition*
No	
Yes	
Contraindicated	
Blinded	

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 6200 **Name:** Valve Sheath Access Site (Aortic)

Coding Instructions: Indicate the access site for the valve sheath.

Target Value: Any occurrence on current procedure

Selections:

Selection Text	*Definition*
Femoral	
Axillary	
Transapical	
Transaortic	
Subclavian	
Transiliac	
Transeptal	
Transcarotid	
Transcaval	
Other	

Supporting Definitions: (none)

Seq. #: 6205 **Name:** Valve Sheath Access Method

Coding Instructions: Indicate the access method used to deliver the valve sheath.

Target Value: Any occurrence on current procedure

Selections:

Selection Text	*Definition*
Percutaneous	
Cutdown	
Mini thoracotomy	
Mini sternotomy	
Other	

Supporting Definitions: (none)

Seq. #: 6210 **Name:** Valve Sheath Delivery Size

Coding Instructions: Indicate the size, in french, of the valve sheath delivery system.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 6212 **Name:** Leaflet Clip Guiding Cath Access Site

Coding Instructions: Indicate the leaflet clip guiding catheter access site.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
Right femoral vein	
Left femoral vein	
Jugular vein	
Other vein	

Supporting Definitions: (none)

Seq. #: 6220 **Name:** Device Counter

Coding Instructions: This is a software-assigned value. The counter will start at one and be incremented by one for each device or system used.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 6225 **Name:** Device Used

Coding Instructions: Indicate all devices (valves, sheaths and delivery systems) utilized during the current procedure. If the valve, sheath and delivery system were separate components, code the manufacturer, model name and number for the sheath and delivery system as well as the manufacturer, model name and number, and serial number for all valves attempted and deployed during the procedure.

Note(s):

Specify the devices in the order they were used.

If a kit is used, do not code the separate components within the kit. Specify the serial number of the valve used from the kit.

If more than one valve is placed (valve-in-valve) during the procedure, specify all devices and corresponding serial numbers (Seq Num 6230).

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 6230 **Name:** Device Serial Number

Coding Instructions: Indicate the serial number of all valves attempted or implanted into the patient.

Note(s):

Serial numbers are only required for valves. If a kit is used, specify the serial number of the valve used from the kit.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 6232 **Name:** Device Implanted Successfully

Coding Instructions: Indicate if there is correct positioning of a single prosthetic heart valve in the proper anatomical location.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 6235 **Name:** Device Success

Coding Instructions: Indicate if the device deployment was successful, as defined by the Standardized Endpoint Definitions for Transcatheter Aortic Valve Implantation Clinical Trials (JACC, 2011, vol 57, No 3).

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions:

Transcatheter Valve Device Success:

Device Success is defined as all of the following:

1. Successful vascular access, delivery and deployment of the device and successful retrieval of the delivery system,
2. Correct position of the device in the proper anatomical location,
3. Intended performance of the prosthetic heart valve (aortic valve area >1.2 cm2 and mean aortic valve gradient <20 mm Hg or peak velocity <3 m/s, without moderate or severe prosthetic valve AR),
4. Only one valve implanted in the proper anatomical location.

Source: Standardized Endpoint Definitions for Transcatheter Aortic Valve Implantation Clinical Trials (JACC, 2011, vol 57, No 3)

E. Procedure Information

Seq. #: 6236 **Name:** Valve Device UDI Direct Identifier

Coding Instructions: [Reserved for Future Use] Indicate the direct identifier portion of the Unique Device Identifier (UDI) associated with the device used during the procedure. This ID is provided by the device manufacturer, and is either a GTIN or HIBBC number.

Note(s):

The direct identifier portion of the UDI (unique device identifier) is provided by the manufacturer, specified at the unit of use. This is not the package barcode. The value should be mapped from your supply chain or inventory management system into this field. Depending on the device and manufacturer, this number could be between 12 to 25 digits.

- GTIN / GS1 standard: numeric, 12 – 14 characters
- HIBCC standard: alphanumeric, 25 characters
- ISBT-128: alphanumeric, 25 characters

If a device was not used, leave blank.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: **UDI:**

An identifier that is the main (primary) lookup for a medical device product and meets the requirements to uniquely identify a device through its distribution and use. This value is supplied to the FDA by the manufacturer.

Http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/UniqueDeviceIdentification/default.htm

Source: FDA.gov

Seq. #: 6237 **Name:** Valve Device UDI Lot Number

Coding Instructions: [Reserved for Future Use] Indicate the lot number associated with the device used to close the access site. This lot number is provided by the device manufacturer, and should be available within your supply chain or EHR system. Lot numbers indicate the specific manufacturing source or process.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 6238 **Name:** Valve Device UDI Expiration Date

Coding Instructions: [Reserved for Future Use] Indicate the expiration date associated with the device used to close the access site. This expiration date is provided by the device manufacturer, and should be available within your supply chain or EHR system.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 6385 **Name:** Post-Implant Mean Aortic Valve Gradient

Coding Instructions: Indicate the post-implant mean aortic valve gradient in mmHg.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 6395 **Name:** Post-Implant Calculated Aortic Valve Area

Coding Instructions: Indicate the post-implant calculated aortic valve area, in centimeters squared.

Target Value: The value on current procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 6450 **Name:** Contrast Volume

Coding Instructions: Indicate the volume of contrast (ionic and non-ionic) used in milliliters (ml). The volume recorded should be the total volume for the procedure.

Target Value: The total between start of the procedure and end of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 6455 **Name:** Radiation Dose Measurement Method

Coding Instructions: Indicate the method used to collect the radiation dose.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
Single Plane	
Biplane	

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 6460 **Name:** Fluoroscopy Time

Coding Instructions: Indicate the total fluoroscopy time recorded to the nearest 0.1 minute.

Note(s):

Please collect Fluoroscopy Time, Reference Air Kerma and Kerma Area Product values, if available.

Target Value: The total between start of the procedure and end of the procedure

Selections: (none)

Supporting Definitions: (none)

Seq. #: 6465 **Name:** Fluoroscopy Dose - Cumulative Air Kerma

Coding Instructions: Indicate the total radiation dose (Cumulative Air Kerma, or Reference Air Kerma) recorded to the nearest milligrays (mGy). The value recorded should include the total dose for the lab visit.

Note(s):

Please collect Fluoroscopy Time, Cumulative Air Kerma and Dose Area Product values, if available.

If biplane equipment is used, collect the total dose of both planes and add them together.

Target Value: The total between start of the procedure and end of the procedure

Selections: (none)

Supporting Definitions: **Cumulative (Reference) Air kerma:**

Cumulative air kerma (also known as reference, reference dose, cumulative dose, or cumulative dose at a reference point) is the air kerma accumulated at a specific point in space (the patient entrance reference point) relative to the gantry of the fluoroscopy system.

The quantity, kerma, originated from the acronym, KERMA, for Kinetic Energy Released per unit MAss (of air).

Source: Miller DL, Balter S, Cole PE, et al. Radiation doses in interventional radiology procedures: the RAD-IR study. I. Overall measures of dose. J Vasc Interv Radiol 2003; 14:711–727.

Seq. #: 6470 **Name:** Fluoroscopy Dose - Dose Area Product

Coding Instructions: Indicate the total radiation Dose Area Product (kerma area product) to the nearest integer. The value recorded should include the total dose for the lab visit.

Note(s):

Please collect Fluoroscopy Time, Cumulative Air Kerma and Dose Area Product values, if available.

If biplane equipment is used, collect the total dose of both planes and add them together.

