Section: Demographics **Parent: Root**

Element: 2000 Last Name

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

Target Value: The value on arrival at this facility

Element: 2010 First Name

Coding Instruction: Indicate the patient's first name.

Target Value: The value on arrival at this facility

Element: 2020 Middle Name

Coding Instruction: Indicate the patient's middle name.

Note(s):
It is acceptable to specify the middle initial.

If there is no middle name given, leave field blank.

If there are multiple middle names, enter all of the middle names sequentially.

If the name exceeds 50 characters, enter the first 50 letters only.

Target Value: The value on arrival at this facility

Element: 2050 Birth Date

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

Target Value: The value on arrival at this facility

Element: 2030 SSN

Coding Instruction: 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 NA'.

Target Value: The value on arrival at this facility

Vendor Instruction: SSN (2030) must be 9 numeric characters long

Element: 2031 SSN N/A

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

Target Value: The value on arrival at this facility

Element: 2040 Patient ID

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

Note(s):
Once assigned to a patient at the participating facility, this number will never be changed or reassigned to a different patient. If the patient returns to the same participating facility or for follow up, they will receive this same unique patient identifier.

Target Value: The value on arrival at this facility

Element: 2045 Other ID

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

Target Value: N/A

Element: 2060 Sex

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

Target Value: The value on arrival at this facility

Person Sex - 1.3.6.1.4.1.19376.1.4.1.6.5.19

Selection	Definition	Source	Code	Code System
Male			M	HL7 Administrative Gender

Section: Demographics **Parent: Root**

Female F HL7 Administrative Gender

Element: 2065 Patient Zip Code

Coding Instruction: Indicate the patient's United States Postal Service zip code of their primary residence.

Note(s):
If the patient does not have a U.S. residence, or is homeless, leave blank and check 'Zip Code NA'.

Target Value: The value on arrival at this facility

Vendor Instruction: Patient Zip Code (2065) must be 5 numeric characters long

Element: 2066 Zip Code N/A

Coding Instruction: Indicate if the patient does not have a United States Postal Service zip code.

Note(s):
This includes patients who do not have a U.S. residence or are homeless.

Target Value: The value on arrival at this facility

Element: 2070 Race - White

Coding Instruction: 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

Supporting Definition: **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

Element: 2071 Race - Black/African American

Coding Instruction: Indicate if the patient is Black or 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

Supporting Definition: **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

Element: 2073 Race - American Indian/Alaskan Native

Coding Instruction: 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

Supporting Definition: **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

Element: 2072 Race - Asian

Coding Instruction: 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

Supporting Definition: **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

Section: Demographics **Parent: Root**

Element: 2074 Race - Native Hawaiian/Pacific Islander

Coding Instruction: Indicate if the patient is Native Hawaiian or 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

Supporting Definition: **Race - Native Hawaiian/Pacific Islander - Native Hawaiian**

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

Element: 2076 Hispanic or Latino Ethnicity

Coding Instruction: 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

Supporting Definition: **Hispanic or Latino Ethnicity**

A person of 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

Section: Episode of Care — Parent: Root

Element: 2999 — Episode Unique Key

Coding Instruction: Indicate the unique key associated with each patient episode record as assigned by the EMR/EHR or your software application.

Target Value: N/A

Element: 3000 — Arrival Date

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

Target Value: N/A

Element: 3040 — Reason for Admission

Coding Instruction: Indicate the primary reason for admission to your facility.

Target Value: The value on arrival at this facility

Admission Reason - 1.3.6.1.4.1.19376.1.4.1.6.5.4

Selection	Definition	Source	Code	Code System
Admitted for this procedure	The patient was admitted specifically to have the device or lead procedure, including patients admitted for device infection with subsequent extraction.		100001133	ACC NCDR
Heart failure	Heart failure is the primary reason the patient was admitted to this facility.		100001134	ACC NCDR
Other	A cardiac problem (excluding heart failure) or non-cardiac problem is the primary reason the patient was admitted to this facility.		100001227	ACC NCDR

Element: 15780 — Admitted For This Procedure Reason

Coding Instruction: If admitted for this procedure, indicate the reason (select all that apply).

Target Value: The value on arrival at this facility

Vendor Instruction: Admitted for This Procedure Reason (15780) cannot equal Initial device implant or Generator device change when the Electrophysiology Device Implant Pathway (15826) is Leads only

Admitted for this procedure reason - 1.3.6.1.4.1.19376.1.4.1.6.5.965

Selection	Definition	Source	Code	Code System
Device embolization	Indicate if there is documentation that the patient experienced device embolization, the full dislodgement of a device from its original position that is then introduced to the circulatory system, potentially occluding blood supply to vessels and/or organs.		112000001324	ACC NCDR
Initial device implant			112000003662	ACC NCDR
Infection			40733004	SNOMED CT
Generator device change			112000003665	ACC NCDR
Lead dislodgement			234233007	SNOMED CT
Other			100000351	ACC NCDR

Element: 3005 — Health Insurance

Coding Instruction: Indicate if the patient has health insurance.

Target Value: The value on arrival at this facility

Vendor Instruction: Health Insurance (3005) must not be NULL

Element: 3010 — Health Insurance Payment Source

Coding Instruction: Indicate the patient's health insurance payment type.

Note(s):
If the patient has multiple insurance payors, select all payors.

Target Value: The value on arrival at this facility

Payor Category - 1.3.6.1.4.1.19376.1.4.1.6.5.5

Selection	Definition	Source	Code	Code System
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. A health maintenance organization (HMO) is considered private health insurance.		5	PHDSC

Section: Episode of Care		Parent: Root		
State-specific plan (non-Medicaid)	State Specific Plans - 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.		36	PHDSC
Medicare (Part A or B)	Medicare is a health insurance program for: people age 65 or older; people under age 65 with certain disabilities; and people of all ages with end-stage renal disease (permanent kidney failure requiring dialysis or a kidney transplant). Medicare Part A (Hospital Insurance) – Part A helps cover inpatient care in hospitals, including critical access hospitals, and skilled nursing facilities (not custodial or long-term care). It also helps cover hospice care and some home health care. Medicare Part B (Medical Insurance) – Part B helps cover doctors' services and outpatient care. It also covers some other medical services that Part A doesn't cover, such as some of the services of physical and occupational therapists, and some home health care. Part B helps pay for these covered services and supplies when they are medically necessary.	Medicare Program - General Information | CMS	1	PHDSC
Medicare Advantage (Part C)	Medicare Part C (Medicare Advantage) – Part C is an alternative way to get Medicare coverage through private insurance companies instead of the federal government. Part C provides the same benefits as Medicare Part A and Part B, and may include additional benefits such as dental, vision, prescription drug and wellness programs coverage.	Medicare Advantage Plans (Part C) | MedicareAdvantage.com	112000002025	ACC NCDR
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.		2	PHDSC
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).		31	PHDSC
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.		33	PHDSC
Non-US insurance	Non-US insurance refers to individuals with a payor that does not originate in the United States.		100000812	ACC NCDR

Element: 12846 — Medicare Beneficiary Identifier

Coding Instruction: Indicate the patient's Medicare Beneficiary Identifier (MBI).

Note(s):
Enter the Medicare Beneficiary Identifier (MBI) for those patients insured by Medicare. Patients without Medicare will not have a MBI.

Target Value: The value on arrival at this facility

Supporting Definition: **Medicare Beneficiary Identifier**

The Medicare Access and CHIP Reauthorization Act (MACRA) of 2015, requires us to remove Social Security Numbers (SSNs) from all Medicare cards by April 2019. A new Medicare Beneficiary Identifier (MBI) will replace the SSN-based Health Insurance Claim Number (HICN) on the new Medicare cards for Medicare transactions like billing, eligibility status, and claim status.

Source: https://www.cms.gov/Medicare/New-Medicare-Card/index.html

Element: 3020 — Patient Enrolled in Research Study

Coding Instruction: Indicate if the patient is enrolled in an ongoing ACC - NCDR research study related to this registry.

Target Value: Any occurrence between arrival at this facility and discharge

Supporting Definition: **Patient Enrolled in Research Study**

A clinical or research study is one in which participants are assigned to receive one or more interventions (or no intervention) so that researchers can evaluate the effects of the interventions on biomedical or health-related outcomes. The assignments are determined by the study protocol. Participants may receive diagnostic, therapeutic, or other types of interventions.

Section: Episode of Care **Parent: Root**

Source: Clinicaltrials.gov Glossary of Common Site Terms retrieved from http://clinicaltrials.gov/ct2/about-studies/glossary#interventional-study

Section: Research Study **Parent: Episode of Care**

Element: 3025 Research Study Name

Coding Instruction: Indicate the research study name as provided by the research study protocol.

Note(s):
If the patient is in more than one research study, list each separately.

Target Value: N/A

Element: 3030 Research Study Patient ID

Coding Instruction: Indicate the research study patient identification number as assigned by the research protocol.

Note(s):
If the patient is in more than one research study, list each separately.

Target Value: N/A

Section: Pathway **Parent: Episode of Care**

Element: 15826 Electrophysiology Device Implant Pathway

Coding Instruction: Indicate all the Electrophysiology Device Implant Registry procedures performed during the episode of care.

Note: Only select 'Leads only' when no generator change, generator implant or generator explant is performed.

Target Value: Any occurrence between arrival and discharge

EP Device Implant Pathway - 1.3.6.1.4.1.19376.1.4.1.6.5.981

Selection	Definition	Source	Code	Code System
Implantable cardioverter-defibrillator			72506001	SNOMED CT
Permanent pacemaker			449397007	SNOMED CT
Leads only			100001025	ACC NCDR

Section: Condition History **Parent: History and Risk Factors**

Element: 12903 Condition History Name

Coding Instruction: Select from the following list of medical conditions based on prior clinical diagnosis/documentation. Additional definitions appear below for those selections that may need further clarification.

Target Value: N/A

Vendor Instruction: Condition History Name (12903) should not be duplicated in an episode

Condition History Name - 1.3.6.1.4.1.19376.1.4.1.6.5.340

Selection	Definition	Source	Code	Code System
Atrial fibrillation	Indicate if there is documentation/diagnosis of atrial fibrillation, a supraventricular tachyarrhythmia with uncoordinated atrial activation and consequent ineffective atrial contraction. Include all classifications of AFib.		49436004	SNOMED CT
Cardiac arrest	Indicate if the patient experienced cardiac arrest. Cardiac arrest is the cessation of cardiac activity. The patient 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.		410429000	SNOMED CT
Cardiomyopathy - ischemic	Indicate if there is documentation/diagnosis of ischemic cardiomyopathy, weakening of the heart muscle associated with coronary artery disease that may lead to reduced systolic function and/or heart failure.		426856002	SNOMED CT
Cardiomyopathy - non-ischemic	Indicate if there is documentation/diagnosis of non -ischemic cardiomyopathy, the weakening of the heart muscle due to any cause besides coronary artery disease, in which cardiac tissue is still oxygenated. Non-ischemic cardiomyopathy may lead to reduced systolic function and/or heart failure.		111000119104	SNOMED CT
Cerebrovascular disease	Indicate if there is documentation/diagnosis of cerebrovascular disease, including any one of the following: 1) Cerebrovascular Accident (CVA): 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. The duration of > 24 h has been used as an operational definition of persisting symptoms of stroke rather than TIA, based mostly on consensual practice rather than objective evidence. 2) Transient Ischemic Attack (TIA): Transient episode of neurological dysfunction caused by focal or global brain, spinal cord, or retinal ischemia without acute infarction Note: The distinction between a TIA and ischemic stroke is the presence of infarction. The unifying concept driving the definition is that stroke is a marker of potentially disabling vascular brain injury. The duration of > 24 h has been used as an operational definition of persisting symptoms of stroke rather than TIA, based mostly on consensual practice rather than objective evidence. 3) Non-invasive/invasive carotid test with > 79% occlusion. Noninvasive or invasive arterial imaging test: Noninvasive or invasive arterial imaging test demonstrating > 50% stenosis of any of the major extracranial or intracranial vessels to the brain 4) Previous carotid artery surgery/intervention for carotid artery stenosis. History of cervical or cerebral artery revascularization surgery or percutaneous intervention This does not include chronic (nonvascular) neurological disease or other acute neurological insults such as metabolic and anoxic ischemic encephalopathy.		62914000	SNOMED CT
Chronic lung disease	Indicate if there is documentation/diagnosis of chronic lung disease.		413839001	SNOMED CT

Section: Condition History **Parent: History and Risk Factors**

	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). A history of chronic inhalation reactive disease (asbestosis, mesothelioma, black lung disease or pneumoconiosis) may qualify as chronic lung disease. Radiation induced pneumonitis or radiation fibrosis also qualifies as chronic lung disease. Patients with asthma or seasonal allergies are not considered to have chronic lung disease. A history of atelectasis is a transient condition and does not qualify.		
Coronary artery disease	Indicate if the patient has a diagnosis of coronary artery disease (CAD) or documented history of: - Coronary artery stenosis >=50% (by cardiac catheterization or other modality or of direct imaging of the coronary arteries) - Previous CABG surgery - Previous PCI - Previous MI	53741008	SNOMED CT
Currently on dialysis	Indicate if the patient is currently undergoing either hemodialysis or peritoneal dialysis on an ongoing basis as a result of renal failure.	108241001	SNOMED CT
Diabetes mellitus	Indicate if there is documentation/diagnosis of Type 1 or Type 2 diabetes, a group of diseases that affect how the body uses glucose. This does not include pre-diabetes or gestational diabetes.	73211009	SNOMED CT
Familial history of non-ischemic cardiomyopathy	Indicate if the patient has a documented family history of non-ischemic cardiomyopathy.	281666001:246090004=399020009	SNOMED CT
Familial syndrome-risk of sudden death	Indicate if the patient has a documented family history of sudden death resulting from any heart condition.	100001006	ACC NCDR
Heart failure	Indicate if there is documentation/diagnosis of heart failure.	84114007	SNOMED CT
Inotropic support	Indicate if the patient is currently prescribed a positive IV inotropic agent(s) to attempt to achieve beneficial hemodynamic effects in the patient with systolic heart failure (HF). Positive IV inotropic medications include and not limited to Inamrinone, Milrinone, Norepinephrine, Dopamine and Dobutamine. Digoxin is not captured.	100001061	ACC NCDR
Myocardial infarction	Indicate if there is documentation/diagnosis of a prior myocardial infarction.	22298006	SNOMED CT
Paroxysmal SVT history	Indicate if there is documentation of paroxysmal supraventricular tachycardia (SVT) including atrial flutter, atrioventricular nodal reentrant tachycardia (AVNRT), atrioventricular reciprocating tachycardia (AVRT) i.e. Wolff-Parkinson White syndrome, atrial tachycardia, junctional tachycardia, and / or multifocal atrial tachycardia. Paroxysmal AFib is not captured here, it is captured in Atrial Fibrillation by selecting “Paroxysmal” in Sequence 4400 (AFib Classification).	67198005	SNOMED CT
Valvular heart disease	Indicate if there is documentation/diagnosis of primary valvular disease. Primary valvular disease may also be documented/classified as: Moderately severe or severe, or 3+ or 4+ aortic insufficiency. Moderately severe or severe, or 3+ or 4+ mitral insufficiency with echocardiographic evidence that mitral insufficiency is a primary abnormality and not secondary to ventricular dilation. Moderately severe or severe aortic stenosis defined by estimated aortic valve area by catheterization or Doppler echocardiography of	368009	SNOMED CT

