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**

Individuals with origins in any of the original peoples of Europe, including, for example, English, German, Irish, Italian, Polish, and Scottish.

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 or African American**

Individuals with origins in any of the Black racial groups of Africa, including, for example, African American, Jamaican, Haitian, Nigerian, Ethiopian, and Somali.

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 Alaska Native**

Individuals with origins in any of the original peoples of North, Central, and South America, including, for example, Navajo Nation, Blackfeet Tribe of the Blackfeet Indian Reservation of Montana, Native Village of Barrow Inupiat Traditional Government, Nome Eskimo Community, Aztec, and Maya.

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**

Individuals with origins in any of the original peoples of Central or East Asia, Southeast Asia, or South Asia, including, for example, Chinese, Asian Indian, Filipino, Vietnamese, Korean, and Japanese.

Section: Demographics **Parent: Root**

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

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: **Native Hawaiian or Pacific Islander**

Individuals with origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands, including, for example, Native Hawaiian, Samoan, Chamorro, Tongan, Fijian, and Marshallese.

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**

Includes individuals of Mexican, Puerto Rican, Salvadoran, Cuban, Dominican, Guatemalan, and other Central or South American or Spanish culture or origin.

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: 3001 Arrival Date and Time

Coding Instruction: Indicate the date and time the patient arrived at this facility for this visit.

If the arrival date and time are not specified, code the earliest date and time found in the medical record indicating the patient was at this facility.

Target Value: N/A

Vendor Instruction: Patient must be at least 18 years old at the time of Arrival Date and Time (3001)

Element: 3005 Health Insurance

Coding Instruction: Indicate if the patient has health insurance.

Target Value: The value on arrival at this facility

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
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		31	PHDSC

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

	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).		
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 sponsored or associated research study relating 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.

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

Vendor Instruction: Research Study Name (3025) must be a valid study name for the Registry.

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: Physical Exam and Labs **Parent: Root**

Element: 6000 Height

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

Target Value: The last value prior to the start of the first procedure

Element: 6005 Weight

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

Target Value: The last value prior to the start of the first procedure

Element: 6010 Pulse

Coding Instruction: Indicate the patient's heart rate (beats per minute).

Target Value: The last value prior to the start of the first procedure

Element: 6015 Systolic BP

Coding Instruction: Indicate the patient's systolic blood pressure in mmHg.

Target Value: The last value prior to the start of the first procedure

Element: 6020 Diastolic BP

Coding Instruction: Indicate the patient's diastolic blood pressure in mmHg.

Target Value: The last value prior to the start of the first procedure

Element: 6045 International Normalized Ratio (INR)

Coding Instruction: Indicate the international normalized ratio (INR) if the patient was on routine Warfarin/Coumadin therapy.

Note(s):
This may include POC (Point of Care) testing results.

Most recent values prior to the start of the procedure.

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

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.

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

Element: 6051 Creatinine Not Drawn

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

Target Value: N/A

Element: 6030 Hemoglobin

Coding Instruction: Indicate the hemoglobin (Hgb) value in g/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 within 30 days prior to the first procedure in this admission

Supporting Definition: **Hemoglobin**

Hemoglobin (Hb or Hgb) is the iron-containing oxygen-transport metalloprotein in the red blood cells. It carries oxygen from the lungs to the rest of the body (i.e. the tissues) where it releases the oxygen to burn nutrients and provide energy. Hemoglobin concentration measurement is among the most commonly performed blood tests, usually as part of a complete blood count. If the concentration is

Section: Physical Exam and Labs **Parent: Root**

below normal, this is called anemia. Anemias are classified by the size of red blood cells: "microcytic" if red cells are small, "macrocytic" if they are large, and "normocytic" if otherwise. Dehydration or hyperhydration can greatly influence measured hemoglobin levels.