Target Value: The total between start of the procedure and end of the procedure

Selections: (none)

Supporting Definitions: **Dose Air Product (DAP):**

Dose Air Product, is the integral of air kerma (the energy extracted from an x-ray beam per unit mass of air in a small irradiated air volume; for diagnostic xrays, the dose delivered to that volume of air) across the entire x-ray beam emitted from the x-ray tube. It is a surrogate measure of the amount of energy delivered to the patient.

Also known as KAP (Kerma Air Product).

Source: Miller DL, Balter S, Cole PE, et al. Radiation doses in interventional radiology procedures: the RAD-IR study. I. Overall measures of dose. J Vasc Interv Radiol 2003; 14:711–727.

E. Procedure Information

Seq. #: 6475 **Name:** Dose Area Product Units

Coding Instructions: Indicate the units reported for radiation Dose Area Product (Kerma area product).

Target Value: N/A

Selections:

Selection Text	*Definition*
Gy-cm2	
cGy-cm2	
mGy-cm2	
uGy-M2	

Supporting Definitions: (none)

Seq. #: 6505 **Name:** Auxiliary 5

Coding Instructions: Reserved for future use.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 6510 **Name:** Auxiliary 6

Coding Instructions: Reserved for future use.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 6600 **Name:** Procedure - Transcatheter Aortic Valve Replacement (TAVR)

Coding Instructions: Indicate if a transcatheter aortic valve replacement procedure was being performed.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

E. Procedure Information

Seq. #: 6601 **Name:** Procedure - Transcatheter Mitral Valve Replacement

Coding Instructions: Indicate if a transcatheter mitral valve replacement procedure was being performed.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 6602 **Name:** Procedure - Mitral Leaflet Clip Procedure

Coding Instructions: Indicate if a mitral leaflet clip procedure was being performed.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 6620 **Name:** Other Procedure Performed Concurrently

Coding Instructions: Indicate if an other procedure was performed concurrently.

Target Value: The value on current procedure

Selections:

Selection Text	*Definition*
No	
Yes - PCI	
Yes - Other	

Supporting Definitions: (none)

F. Adverse Events/Interventions/Surgical Procedures

Seq. #: 7300 **Name:** Intra or Post Procedure Event Occurred

Coding Instructions: Indicate if any intra or post procedure event occurred.

Target Value: Any occurrence between start of the procedure and discharge

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 7301 **Name:** Intra or Post Procedure Event ID

Coding Instructions: Indicate all adverse events, interventions or surgical procedures that occurred intra or post procedure.

Note(s):

If an event occurred more than once, specify each event with its corresponding Intra/Post Procedure Event Date (Seq Number 7302).

Target Value: The value between start of procedure and discharge

Selections: (none)

Supporting Definitions: (none)

Seq. #: 7302 **Name:** Intra or Post Procedure Event Date

Coding Instructions:

Indicate the date of any adverse events, interventions, or surgical procedures that occurred intra or post procedure.

Note(s):

If an event occurred more than once, specify each Intra/Post Procedure Event ID (7301) with its corresponding date.

Target Value: The value between start of procedure and discharge

Selections: (none)

Supporting Definitions: (none)

G. Post-Procedure Labs and Tests

Seq. #: 8040 **Name:** Post-Procedure Hemoglobin

Coding Instructions: Indicate the lowest post-procedure hemoglobin level in g/dL.

Target Value: The lowest value between end of procedure and discharge

Selections: (none)

Supporting Definitions: (none)

Seq. #: 8041 **Name:** Post-Procedure Hemoglobin Not Drawn

Coding Instructions: Indicate if a post procedure hemoglobin level was not drawn.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	Code "Yes" if the lab was not drawn.

Supporting Definitions: (none)

Seq. #: 8050 **Name:** Post-Procedure Creatinine Level

Coding Instructions: Indicate the highest postoperative creatinine level, in mg/dL. If more than one level is obtained, code the highest level.

Target Value: The highest value between end of procedure and discharge

Selections: (none)

Supporting Definitions: (none)

Seq. #: 8051 **Name:** Post-Procedure Creatinine Level Not Drawn

Coding Instructions: Indicate if a post procedure creatinine level was not drawn.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	Code "Yes" if the lab was not drawn.

Supporting Definitions: (none)

G. Post-Procedure Labs and Tests

Seq. #: 8055 **Name:** Discharge Creatinine

Coding Instructions: Indicate the last post-procedure creatinine level documented in the medical record prior to discharge, in mg/dL.

Target Value: The last value between end of procedure and discharge

Selections: (none)

Supporting Definitions: (none)

Seq. #: 8056 **Name:** Discharge Creatinine Not Drawn

Coding Instructions: Indicate if a discharge creatinine level was not drawn.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	Code "Yes" if the lab was not drawn.

Supporting Definitions: (none)

Seq. #: 8060 **Name:** Post-Procedure 12 Lead ECG

Coding Instructions: Indicate the post procedure 12 lead ECG findings, if performed. If more than one ECG is performed, document the findings from the ECG closest to discharge.

Target Value: The last value between end of procedure and discharge

Selections:

Selection Text	*Definition*
Not performed	
No significant changes	
New pathological Q-wave or LBBB	

Supporting Definitions: (none)

G. Post-Procedure Labs and Tests

Seq. #: 8065 **Name:** Post-Procedure Echocardiogram

Coding Instructions: Indicate whether an echo (and the type of echo) was performed postoperatively prior to discharge.

Note(s):

If both types of echos were performed, code "Yes - Tranesophageal Echocardiogram".

Target Value: Any occurrence between end of the procedure and discharge

Selections:

Selection Text	*Definition*
Not Performed	
Yes - TTE	Yes - Transthoracic Echocardiogram
Yes - TEE	Yes - Tranesophageal Echocardiogram

Supporting Definitions: (none)

Seq. #: 8070 **Name:** Post-Procedure Echocardiogram Date

Coding Instructions: Indicate the date the echo was performed.

Target Value: The value between end of procedure and discharge

Selections: (none)

Supporting Definitions: (none)

Seq. #: 8075 **Name:** Post-Procedure Mitral Regurgitation

Coding Instructions: Indicate the highest level of mitral regurgitation found on echocardiogram prior to discharge.

Note(s):

Code mild-moderate as mild.

Target Value: The highest value between end of procedure and discharge

Selections:

Selection Text	*Definition*
None	
Trace/Trivial	
Mild	1+/Mild
Moderate	2+/Moderate
Moderate-Severe	3+/Moderate-severe
Severe	4+/Severe
Severe(Retired since 7/1/2014)	Retired TVT 2.00

Supporting Definitions: (none)

G. Post-Procedure Labs and Tests

Seq. #: 8080 **Name:** Post-Procedure Aortic Stenosis

Coding Instructions: Indicate whether aortic stenosis is present.

Target Value: Any occurrence between end of the procedure and discharge

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 8085 **Name:** Post-Procedure Aortic Valve Area

Coding Instructions: Indicate the smallest aortic valve area (in cm2) obtained from an echocardiogram.

Target Value: The lowest value between end of procedure and discharge

Selections: (none)

Supporting Definitions: (none)

Seq. #: 8086 **Name:** Post-Procedure Aortic Valve Peak Velocity

Coding Instructions: Indicate the aortic valve peak velocity in meters per second, as determined by continuous wave (CW) spectral velocity recording on echocardiography.

Target Value: The highest value between end procedure and discharge

Selections: (none)

Supporting Definitions: (none)

Seq. #: 8090 **Name:** Post-Procedure Aortic Valve Mean Gradient

Coding Instructions: Indicate the aortic valve mean gradient in mmHg obtained from echocardiogram.