Section: Condition History		Parent: History and Risk Factors	
	<=1.0 cm2. Moderately severe or severe mitral stenosis defined by estimated valve area catheterization doppler echocardiography of <1.0 Pulmonic tricuspid disease that is known to be a primary abnormality. For a diagnosis of Marfan syndrome aortic insufficiency that is moderate to severe, “Yes” is coded. When there is no supporting documentation of the etiology of the valve disease, “No” is coded.		
Structural abnormalities	Indicate if there is documentation/diagnosis of structural defects in the heart or major blood vessels. Examples include, but are not limited to, arrhythmogenic ventricular cardiomyopathy (AVC), and congenital heart disease associated with sudden cardiac arrest.	100000949	ACC NCDR
Syncope	Indicate if there is documentation of syncope, an abrupt, transient, and complete loss of consciousness associated with inability to maintain postural tone, with rapid and spontaneous recovery. An ICD/ATP shock preventing cardiac arrest is included.	271594007	SNOMED CT
Syndromes of sudden death	Indicate if there is documentation/diagnosis that the patient has a syndrome that puts him/her at risk for sudden death. To code yes, the patient must be diagnosed with one of the syndromes listed in Sequence 4170 (Syndrome Type).	100001202	ACC NCDR
Ventricular fibrillation (not due to reversible cause)	Indicate if there is documentation of a spontaneous ventricular fibrillation (VFib) not due to reversible cause and that was not induced.	71908006	SNOMED CT
Ventricular tachycardia	Indicate if there is documentation of a spontaneous ventricular tachycardia (VT) with 3 or more consecutive complexes that was not induced.	25569003	SNOMED CT

Element: 14264 Condition History Occurrence

Coding Instruction: Indicate whether or not the patient been given a clinical diagnosis of the listed medical conditions.

Target Value: Any occurrence between birth and the first procedure in this admission

Section: Condition History Details **Parent: History and Risk Factors**

Element: 4400 Atrial Fibrillation Classification

Coding Instruction: Indicate the type of atrial fibrillation experienced by the patient.

Target Value: Any occurrence between birth and the first procedure in this admission

Supporting Definition: **Atrial Fibrillation Classification**

Atrial Fibrillation is a supraventricular tachyarrhythmia with uncoordinated atrial activation and consequently ineffective atrial contraction.

Electrocardiogram (ECG) characteristics include:
1) irregular R-R intervals (when atrioventricular [AV] conduction is present),
2) absence of distinct repeating P waves, and
3) irregular atrial activity.

Atrial Fibrillation can be further characterized as:

- Paroxysmal AF is defined as AF that terminates spontaneously or with intervention within seven days of onset. Episodes may recur with variable frequency.
- Persistent AF is defined as AF that fails to self-terminate within seven days. Episodes often require pharmacologic or electrical cardioversion to restore sinus rhythm.
- Long-standing persistent AF is defined as AF that has lasted for more than 12 month
-Permanent AF is defined as when the patient and clinician make a joint decision to stop further attempts to restore and/or maintain sinus rhythm. Acceptance of AF represents a therapeutic attitude on the part of the patient and clinician rather than an inherent pathophysiological attribute of AF. Acceptance of AF may change as symptoms, efficacy of therapeutic interventions, and patient and clinician preferences evolve.

Source: January CT, Wann LS, Alpert JS, et al. 2014 AHA/ACC/HRS Guideline for the Management of Patients With Atrial Fibrillation: A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines and the Heart Rhythm Society. J Am Coll Cardiol 2014. DOI: 10.1016/j.jacc.2014.03.022

Atrial Fibrillation Classification - 1.3.6.1.4.1.19376.1.4.1.6.5.17

Selection	Definition	Source	Code	Code System
Paroxysmal	AF that terminates spontaneously or with intervention within 7 days of onset. Episodes may recur with variable frequency.		26593000	SNOMED CT
Persistent	Continuous AF that is sustained >7 days or with electrical or pharmacological termination.		62459000	SNOMED CT
Long-standing Persistent	Continuous AF of >12 months duration.		100001029	ACC NCDR
Permanent	The term “permanent AF” is used when the patient and clinician make a joint decision to stop further attempts to restore and/or maintain sinus rhythm. - Acceptance of AF represents a therapeutic attitude on the part of the patient and clinician rather than an inherent pathophysiological attribute of the AF. - Acceptance of AF may change as symptoms, the efficacy of therapeutic interventions, and patient and clinician preferences evolve.		6934004	SNOMED CT

Element: 4405 Plans for Cardioversion of Atrial Fibrillation

Coding Instruction: Indicate if there is a planned cardioversion for atrial fibrillation.

Note(s):
1. Code No for a history of cardioversion.
2. Code Yes, if the patient was in AFib and cardioverted prior to the start of the first generator implant procedure in this admission.
3. Code Yes if the patient is scheduled for a cardioversion.

Target Value: Any occurrence between birth and the first procedure in this admission

Supporting Definition: **Plans for Cardioversion of Atrial Fibrillation**

A cardioversion is performed using a synchronized shock and/or IV antiarrhythmic medications.

Source:

Element: 4225 Most Recent Cardiac Arrest Date

Coding Instruction: Indicate the date of the most recent cardiac arrest.

Note(s):
If the month or day of the cardiac arrest is unknown, please code 01/01/YYYY. If the specific year is unknown in the current record, the year may be estimated based on timeframes found in prior medical record documentation (Example: If the patient had "most recent cardiac arrest" documented in a record from 2011, then the year 2011 can be utilized and coded as 01/01/2011).

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

Section: Condition History Details | **Parent: History and Risk Factors**

Vendor Instruction: Most Recent Cardiac Arrest Date (4225) must be Less than or Equal to Procedure Start Date and Time (7000)

Element: 4240 Bradycardia Arrest

Coding Instruction: Indicate if the cardiac arrest was a result of bradycardia.

Target Value: Any occurrence between birth and the first procedure in this admission

Element: 4235 VFib Arrest

Coding Instruction: Indicate if the cardiac arrest was a result of ventricular fibrillation as defined below.

Target Value: Any occurrence between birth and the first procedure in this admission

Supporting Definition: **VFib Arrest**

Rapid, usually more than 300 bpm (cycle length: 180 ms or less), grossly irregular ventricular rhythm with marked variability in QRS cycle length, morphology, and amplitude.

Source: JACC Vol. 48, No. 11, 2006 ACC/AHA/HRS Clinical Data Standards December 5, 2006:2360-96

Element: 4230 VTach Arrest

Coding Instruction: Indicate if the cardiac arrest was a result of ventricular tachycardia as defined below.

Target Value: Any occurrence between birth and the first procedure in this admission

Supporting Definition: **Ventricular Tachycardia**

Ventricular Tachycardia (VT) is a cardiac arrhythmia of 3 or more consecutive complexes in duration emanating from the ventricles at a rate 100 bpm (cycle length: 600 ms).

Source: JACC Vol. 48, No. 11, 2006 ACC/AHA/HRS Clinical Data Standards December 5, 2006:2360-96

Element: 4190 Ischemic Cardiomyopathy Timeframe

Coding Instruction: Indicate the timeframe since the initial diagnosis of ischemic cardiomyopathy.

Target Value: The first value between birth and the first procedure in this admission

Cardiomyopathy Timeframe - 1.3.6.1.4.1.19376.1.4.1.6.5.190

Selection	Definition	Source	Code	Code System
Less than 3 months			100001028	ACC NCDR
Greater than or equal to 3 months			100000924	ACC NCDR

Element: 4195 Ischemic Cardiomyopathy Guideline Directed Medical Therapy Maximum Dose

Coding Instruction: Indicate if patient has been on guideline directed medical therapy at least 3 months.

Note(s):
Documentation of GDMT is the responsibility of the clinician and cannot be determined by the abstractor based on a list of medications. Documentation of GDMT maximum, optimum, appropriate dose, medical management/medical therapy for cardiomyopathy or a discussion in the medical record regarding medications as it relates to the patient's cardiomyopathy is acceptable for documenting GDMT. Some other acceptable statements are good neurohormonal therapy, managed appropriately on HF medications, and failed medically management of heart failure.

Target Value: The first value between birth and the first procedure in this admission

Supporting Definition: **Ischemic Guideline Directed Medical Therapy Maximum Dose**

For heart failure in the setting of LV systolic dysfunction, this may require individualization but typically should include the combination of an angiotensin-converting enzyme inhibitor or angiotensin receptor blocker and beta blocker therapy adjusted to target doses as tolerated, with diuretics adjusted if/as needed to control fluid retention. In selected patients, the addition of aldosterone antagonists is appropriate. In addition, in some cases the use of a combination of hydralazine and nitrates may be used instead of an ACE inhibitor / angiotensin receptor blocker. Patients who are going to receive substantial benefit from medical treatment alone usually show some clinical improvement during the first 3 to 6 months. Medical therapy is also assumed to include adequate rate control for tachyarrhythmias, including atrial fibrillation. Therefore, it is recommended that GDMT be provided for at least 3 months before planned reassessment of LV function to consider device implantation. If LV function improves to the point where primary prevention indications no longer apply, then device implantation is not indicated. For stable ischemic heart disease, GDMT should include aspirin (or a thienopyridine if aspirin is not tolerated), statin therapy, angiotensin-converting enzyme inhibition (or an angiotensin receptor blocker) and the use of beta-blockers after myocardial infarction. Therapy for angina/ischemia should include at least 1 of the following medications: beta-blockers, calcium channel antagonists, or nitrates. Therapy should also be directed at optimizing the treatment of associated conditions such as diabetes and uncontrolled hypertension.

Source: 1) O'Gara PT, Kushner FG, Ascheim DD, et al. 2013 ACCF/AHA guideline for the management of ST-elevation myocardial infarction: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. J Am Coll Cardiol 2013;61
2) Russo AM, Stainback RF, Bailey SR, et al. ACCF/HRS/AHA/ASE/HFSA/SCAI/SCCT/SCMR 2013 appropriate use criteria for implantable cardioverter-defibrillators and cardiac resynchronization therapy. J Am Coll Cardiol 2013;61:1318-68. doi: 10.1016/j.jacc.2012.12.017

Section: Condition History Details **Parent: History and Risk Factors**

Therapy Status - 1.3.6.1.4.1.19376.1.4.1.6.5.12

Selection	Definition	Source	Code	Code System
Yes (for 3 months)	The patient has been prescribed guideline directed medical therapy for at least 3 months. This may be coded if there is documentation of GDMT without a time frame, only if the abstractor can determine from the medical record that the patient has been on these exact medications for at least 3 months.		100001037	ACC NCDR
Not documented	There is no documentation of guideline directed medical therapy being prescribed.		100001036	ACC NCDR
Not attempted	Guideline directed medical therapy was not attempted on the patient.		100001035	ACC NCDR
Inability to complete	The patient was unable to continue the guideline directed medical therapy for 3 months or the patient is on guideline directed medical therapy but it has been less than 3 months. Without a definitive time documented or the ability to determine the timeframe from the medical record, it would be captured as Inability to Complete. The duration of treatment would default to less than 3 months since the timeframe was not able to be determined. Inability to Complete would also include patients started on GDMT where it has been less than 3 months since therapy was started, patient refusal, an allergy or absolute contraindication.		100001038	ACC NCDR

Element: 4205 Non-Ischemic Cardiomyopathy Timeframe

Coding Instruction: Indicate the timeframe since the initial diagnosis of non-ischemic cardiomyopathy.

Target Value: The first value between birth and the first procedure in this admission

Cardiomyopathy Timeframe - 1.3.6.1.4.1.19376.1.4.1.6.5.190

Selection	Definition	Source	Code	Code System
Less than 3 months			100001028	ACC NCDR
Greater than or equal to 3 months			100000924	ACC NCDR

Element: 4210 Non-Ischemic Guideline Directed Medical Therapy Maximum Dose

Coding Instruction: Indicate if patient has been on guideline directed medical therapy for at least 3 months.

Note(s):
Documentation of GDMT is the responsibility of the clinician and cannot be determined by the abstractor based on a list of medications. Documentation of GDMT maximum, optimum, appropriate dose, medical management/medical therapy for cardiomyopathy or a discussion in the medical record regarding medications as it relates to the patient's cardiomyopathy is acceptable for documenting GDMT. Some other acceptable statements are good neurohormonal therapy, managed appropriately on HF medications, and failed medically management of heart failure.

Target Value: The first value between birth and the first procedure in this admission

Supporting Definition: **Non-Ischemic Guideline Directed Medical Therapy Maximum Dose**

For heart failure in the setting of LV systolic dysfunction, this may require individualization but typically should include the combination of an angiotensin-converting enzyme inhibitor or angiotensin receptor blocker and beta blocker therapy adjusted to target doses as tolerated, with diuretics adjusted if/as needed to control fluid retention. In selected patients, the addition of aldosterone antagonists is appropriate. In addition, in some cases the use of a combination of hydralazine and nitrates may be used instead of an ACE inhibitor / angiotensin receptor blocker. Patients who are going to receive substantial benefit from medical treatment alone usually show some clinical improvement during the first 3 to 6 months. Medical therapy is also assumed to include adequate rate control for tachyarrhythmias, including atrial fibrillation. Therefore, it is recommended that GDMT be provided for at least 3 months before planned reassessment of LV function to consider device implantation. If LV function improves to the point where primary prevention indications no longer apply, then device implantation is not indicated. For stable ischemic heart disease, GDMT should include aspirin (or a thienopyridine if aspirin is not tolerated), statin therapy, angiotensin-converting enzyme inhibition (or an angiotensin receptor blocker) and the use of beta-blockers after myocardial infarction. Therapy for angina/ischemia should include at least 1 of the following medications: beta-blockers, calcium channel antagonists, or nitrates. Therapy should also be directed at optimizing the treatment of associated conditions such as diabetes and uncontrolled hypertension.