Target Value: The highest value between end of procedure and discharge

Selections: (none)

Supporting Definitions: (none)

G. Post-Procedure Labs and Tests

Seq. #: 8095 **Name:** Post-Procedure Aortic Regurgitation

Coding Instructions: Indicate the highest level of aortic regurgitation found on the echocardiogram.

Note(s):

Code mild-moderate as mild and moderate-severe as moderate.

Reference:
Bonow, R.O, et al. 2008 Focused Updated Incorporated into ACC/AHA 2006 Guidelines for the Management of Patients with Valvular Heart Disease: A Report of the American College of Cardiology /American Heart Association Task force on Practice Guidelines. JACC, vol 52, No. 13, 2008, p. e1-e142.

Target Value: The highest value between end of procedure and discharge

Selections:

Selection Text	*Definition*
None	
Trace/Trivial	
Mild	Mild aortic insufficiency or regurgitation is defined as the following: Qualitative Measurements: Angiographic grade of 1+; Color Doppler jet width (Central jet) <25% of LVOT; Dopplar vena contracta width <0.3 cm;. Quantitative Measures (cath or echo) Regurgitant volume <30 ml/beat; Regurgitant fraction <30%; Regurgitant orifice area <0.10 cm(2)
Moderate	Moderate aortic insufficiency or regurgitation is defined as the following: Qualitative Measurements: Angiographic grade of 2+; Color Doppler jet width greater than mild but no signs of severe aortic regurgitation (insufficiency); Dopplar vena contracta width 0.3-0.6 cm; Quantitative Measures (cath or echo) Regurgitant volume 30-59 ml/beat; Regurgitant fraction 30-49%; Regurgitant orifice area 0.10-0.29 cm(2)
Severe	Severe aortic insufficiency or regurgitation is defined as the following: Qualitative Measurements: Angiographic grade of 3-4+; Color Doppler jet width (Central jet) >65% of LVOT; Dopplar vena contracta width >0.6 cm;. Quantitative Measures (cath or echo) Regurgitant volume >=60 ml/beat; Regurgitant fraction >=50%; Regurgitant orifice area >=0.30 cm(2) Additional essential criteria: Left ventricular size is increased

Supporting Definitions:

G. Post-Procedure Labs and Tests

(none)

Seq. #: 8106 **Name:** TAVR - Paravalvular Severity

Coding Instructions: Indicate the highest severity of paravalvular aortic insufficiency.

Target Value: The highest value between end of procedure and discharge

Selections:

Selection Text	*Definition*
None	
Mild	
Moderate	
Severe	
Not Documented	

Supporting Definitions: (none)

Seq. #: 8107 **Name:** TAVR - Valvular Severity

Coding Instructions: Indicate the highest severity of central aortic insufficiency.

Target Value: The highest value between end of procedure and discharge

Selections:

Selection Text	*Definition*
None	
Mild	
Moderate	
Severe	
Not Documented	

Supporting Definitions: (none)

Seq. #: 8112 **Name:** Mitral Replacement - Paravalvular Severity

Coding Instructions: Indicate the highest severity of paravalvular mitral regurgitation.

Target Value: The highest value between end of current procedure and discharge

Selections:

Selection Text	*Definition*
None	
Mild	
Moderate	
Severe	
Not Documented	

Supporting Definitions: (none)

G. Post-Procedure Labs and Tests

Seq. #: 8115 **Name:** Mitral Replacement - Valvular Severity

Coding Instructions: Indicate the highest severity of valvular mitral aortic regurgitation.

Target Value: The highest value between end of current procedure and discharge

Selections:

Selection Text	*Definition*
None	
Mild	
Moderate	
Severe	
Not Documented	

Supporting Definitions: (none)

Seq. #: 8122 **Name:** Effective Orifice Area (EOA)

Coding Instructions: Indicate the effective orifice area (EOA), in cm2.

Target Value: The highest value on discharge

Selections: (none)

Supporting Definitions: (none)

Seq. #: 8125 **Name:** EOA Method Of Assessment

Coding Instructions: Indicate the method used to measure the effective orifice area.

Target Value: The highest value between end of current procedure and discharge

Selections:

Selection Text	*Definition*
3D Planimetry	Three-dimensional (3D) echocardiography
PISA	Proximal isovelocity surface area (PISA)
Quantitative Doppler	
Other	

Supporting Definitions: (none)

Seq. #: 8130 **Name:** Mitral Valve Mean Gradient

Coding Instructions: Indicate the highest mean gradient (in mm Hg) across the mitral valve.

Target Value: The highest value between end of current procedure and discharge

Selections: (none)

Supporting Definitions: (none)

G. Post-Procedure Labs and Tests

Seq. #: 8135 **Name:** Mitral Valve Area

Coding Instructions: Indicate the smallest mitral valve area in centimeters squared.

Target Value: (None)

Selections: (none)

Supporting Definitions: (none)

Seq. #: 8140 **Name:** Left Ventricular Outflow Tract Gradient (Peak)

Coding Instructions: Indicate the peak gradient of the left ventricular outflow tract.

Target Value: The highest value between end of current procedure and discharge

Selections: (none)

Supporting Definitions: (none)

Seq. #: 8145 **Name:** Systolic Anterior Motion Present

Coding Instructions: Indicate if systolic anterior motion was present.

Target Value: Any occurrence between end of current procedure and discharge

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

H. Discharge

Seq. #: 9011 **Name:** RBC/Whole Blood Transfusion

Coding Instructions: Indicate if there was a transfusion of either whole blood or packed red blood cells.

Target Value: Any occurrence between start of the procedure and discharge

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 9012 **Name:** RBC/Whole Blood Transfusion Units Transfused

Coding Instructions: Indicate the total number of units transfused of either whole blood and/or packed red blood cells.

Note(s):

Do not include autologous, cell-saver or chest tube recirculated blood.

Target Value: The total between start of the procedure and discharge

Selections: (none)

Supporting Definitions: (none)

Seq. #: 9040 **Name:** Number of Hours in ICU

Coding Instructions: Indicate the total number of hours spent in the intensive care unit. Do not include hours spent in a telemetry or step-down unit.

Target Value: The total between end of the procedure and discharge

Selections: (none)

Supporting Definitions: (none)

Seq. #: 9045 **Name:** Discharge Date

Coding Instructions: Indicate the date on which the patient was discharged from your facility.

Note(s):

If the deceased is an organ donor, code the Discharge Date as the date of the final organ harvest.

Target Value: The value on discharge

Selections: (none)

Supporting Definitions: (none)

H. Discharge

Seq. #: 9050 **Name:** Discharge Status

Coding Instructions: Indicate whether the patient was alive or deceased at discharge.

Target Value: The value on discharge

Selections:

Selection Text	*Definition*
Alive	
Deceased	

Supporting Definitions: (none)

Seq. #: 9055 **Name:** Discharge Location

Coding Instructions: Indicate the location to where the patient was discharged.

Target Value: The value on discharge

Selections:

Selection Text	*Definition*
Home	
Extended care/TCU/rehab	Continued “non-acute” care at an extended care facility, transitional care unit, or rehabilitation unit.
Other acute care hospital	
Nursing home	
Hospice	
Other	
Left against medical advice	The patient was discharged or eloped against medical advice.

Supporting Definitions: (none)

Seq. #: 9060 **Name:** Death in Lab/OR

Coding Instructions: If the patient expired during this hospitalization, indicate if the patient expired in the cath lab, operating room or hybrid suite.

Target Value: The value on discharge

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

H. Discharge

Seq. #: 9065 **Name:** Primary Cause of Death

Coding Instructions: Select the PRIMARY cause of death, i.e. the first significant abnormal event which ultimately led to death.

Target Value: The value on discharge

Selections:

Selection Text	*Definition*
Cardiac	
Neurologic	
Renal	
Vascular	
Infection	
Valvular	
Pulmonary	
Unknown	
Other	

Supporting Definitions: (none)

Seq. #: 9100 **Name:** Discharge Medication

Coding Instructions: Indicate which of the following medications were prescribed at discharge.

Target Value: Any occurrence on discharge

Selections: (none)

Supporting Definitions: (none)

Seq. #: 9105 **Name:** Discharge Medication Administered

Coding Instructions: Indicate if the medication was administered, not administered, contraindicated or blinded.

Note(s):

If a medication is contraindicated it needs to be documented in the chart by the physician or other responsible care giver. The reason for contraindication does not need to be documented.

Target Value: The value on discharge

Selections:

Selection Text	*Definition*
No	
Yes	
Contraindicated	
Blinded	

Supporting Definitions: (none)

H. Discharge

Seq. #: 9110 **Name:** Medication Dose at Discharge

Coding Instructions: Specify the total daily dose of the medication prescribed at discharge.

Target Value: The value on discharge

Selections: (none)

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10000 **Name:** Follow-up Assessment Date

Coding Instructions: Indicate the date the follow-up assessment was performed.

Target Value: The value on follow-up

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10005 **Name:** Follow-up Assessment Method

Coding Instructions: Indicate the primary method to determine patient status at follow-up.

Target Value: Any occurrence on follow-up

Selections:

Selection Text	*Definition*
Clinic	
Medical record	
Letter from medical provider	
Phone call to patient/family	
Social Security Death master File	
Other	

Supporting Definitions: (none)

Seq. #: 10008 **Name:** Follow-up Residence

Coding Instructions: Indicate the primary residence of the patient during the follow-up period. If the primary residence is not available, code not documented.

Target Value: The value on follow-up

Selections:

Selection Text	*Definition*
Home with no health-aid	
Home with health aid	
Long term care	
Other	
Not Documented	

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10010 **Name:** Follow-up Status

Coding Instructions: Indicate whether the patient was alive or deceased at the date the follow-up was performed.

Target Value: Any occurrence on follow-up

Selections:

Selection Text	*Definition*
Alive	
Deceased	
Lost to follow-up	
Withdrawn	

Supporting Definitions: (none)

Seq. #: 10015 **Name:** Follow-up Primary Cause of Death

Coding Instructions: Indicate the PRIMARY cause of death (i.e. the first significant event which ultimately led to death).

Target Value: Any occurrence on follow-up

Selections:

Selection Text	*Definition*
Cardiac	
Neurologic	
Renal	
Vascular	
Infection	
Valvular	
Pulmonary	
Unknown	
Other	

Supporting Definitions: (none)

Seq. #: 10020 **Name:** Follow-up Date of Death

Coding Instructions: Indicate the date the patient was declared dead.

Target Value: The value on follow-up

Selections: (none)

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10085 **Name:** Follow-up Hemoglobin

Coding Instructions: Indicate the hemoglobin value in g/dL collected at follow-up. A hemoglobin level should be collected on all patients to assess for bleeding events as a result of the procedure.

Target Value: The last value on follow-up

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10086 **Name:** Follow-up Hemoglobin Not Drawn

Coding Instructions: Indicate if a hemoglobin level was not drawn during the follow-up period.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	Code "Yes" if the lab was not drawn.

Supporting Definitions: (none)

Seq. #: 10090 **Name:** Follow-up Creatinine

Coding Instructions: Indicate the creatinine level collected at follow-up, in mg/dL. A creatinine level should be collected on all patients to determine kidney injury as a result of the procedure.

Target Value: The last value on follow-up

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10091 **Name:** Follow-up Creatinine Not Drawn

Coding Instructions: Indicate if a creatinine level was not drawn during the follow-up period.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	Code "Yes" if the lab was not drawn.

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10100 **Name:** Follow-up NYHA Classification

Coding Instructions: Indicate the patient's functional class, coded as the New York Heart Association (NYHA) classification at follow-up.

Target Value: The highest value on follow-up

Selections:

Selection Text	*Definition*
I	Patient has cardiac disease but without resulting limitations of ordinary physical activity. Ordinary physical activity (e.g., walking several blocks or climbing stairs) does not cause undue fatigue, palpitation, dyspnea, or anginal pain. Limiting symptoms may occur with marked exertion.
II	Patient has cardiac disease resulting in slight limitation of ordinary physical activity. Patient is comfortable at rest. Ordinary physical activity such as walking more than two blocks or climbing more than one flight of stairs results in limiting symptoms (e.g., fatigue, palpitation, dyspnea, or anginal pain).
III	Patient has cardiac disease resulting in marked limitation of physical activity. Patient is comfortable at rest. Less than ordinary physical activity (e.g., walking one to two level blocks or climbing one flight of stairs) causes fatigue, palpitation, dyspnea, or anginal pain.
IV	Patient has symptoms at rest that increase with any physical activity. Patient has cardiac disease resulting in inability to perform any physical activity without discomfort. Symptoms may be present even at rest. If any physical activity is undertaken, discomfort is increased.

Supporting Definitions: (none)

Seq. #: 10135 **Name:** Follow-up Five Meter Walk Test Performed

Coding Instructions: Indicate whether the five meter walk test was performed during the follow-up period.

Target Value: Any occurrence on follow-up

Selections:

Selection Text	*Definition*
Not performed	
Yes	The five meter walk test was performed.
Unable to walk	Five meter walk was not performed because the patient is unable to walk.

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10140 **Name:** Follow-up Five Meter Walk Test Time 1

Coding Instructions: Indicate the time in seconds it takes the patient to walk 5 meters for the first of three tests.

Target Value: The value on follow-up

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10145 **Name:** Follow-up Five Meter Walk Test Time 2

Coding Instructions: Indicate the time in seconds it takes the patient to walk 5 meters for the second of three tests.

Target Value: The value on follow-up

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10150 **Name:** Follow-up Five Meter Walk Test Time 3

Coding Instructions: Indicate the time in seconds it takes the patient to walk 5 meters for the third of three tests.

Target Value: The value on follow-up

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10155 **Name:** Follow-up 12-Lead ECG Findings

Coding Instructions: Indicate the 12 lead ECG findings during the follow-up period.

Target Value: Any occurrence on follow-up

Selections:

Selection Text	*Definition*
Not performed	
No significant changes	
New changes noted	

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10160 **Name:** Follow-up 12-Lead ECG Changes Noted

Coding Instructions: Indicate the ECG changes noted on the follow-up ECG.

Target Value: Any occurrence on follow-up

Selections:

Selection Text	*Definition*
Pathological Q-wave or LBBB	New pathologic q-waves and/or new left bundle branch block.
Arrhythmia	New onset of atrial or ventricular arrhythmia requiring medication or other therapy.
Both	

Supporting Definitions: (none)

Seq. #: 10206 **Name:** Follow-up Echocardiogram

Coding Instructions: Indicate if an echocardiogram has been performed.

Target Value: Any occurrence on follow-up

Selections:

Selection Text	*Definition*
Not Performed	
Yes - TTE	
Yes - TEE	

Supporting Definitions: (none)

Seq. #: 10207 **Name:** Follow-up Date

Coding Instructions: Indicate the date the echocardiogram was performed. If more than one echocardiogram has been performed since discharge or the last follow-up period, code the date of the most recent echo.

Target Value: The last value on follow-up

Selections: (none)

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10210 **Name:** Follow-up LVEF

Coding Instructions: Indicate the left ventricular ejection fraction (LVEF), or the percentage of the blood emptied from the left ventricle at the end of the contraction.