Source: 1) O'Gara PT, Kushner FG, Ascheim DD, et al. 2013 ACCF/AHA guideline for the management of ST-elevation myocardial infarction: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. J Am Coll Cardiol 2013;61
2) Russo AM, Stainback RF, Bailey SR, et al. ACCF/HRS/AHA/ASE/HFSA/SCAI/SCCT/SCMR 2013 appropriate use criteria for implantable cardioverter-defibrillators and cardiac resynchronization therapy. J Am Coll Cardiol 2013;61:1318-68. doi: 10.1016/j.jacc.2012.12.017

Therapy Status - 1.3.6.1.4.1.19376.1.4.1.6.5.12

Selection	Definition	Source	Code	Code System
Yes (for 3 months)	The patient has been prescribed guideline directed medical therapy for at least 3 months.		100001037	ACC NCDR

Section: Condition History Details **Parent: History and Risk Factors**

	This may be coded if there is documentation of GDMT without a time frame, only if the abstractor can determine from the medical record that the patient has been on these exact medications for at least 3 months.		
Not documented	There is no documentation of guideline directed medical therapy being prescribed.	100001036	ACC NCDR
Not attempted	Guideline directed medical therapy was not attempted on the patient.	100001035	ACC NCDR
Inability to complete	The patient was unable to continue the guideline directed medical therapy for 3 months or the patient is on guideline directed medical therapy but it has been less than 3 months. Without a definitive time documented or the ability to determine the timeframe from the medical record, it would be captured as Inability to Complete. The duration of treatment would default to less than 3 months since the timeframe was not able to be determined. Inability to Complete would also include patients started on GDMT where it has been less than 3 months since therapy was started, patient refusal, an allergy or absolute contraindication.	100001038	ACC NCDR

Element: 4010 NYHA Functional Classification

Coding Instruction: Indicate the patient's New York Heart Association (NYHA) Functional Classification based upon the physician documented classification at the time of the current procedure.

Note(s):
The NYHA Functional Classification must be specifically documented in the medical record and not coded by the abstractor based upon patient symptoms.

Target Value: The highest value on the first procedure in this admission

Supporting Definition: **NYHA**

The NYHA classes focus on exercise capacity and the symptomatic status of the disease.

Source: 2013 ACCF/AHA Guideline for the Management of Heart Failure; J Am Coll Cardiol. 2013;62(16):e147-e239. doi:10.1016/j.jacc.2013.05.019

NYHA Functional Classification - 1.3.6.1.4.1.19376.1.4.1.6.5.8

Selection	Definition	Source	Code	Code System
Class I	Patients with cardiac disease but without resulting limitations of physical activity. Ordinary physical activity does not cause undue fatigue, palpitation, or dyspnea.		420300004	SNOMED CT
Class II	Patients with cardiac disease resulting in slight limitation of physical activity. They are comfortable at rest. Ordinary physical activity results in fatigue, palpitation, or dyspnea.		421704003	SNOMED CT
Class III	Patients with cardiac disease resulting in marked limitation of physical activity. They are comfortable at rest. Less than ordinary activity causes fatigue, palpitation, or dyspnea.		420913000	SNOMED CT
Class IV	Patients with cardiac disease resulting in inability to carry on any physical activity without discomfort. Symptoms are present even at rest or minimal exertion. If any physical activity is undertaken, discomfort is increased.		422293003	SNOMED CT

Element: 4295 Most Recent MI Date

Coding Instruction: Indicate the date of the most recent myocardial infarction.

Note(s):
When the patient has a history of an 'old or 'remote' MI documented in the medical record by the clinician and a time frame is unable to be determined from prior medical records or by consulting with the clinician, please code the MI as having occurred 5 years ago. For example: If the physician documents on 05/01/2020, that the patient has a history of MI, please code Most Recent MI Date, Seq. 4250, as 05/01/2015.

If the month or day of the myocardial infarction is unknown, please code 01/01/YYYY. If the specific year is unknown in the current record, the year may be estimated based on timeframes found in prior medical record documentation (Example: If the patient had "most recent myocardial infarction" documented in a record from 2011, then the year 2011 can be utilized and coded as 01/01/2011).

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

Vendor Instruction: Most Recent MI Date (4295) must be Less than or Equal to Procedure Start Date and Time (7000)

Element: 4545 Structural Abnormality Type

Coding Instruction: Indicate the structural abnormality type(s).

Section: Condition History Details **Parent: History and Risk Factors**

Note(s):
When cardiomyopathy or ventricular arrhythmias are a result of Takotsubo, code 'LV structural Abnormality' associated with risk of SCA.

Target Value: Any occurrence between birth and the first procedure in this admission

Supporting Definition: **Structural Abnormality Type - Value Set**

Left Ventricular Structural Abnormality Associated with Risk for Sudden Cardiac Arrest - Refer to the source for the supporting definition.

Source: Zipes DP, Camm AJ, Borggrefe M, et al. ACC/AHA/ESC 2006 guidelines for management of patients with ventricular arrhythmias and the prevention of sudden cardiac death: a report of the American College of Cardiology/American Heart Association Task Force and the European Society of Cardiology Committee for Practice Guidelines (Writing Committee to Develop Guidelines for Management of Patients With Ventricular Arrhythmias and the Prevention of Sudden Cardiac Death). Circulation. 2006;114:e385-e484.

Cardiac Structural Abnormality Type - 1.3.6.1.4.1.19376.1.4.1.6.5.219

Selection	Definition	Source	Code	Code System
Arrhythmogenic right ventricular cardiomyopathy (ARVC)	Coding Note: ARVC and Arrhythmogenic Left Ventricular Cardiomyopathy (ALVC) are a type of Arrhythmogenic Cardiomyopathy (ACM) and both are captured as ARVC (Arrhythmogenic Right Ventricular Cardiomyopathy).		281170005	SNOMED CT
Congenital heart disease associated with sudden cardiac arrest	Congenital heart disease including but not limited to Tetralogy of Fallot, Ventricular Septal Defect (VSD), Ebstein abnormality, Transposition of Great Vessels, Patent Foramen Ovale (PFO), Atrial-Septal Defect (ASD), Holt-Oram syndrome and Heart - hand syndrome, and Common Ventricle that put the patient at risk for sudden cardiac arrest.		13213009	SNOMED CT
Hypertrophic cardiomyopathy (HCM) with high-risk features	Hypertrophic Cardiomyopathy with High Risk Features: High risk features include: - Cardiac arrest (VF) - Spontaneous sustained VT - Family history of premature sudden death - Unexplained syncope - LV thickness greater than or equal to 30 mm - Abnormal exercise BP - Nonsustained spontaneous VT - AF - Myocardial ischemia - LV outflow obstruction - High-risk mutation - Intense (competitive) physical exertion		233873004	SNOMED CT
Infiltrative	Infiltrative structural abnormalities including but not limited to amyloidosis, cardiac sarcoidosis, giant cell myocarditis, Propionic Acidemia, and Chagas disease. When Danon disease and Fabry Disease causes cardiomyopathy, then infiltrative is coded.		100001018	ACC NCDR
LV structural abnormality associated with risk for sudden cardiac arrest	Left ventricular structural abnormalities including but not limited to left ventricular aneurysm, Traumatic VSD, Emery-Dreifuss Muscular Dystrophy, Duchenne Muscular Dystrophy, Becker's Muscular Dystrophy, Myotonic Dystrophy, and LV non-compaction syndrome that put the patient at risk for sudden cardiac arrest.		87878005	SNOMED CT

Element: 15785 Infiltrative Structural Abnormality Type

Coding Instruction: Indicate the infiltrative structural abnormality type(s).

Target Value: Any occurrence between birth and the first procedure in this admission

Infiltrative Structural Abnormality Type - 1.3.6.1.4.1.19376.1.4.1.6.5.963

Selection	Definition	Source	Code	Code System
Amyloidosis - ATTR			715655000	SNOMED CT
Amyloidosis - AL			23132008	SNOMED CT
Amyloidosis - Other			274945004	RxNorm
Cardiac Sarcoidosis			31541009	SNOMED CT
Chagas Disease			998008	SNOMED CT
Giant Cell Myocarditis			60812006	SNOMED CT
Other Infiltrative Structural Abnormality			100001018	ACC NCDR

Element: 4170 Syndromes with Risk of Sudden Death Type

Coding Instruction: Indicate the type of syndrome that puts the patient at risk for sudden death.

Section: Condition History Details **Parent: History and Risk Factors**

Target Value: Any occurrence between birth and the first procedure in this admission

Syndrome Type - 1.3.6.1.4.1.19376.1.4.1.6.5.10

Selection	Definition	Source	Code	Code System
Brugada	Polymorphic ventricular tachycardia in the absence of structural heart disease, associated with a baseline ECG pattern during sinus rhythm showing right bundle branch block with ST segment elevation in leads V1 through V3. It can also be characterized by documentation of ECG patterns associated with Brugada Syndrome, some of which may be unmasked when provoked with drugs. The most common genetic mutations identified for Brugada syndrome are in a sodium channel gene (SCN5A). Sodium channel blocking drugs, therefore, may exacerbate the electrocardiographic features and clinical presentation. Brugada syndrome typically presents before the age of 50 years.		418818005	SNOMED CT
Catecholaminergic polymorphic VT	CPVT is a highly malignant inheritable cardiac channelopathy in individuals without structural heart disease and QT prolongation. It is often thought of as a disease of childhood with patients presenting before the age of 21 with symptoms such as syncope or sudden cardiac arrest; however, the adult form presents between the ages of 32-48. CVPT is triggered by physical or emotional stress in patients ECG is normal.	Michele A Murphy, MD; John D. Ferguson, ChB, MBExpert Analysis - The Athlete With Catecholaminergic Polymorphic Ventricular Tachycardia, from https://www.acc.org/latest-in-cardiology/articles/2017/07/27/07/49/the-athlete-with-catecholaminergic-polymorphic-ventricular-tachycardia, accessed Jul 28, 2017	100000956	ACC NCDR
Idiopathic/Primary VT/VF	VT that occurs in patients without structural heart disease, metabolic abnormalities, or the long QT syndrome.	Hugh Calkins, in Catheter Ablation of Cardiac Arrhythmias (Second Edition), 2011	100001014	ACC NCDR
Long QT	Long QT syndrome (LQTS) describes a heterogeneous group of inherited channelopathies that confer risks of polymorphic ventricular tachycardia and sudden cardiac death. Diagnosis is clinical and is made on the basis of the presentation and electrocardiogram, with the probability of LQTS calculated by the Schwartz score. Genetic testing is generally advised; variants in KCNQ1, KCNH2, and SCN5A are responsible for LQT1, LQT2, and LQT3, respectively, accounting for approximately 75% of genetically resolved cases.	Grace AA, Matthews GDK. Phenotypic Landscape and Risk Management in Long QT Syndrome: Nudging Forward. J Am Coll Cardiol. 2018 Apr 17;71(15):1672-1675. doi: 10.1016/j.jacc.2018.02.040. PMID: 29650124.	9651007	SNOMED CT
Short QT	Short QT (SQT) refers to the electrocardiographic manifestation of accelerated cardiac repolarization. Gussak et al. were the first to suggest an association with atrial and ventricular fibrillation in 2000. The familial nature and arrhythmogenic potential of SQT were confirmed by Gaita et al. in 2003. Acquired disease – the most common cause– results from electrolyte disturbances or drugs, in addition to hypercalcemia, hyperkalemia, and acidosis; SQT manifests with digoxin, androgen use, increased vagal tone and after ventricular fibrillation (Cheng, 2004; Hancox, Choisy, & James, 2009; Ramakrishna et al., 2015). SQTS is a rare, sporadic or autosomal dominant disease that manifests with atrial and ventricular arrhythmias, sudden cardiac death and shortened QT (Brugada et al., 2004). Cardiac arrest occurs as the presenting symptom in up to 40% of the cases (Mazzanti et al., 2014). Mutations in potassium (KCNH2, KCNQ1, KCNJ2) and calcium (CACNA1C, CACNB2, CACNA2D1) channels have been identified as disease causing.	Short QT Syndrome: Ossama K. Abou Hassan, MD; Bernard S Harbieh; Samir E. Alam, MD, FACC; Marwan Refaat, MD, FACC, from https://www.acc.org/latest-in-cardiology/articles/2016/10/05/08/06/short-qt-syndrome, accessed Oct 05, 2016	698272007	SNOMED CT

Element: 14720 Ventricular Fibrillation Date

Coding Instruction: Indicate the date of the ventricular fibrillation.

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

Vendor Instruction: Ventricular Fibrillation Date (14720) must be Less than or Equal to Procedure Start Date and Time (7000)

Element: 4250 Most Recent Ventricular Tachycardia Date

Coding Instruction: Indicate the date of the most recent ventricular tachycardia.

Note(s):
If the month or day of the ventricular tachycardia is unknown, please code 01/01/YYYY. If the specific year is unknown in the current

Section: Condition History Details **Parent: History and Risk Factors**

record, the year may be estimated based on timeframes found in prior medical record documentation (Example: If the patient had "most recent ventricular tachycardia" documented in a record from 2011, then the year 2011 can be utilized and coded as 01/01/2011).

Code the most recent and significant episode of VT. When the patient has a history of VT documented in the medical record by the clinician and a time frame is unable to be determined from prior medical records or by consulting with the clinician, please code the VT as having occurred 5 years ago. For example: If the physician documents on 05/01/2020, that the patient has a history of VT, please code Most Recent VT Date, Seq. 4250, as 05/01/2015.

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

Element: 4275 Ventricular Tachycardia Type

Coding Instruction: Indicate the type of ventricular tachycardia.

Note(s):

When only VT is documented, code VT Type, Seq. 4275 as Non-sustained VT.
If the VT is documented as sustained VT, code VT Type, Seq. 4275 as Sustained Monomorphic VT.
If there is documentation of VT treated with ATP (anti-tachycardia pacing) or shock therapy, or if there is VT arrest and the VT type is unknown, code VT Type, Seq. 4275 as Sustained Monomorphic VT.
If there are multiple episodes of VT, code the most severe episode of VT.
If sustained Vflutter is documented, code as Monomorphic VT.