Use the most recent echocardiogram documented. Enter a percentage in the range of 1 - 99.
If a percentage range is reported, report a whole number using the "mean" (i.e., 50-55%, is reported as 53%).
If only a descriptive value is reported, (i.e., normal), enter the corresponding percentage value from the list below:

Normal = 60%
Good function = 50%
Mildly reduced = 45%
Fair function = 40%
Moderately reduced = 30%
Poor function = 25%
Severely reduced = 20%

Target Value: The last value on follow-up

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10211 **Name:** Follow-up LVEF Not Assessed

Coding Instructions: Indicate whether the left ventricular ejection fraction was not assessed.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 10215 **Name:** Follow-up Aortic Valve Mean Gradient

Coding Instructions: Indicate the aortic valve mean gradient in mmHg captured on echocardiogram since discharge or the last follow-up period.

Target Value: The last value on follow-up

Selections: (none)

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10220 **Name:** Follow-up Aortic Regurtitation Severity

Coding Instructions: Indicate the highest level of aortic regurgitation found on echo since discharge or the last follow-up period.

Note(s):

Code mild-moderate as mild and moderate-severe as moderate.

Target Value: The highest value on follow-up

Selections:

Selection Text	*Definition*
None	
Trace/Trivial	
Mild	
Moderate	
Severe	

Supporting Definitions: (none)

Seq. #: 10225 **Name:** Follow-up Aortic Regurgitation Paravalvular Severity

Coding Instructions: Indicate the highest severity of perivalvular leak found on echo since discharge or the last follow-up period.

Target Value: The highest value on follow-up

Selections:

Selection Text	*Definition*
None	
Mild	
Moderate	
Severe	
Not Documented	

Supporting Definitions: (none)

Seq. #: 10227 **Name:** Follow-up Aortic Regurgitation Central Severity

Coding Instructions: Indicate the highest severity of central leak found on echo since discharge or the last follow-up period.

Target Value: The highest value on follow-up

Selections:

Selection Text	*Definition*
None	
Mild	
Moderate	
Severe	
Not Documented	

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10230 **Name:** Follow-Up KCCQ-12 Patient Questionnaire Performed

Coding Instructions: Indicate if the follow-up Kansas City Cardiomyopathy Questionnaire (KCCQ-12) was performed.

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 10243, Follow-Up KCCQ-12 Overall Summary Score.

Target Value: Any occurrence on follow-up

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 10231 **Name:** Follow-Up KCCQ-12 Question 1a

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 1a.

Heart Failure Limitation - Showering/bathing

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 10243, Follow-Up KCCQ-12 Overall Summary Score.

Target Value: The value on follow-up

Selections:

Selection Text	*Definition*
Extremely limited	
Quite a bit limited	
Moderately limited	
Slightly limited	
Not at all limited	
Limited for other reasons or did not do the activity	

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10232 **Name:** Follow-Up KCCQ-12 Question 1b

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 1b.

Heart Failure Limitation - Walking 1 block on level ground

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 10243, Follow-Up KCCQ-12 Overall Summary Score.

Target Value: The value on follow-up

Selections:

Selection Text	*Definition*
Extremely limited	
Quite a bit limited	
Moderately limited	
Slightly limited	
Not at all limited	
Limited for other reasons or did not do the activity	

Supporting Definitions: (none)

Seq. #: 10233 **Name:** Follow-Up KCCQ-12 Question 1c

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 1c.

Heart Failure Limitation - Hurrying or jogging

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 10243, Follow-Up KCCQ-12 Overall Summary Score.

Target Value: The value on follow-up

Selections:

Selection Text	*Definition*
Extremely limited	
Quite a bit limited	
Moderately limited	
Slightly limited	
Not at all limited	
Limited for other reasons or did not do the activity	

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10234 **Name:** Follow-Up KCCQ-12 Question 2

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 2.

Symptom Frequency - Swelling in legs

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 10243, Follow-Up KCCQ-12 Overall Summary Score.

Target Value: The value on follow-up

Selections:

Selection Text	*Definition*
Every morning	
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	

Supporting Definitions: (none)

Seq. #: 10235 **Name:** Follow-Up KCCQ-12 Question 3

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 3.

Symptom Frequency - Fatigue

Target Value: The value on follow-up

Selections:

Selection Text	*Definition*
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	

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10236 **Name:** Follow-Up KCCQ-12 Question 4

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 4.

Symptom Frequency - shortness of breath

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 10243, Follow-Up KCCQ-12 Overall Summary Score.

Target Value: The value on follow-up

Selections:

Selection Text	*Definition*
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	

Supporting Definitions: (none)

Seq. #: 10237 **Name:** Follow-Up KCCQ-12 Question 5

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 5.

Symptom Frequency - sleep sitting up due to shortness of breath

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 10243, Follow-Up KCCQ-12 Overall Summary Score.

Target Value: The value on follow-up

Selections:

Selection Text	*Definition*
Every night	
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	

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10238 **Name:** Follow-Up KCCQ-12 Question 6

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 6.

Quality of Life - effect on enjoyment of life due to heart failure

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 10243, Follow-Up KCCQ-12 Overall Summary Score.

Target Value: The value on follow-up

Selections:

Selection Text	*Definition*
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	

Supporting Definitions: (none)

Seq. #: 10239 **Name:** Follow-Up KCCQ-12 Question 7

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 7.

Quality of life - remaining life with heart failure

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 10243, Follow-Up KCCQ-12 Overall Summary Score.

Target Value: The value on follow-up

Selections:

Selection Text	*Definition*
Not at all satisfied	
Mostly dissatisfied	
Somewhat satisfied	
Mostly satisfied	
Completely satisfied	

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10240 **Name:** Follow-Up KCCQ-12 Question 8a

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 8a.

Social limitation - hobbies, recreational activities

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 10243, Follow-Up KCCQ-12 Overall Summary Score.

Target Value: The value on follow-up

Selections:

Selection Text	*Definition*
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	

Supporting Definitions: (none)

Seq. #: 10241 **Name:** Follow-Up KCCQ-12 Question 8b

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 8b.

Social limitation - working or doing household chores

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 10243, Follow-Up KCCQ-12 Overall Summary Score.

Target Value: The value on follow-up

Selections:

Selection Text	*Definition*
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	

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10242 **Name:** Follow-Up KCCQ-12 Question 8c

Coding Instructions: Indicate the patient's response to the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Question 8c.

Social limitation - visiting family or friends

Note(s):

Please refer to the separate KCCQ-12 questionnaire for patient instructions. For additional information on scoring, please refer to Seq Num 10243, Follow-Up KCCQ-12 Overall Summary Score.

Target Value: The value on follow-up

Selections:

Selection Text	*Definition*
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	

Supporting Definitions: (none)

Seq. #: 10243 **Name:** Follow-Up KCCQ Overall Summary Score

Coding Instructions: (Auto Calculated) This field is auto-populated by your application.

Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Overall Summary Score.

Note(s):

The 12 patient responses are reduced into four summary scores (Physical Limitation Score, Symptom Frequency Score, Quality of Life Score, Social Limitation Score). The four summary scores are used to calculate the Overall Summary Score.

For more information, please refer to the KCCQ-12 Scoring Instructions document provided by the STS/ACC TVT Registry.

Target Value: The value on follow-up

Selections: (none)

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10245 **Name:** Follow-Up Event Occurred

Coding Instructions: Indicate if any adverse event, intervention, or surgical procedures occurred between discharge and follow-up, or between follow-up assessment periods.

Target Value: Any occurrence on follow-up

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 10246 **Name:** Follow-Up Event ID

Coding Instructions: Indicate all adverse events, interventions or surgical procedures that occurred between discharge and 30-day follow-up, or between follow-up assessment periods.

Note(s):

If an event occurred more than once, specify each event with its corresponding Follow-Up Event Date (Seq Number 10247).

Target Value: The value on follow-up

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10247 **Name:** Follow-Up Event Date

Coding Instructions: Indicate the date of any adverse events, interventions, or surgical procedures that occurred between discharge and 30-day follow-up, or between follow-up assessment periods.

Note(s):

If an event occurred more than once, specify each Follow-Up Event ID (10246) with its corresponding date.

If month or day are unknown, enter 01

Target Value: The value on follow-up

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10250 **Name:** Follow-up Medication

Coding Instructions: Indicate which of the following medications has been prescribed for the patient during the follow-up period.

Target Value: Any occurrence on follow-up

Selections: (none)

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10255 **Name:** Follow-up Medication Administered

Coding Instructions: Indicate if the medication was administered, not administered, contraindicated or blinded when considered during the follow-up period.

Note(s):

If a medication is contraindicated it needs to be documented in the chart by the physician or other responsible care giver. The reason for contraindication does not need to be documented.

Target Value: The value on follow-up

Selections:

Selection Text	*Definition*
No	
Yes	
Contraindicated	
Blinded	

Supporting Definitions: (none)

Seq. #: 10257 **Name:** Follow-up Medication Dose

Coding Instructions: Specify the total daily dose of the medication the patient was taking routinely at follow-up for this procedure.

Target Value: The value on follow-up

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10260 **Name:** Auxiliary 7

Coding Instructions: Reserved for future use.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10265 **Name:** Auxiliary 8

Coding Instructions: Reserved for future use.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10300 **Name:** Follow-up Mitral Regurgitation

Coding Instructions: Indicate the level of mitral regurgitation found on echocardiogram in the last follow-up period.

Note(s):

Code mild-moderate as mild.

Target Value: The highest value on follow-up

Selections:

Selection Text	*Definition*
None	
Trace/Trivial	
Mild	1+/Mild
Moderate	2+/Moderate
Moderate-severe	3+/Moderate-severe
Severe	4+/Severe
Severe(Retired since 7/1/2014)	Retired TVT 2.00

Supporting Definitions: (none)

Seq. #: 10305 **Name:** Follow-up Paravalvular Severity

Coding Instructions: Indicate the highest severity of paravalvular mitral regurgitation.

Target Value: The highest value on follow-up

Selections:

Selection Text	*Definition*
None	
Mild	
Moderate	
Severe	
Not Documented	

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10310 **Name:** Follow-up Valvular Severity

Coding Instructions: Indicate the highest severity of valvular mitral regurgitation.

Target Value: The highest value on follow-up

Selections:

Selection Text	*Definition*
None	
Mild	
Moderate	
Severe	
Not Documented	

Supporting Definitions: (none)

Seq. #: 10315 **Name:** Follow-up Effective Orifice Area (EOA)

Coding Instructions: Indicate the effective orifice area (EOA), in cm2.

Target Value: The highest value on follow-up

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10320 **Name:** Follow-up Effective Orifice Area Method of Assessment

Coding Instructions: Indicate the method used to measure the effective orifice area.

Target Value: The highest value on follow-up

Selections:

Selection Text	*Definition*
3D Planimetry	Three-dimensional (3D) echocardiography
PISA	Proximal isovelocity surface area (PISA)
Quantitative Doppler	
Other	

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10325 **Name:** Follow-up Mitral Valve Area

Coding Instructions: Indicate the smallest mitral valve area in cm2.

Target Value: The value on follow-up

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10330 **Name:** Follow-up Mean Mitral Gradient

Coding Instructions: Indicate the mean gradient (in mm Hg) across the mitral valve.

Target Value: The value on follow-up

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10335 **Name:** Follow-up Left Atrial Volume

Coding Instructions: Indicate the left atrial volume in ml, documented by echocardiogram. If the left atrial volume index is documented, leave this field blank.

Target Value: The value on follow-up

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10340 **Name:** Follow-up Left Atrial Volume Index

Coding Instructions: Indicate the left atrial volume index in mL/m2, documented by echocardiogram. If the left atrial volume is documented, leave this field blank.

Target Value: The value on follow-up

Selections: (none)

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10345 **Name:** Follow-up Left Ventricular Internal Systolic Dimension

Coding Instructions: Indicate the left ventricular internal systolic dimension in cm.

Target Value: The value on follow-up

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10346 **Name:** Follow-up Left Ventricular Internal Systolic Dimension Not Measured

Coding Instructions: Indicate if the left ventricular internal systolic dimension in cm was not measured at follow-up.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 10350 **Name:** Follow-up Left Ventricular Internal Diastolic Dimension

Coding Instructions: Indicate the left ventricular internal diastolic dimension in cm at follow-up. If more than one LV internal diastolic diameter is available, code the value determined by echocardiography.

Target Value: The value on follow-up

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10351 **Name:** Follow-up Left Ventricular Internal Diastolic Dimension Not Measured

Coding Instructions: Indicate if the left ventricular internal diastolic dimension in cm was not measured at follow-up.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10355 **Name:** Follow-up Left Ventricular End Systolic Volume

Coding Instructions: Indicate the left ventricular end systolic volume in ml, documented by echocardiogram at follow-up.

Target Value: The value on follow-up

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10356 **Name:** Follow-up Left Ventricular End Systolic Volume Not Measured

Coding Instructions: Indicate if the left ventricular end systolic volume in ml was not measured at follow-up.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 10360 **Name:** Follow-up Left Ventricular End Diastolic Volume

Coding Instructions: Indicate the left ventricular end diastolic volume in ml, documented by echocardiogram at follow-up.

Target Value: The value on follow-up

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10361 **Name:** Follow-up Left Ventricular End Diastolic Volume Not Measured

Coding Instructions: Indicate the left ventricular end diastolic volume in ml, documented by echocardiogram was not measured at follow-up.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10365 **Name:** Follow-up Tricuspid Regurgitation

Coding Instructions: Indicate whether there is evidence of tricuspid valve regurgitation. Enter level of valve function associated with highest risk (i.e., worst performance).

Target Value: The value on follow-up

Selections:

Selection Text	*Definition*
None	
Trace/Trivial	
Mild	
Moderate	
Severe	

Supporting Definitions: (none)

Seq. #: 10370 **Name:** Left Ventricular Outflow Tract Gradient (Peak)

Coding Instructions: Indicate the peak gradient of the left ventricular outflow tract at follow-up.

Target Value: The value on follow-up

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10375 **Name:** Systolic Anterior Motion Present

Coding Instructions: Indicate if systolic anterior motion was present at follow-up.

Target Value: The value on follow-up

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

I. Follow-Up

Seq. #: 10380 **Name:** Follow-Up Six Minute Walk Test Performed

Coding Instructions: Indicate whether the six minute walk test was performed at follow-up.

Target Value: Any occurrence on follow-up

Selections:

Selection Text	*Definition*
Performed	
Not performed – unable to walk	
Not performed – cardiac reason (SOB)	
Not performed – patient not willing to walk	
Not performed by site	

Supporting Definitions: (none)

Seq. #: 10385 **Name:** Follow-Up Six Minute Walk Test Date

Coding Instructions: Indicate the date the six minute walk test was performed at follow-up.

Target Value: The value on follow-up

Selections: (none)

Supporting Definitions: (none)

Seq. #: 10390 **Name:** Follow-Up Total Distance

Coding Instructions: Indicate the total distance, in feet, the patient walked at follow-up.