Target Value: Any occurrence between birth and the first procedure in this admission

Ventricular Tachycardia Type - 1.3.6.1.4.1.19376.1.4.1.6.5.13

Selection	Definition	Source	Code	Code System
Monomorphic	Sustained monomorphic ventricular tachycardia (VT) is VT >30 seconds in duration or requiring termination due to hemodynamic compromise in <30 seconds that has a stable, single QRS morphology.		251158004	SNOMED CT
Non-sustained	Non-sustained or un-sustained ventricular tachycardia (VT) is three or more beats in duration, terminating spontaneously in <30 seconds. Non-sustained VT can be monomorphic or polymorphic.		444658006	SNOMED CT
Polymorphic	Sustained polymorphic ventricular tachycardia (VT) is VT >30 seconds in duration or requiring termination due to hemodynamic compromise in <30 seconds that has a changing or multiform QRS morphology at cycle length >180 milliseconds.		251159007	SNOMED CT
Monomorphic/polymorphic	The patient has a history of both sustained monomorphic and sustained polymorphic ventricular tachycardia.		100001127	ACC NCDR

Element: 4255 Ventricular Tachycardia Occurred Post Cardiac Surgery

Coding Instruction: Indicate if the ventricular tachycardia occurred within the 48 hours after cardiac surgery.

Note(s):
Occurred Post Cardiac Surgery, Seq.4255, refers to open chest surgery, for example: CABG or Valve replacement. If there are multiple episodes of VT, code the most significant episode of VT.

Target Value: Any occurrence between birth and the first procedure in this admission

Element: 4260 Bradycardia Dependent Ventricular Tachycardia

Coding Instruction: Indicate if the ventricular tachycardia is bradycardia dependent.

Target Value: Any occurrence between birth and the first procedure in this admission

Element: 4265 Ventricular Tachycardia Reversible Cause

Coding Instruction: Indicate if the ventricular tachycardia was deemed to be a result of a reversible cause. This could include, but is not limited to, drug abuse or electrolyte imbalance.

Note(s):
If there are multiple episodes of VT, code the most significant episode of VT.

Target Value: Any occurrence between birth and the first procedure in this admission

Supporting Definition: **Ventricular Tachycardia Reversible Cause**

Definition of ventricular tachycardia due to a reversible cause.
The most common putative reversible causes of arrest are acute ischemia and electrolyte imbalance. Other common potential causes to

Section: Condition History Details | **Parent: History and Risk Factors**

which cardiac arrest is attributed include proarrhythmic effects of antiarrhythmic drugs (see supporting references).

1) Electrolyte abnormalities, including hypokalemia and hypomagnesemia, facilitate development of VT in predisposed patients receiving antiarrhythmic agents and other drugs associated with the LQTS. However, hypokalemia can also result from cardiac arrest and should not otherwise be assumed to be the cause of cardiac arrest, except under unusual circumstances.(see reference below) Correction of hypokalemia does not affect inducibility of monomorphic VT occurring after MI. Electrolyte abnormalities should not be assumed to be the cause of cardiac arrest, except in the presence of drug-induced LQTS.

2) Drugs: In patients who develop polymorphic VT in association with drug-induced QT prolongation, withdrawal of the offending antiarrhythmic or other agent (e.g., antipsychotic) is usually sufficient to prevent arrhythmia recurrence. If ventricular function is normal, no therapy beyond drug withdrawal, avoidance of future drug exposure, and correction of electrolyte abnormalities is necessary. However, if ventricular function is abnormal, cardiac arrest or syncope should not be attributed solely to antiarrhythmic drugs, and evaluation and treatment should be similar to patients experiencing such events in the absence of antiarrhythmic drugs. Occasionally, patients develop monomorphic sustained VT only in the presence of antiarrhythmic drugs without QT prolongation. In such cases, it may appear that the development of spontaneous VT is dependent on drug administration. In most patients exhibiting this behavior, the monomorphic VT is inducible by EP testing in the absence of antiarrhythmic drugs.

Source: ACC/AHA/ESC 2006 Guidelines for Management of Patients With Ventricular Arrhythmias

Element: 4270 — Ventricular Tachycardia with Hemodynamic Instability

Coding Instruction: Indicate if the patient demonstrated hemodynamic instability while having episodes of sustained or non-sustained ventricular tachycardia.

Note(s):
Hemodynamic instability can include periods of reduced, unstable, or abnormal blood pressure with near syncope, or episodes of syncope. It creates a state of hypoperfusion that does not support normal organ perfusion or function.

Target Value: Any occurrence between birth and the first procedure in this admission

Section: Procedure History **Parent: History and Risk Factors**

Element: 12905 Procedure History Name

Coding Instruction: Select the procedures for which the patient has a medical history.

Notes:
1. Do NOT select "Candidate for VAD" while also selecting "Currently on VAD"
2. Do NOT select "On Heart Transplant Waiting List" while also selecting "Candidate for transplant"

Target Value: N/A

Vendor Instruction: Procedure History Name (12905) should not be duplicated in an episode

Procedure History Name - 1.3.6.1.4.1.19376.1.4.1.6.5.341

Selection	Definition	Source	Code	Code System
Aortic valve procedure	Any previous surgical or interventional replacement and/or repair of the aortic valve.		112000001755	ACC NCDR
Coronary angiography			33367005	SNOMED CT
Prior coronary artery bypass graft			232717009	SNOMED CT
CV implantable electronic device			100000954	ACC NCDR
Prior PCI			415070008	SNOMED CT
Candidate for VAD	VAD (ventricular assist device) is the general term for a surgically implanted MCS (mechanical circulatory support) device that is intended for use outside the hospital. The purpose of a VAD is to support patients with HF by increasing perfusion and reducing the filling pressures in the heart. Treatment with VAD is currently being considered for this patient.		112000002045	ACC NCDR
Currently on VAD	VAD (ventricular assist device) is the general term for a surgically implanted MCS (mechanical circulatory support) device that is intended for use outside the hospital. The purpose of a VAD is to support patients with HF by increasing perfusion and reducing the filling pressures in the heart. The patient is currently being treated with VAD.		112000002046	ACC NCDR
On Heart Transplant Waiting List	The patient is currently waiting for a transplant to be performed.		471300007	SNOMED CT
Candidate for transplant	The patient currently meets the criteria for transplant.		100000821	ACC NCDR

Element: 14268 Procedure History Occurrence

Coding Instruction: Indicate whether or not the patient has undergone the listed medical procedures.

Target Value: Any occurrence between birth and the first procedure in this admission

Element: 14252 Procedure History Date

Coding Instruction: Indicate the date the procedure was performed.

Note(s):
If the month or day of the procedure is unknown, please code 01/01/YYYY. If the specific year is unknown in the current record, the year may be estimated based on timeframes found in prior medical record documentation (Example: If the patient had "most recent procedure" documented in a record from 2011, then the year 2011 can be utilized and coded as 01/01/2011).

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

Vendor Instruction: Procedure History Date (14252) must be Less than or Equal to Procedure Start Date and Time (7000)

Section: Procedure History Details **Parent: History and Risk Factors**

Element: 4305 Performed After Most Recent Cardiac Arrest

Coding Instruction: Indicate if the coronary angiography was performed after the most recent cardiac arrest.

Note(s):
If the patient has had a history of cardiac arrest, then the response should be based on whether the most recent angiogram was performed after the most recent cardiac arrest.

Target Value: Any occurrence between birth and the first procedure in this admission

Element: 4310 Results of Angiography

Coding Instruction: Indicate the result of the coronary angiography performed.

Select 'Significant disease' for patients who have a history of PCI/CABG, without a repeat coronary angiogram.

Target Value: Any occurrence between birth and the procedure

Angiography Results - 1.3.6.1.4.1.19376.1.4.1.6.5.239

Selection	Definition	Source	Code	Code System
No significant disease	There was <50% stenosis in the left main coronary artery and <70% in all major coronary artery branches >= 2.0 mm.		100000641	ACC NCDR
Significant disease	There was >= 50% stenosis in the left main coronary artery and/or >=70% stenosis in any major coronary artery (>= 2.0 mm).		100001223	ACC NCDR
Non-revascularized significant disease	The patient is not a candidate for revascularization of their significant coronary artery disease.		100001220	ACC NCDR

Element: 4315 Revascularization Performed

Coding Instruction: Indicate if an attempt at revascularization of the coronary artery disease was performed.

Note(s):
The intent is to evaluate the status of the arteries and / or grafts at the time of the ICD implant. Code the status of the vessels/grafts at the time of the most recent catheterization.

Target Value: Any occurrence between birth and the first procedure in this admission

Element: 4320 Revascularization Outcome

Coding Instruction: Indicate the outcome of the revascularization.

Target Value: The last value between birth and current procedure

Revascularization Outcome - 1.3.6.1.4.1.19376.1.4.1.6.5.240

Selection	Definition	Source	Code	Code System
Complete revascularization	Residual stenosis <50% in all revascularizable diseased coronary arteries.		100001221	ACC NCDR
Incomplete revascularization	Not all revascularizable diseased coronary arteries resulted in <50% stenosis.		100001222	ACC NCDR

Element: 15793 Prior CIED Device Type

Coding Instruction: Indicate the prior defibrillator(s) or permanent pacemaker(s) that the patient has had previously implanted.

Target Value: Any occurrence between birth and the first procedure in this admission

Prior CIED Device Type - 1.3.6.1.4.1.19376.1.4.1.6.5.969

Selection	Definition	Source	Code	Code System
Left ventricular endocardial pacemaker			112000003709	ACC NCDR
CRT-D			100001216	ACC NCDR
Extravascular ICD			112000003612	ACC NCDR
Dual chamber ICD			100001215	ACC NCDR
Single chamber ICD			100001214	ACC NCDR
Sub Q ICD			100001217	ACC NCDR
CRT-P			704708004	SNOMED CT
Dual chamber transvenous pacemaker			112000003679	ACC NCDR
Single chamber transvenous pacemaker			112000003680	ACC NCDR
Leadless dual chamber pacemaker			112000003671	ACC NCDR

Section: Procedure History Details	Parent: History and Risk Factors	
Leadless single chamber pacemaker	112000002030	ACC NCDR
His Bundle pacemaker	112000003669	ACC NCDR
Left Bundle pacemaker	112000003670	ACC NCDR
Cardiac contractility modulation	467207002	SNOMED CT

Element: 4510 Cardiomyopathy prior to PCI

Coding Instruction: Indicate if the patient had pre-existing cardiomyopathy prior to the PCI procedure.

Note(s):
If there is no documentation regarding pre-existing cardiomyopathy, code No. If the patient has documentation of an LVEF < 40% as well as heart failure prior to the PCI, code Yes.

Target Value: Any occurrence between birth and the first procedure in this admission

Section: EP Study **Parent: Diagnostic Studies**

Element: 5000 Electrophysiology Study

Coding Instruction: Indicate if the patient had an electrophysiology study (EPS).
Note(s): Code 'Yes' for an EP Study/Ablation performed for either ventricular or atrial arrhythmias prior to the start of the ICD procedure.

Target Value: Any occurrence between birth and the first procedure in this admission

Supporting Definition: **Electrophysiology Study**

One or more catheters capable of recording and pacing are placed in one or more of the cardiac chambers. The catheters may be used to measure conduction of the impulse from the sinus node to the ventricle; induce a tachycardia; and/or localize (map) the location where the tachycardia originates.

Source: NCDR

Element: 5005 Electrophysiology Study Date

Coding Instruction: Indicate the date in which the most recent electrophysiology study (EPS) was performed.

Note(s):
If the month or day of the EP study is unknown, please code 01/01/YYYY. If the specific year is unknown in the current record, the year may be estimated based on timeframes found in prior medical record documentation (Example: If the patient had "most recent EP study" documented in a record from 2011, then the year 2011 can be utilized and coded as 01/01/2011).

Target Value: Any occurrence between birth and the first procedure in this admission

Supporting Definition: **Electrophysiology Study**

One or more catheters capable of recording and pacing are placed in one or more of the cardiac chambers. The catheters may be used to measure conduction of the impulse from the sinus node to the ventricle; induce a tachycardia; and/or localize (map) the location where the tachycardia originates.

Source: NCDR

Section: EP Study **Parent: EP Study**

Element: 5010 Electrophysiology Study Date Unknown

Coding Instruction: Indicate if the date when the electrophysiology study (EPS) was performed is unknown.

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

Element: 5015 Clinically Relevant Ventricular Arrhythmias Induced

Coding Instruction: Indicate if clinically relevant ventricular arrhythmias were induced during the electrophysiology study.

Notes(s):
A clinically relevant ventricular arrhythmia induced during electrophysiology study most often represents sustained monomorphic ventricular tachycardia, but can include other clinically relevant, sustained ventricular tachyarrhythmias thought to contribute to syncope, aborted cardiac death, or other serious clinical presentations.

Target Value: Any occurrence between birth and the first procedure in this admission

Section: Diagnostic Studies **Parent: Diagnostic Studies**

Element: 5030 Electrocardiogram Performed

Coding Instruction: Indicate if the patient had an electrocardiogram (ECG).

Note: 12-lead ECG only

Target Value: The last value within 90 days of procedure start

Element: 5040 Electrocardiogram Normal

Coding Instruction: Indicate if the electrocardiogram (ECG) clinical interpretation notes normal sinus rhythm ECG.

Target Value: The last value within 90 days of procedure start

Element: 5105 Ventricular Paced

Coding Instruction: Indicate if the patient is ventricular paced.

Note(s):
If no ECG is available, a pre-procedure 6 inch cardiac rhythm strip or clinician documentation may be utilized to obtain this information.

Target Value: The last value within 90 days of procedure start

Vendor Instruction: When Ventricular Paced (5105) is (No) then Only Ventricular Paced QRS Complexes Present (5045) must not be (Yes)

Element: 5045 Only Ventricular Paced QRS Complexes Present

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

Note(s):
If the patient has some intrinsic ventricular complexes present, code “No”.

If no ECG is available, a pre-procedure 6 inch cardiac rhythm strip or clinician documentation may be utilized to obtain this information.

Target Value: The last value within 90 days of procedure start

Element: 5050 Ventricular Paced QRS Duration

Coding Instruction: Indicate the duration of the ventricular paced 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):
If no ECG is available, a pre-procedure 6-inch cardiac rhythm strip or clinician documentation may be utilized to obtain this information.

Provider documentation of QRS, BBB, and atrial rhythm will be utilized first, then the finding from most recent ECG. If neither are available, use a 6 inch rhythm strip or device interrogation to code QRS, BBB, and atrial rhythm. However, if a 6 inch rhythm strip is used, ECG, Seq. 5030, will be coded No. Use the following order to code:
1. Provider documentation, if not then
2. Most recent ECG, if not, then
3. 6 inch rhythm strip and/or device interrogation

Target Value: The last value within 90 days of procedure start

Element: 5055 Non-Ventricular Paced QRS duration

Coding Instruction: 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):
If no ECG is available, a pre-procedure 6-inch cardiac rhythm strip or clinician documentation may be utilized to obtain this information.