Target Value: The value on follow-up

Selections: (none)

Supporting Definitions: (none)

J. Adjudication

Seq. #: 12000 **Name:** Adjudication Event

Coding Instructions: Indicate the event being adjudicated.

Target Value: N/A

Selections:

Selection Text	*Definition*
Ischemic Stroke (In-hospital)	
Hemorrhagic Stroke (In-hospital)	
Undetermined Stroke (In-hospital)	
TIA (In-hospital)	
Aortic Valve Re-intervention (In-hospital)	
Mitral Valve Re-intervention (In-hospital)	
Ischemic Stroke (F-U)	
Hemorrhagic Stroke (F-U)	
Undetermined Stroke (F-U)	
TIA (F-U)	
Aortic Valve Re-intervention (F-U)	
Mitral Valve Re-intervention (F-U)	
Readmission - Heart Failure (F-U)	
To Be Updated in TVT 1.3	

Supporting Definitions: (none)

Seq. #: 12005 **Name:** Event Date

Coding Instructions: Indicate the clinical event date that occurred during any procedures or during any follow-ups

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

J. Adjudication

Seq. #: 12010 **Name:** Adjudication Status

Coding Instructions: Indicate whether the patient was alive or deceased on the date the adjudication was performed.

Target Value: N/A

Selections:

Selection Text	*Definition*
Alive	
Deceased	

Supporting Definitions: (none)

Seq. #: 12011 **Name:** Adjudication Date of Death

Coding Instructions: Indicate the date the patient was declared dead.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 12015 **Name:** Date of Symptom Onset

Coding Instructions: Indicate the date of symptom onset of the neurologic deficit.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 12020 **Name:** Neurologic Deficit with Rapid Onset

Coding Instructions: Indicate if the patient had a sudden onset of a focal or global neurologic deficit (regardless of the duration of symptoms) with at least one of the following present: change in level of consciousness, hemiplegia, hemiparesis, numbness or sensory loss affecting one side of the body, dysphasia or aphasia, hemianopia, amaurosis fugax, other neurological signs or symptoms consistent with a stroke.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

J. Adjudication

Seq. #: 12025 **Name:** Neurologic Deficit Clinical Presentation

Coding Instructions: Indicate the clinical presentation of the neurologic deficit.

Target Value: N/A

Selections:

Selection Text	*Definition*
Stroke/TIA	An acute episode of focal or neurological dysfunction caused by presumed brain, spinal cord, or retinal vascular injury as a result of ischemia, hemorrhage or infarction.
Non-Stroke	Neurologic deficits due to non-stroke cause such as a brain tumor, trauma, infection, hypoglycemia, peripheral lesion, pharmacological influence.

Supporting Definitions: (none)

Seq. #: 12030 **Name:** Neurologic Symptom Duration >= 24 hours

Coding Instructions: Indicate if the duration of the neurologic symptoms lasted >= 24 hours.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 12040 **Name:** Neuroimaging Performed

Coding Instructions: Indicate if neuroimaging such as CT, MRI, cerebral angiography was performed.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

J. Adjudication

Seq. #: 12045 **Name:** Neuroimaging Deficit Type

Coding Instructions: Indicate the type of deficit found as a result of the neuroimaging study.

Target Value: N/A

Selections:

Selection Text	*Definition*
No deficit	
Infarction	
Hemorrhage	
Both	
Subarachnoid Hemorrhage	

Supporting Definitions: (none)

Seq. #: 12055 **Name:** Neurologist/Neurosurgeon Confirmation of Diagnosis

Coding Instructions: Indicate if the diagnosis of stroke was confirmed on formal consultation by a neurologist or neurosurgeon.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 12056 **Name:** Social/Recreational Activities Impaired

Coding Instructions: Indicate if the neurologic deficit led to an impairment in the ability to carry out social and or recreational activities (as compared to prior to the event). For example, the patient can no longer play bridge with friends or cannot drive.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

J. Adjudication

Seq. #: 12057 **Name:** Neurocognitive Functions Essential to Patient Impaired

Coding Instructions: Indicate if the neurologic deficit led to an impairment of neurocognitive functions that are essential to the patient and/or their livelihood (as compared to prior to the event). Examples include a pianist who cannot play the piano, accountant who cannot perform mental math, or an individual who now needs help paying bills.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 12058 **Name:** New Aids or Assistance Required

Coding Instructions: Indicate if the patient required new aids or assistance as a result of the new neurologic event. For example, the patient now needs to use a cane, brace or walker or they need assistance with activities of daily living.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 12060 **Name:** Death as a Result of Neurologic Deficit

Coding Instructions: Indicate if the neurologic event resulted in death of the patient.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	

Supporting Definitions: (none)

Seq. #: 12065 **Name:** Stroke TIA Clinical Comments

Coding Instructions: Provide information and details that may assist in assessing this stroke or TIA outcome.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

J. Adjudication

Seq. #: 12105 **Name:** Aortic Valve Re-intervention Type

Coding Instructions: Indicate the type of aortic valve re-intervention.

Target Value: N/A

Selections:

Selection Text	*Definition*
Surgical AV Repair/Replacement	
Balloon Valvuloplasty	
Transcatheter AVR	
Other Transcatheter Intervention	

Supporting Definitions: (none)

Seq. #: 12110 **Name:** Transcatheter Intervention Type

Coding Instructions: Indicate the type of "other" aortic transcatheter intervention. (Such as a procedure that deploys an occluder or plug for aortic regurgitation.) This does not include surgical aortic valve repair/replacements, transcatheter AV replacments or AV balloon valvuloplasties.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 12115 **Name:** Aortic Valve Re-intervention Primary Indication

Coding Instructions: Indicate the primary indication for the re-intervention. If more than one indication is present, code the indication the operator feels has the highest significance.

Target Value: N/A

Selections:

Selection Text	*Definition*
Aortic insufficiency	
Aortic stenosis	
Device migration	
Device fracture	
Endocarditis	
Valve thrombosis	
Other	

Supporting Definitions: (none)

J. Adjudication

Seq. #: 12120 **Name:** Aortic Valve Re-intervention Aortic Regurgitation Severity

Coding Instructions: Indicate the highest level of aortic regurgitation prior to the aortic valve re-intervention.

Note(s):

Mild-to-moderate should be coded as moderate; moderate to severe should be coded as severe.

Target Value: N/A

Selections:

Selection Text	*Definition*
None	
Trace/Trivial	
Mild	
Moderate	
Severe	

Supporting Definitions: (none)

Seq. #: 12125 **Name:** Aortic Valve Re-intervention Aortic Regurtitation Perivalvular Severity

Coding Instructions: Indicate the highest severity of paravalvular leak prior to the aortic valve re-intervention.

Target Value: N/A

Selections:

Selection Text	*Definition*
None	
Mild	
Moderate	
Severe	
Not Documented	

Supporting Definitions: (none)

Seq. #: 12130 **Name:** Aortic Valve Re-intervention Aortic Regurtitation Valvular Severity

Coding Instructions: Indicate the highest severity of central leak prior to the aortic valve re-intervention.

Target Value: N/A

Selections:

Selection Text	*Definition*
None	
Mild	
Moderate	
Severe	
Not Documented	

Supporting Definitions: (none)

J. Adjudication

Seq. #: 12135 **Name:** Aortic Valve Re-intervention Aortic Stenosis Severity

Coding Instructions: Indicate the highest severity of aortic stenosis prior to the aortic valve re-intervention.

Target Value: N/A

Selections:

Selection Text	*Definition*
Possible stenosis	VARC criteria for possible, or moderate, aortic valve stenosis includes any of the following in conditions of normal or near normal stroke volume (50-70 ml): 1. Peak velocity*: 3-4 m/s; 2. Mean gradient*: 20-35 mm Hg; 3. Doppler velocity index 0.29-0.25; 4. Effective orifice area: 1.2-0.8 cm2; 5. Contour of the jet velocity through the prosthetic valve: triangular to intermediate; 6. Acceleration time: 80-100 ms * Note: These parameters are more affected by flow, including concomitant aortic regurgitation.
Significant stenosis	VARC criteria for significant, or severe, aortic valve stenosis includes any of the following in conditions of normal or near normal stroke volume (50-70 ml): 1. Peak velocity*: >4 m/s; 2. Mean gradient*: >35 mm Hg; 3. Doppler velocity index <0.25; 4. Effective orifice area: <0.80 cm2; 5. Contour of the jet velocity through the prosthetic valve: rounded symmetrical contour; 6. Acceleration time: >100 ms * Note: These parameters are more affected by flow, including concomitant aortic regurgitation. Source: Standardized Endpoint Definitions for Transcatheter Aortic Valve Implantation Clinical Trials (JACC, 2011, vol 57, No 3)

Supporting Definitions: (none)

Seq. #: 12140 **Name:** Aortic Valve Re-intervention Other Indication

Coding Instructions: Specify the other indication for the aortic valve re-intervention.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

J. Adjudication

Seq. #: 12145 **Name:** Aortic Valve Re-intervention Clinical Comments

Coding Instructions: Provide information and details that may assist in assessing this repeat intervention.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 12200 **Name:** Mitral Valve Re-intervention Type

Coding Instructions: Indicate the type of mitral valve re-intervention.

Target Value: N/A

Selections:

Selection Text	*Definition*
Surgical mitral valve repair	
Surgical mitral valve replacement	
Transcatheter mitral valve repair	
Transcatheter mitral valve replacement	
Leaflet clip procedure	
Other transcatheter intervention	

Supporting Definitions: (none)

Seq. #: 12205 **Name:** Other Type

Coding Instructions: Indicate the type of "other" transcatheter mitral valve intervention. This does not include surgical mitral valve repair/replacements, transcatheter MV replacements or MV balloon valvuloplasties.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

J. Adjudication

Seq. #: 12210 **Name:** Mitral Valve Re-intervention Indication

Coding Instructions: Indicate the primary indication for the re-intervention. If more than one indication is present, code the indication the operator feels has the highest significance.

Target Value: N/A

Selections:

Selection Text	*Definition*
Mitral regurgitation	
Mitral stensis	
Mitral valve injury	
Device migration	
Device embolization	
Device fracture	
Endocarditis	
Device thrombosis	
Other	

Supporting Definitions: (none)

Seq. #: 12215 **Name:** Mitral Valve Re-intervention Other Indication

Coding Instructions: Specify the other indication for the mitral valve re-intervention.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 12220 **Name:** Mitral Valve Re-intervention Clinical Comments

Coding Instructions: Provide information and details that may assist in assessing this repeat intervention.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

J. Adjudication

Seq. #: 12225 **Name:** Hospitalization>=24 Hours

Coding Instructions: Indicate if the heart failure readmission required the patient to be hospitalized with treatment in any inpatient unit or ward in the hospital for at least 24 hours, including emergency department stay.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	
Information not available	

Supporting Definitions: (none)

Seq. #: 12230 **Name:** Clinical Signs or Sx of Heart Failure

Coding Instructions: Indicate if the patient had clinical signs and/or symptoms of heart failure, including new or worsening dyspnea, orthopnea, paroxysmal nocturnal dyspnea, increasing fatigue, worsening functional capacity or activity intolerance, or signs and/or symptoms of volume overload.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	
Information not available	

Supporting Definitions: (none)

Seq. #: 12335 **Name:** IV or Invasive Treatment Required

Coding Instructions: Indicate if the patient had signs and symptoms that resulted in intravenous (e.g, diuretic or vasoactive therapy) or invasive (e.g., ultrafiltration, IABP, mechanical assistance) treatment for heart failure.

Target Value: N/A

Selections:

Selection Text	*Definition*
No	
Yes	
Information not available	

Supporting Definitions: (none)

Z. Administration

Seq. #: 1000 **Name:** Participant ID

Coding Instructions: Indicate the participant ID of the submitting facility.

Target Value: N/A

Selections: (none)

Supporting Definitions: **Participant ID:**

Participant ID is a unique number assigned to each database participant. A database participant is defined as one entity that signs a Participation Agreement, submits one data submission file to the harvest, and receives one report on their data.

Each participant's data if submitted to harvest must be in one data submission file for a quarter. If one participant keeps their data in more than one file (e.g. at two sites), then the data must be combined into a single data submission to the system to file for the harvest. If two or more participants share a single purchased software, and enter cases into one database, then the data must be exported into different data submission files, one for each participant ID.

Source: NCDR

Seq. #: 1010 **Name:** Participant Name

Coding Instructions: Indicate the full name of the facility.

Target Value: N/A

Selections: (none)

Supporting Definitions: **Participant Name:**

Indicate the full name of the facility where the procedure was performed. Values should be full, official hospital names with no abbreviations or variations in spelling.

Source: NCDR

Seq. #: 1020 **Name:** Time Frame of Data Submission

Coding Instructions: Indicate the time frame of data included in the data submission. Format: YYYYQQ. e.g., 2006Q4

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 1040 **Name:** Transmission Number

Coding Instructions: This is a unique number created, and automatically inserted by the software into extract file. It identifies the number of times the software has created data submission files. The transmission number should be incremented by one every time the data submission files are exported. The transmission number should never be repeated.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Z. Administration

Seq. #: 1050 **Name:** Vendor Identifier

Coding Instructions: Vendor identification (agreed upon by mutual selection between the vendor and the NCDR) to identify software vendor. This is entered into the schema automatically by vendor software. Vendors must use consistent name identification across sites. Changes to vendor name identification must be approved by the NCDR.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 1060 **Name:** Vendor Software Version

Coding Instructions: Vendor's software product name and version number identifying the software which created this record (assigned by vendor). Vendor controls the value in this field. This is entered into the schema automatically by vendor software.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 1070 **Name:** Registry Identifier

Coding Instructions: The NCDR registry identifier describes the data registry to which these records apply. It is implemented in the software at the time the data is collected and records are created. This is entered into the schema automatically by software.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Seq. #: 1080 **Name:** Registry Version

Coding Instructions: Registry version describes the version number of the Data Specifications / Dictionary, to which each record conforms. It identifies which fields should have data, and what are the valid data for each field. It is the version implemented in the software at the time the data is collected and the records are created. This is entered into the schema automatically by software.

Target Value: N/A

Selections: (none)

Supporting Definitions: (none)

Z. Administration

Seq. #: 1095 **Name:** Submission Type

Coding Instructions: Indicate if the data contained in the harvest/data file contains either standard patient episode of care records (arrival date to discharge only) or if it contains patient follow-up records

A transmission file with all episode of care records (from Arrival to Discharge only) is considered a "Base Registry Record".

A file with patient follow-up records (any follow-up assessments performed during the quarter selected) is considered a "Follow-Up Record".

Target Value: N/A

Selections:

Selection Text	*Definition*
Episode of Care Records Only	Contains all patient and episode of care records with eligible procedures with a Discharge Date (Seq Num 9045) in the selected timeframe. An Episode of Care is defined as a patient's admission/arrival to the facility performing the procedure(s), including any symptoms or medical history prior to arrival, ending at discharge or death
Follow-Up Records Only	Contains all patient records with at least one Follow-up Assessment performed (Seq Num 10000) in the selected timeframe.

Supporting Definitions: (none)