Provider documentation of QRS, BBB, and atrial rhythm will be utilized first, then the finding from most recent ECG. If neither are available, use a 6 inch rhythm strip or device interrogation to code QRS, BBB, and atrial rhythm. However, if a 6 inch rhythm strip is used, ECG, Seq. 5030, will be coded No. Use the following order to code:
1. Provider documentation, if not then
2. Most recent ECG, if not, then
3. 6 inch rhythm strip and/or device interrogation

Target Value: The last value within 90 days of procedure start

Element: 5060 Abnormal Intraventricular Conduction

Coding Instruction: Indicate if the patient has abnormal intraventricular conduction, bundle branch blocks, or non-specific conduction delays.

Note(s):
Code 'No' if the abnormal intraventricular conduction is determined by the physician to be transient or rate related.

Section: Diagnostic Studies **Parent: Diagnostic Studies**

This data element is evaluating the intrinsic rhythm.
Code 'No' if the QRS duration is >= 110msec without supporting documentation from the clinician. Must be a clinical diagnosis.

Target Value: The last value within 90 days of procedure start

Element: 5065 Abnormal Intraventricular Conduction Types

Coding Instruction: Indicate the type of intraventricular conduction(s) the patient has.

Note(s):
If the patient has multiple intraventricular conduction types, select all types.

Target Value: The last value within 90 days of procedure start

Supporting Definition: **Intraventricular Conduction Types**

-Left Bundle Branch is characterized by QRS duration 120 ms or longer, delayed onset of intrinsicoid deflection in 1, V5, and V6 >60 ms, broad and notched or slurred R waves in I, aVL, V5, and V6, rS or QS complexes in right precordial leads, ST-segment and T waves in opposite polarity to the major QRS deflection.
-Non-Specific abnormal Intraventricular conduction delays are characterized by a QRS duration of 110 ms or more with morphology different from LBBB or RBBB.
-Right Bundle Branch Block is characterized by a QRS duration of 120 ms, rsR'or rSR' complexes in V1 and V2, Delayed onset of intrinsicoid, deflection in V1 and V2 >50 ms, Broad, slurred S wave in 1, V5, and V6 Secondary ST-T wave changes.

Source: ACC/AHA/HRS 2006 Key Data Elements and Definitions for Electrophysiological Studies and Procedures.

Intraventricular Conduction Types - 1.3.6.1.4.1.19376.1.4.1.6.5.117

Selection	Definition	Source	Code	Code System
Alternating RBBB and LBBB			32758004	SNOMED CT
Delay, nonspecific			698252002	SNOMED CT
Left bundle branch block (LBBB)			164909002	SNOMED CT
Right bundle branch block (RBBB)			164907000	SNOMED CT

Element: 5100 Atrial Rhythm

Coding Instruction: Indicate the patient's atrial rhythm at the start of the procedure.

Note(s):
If the patient has multiple atrial rhythms, select all that apply.
In the event that a patient is ventricular paced, indicate the underlying atrial rhythm.
If the atrial rhythm is not documented, leave "Atrial Rhythm" blank.
Target value applies to the first procedure captured for this registry.
If no ECG is available, a pre-procedure 6 inch cardiac rhythm strip or clinician documentation may be utilized to obtain this information.

Provider documentation of QRS, BBB, and atrial rhythm will be utilized first, then the finding from most recent ECG. If neither are available, use a 6-inch rhythm strip or device interrogation to code QRS, BBB, and atrial rhythm. However, if a 6 inch rhythm strip is used, ECG, Seq. 5030, will be coded No. Use the following order to code:
1. Provider documentation, if not then
2. Most recent ECG, if not, then
3. 6 inch rhythm strip and/or device interrogation

Target Value: The last value within 90 days of procedure start

Atrial Rhythm - 1.3.6.1.4.1.19376.1.4.1.6.5.187

Selection	Definition	Source	Code	Code System
Atrial fibrillation			49436004	SNOMED CT
Atrial flutter			5370000	SNOMED CT
Atrial paced			251268003	SNOMED CT
Atrial tachycardia			276796006	SNOMED CT
Sinus			106067008	SNOMED CT
Sinus arrest			5609005	SNOMED CT

Element: 4150 Prior LVEF Assessed

Coding Instruction: Indicate if a left ejection fraction percentage has been assessed.

Note: If the LVEF has a date or statement of date affiliated with it, which confirms it was performed in the last 12 months, then you are able to utilize that LVEF in coding. An LVEF measurement in a dictated note is not sufficient unless there is a date affiliated with it (e.g., LVEF asssessed May 2020).

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

Element: 4155 Most Recent LVEF Date

Coding Instruction: Indicate the date of the implanting physician cited LVEF or the most recent LVEF assessed if the implanting physician value is not

Section: Diagnostic Studies | **Parent: Diagnostic Studies**

available.

Note(s):
If the month or day of the LVEF is unknown, please code 01/01/YYYY. If the specific year is unknown in the current record, the year may be estimated based on timeframes found in prior medical record documentation (Example: If the patient had "most recent LVEF" documented in a record from 2011, then the year 2011 can be utilized and coded as 01/01/2011).

If the LVEF has a date or statement of date affiliated with it, which confirms it was performed in the last 12 months, then you are able to utilize that LVEF in coding. An LVEF measurement in a dictated note is not sufficient unless there is a date affiliated with it (e.g., LVEF assessed May 2020).

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

Element: 4160 Most Recent LVEF %

Coding Instruction: Indicate the left ventricular ejection fraction cited by the implanting physician as the indication for the ICD. In the absence of a physician cited LVEF, indicate the most recent left ventricular ejection fraction. The left ventricular ejection fraction can be assessed via invasive (i.e. LV gram), or non-invasive (i.e. Echo, MR, CT or Nuclear) testing.

Note(s):
Enter a percentage in the range of 01 - 99. If a percentage range is reported, report the lowest number of the range (i.e.50-55%, is reported as 50%).
An LVEF measurement is reported as "less than" or "greater than", code to the nearest whole number (e.g., < 40% is coded 39% and > 40% is coded 41%).

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

Supporting Definition: **Most Recent LVEF %**

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

Source: ACC Clinical Data Standards, Society for Thoracic Surgeons Adult Cardiac Surgery Database (STS)

Section: Labs **Parent: Root**

Element: 6025 Blood Urea Nitrogen

Coding Instruction: Indicate the blood urea nitrogen (BUN) value, in mg/dL.

Note(s):
When the value falls outside of the usual range (Example: Bun is > 20 but less than 99), an "Outlier Warning" will be displayed in the quality check. This will not affect DQR submission. It is a notification to double check the entered value. If the BUN value is greater than the valid range (over 100), code “99”.

Target Value: The last value within 30 days prior to the first procedure in this admission

Element: 6026 BUN Not Drawn

Coding Instruction: Indicate if a blood urea nitrogen (BUN) was not drawn.

Target Value: The last value within 30 days prior to the first procedure in this admission

Element: 6030 Hemoglobin

Coding Instruction: Indicate the hemoglobin (Hgb) value in g/dL.

Target Value: The last value within 30 days prior to the first procedure in this admission

Element: 6031 Hemoglobin Not Drawn

Coding Instruction: Indicate if the hemoglobin was not drawn.

Target Value: The last value within 30 days prior to the first procedure in this admission

Element: 6035 Sodium

Coding Instruction: Indicate the sodium (Na) level, in mEq/L.

Target Value: The last value within 30 days prior to the first procedure in this admission

Element: 6036 Sodium Not Drawn

Coding Instruction: Indicate if the sodium level was not drawn.

Target Value: The last value within 30 days prior to the first procedure in this admission

Element: 6045 International Normalized Ratio (INR)

Coding Instruction: Record the international normalized ratio (INR).

Note(s): Enter the value to as many decimal places as is available on the medical record and to where the tool will allow. Do not round - values are not altered.

Target Value: The last value between 1 day prior to the procedure and the current procedure

Supporting Definition: **International Normalized Ratio (INR)**

The INR is specifically intented for evaluating protime results on patients stabilized on long term oral anticoagulant therapy. The INR is not appropriate to evalulate hemostatic function in patients with liver disease, for screening for hereditary factor deficiencies or acquired vitamin K deficiencies, or for routine preoperative screening; this should be evaluated on the normal range in seconds. INR is calculated by the equation, INR = (PTR) raised to the power of ISI, where ISI = International Sensitivity Index (assigned to each reagent thromboplastin). PTR = prothrombin time ratio (pat PT/pop mean PT). Computation of the INR of specific thromboplastin reagent should allow for uniformity in prothrombin time testing regardless of the reagent system or instrumentation used.

Source: http://s.details.loinc.org/LOINC/6301-6.html?sections=Simple

Element: 6046 International Normalized Ratio Not Drawn

Coding Instruction: Indicate if INR was not drawn.

Target Value: N/A

Element: 6050 Creatinine

Coding Instruction: Indicate the creatinine (Cr) level mg/dL.

Note(s):
This may include POC (Point of Care) testing results or results obtained prior to arrival at this facility.

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

Supporting Definition: **Creatinine**

Section: Labs **Parent: Root**

Creatinine or creatine anhydride, is a breakdown product of creatine phosphate in muscle. The loss of water molecule from creatine results in the formation of creatinine. It is transferred to the kidneys by blood plasma, whereupon it is eliminated by glomerular filtration and partial tubular excretion. Creatinine is usually produced at a fairly constant rate and measuring its serum level is a simple test. A rise in blood creatinine levels is observed only with marked damage to functioning nephrons; therefore this test is not suitable for detecting early kidney disease. Creatine and creatinine are metabolized in the kidneys, muscle, liver and pancreas.

Source: http://s.details.loinc.org/LOINC/2160-0.html?sections=Simple

Element: 6051 Creatinine Not Drawn

Coding Instruction: Indicate if a creatinine level was not drawn.

Target Value: N/A

Section: Procedure Information **Parent: Root**

Element: 15694 Procedure Room Entry Date and Time

Coding Instruction: Indicate the date and time the patient entered the procedure room.

Target Value: The value on current procedure

Vendor Instruction: Procedure Room Entry Date and Time (15694) must be Greater than or Equal to Arrival Date (3000)

Procedure Room Entry Date and Time (15694) must be Less than Procedure Room Exit Date and Time (15695)

Procedure Room Entry Date and Time (15694) must be unique within an episode of care

Element: 7000 Procedure Start Date and Time

Coding Instruction: Indicate the date and time the procedure started. The time of the procedure is the time that the skin incision, vascular access, or its equivalent, was made in order to start the procedure.

Note(s):
Indicate the date/time (mm/dd/yyyy hours:minutes) using the military 24-hour clock, beginning at midnight (0000 hours).

Target Value: Any occurrence on current procedure

Vendor Instruction: Procedure Start Date and Time (7000) must be Greater than or Equal to Arrival Date (3000)

Procedure Start Date and Time (7000) must be Less than Procedure End Date and Time (7005)

Procedure Start Date and Time (7000) must be Less than or Equal to Discharge Date (10100)

Procedure Start Date and Time (7000) must be unique within an episode of care

Element: 7005 Procedure End Date and Time

Coding Instruction: Indicate the ending date and time at which the operator breaks scrub at the end of the procedure.

Note(s):
If more than one operator is involved in the case then use the date and time the last operator breaks scrub.

Target Value: The value on current procedure

Vendor Instruction: Procedure End Date and Time (7005) must be Less than or Equal to Discharge Date (10100)

Procedure End Date and Time (7005) and Procedure Start Date and Time (7000) must not overlap on multiple procedures

Element: 15695 Procedure Room Exit Date and Time

Coding Instruction: Indicate the date and time the patient exits the procedure room.

Target Value: The value on current procedure

Vendor Instruction: Procedure Room Entry Date and Time (15694) and Procedure Room Exit Date and Time (15695) must not overlap on multiple procedures

Procedure Room Exit Date and Time (15695) must be unique within an episode of care

Element: 7010 Procedure Type

Coding Instruction: Indicate the procedure that was performed.

Target Value: Any occurrence on current procedure

Vendor Instruction: When Procedure Type (7010) is (Generator explant) then Device Explanted (7660) must not be (Not explanted, Previously explanted)

Procedure Type (7010) of (Initial generator implant) may only take place in the initial lab visit

Procedure Type - 1.3.6.1.4.1.19376.1.4.1.6.5.163

Selection	Definition	Source	Code	Code System
Generator change	The patient already has a device and is receiving a generator that is an upgrade or a change from one that was previously implanted.		428625001	SNOMED CT
Generator explant	Patient already has a device and is having the generator removed without re-implant of another generator during the current procedure.		233171004	SNOMED CT
Initial generator implant	The patient is receiving a device for the first time.		233170003	SNOMED CT
Lead only	A lead procedure is being performed without a generator change.		100001025	ACC NCDR

Element: 7015 ICD Indication

Section: Procedure Information **Parent: Root**

Coding Instruction: Indicate the ICD Device indication as documented by the provider.

Target Value: Any occurrence on current procedure

Procedure Indication - 1.3.6.1.4.1.19376.1.4.1.6.5.33

Selection	Definition	Source	Code	Code System
Primary prevention	Primary Prevention is an indication for an ICD to prevent sudden cardiac death. It refers to use of ICDs in individuals who are at risk for but have not yet had an episode of sustained ventricular tachycardia, ventricular fibrillation, or resuscitated cardiac arrest.		315233008	SNOMED CT
Secondary prevention	Secondary prevention refers to an indication for ICD exclusively for patients who have survived one or more cardiac arrests or sustained ventricular tachycardia. Patients with cardiac conditions associated with a high risk of sudden death who have unexplained syncope that is likely to be due to ventricular arrhythmias are considered to have a secondary indication.		315234002	SNOMED CT

Element: 7600 Generator Operator Last Name

Coding Instruction: Indicate the last name of the operator who is implanting the device.

Note(s):
If more than one operator is involved, only code the primary operator.

If the name exceeds 50 characters, enter the first 50 letters only.

Target Value: The value on current procedure

Element: 7605 Generator Operator First Name

Coding Instruction: Indicate the first name of the operator who is implanting the device.

Note(s):
If the name exceeds 50 characters, enter the first 50 letters only.

Target Value: The value on current procedure

Element: 7610 Generator Operator Middle Name

Coding Instruction: Indicate the middle name of the operator who is implanting the device.

Note(s):
It is acceptable to specify the middle initial.

If there is no middle name given, leave field blank.

If there are multiple middle names, enter all of the middle names sequentially.

If the name exceeds 50 characters, enter the first 50 letters only.

Target Value: The value on current procedure

Element: 7615 Generator Operator NPI

Coding Instruction: Indicate the National Provider Identifier (NPI) of the operator who is implanting the device. NPI's, assigned by the Centers for Medicare and Medicaid Services (CMS), are used to uniquely identify physicians for Medicare billing purposes.

Target Value: The value on current procedure

Section: Fellow Information **Parent: Procedure Information**

Element: 15433 Fellow Last Name

Coding Instruction: Indicate the last name of the Fellow-in-Training operator.

Note(s):
If the name exceeds 50 characters, enter the first 50 characters only.

Target Value: The value on current procedure

Element: 15434 Fellow First Name

Coding Instruction: Indicate the first name of the Fellow-in-Training operator.

Note(s):
If the name exceeds 50 characters, enter the first 50 characters only.

Target Value: The value on current procedure

Element: 15435 Fellow Middle Name

Coding Instruction: Indicate the middle name of the Fellow-in-Training operator.

Note(s):
If the name exceeds 50 characters, enter the first 50 characters only.

Target Value: The value on current procedure

Element: 15436 Fellow NPI

Coding Instruction: Indicate the National Provider Identifier (NPI) of the Fellow-in-Training operator who is performing the procedure. NPI's, assigned by the Centers for Medicare and Medicaid Services (CMS), are used to uniquely identify physicians for Medicare billing purposes.

Target Value: The value on current procedure

Vendor Instruction: Fellow NPI (15436) must only be entered/selected once.

Element: 15431 Fellowship Program Identification Number

Coding Instruction: Indicate the institution's Accreditation Council for Graduate Medical Education (ACGME) number for the program in which the Fellow is participating.

Target Value: The value on current procedure

Supporting Definition: **Fellowship Program Identification Number**

The institution's Accreditation Council for Graduate Medical Education (ACGME) number for the program in which the Fellow is participating.

ACGME oversees the accreditation of fellowship programs in the US. Each accredited training program is assigned a program ID.

Source: A list of programs by specialty can be found here: ACGME - Accreditation Data System (ADS): https://apps.acgme.org/ads/Public/Reports/Report/1 .

Section: Shared Decision Making **Parent: Procedure Information**

Element: 14732 Shared Decision Making

Coding Instruction: Indicate if Shared Decision Making (SDM) was performed for the procedure.

A statement by the Provider that a SDM encounter occurred, use of a Smart phrase pertaining to SDM within the facility's EHR system, or use of a SDM Tool are all sufficient for coding "Yes".

Target Value: The value on current procedure

Supporting Definition: **Shared Decision Making**

Shared decision-making is when patients and clinicians work as a team to make care decisions. The provider offers various options and describes their risks and benefits, and the patient expresses his or her preferences and values. Tools can help facilitate a collaborative process between providers and patients and can:
- Increase knowledge and satisfaction regarding care
- Define clearer goals for treatment
- Align health decisions with patient values

Informed consent is not the same as shared decision-making.

Source:

Element: 14733 Shared Decision Making Tool Used

Coding Instruction: Indicate if a shared decision making tool was used.

Target Value: The value on current procedure

Element: 14734 Shared Decision Making Tool Name

Coding Instruction: Indicate what tool was used.
If the tool used is not in the drop-down list, please contact NCDR@acc.org to have a selection added.

Target Value: The value on current procedure

Shared Decision Making Tools - 1.3.6.1.4.1.19376.1.4.1.6.5.765

Selection	Definition	Source	Code	Code System
Colorado Shared Decision Making Tool			112000002028	ACC NCDR
Other Shared Decision Making Tool			100000351	ACC NCDR

Section: Clinical Trial **Parent: Procedure Information**

Element: 7020 Premarket Clinical Trial

Coding Instruction: Indicate if the Device or Lead procedure is part of a pre-market clinical trial(s), excluding post-market surveillance trial.

Target Value: Any occurrence on current procedure

Element: 15786 Post-market Surveillance

Coding Instruction: Indicate if the ICD procedure (generator implant or lead procedure) or pacemaker procedure is part of post-market surveillance trial(s).

Target Value: Any occurrence on current procedure

Section: Device Implant/Explant **Parent: Procedure Information**

Element: 7620 Device Implanted

Coding Instruction: Indicate if a device was implanted.

Target Value: Any occurrence on current procedure

Element: 15794 Final Device Type

Coding Instruction: Indicate the device type that was implanted at the completion of the procedure.

Target Value: Any occurrence on current procedure

Implantation Device Type - Dynamic - 1.3.6.1.4.1.19376.1.4.1.6.5.982

Selection	Definition	Source	Code	Code System
CRT-D	A cardiac resynchronization therapy device and 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.		100001216	ACC NCDR
Extravascular ICD	The extravascular (EV) ICD system has a lead (thin wire) is placed outside the heart and veins, under the sternum (breastbone).		112000003612	ACC NCDR
ICD dual chamber	A dual-chamber ICD defibrillates the ventricle and paces the atrium and ventricle.		100001215	ACC NCDR
ICD single chamber	A single-chamber ICD defibrillates the ventricle and paces the ventricle.		100001214	ACC NCDR
S-ICD (Sub Q)	A subcutaneous only defibrillator.		100001217	ACC NCDR
Single chamber transvenous permanent pacemaker	A type of pacemaker that uses one transvenous lead to stimulate either the right atrium or right ventricle of the heart.		112000003680	ACC NCDR
Dual chamber transvenous permanent pacemaker	A type of pacemaker that uses two transvenous leads to stimulate both the right atrium and right ventricle of the heart.		112000003679	ACC NCDR
CRT-P	A CRT procedure is the placement of 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.		704708004	SNOMED CT
Leadless single chamber permanent pacemaker	A self-contained transvenous pacemaker generator and electrode system implanted directly into the right ventricle. The device is implanted via a femoral vein transcatheter approach; it requires no chest incision or subcutaneous generator pocket.		112000002030	ACC NCDR
Leadless dual chamber permanent pacemaker	A self-contained transvenous pacemaker generator and electrode system implanted directly into the right ventricle and right atrium. The device is implanted via a femoral vein transcatheter approach; it requires no chest incision or subcutaneous generator pocket.		112000003671	ACC NCDR
His bundle permanent pacemaker	His-bundle pacing is a method for delivering permanent pacing. It produces physiological ventricular activation via the His-Purkinje system		112000003669	ACC NCDR
Left bundle permanent pacemaker	Left bundle pacing is a method for delivering permanent pacing. It produces physiological ventricular activation via the Left bundle.		112000003670	ACC NCDR
Left ventricular endocardial pacemaker	Left ventricular (LV) endocardial pacing is a treatment for patients with heart failure, severe LV dysfunction, and electrical dyssynchrony. It's an alternative therapy to cardiac resynchronization therapy (CRT) for patients who don't respond to conventional CRT or when it's not possible to place a lead through the coronary sinus.		112000003709	ACC NCDR
Cardiac Contractility Modulation	A device-based therapy using electrical impulses to improve contractility and pumping function primarily for treatment of heart failure.		467207002	SNOMED CT

Element: 7630 Coronary Sinus/Left Ventricular (CS/LV) lead

Coding Instruction: If an attempt was made to implant a coronary sinus/left ventricular (CS/LV) lead during the current procedure, indicate the results of the attempt.

Note(s): When a guidewire or catheter is used to perform a venogram and it is determined there is an obstruction or the branches are not conducive to implanting the LV lead (and there is no further attempt to access the coronary sinus vein with the intent of implanting the left ventricular lead), code "Not Attempted".

Target Value: Any occurrence on current procedure

Section: Device Implant/Explant **Parent: Procedure Information**

Lead Implantation Outcome - 1.3.6.1.4.1.19376.1.4.1.6.5.35

Selection	Definition	Source	Code	Code System
Implant unsuccessful			100001143	ACC NCDR
Previously implanted			100001084	ACC NCDR
Successfully implanted			100001107	ACC NCDR
Not attempted			100001057	ACC NCDR

Element: 15827 His Bundle Lead

Coding Instruction: If an attempt was made to implant a His bundle lead during the current procedure, indicate the results of the attempt.

Target Value: The value on current procedure

Lead Implantation Outcome - 1.3.6.1.4.1.19376.1.4.1.6.5.35

Selection	Definition	Source	Code	Code System
Implant unsuccessful			100001143	ACC NCDR
Previously implanted			100001084	ACC NCDR
Successfully implanted			100001107	ACC NCDR
Not attempted			100001057	ACC NCDR

Element: 15828 Left Bundle Lead

Coding Instruction: If an attempt was made to implant a Left bundle lead during the current procedure, indicate the results of the attempt.

Target Value: The value on current procedure

Lead Implantation Outcome - 1.3.6.1.4.1.19376.1.4.1.6.5.35

Selection	Definition	Source	Code	Code System
Implant unsuccessful			100001143	ACC NCDR
Previously implanted			100001084	ACC NCDR
Successfully implanted			100001107	ACC NCDR
Not attempted			100001057	ACC NCDR

Element: 15781 Co-implant Device

Coding Instruction: Indicate if additional devices were implanted in the body, regardless of their function.

Note(s): Baseline co-implantation refers to the simultaneous implantation of additional cardiac devices to enhance the treatment efficacy. This approach aims to optimize cardiac function, manage arrhythmias, and improve overall patient outcomes through a more comprehensive therapeutic strategy. This may include combining wireless systems with existing pacing or defibrillation devices to enhance therapeutic effectiveness.

Target Value: The value on current procedure

Section: Implant Device Information **Parent: Device Implant/Explant**

Element: 7635 Implant Device ID

Coding Instruction: Indicate the assigned identification number associated with the implanted device.

Note(s):
The devices that should be collected in your application are controlled by a Defibrillator Device Master file. This file is maintained by the NCDR and will be made available on the internet for downloading and importing/updating into your application.

Target Value: Any occurrence on current procedure

Element: 7640 Implant Device Serial Number

Coding Instruction: Indicate the serial number of the device that was implanted.

Target Value: Any occurrence on current procedure

Vendor Instruction: An Implant Device Serial Number (7640) may only be entered/selected once

When Implant Device Serial Number (7640) is answered, Implant Device ID (7635) cannot be Null

Element: 7645 Implant Unique Device Identifier

Coding Instruction: Indicate the direct identifier portion of the Unique Device Identifier (UDI) associated with the device used for implant. This ID is provided by the device manufacturer, and is either a GTIN or HIBC number.

Target Value: Any occurrence on current procedure

Supporting Definition: **Unique Device Identifier (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.

Source: US FDA

Section: Indications **Parent: Device Implant/Explant**

Element: 14730 Bradycardia Indication Present

Coding Instruction: Indicate if a bradycardia indication was also present.

Target Value: The value on current procedure

Element: 14731 Reason Pacing Indicated

Coding Instruction: Select the reason pacing was indicated.

Note(s): Code 'Chronotropic Incompetence' when pharmacological rate control is documented by the clinician.

Code "Complete Heart Block" If a patient has symptomatic first- or second-degree heart block and no other indication.

Target Value: The value on current procedure

Supporting Definition: **Reason Pacing Indicated**

Refer to the source for the supporting definition.

Source: Russo AM, Stainback RF, Bailey SR, et al. ACCF/HRS/AHA/ ASE/HFSA/SCAI/SCCT/SCMR 2013 appropriate use criteria for implantable cardioverter-defibrillators and cardiac resynchronization therapy. J Am Coll Cardiol 2013;61:1318–68. doi: 10.1016/j.jacc.2012.12.017

Vendor Instruction: Parent/Child Validation Notes: See Implant Device Types dynamic list. Enable the element when the element reference number is listed under the enableElements column applicable to the Final Device Type (15794) under the dynamic list.

Reason Tachycardia Pacing Indicated - 1.3.6.1.4.1.19376.1.4.1.6.5.761

Selection	Definition	Source	Code	Code System
2:1 AV Block	P-waves with a constant rate (or near constant rate because of ventriculophasic sinus arrhythmia) rate (<100 bpm) where every other P-wave conducts to the ventricles		54016002	SNOMED CT
Mobitz Type II	P-waves with a constant rate (< 100 bpm) with a periodic single non-conducted P-wave associated with other P-waves before and after the non-conducted P-wave with constant PR intervals (excluding 2:1 atrioventricular block)		28189009	SNOMED CT
Atrioventricular Node Ablation			428663009	SNOMED CT
Anticipated requirement of > 40% RV pacing			100000931	ACC NCDR
Chronotropic incompetence	Broadly defined as the inability of the heart to increase its rate commensurate with increased activity or demand, in many studies translates to failure to attain 80% of expected heart rate reserve during exercise.		427989008	SNOMED CT
Complete heart block	No evidence of atrioventricular conduction.		27885002	SNOMED CT
HF unresponsive to GDMT			112000002017	ACC NCDR
Sick sinus syndrome	Sick sinus syndrome or sinus node dysfunction must be symptomatic to code 14731 as 'Yes'. This includes sinus bradycardia, ectopic atrial bradycardia, sinoatrial exit block, sinus pause, sinus node arrest, and tachycardia-bradycardia syndrome; all of which must be symptomatic.		36083008	SNOMED CT
Other			100000351	ACC NCDR

Section: Generator Removal **Parent: Device Implant/Explant**

Element: 7650 Reason(s) for Generator Replacement

Coding Instruction: Indicate the reason(s) for the replacement.

Target Value: Any occurrence on current procedure

Reimplant Reason - 1.3.6.1.4.1.19376.1.4.1.6.5.36

Selection	Definition	Source	Code	Code System
Device relocation			100001087	ACC NCDR
End of expected battery life			100001088	ACC NCDR
Faulty connector/header			100001089	ACC NCDR
Infection			100001091	ACC NCDR
Malfunction			100001090	ACC NCDR
Replaced at time of lead revision			100001092	ACC NCDR
Under manufacturer advisory/recall			100001093	ACC NCDR
Upgrade			100001094	ACC NCDR
Other			112000003710	ACC NCDR

Element: 7660 Device Explanted

Coding Instruction: Indicate if the previous device was explanted.

Target Value: Any occurrence between previous device implant and current procedure

Generator Explant Response - 1.3.6.1.4.1.19376.1.4.1.6.5.217

Selection	Definition	Source	Code	Code System
Not explanted			100001140	ACC NCDR
Explanted			100001141	ACC NCDR
Previously explanted			100001083	ACC NCDR

Section: Explant Device Information **Parent: Generator Removal**

Element: 7675 Explant Device ID

Coding Instruction: Indicate the assigned identification number associated with the explanted device.

Note(s):
The devices that should be collected in your application are controlled by a Defibrillator Device Master file. This file is maintained by the NCDR and will be made available on the internet for downloading and importing/updating into your application.

Target Value: Any occurrence between previous device implant and current procedure

Element: 7680 Explant Device Serial Number

Coding Instruction: Indicate the serial number of the explanted device.

Target Value: Any occurrence between previous device implant and current procedure

Vendor Instruction: When Explant Device Serial Number (7680) is answered, Explant Device ID (7675) cannot be Null

An Explant Device Serial Number (7680) may only be entered/selected once

Element: 7685 Explant Unique Device Identifier

Coding Instruction: Indicate the direct identifier portion of the Unique Device Identifier (UDI) associated with the device used for explant. This ID is provided by the device manufacturer, and is either a GTIN or HIBC number.

Target Value: Any occurrence on current procedure

Supporting Definition: **Unique Device Identifier (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.

Source: US FDA

Section: Generator Removal **Parent: Generator Removal**

Element: 7670 Explant Treatment Recommendation

Coding Instruction: Indicate the planned treatment post explant of the device at the time of the current procedure.

Target Value: Any occurrence on current procedure

Explant Treatment Recommendation - 1.3.6.1.4.1.19376.1.4.1.6.5.38

Selection	Definition	Source	Code	Code System
Downgrade	The ICD/CRT-D device has been explanted with re-implant of a device with only pacing and no defibrillation capabilities during the current procedure.		100000995	ACC NCDR
No Re-implant	The device has been explanted with no re-implant of any device with pacing or defibrillation capabilities during the current procedure.		100001049	ACC NCDR
Upgrade	The ICD/CRT-D/pacemaker device has been explanted, and a new device with additional or enhanced capabilities, has been implanted during the current procedure.		112000003672	ACC NCDR

Section: Lead Assessment **Parent: Procedure Information**

Element: 7690 Lead Operator Last Name

Coding Instruction: Indicate the last name of the operator who is performing the lead procedure.

Note(s):
If the name exceeds 50 characters, enter the first 50 letters only.

If more than one physician performs the lead procedure, code the operator of record.

Target Value: The value on current procedure

Element: 7695 Lead Operator First Name

Coding Instruction: Indicate the first name of the operator who is performing the lead procedure.

Note(s):
If the name exceeds 50 characters, enter the first 50 letters only.

If more than one physician performs the lead procedure, code the operator of record.

Target Value: The value on current procedure

Element: 7700 Lead Operator Middle Name

Coding Instruction: Indicate the middle name of the operator who is performing the lead procedure.

Note(s):
It is acceptable to specify the middle initial.

If there is no middle name given, leave field blank.

If there are multiple middle names, enter all of the middle names sequentially.

If the name exceeds 50 characters, enter the first 50 letters only.

Target Value: The value on current procedure

Element: 7705 Lead Operator NPI

Coding Instruction: Indicate the National Provider Identifier (NPI) of the operator who is performing the lead procedure. NPI's, assigned by the Centers for Medicare and Medicaid Services (CMS), are used to uniquely identify physicians for Medicare billing purposes.

Target Value: The value on current procedure

Section: Leads **Parent: Lead Assessment**

Element: 7710 Lead Counter

Coding Instruction: The software-assigned lead counter should start at one and be incremented by one for each new or existing lead documented.

Target Value: N/A

Element: 7715 Lead Identification

Coding Instruction: Indicate if the lead is a new or existing lead. All new leads placed or existing leads extracted, abandoned, or reused should be identified in the leads section.

Note(s):
If a lead was attempted, but not actually implanted, do not include it. For example, if a lead turns out to be too short, or with inadequate coil spacing, or is too large/unstable for the coronary sinus branch vein, do not include it in the registry.

Target Value: The value on current procedure

New or Existing Lead - 1.3.6.1.4.1.19376.1.4.1.6.5.182

Selection	Definition	Source	Code	Code System
New	A lead that is implanted for the first time.		100001047	ACC NCDR
Existing	A lead that has been previously implanted.		100001001	ACC NCDR

Element: 7740 Existing Lead Implant Date

Coding Instruction: Indicate the date the existing lead was initially implanted.

Note(s):
If the month or day of the implant is unknown, please code 01/01/YYYY. If the specific year is unknown in the current record, the year may be estimated based on timeframes found in prior medical record documentation (Example: If the patient had a lead implant documented in a record from 2011, then the year 2011 can be utilized and coded as 01/01/2011).

Target Value: The last value between birth and current procedure

Vendor Instruction: Existing Lead Implant Date (7740) must be Less than or Equal to Procedure Start Date and Time (7000)

Element: 7745 Existing Lead Status

Coding Instruction: Indicate the status of the existing lead.

Target Value: Any occurrence on current procedure

Existing Lead Status - 1.3.6.1.4.1.19376.1.4.1.6.5.183

Selection	Definition	Source	Code	Code System
Extracted	The existing lead was extracted in whole or part and removed.		100001004	ACC NCDR
Abandoned	The existing lead was left in situ, abandoned and not reused.		100000925	ACC NCDR
Reused	The existing lead was left in situ and reused.		100001099	ACC NCDR

Element: 7720 Lead Identification Number

Coding Instruction: Indicate the assigned identification for new or existing leads placed, reused, extracted or abandoned during the procedure.

Note(s):
The lead devices that should be collected in your application are controlled by a Leads Device Master file. This file is maintained by the NCDR and will be made available on the internet for downloading and importing/updating into your application.

Target Value: The value on current procedure

Element: 7725 Lead Serial Number

Coding Instruction: Indicate the manufacturer's serial number of the lead.

Target Value: The value on current procedure

Vendor Instruction: A Lead Serial Number (7725) may only be entered/selected once

When Lead Serial Number (7725) is answered, Lead Identification Number (7720) cannot be Null

Element: 7730 Lead Unique Device Identifier

Coding Instruction: Indicate the direct identifier portion of the Unique Device Identifier (UDI) associated with the device used for implant. This ID is provided by the device manufacturer, and is either a GTIN or HIBC number.

Target Value: The value on current procedure

Supporting Definition: **Unique Device Identifier (UDI)**

Section: Leads **Parent: Lead Assessment**

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.

Source: US FDA

Element: 7735 Lead Location

Coding Instruction: Indicate the location of the lead.

Target Value: Any occurrence on current procedure

Lead Location (Target Site) - 1.3.6.1.4.1.19376.1.4.1.6.5.167

Selection	Definition	Source	Code	Code System
Azygos vein	A pacing or defibrillating lead placed in a vein (azygos) on the right side at the back of the thorax.		72107004	SNOMED CT
His bundle	A pacing or defibrillating lead placed at the location of the His bundle.		345000	SNOMED CT
Left bundle	A pacing or defibrillating lead placed at the location of the left bundle.		74031005	SNOMED CT
LV endocardial	A pacing or defibrillating lead placed onto the left ventricular endocardium.		112000003605	ACC NCDR
LV epicardial (CVS)	A pacing or defibrillating lead placed transvenously onto the left ventricle through the coronary venous system.		100001136	ACC NCDR
LV epicardial (surgical)	A pacing or defibrillation lead placed transthoracically onto the left ventricular epicardium.		100001135	ACC NCDR
RA endocardial	A pacing lead placed transvenously into the right atrial endocardium.		3194006	SNOMED CT
RA epicardial	A pacing or defibrillating lead placed on the outside of the cardiac muscle onto right atrium		112000002026	ACC NCDR
RV endocardial	A pacing or defibrillation lead placed transvenously into the right ventricular endocardium.		304059001	SNOMED CT
RV epicardial	A pacing or defibrillating lead placed on the outside of the cardiac muscle onto right ventricle.		112000002027	ACC NCDR
Subcutaneous array	A defibrillation electrode that is placed subcutaneously.		100001106	ACC NCDR
Subcutaneous ICD	A defibrillation lead placed subcutaneously.		100001138	ACC NCDR
Substernal	A pacing or defibrillating lead placed under the sternum.		33547000	SNOMED CT
Superior Vena Cava/subclavian	A defibrillating lead placed in the superior vena cava or subclavian vein.		100001137	ACC NCDR
Other Lead location	A lead placed in a location not specified above.		100001066	ACC NCDR

Section: Intra or Post-Procedure Events **Parent: Intra or Post-Procedure Events**

Element: 9001 Intra/Post-Procedure Events

Coding Instruction: Indicate the event that occurred between the start of the procedure and the next procedure or discharge.

Target Value: Any occurrence between start of procedure and until next procedure or discharge

Vendor Instruction: Intra/Post-Procedure Events (9001) should not be duplicated in a lab visit

Post-Procedure Events - 2.16.840.1.113883.3.3478.6.3.10

Selection	Definition	Source	Code	Code System
Bleeding - Access Site	Indicate if the patient experienced a bleeding event at the percutaneous access site observed and documented in the medical record that was associated with any of the following: 1. Hemoglobin drop of >=3 g/dL; 2. Transfusion of whole blood or packed red blood cells; 3. Procedural intervention/surgery at the bleeding site to reverse/stop or correct the bleeding (such as surgical closure/exploration of the arteriotomy site, balloon angioplasty to seal an arterial tear). Do not include bleeding at the site of the generator implant/explant.		1000142440	ACC NCDR
Bleeding - Gastrointestinal	Indicate if the patient experienced a gastrointestinal bleeding event observed and documented in the medical record that was associated with any of the following: 1. Hemoglobin drop of >=3 g/dL; 2. Transfusion of whole blood or packed red blood cells; 3. Procedural intervention/surgery at the bleeding site to reverse/stop or correct the bleeding (such as surgical closure or endoscopy with cautery of a GI bleed).		74474003	SNOMED CT
Bleeding - Retroperitoneal	Indicate if the patient experienced a retroperioneal bleeding event observed and documented in the medical record that was associated with any of the following: 1. Hemoglobin drop of >=3 g/dL; 2. Transfusion of whole blood or packed red blood cells; 3. Procedural intervention/surgery at the bleeding site to reverse/stop or correct the bleeding (such as surgical closures/exploration of the arteriotomy site, balloon angioplasty to seal an arterial tear).		95549001	SNOMED CT
Hematoma (Re-op, evac, or transfusion)	Indicate if there is documentation that the patient experienced a pocket hematoma at the incision site requiring a reoperation, evacuation or transfusion.		385494008	SNOMED CT
Transfusion	Indicate if there is documentation that patient received a transfusion of whole or packed red blood cells.		5447007	SNOMED CT
Vascular complications	Indicate if there is documentation that the patient experienced a vascular complication attributable to the current procedure that required an intervention. Vascular complications can include, but are not limited to: access site occlusions, peripheral embolizations, dissections, pseudoaneurysms and/or AV fistulas. Any noted vascular complication must have had an intervention such as a fibrin injection, angioplasty, or surgical repair to qualify. Prolonged pressure does not qualify as an intervention, but ultrasonic guided compression after making a diagnosis of pseudoaneurysm does qualify. A retroperitoneal bleed or access site bleed is not captured in this event. A retroperitoneal bleed or access site bleed or hematoma requiring transfusion is not a vascular complication under this data element.		213217008	SNOMED CT
Cardiac arrest	Indicate if the patient experienced cardiac arrest.		410429000	SNOMED CT

Section: Intra or Post-Procedure Events	Parent: Intra or Post-Procedure Events		
	Cardiac arrest is the cessation of cardiac activity. The patient 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.		
Cardiac perforation	Indicate if there is angiographic or clinical evidence of a new cardiac perforation due to forward movement of pacing or defibrillator leads.	36191001:123005000=302509004	SNOMED CT
Coronary venous dissection	Indicate if there is documentation of coronary venous dissection, a tear of the coronary sinus endothelium with dissection into the coronary sinus wall (sometimes referred to as "staining" following contrast injection). It can be caused by the lead, guide, or guidewire.	100000029	ACC NCDR
Myocardial infarction	Indicate if the patient was diagnosed with a myocardial infarction.	22298006	SNOMED CT
Urgent cardiac surgery	Indicate if there is documentation that the patient required an unplanned or emergent cardiac surgery.	64915003:260870009=103391001	SNOMED CT
Pericardial effusion	Indicate if there is documentation of pericardial fluid in the pericardial space	373945007	SNOMED CT
Cardiac tamponade	Indicate if there is documentation that the patient experienced cardiac tamponade, the presence of pericardial fluid in the pericardial space leading to hemodynamic instability and requiring unplanned or emergent intervention.	35304003	SNOMED CT
Stroke (Any)	Indicate if the patient was diagnosed with a stroke (ischemic, hemorrhagic, or undetermined).	100000977	ACC NCDR
Transient ischemic attack (TIA)	Indicate if the patient was diagnosed with a transient ischemic attack (TIA), a temporary episode of neurological disfunction.	266257000	SNOMED CT
Hemothorax	Indicate if there is documentation that the patient experienced hemothorax, any accumulation of blood in the thorax/pleural space.	31892009	SNOMED CT
Pneumothorax	Indicate if there is documentation that the patient experienced pneumothorax, air in the pleural space.	36118008	SNOMED CT
Infection requiring antibiotics	Indicate if there is documentation that the patient experienced an infection related to the current device or lead procedure that required antibiotics during the episode of care.	100001017	ACC NCDR
Device embolization	Indicate if there is documentation that the patient experienced device embolization, the full dislodgement of a device from its original position that is then introduced to the circulatory system, potentially occluding blood supply to vessels and/or organs.	112000001324	ACC NCDR

Element: 9002 Intra/Post-Procedure Events Occurred

Coding Instruction: Indicate if the specific intra or post procedure event(s) occurred.

Target Value: Any occurrence between start of procedure and until next procedure or discharge

Section: Intra or Post-Procedure Event Details **Parent: Intra or Post-Procedure Events**

Element: 15784 Vascular Complication Location

Coding Instruction: Indicate the location or locations of the vascular complication

Target Value: Any occurrence between start of procedure and until next procedure or discharge

Vascular Complication Location - 1.3.6.1.4.1.19376.1.4.1.6.5.966

Selection	Definition	Source	Code	Code System
Neck			45048000	SNOMED CT
Chest			51185008	SNOMED CT
Groin			26893007	SNOMED CT

Element: 15782 Vascular Complication Intervention

Coding Instruction: Indicate if the vascular complication that occurred required intervention.

Target Value: The value on current procedure

Element: 15783 Vascular Complication Intervention Type

Coding Instruction: Indicate the intervention type.

Target Value: Any occurrence between start of procedure and until next procedure or discharge

Intervention Type - 1.3.6.1.4.1.19376.1.4.1.6.5.797

Selection	Definition	Source	Code	Code System
Endovascular repair			112000003673	ACC NCDR
Surgical repair			112000003674	ACC NCDR
Thrombin injection			112000003675	ACC NCDR

Element: 9065 Pericardial Effusion Requiring Intervention

Coding Instruction: Indicate if the documented pericardial effusion required intervention, such as pericardiocentesis.

Target Value: Any occurrence between start of procedure and until next procedure or discharge

Supporting Definition: **Pericardial Effusion Requiring Intervention**

Indicate if the patient had a pericardial effusion that required intervention of any kind. Code 'no' if the effusion was simply monitored.

Source:

Element: 15788 Cardiac Tamponade Intervention Type

Coding Instruction: Indicate if treatment for cardiac tamponade required percutaneous intervention (pericardiocentesis) and/or surgical intervention.

Target Value: Any occurrence between start of procedure and until next procedure or discharge

Cardiac Tamponade Intervention Type - 1.3.6.1.4.1.19376.1.4.1.6.5.967

Selection	Definition	Source	Code	Code System
Open cardiac surgery			64915003	SNOMED CT
Percutaneous drainage			122462000	SNOMED CT

Element: 9210 Hemothorax Requiring Drainage

Coding Instruction: Indicate if the patient was diagnosed with a hemothorax that required drainage.

Target Value: Any occurrence between start of procedure and until next procedure or discharge

Element: 15789 Pneumothorax Requiring Intervention

Coding Instruction: Indicate if a pneumothorax occurred requiring an intervention (such as insertion of a chest tube) as documented by the provider.

Target Value: The value on current procedure

Section: Post Procedure Events **Parent: Intra or Post-Procedure Events**

Element: 9255 Set Screw Problem

Coding Instruction: Indicate if the patient had a pacing and/or sensing problem associated with high impedance due to a poor connection between a lead and device caused by a loose set screw.

Note(s):
Indicate if the patient experienced a set screw problem between completion of the pacemaker or ICD procedure until next the pacemaker or ICD procedure or discharge.

Target Value: Any occurrence between completion of the procedure and until next procedure or discharge

Element: 9260 Lead Dislodgement

Coding Instruction: Indicate if the patient experienced a lead dislodgement as documented by movement of a lead that requires repositioning and reoperation.

Target Value: Any occurrence between completion of the procedure and until next procedure or discharge

Element: 9265 Lead Location (Dislodgement)

Coding Instruction: Select the first (or primary) lead identified as dislodged when more than one dislodgement is identified.

Target Value: Any occurrence between completion of the procedure and until next procedure or discharge

Lead Location (Target Site) - 1.3.6.1.4.1.19376.1.4.1.6.5.167

Selection	Definition	Source	Code	Code System
Azygos vein	A pacing or defibrillating lead placed in a vein (azygos) on the right side at the back of the thorax.		72107004	SNOMED CT
His bundle	A pacing or defibrillating lead placed at the location of the His bundle.		345000	SNOMED CT
Left bundle	A pacing or defibrillating lead placed at the location of the left bundle.		74031005	SNOMED CT
LV endocardial	A pacing or defibrillating lead placed onto the left ventricular endocardium.		112000003605	ACC NCDR
LV epicardial (CVS)	A pacing or defibrillating lead placed transvenously onto the left ventricle through the coronary venous system.		100001136	ACC NCDR
LV epicardial (surgical)	A pacing or defibrillation lead placed transthoracically onto the left ventricular epicardium.		100001135	ACC NCDR
RA endocardial	A pacing lead placed transvenously into the right atrial endocardium.		3194006	SNOMED CT
RA epicardial	A pacing or defibrillating lead placed on the outside of the cardiac muscle onto right atrium		112000002026	ACC NCDR
RV endocardial	A pacing or defibrillation lead placed transvenously into the right ventricular endocardium.		304059001	SNOMED CT
RV epicardial	A pacing or defibrillating lead placed on the outside of the cardiac muscle onto right ventricle.		112000002027	ACC NCDR
Subcutaneous array	A defibrillation electrode that is placed subcutaneously.		100001106	ACC NCDR
Subcutaneous ICD	A defibrillation lead placed subcutaneously.		100001138	ACC NCDR
Substernal	A pacing or defibrillating lead placed under the sternum.		33547000	SNOMED CT
Superior Vena Cava/subclavian	A defibrillating lead placed in the superior vena cava or subclavian vein.		100001137	ACC NCDR
Other Lead location	A lead placed in a location not specified above.		100001066	ACC NCDR

Section: Conduction System Pacing **Parent: Procedure Information**

Element: 15790 Final Paced QRS Duration

Coding Instruction: Indicate the final paced QRS duration in milliseconds. Duration should be noted in provider notes or a device testing report and not abstracted solely based on ECG measurements without provider documentation.

Target Value: The value on current procedure

Element: 15829 Final Paced QRS Duration Not Assessed

Coding Instruction: Indicate if the final paced QRS duration was not assessed or not documented.

Target Value: The value on current procedure

Element: 15787 Unipolar Paced QRS Morphology

Coding Instruction: Indicate the unipolar paced QRS morphology as noted in lead V1. If bipolar pacing code 'No.' Unipolar paced QRS morphology is typically shown as tall R-waves preceded by small Q-complexes (qR-waves) or deep Q-waves followed by small R-complexes (Qr-waves). Code based on provider documentation and not solely based on an ECG printout/scan.

Target Value: The value on current procedure

Unipolar paced QRS morphology - 1.3.6.1.4.1.19376.1.4.1.6.5.968

Selection	Definition	Source	Code	Code System
No			100013073	ACC NCDR
Yes - qR			112000003676	ACC NCDR
Yes - Qr			112000003677	ACC NCDR
Yes - Other			112000003678	ACC NCDR
Not documented			112000001830	ACC NCDR

Element: 15791 R Wave Peak Time Duration

Coding Instruction: Indicate R Wave Peak Time Duration (RWPT) in leads V5 -V6. Code based on provider notes or a device testing report and not abstracted solely based on ECG measurements without provider documentation.

Target Value: The value on current procedure

Element: 15830 R Wave Peak Time Duration Not Assessed

Coding Instruction: Indicate whether R Wave Peak Time Duration (RWPT) was not assessed.

Target Value: The value on current procedure

Section: Discharge **Parent: Root**

Element: 10005 Coronary Artery Bypass Graft

Coding Instruction: Indicate if coronary artery bypass graft (CABG) Surgery was performed.

Target Value: Any occurrence between arrival and discharge

Element: 10010 Coronary Artery Bypass Graft Date

Coding Instruction: Indicate the date of the coronary artery bypass graft (CABG) surgery.

Target Value: The first value between arrival and discharge

Vendor Instruction: Coronary Artery Bypass Graft Date (10010) must be Greater than or Equal to Arrival Date (3000)

Coronary Artery Bypass Graft Date (10010) must be Less than or Equal to Discharge Date (10100)

Element: 10015 Percutaneous Coronary Intervention

Coding Instruction: Indicate if the patient had a percutaneous coronary intervention (PCI).

Target Value: Any occurrence between arrival and discharge

Element: 10020 Percutaneous Coronary Intervention Date

Coding Instruction: Indicate the date of the percutaneous coronary intervention (PCI) procedure.

Target Value: The first value between arrival and discharge

Vendor Instruction: Percutaneous Coronary Intervention Date (10020) must be Less than or Equal to Discharge Date (10100)

Percutaneous Coronary Intervention Date (10020) must be Greater than or Equal to Arrival Date (3000)

Element: 10100 Discharge Date

Coding Instruction: Indicate the date on which the patient was discharged from your facility.

Target Value: The value on discharge

Vendor Instruction: Discharge Date (10100) must be Greater than or Equal to 01/01/2025

Discharge Date (10100) and Arrival Date (3000) must not overlap on multiple episodes

Element: 10105 Discharge Status

Coding Instruction: Indicate whether the patient was alive or deceased at discharge.

Target Value: The value on discharge

Discharge Life Status - 1.3.6.1.4.1.19376.1.4.1.6.5.42

Selection	Definition	Source	Code	Code System
Alive			438949009	SNOMED CT
Deceased			20	HL7 Discharge disposition

Element: 10110 Discharge Location

Coding Instruction: Indicate the location to which the patient was discharged.

Target Value: The value on discharge

Discharge Location - 1.3.6.1.4.1.19376.1.4.1.6.5.41

Selection	Definition	Source	Code	Code System
Home			01	HL7 Discharge disposition
Skilled nursing facility			64	HL7 Discharge disposition
Extended care/transitional care unit/rehab	Continued "non-acute" care at an extended care facility, transitional care unit, or rehabilitation unit.		62	HL7 Discharge disposition
Other			100001249	ACC NCDR
Other acute care hospital			02	HL7 Discharge disposition
Left against medical advice (AMA)	The patient was discharged or eloped against medical advice.		07	HL7 Discharge disposition

Element: 10120 Death During the Procedure

Coding Instruction: Indicate if the patient expired during the procedure.

Note(s): Make sure to only capture 'death during the procedure' in the procedure appropriate registry.

Section: Discharge **Parent: Root**

For example, if the patient had a CathPCI procedure and a TVT procedure in the same episode of care (hospitalization) but different cath lab visits and the death occurred during the TVT procedure, code 'Yes' only in the TVT Registry and not the CathPCI Registry. If the CathPCI procedure and TVT procedure occurred during the same cath lab visit then code 'Yes' in both registries.

Target Value: Any occurrence on discharge

Element: 10125 Cause of Death

Coding Instruction: Indicate the primary cause of death, i.e. the first significant abnormal event which ultimately led to death.

Target Value: The value on time of death

Supporting Definition: **Cause of Death**

Death is classified into 1 of 3 categories: 1) cardiovascular death; 2) non - cardiovascular death; and 3) undetermined cause of death.

The intent of the classification schema is to identify one, and only one, of the categories as the underlying cause of death. The key priority is differentiating between cardiovascular and non-cardiovascular causes of death.

Source: Hicks KA, Tcheng JE, Bozkurt B, et al. 2014 ACC/AHA Key Data Elements and Definitions for Cardiovascular Endpoint Events in Clinical Trials: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Data Standards (Writing Committee to Develop Cardiovascular Endpoints Data Standards). J Am Coll Cardiol. 2015;():. Doi:10.1016/j.jacc.2014.12.018.

Cause of Death Clinical Finding - 1.3.6.1.4.1.19376.1.4.1.6.5.88

Selection	Definition	Source	Code	Code System
Cardiac			100014107	ACC NCDR
Non-Cardiac			112000000343	ACC NCDR
Undetermined			112000000342	ACC NCDR

Section: Discharge Medications **Parent: Discharge**

Element: 10200 Discharge Medication Code

Coding Instruction: Indicate the medications the patient was prescribed upon discharge.

Note: Discharge medications are not required for patients who expired, were discharged to “Other acute care hospital,” or “Left against medical advice (AMA).”

The medication(s) collected in this field are controlled by the Medication Master file. This file is maintained by NCDR and will be made available for downloading and importing/updating into your application. Each medication in the Medication Master file is assigned to a value set.

Target Value: N/A

Vendor Instruction: Discharge Medication Code (10200) must not be duplicated in an episode

Discharge Medication - 1.3.6.1.4.1.19376.1.4.1.6.5.165

Selection	Definition	Source	Code	Code System
Aldosterone Antagonist			372603003	SNOMED CT
Angiotensin Converting Enzyme Inhibitor			41549009	SNOMED CT
Angiotensin Receptor-Neprilysin Inhibitor			112000001832	ACC NCDR
Angiotensin II Receptor Blocker			372913009	SNOMED CT
Renin Inhibitor			426228001	SNOMED CT
Antiarrhythmic Drug			67507000	SNOMED CT
Antiplatelet Agent			372560006	SNOMED CT
Aspirin			1191	RxNorm
Apixaban			1364430	RxNorm
Beta Blocker			33252009	SNOMED CT
Betrixaban			1927851	RxNorm
Dabigatran			1546356	RxNorm
Edoxaban			1599538	RxNorm
Rivaroxaban			1114195	RxNorm
Warfarin			11289	RxNorm

Element: 10205 Discharge Medication Prescribed

Coding Instruction: Indicate if the medication was prescribed, not prescribed, or was not prescribed for either a medical or patient reason.

Note(s):
Discharge medications do not need to be recorded for patients who were discharged to "Other acute care hospital", or "Left against medical advice (AMA)".

Target Value: The value on discharge

Vendor Instruction: When Discharge Medication Code (10200) is answered, Discharge Medications Prescribed (10205) cannot be Null

Discharge Medication Administration - 1.3.6.1.4.1.19376.1.4.1.6.5.86

Selection	Definition	Source	Code	Code System
Yes	Code 'Yes' if this medication was initiated (or prescribed) post procedure and for discharge.		100001247	ACC NCDR
No - No Reason	Code 'No' if this medication was not prescribed post procedure or for discharge and there was no mention of a reason why it was not ordered within the medical documentation.		100001048	ACC NCDR
No - Medical Reason	Code 'No Medical Reason' if this medication was not prescribed post procedure or for discharge and there was a reason documented related to a medical issue or medical concern for not prescribing the medicine.		100001034	ACC NCDR
No - Patient Reason	Code 'No, Patient Reason' if this medication was not prescribed post procedure or for discharge and there was a reason documented related to the patient's preference.		100001071	ACC NCDR

Section: Administration **Parent: Root**

Element: 1000 Participant ID

Coding Instruction: Indicate the participant ID of the submitting facility.

Target Value: N/A

Supporting Definition: **Participant ID**

Participant ID is a unique number assigned to each database participant by NCDR. A database participant is defined as one entity that signs a Participation Agreement with the NCDR, 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

Element: 1010 Participant Name

Coding Instruction: Indicate the full name of the facility where the procedure was performed.

Note(s):
Values should be full, official hospital names with no abbreviations or variations in spelling.

Target Value: N/A

Element: 1020 Time Frame of Data Submission

Coding Instruction: Indicate the time frame of data included in the data submission. Format: YYYYQQ. e.g.,2016Q1

Target Value: N/A

Element: 1040 Transmission Number

Coding Instruction: This is a unique number created, and automatically inserted by the software into export file. It identifies the number of times the software has created a data submission file. 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

Element: 1050 Vendor Identifier

Coding Instruction: 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

Element: 1060 Vendor Software Version

Coding Instruction: 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

Element: 1070 Registry Identifier

Coding Instruction: 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

Element: 1071 Registry Schema Version

Coding Instruction: Schema version describes the version number of the Registry Transmission Document (RTD) schema to which each record conforms. It is an attribute that includes a constant value indicating the version of schema file. This is entered into the schema automatically by software.

Target Value: N/A