Source: http://s.details.loinc.org/LOINC/718-7.html?sections=Simple

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

Supporting Definition: **Hemoglobin**

Hemoglobin (Hb or Hgb) is the iron-containing oxygen-transport metalloprotein in the red blood cells. It carries oxygen from the lungs to the rest of the body (i.e. the tissues) where it releases the oxygen to burn nutrients and provide energy. Hemoglobin concentration measurement is among the most commonly performed blood tests, usually as part of a complete blood count. If the concentration is below normal, this is called anemia. Anemias are classified by the size of red blood cells: "microcytic" if red cells are small, "macrocytic" if they are large, and "normocytic" if otherwise. Dehydration or hyperhydration can greatly influence measured hemoglobin levels.

Source: http://s.details.loinc.org/LOINC/718-7.html?sections=Simple

Element: 14280 BNP

Coding Instruction: Indicate the B-type natriuretic peptide (BNP) value.

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

Supporting Definition: **Natriuretic peptide B**

Brain natriuretic peptide (BNP) is an active fragment (1-32) of ProBNP which is produced by myocardial cells. It increases in both right-sided and left-sided heart failure as well as in systolic and diastolic heart failure. Thus, it is used to diagnose and manage heart failure. When a patient is taking recombinant PBN (Natricor), BNP will reflect serum levels. NT-ProBNP, an inactive fragment (1-78) of ProBNP is used to assess the degree of failure. Both of these polypeptides have roughly the same predictive power. NT-ProBNP is commonly called ProBNP.

Source: http://s.details.loinc.org/LOINC/42637-9.html?sections=Simple

Vendor Instruction: Either BNP (14280) or N-Terminal Pro B-Type Natriuretic Peptide Value (14279) can have a value, not both

Element: 13205 B-Type Natriuretic Peptide Not Drawn

Coding Instruction: Indicate if a pre-procedure B-type natriuretic peptide (BNP) was not collected.

Target Value: N/A

Element: 14279 N-Terminal Pro B-Type Natriuretic Peptide Value

Coding Instruction: Indicate the N-Terminal Pro B-Type Natriuretic Peptide (NT-proBNP) Value.

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

Supporting Definition: **N-Terminal Pro B-Type Natriuretic Peptide Value**

ProBNP is the 108 amino acid pro-hormone of BNP (Brain Naturetic Peptide) that is produced mainly in the left ventricle. The prohormone splits into two polypeptides- the biologically active but shorter BNP (77-108) and the longer N terminal (1-76) fragment called NT-proBNP. Commercial assays are available for NT-proBNP because of its usefulness in predicting cardiovascular risk. In one study, it was the single best predictor of survival among patients with the acute coronary syndrome. It also declines with successful treatment of left ventricular dysfunctionand heart failure and is used by some to track the success of such treatment. No commercial assays exist for proBNP (the whole peptide)- though the trade name for one companies NT-proBNP is "proBNP" -- a misnomer. We include proBNP as the a related name for NT-proBNP so that people who call it proBNP will find it in LOINC.
Source: Regenstrief Help

Source: http://s.details.loinc.org/LOINC/33762-6.html?sections=Simple

Vendor Instruction: Either BNP (14280) or N-Terminal Pro B-Type Natriuretic Peptide Value (14279) can have a value, not both

Element: 13206 N-Terminal Pro B-Type Natriuretic Peptide Not Drawn

Coding Instruction: Indicate if a pre-procedure N-terminal pro B-type natriuretic peptide (NT-proBNP) was not collected.

Target Value: N/A

Section: CHA2DS2-VASC Risk Scores **Parent: History and Risk Factors**

Element: 4005 CHA2DS2-VASc Congestive Heart Failure

Coding Instruction: Indicate if the patient has been diagnosed with heart failure according to the CHA2DS2-VASc definition.

Note(s): A diagnosis of heart failure must be specifically documented in the medical record and not coded by the abstractor based upon patient symptoms.

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

Supporting Definition: **CHA2DS2-VASc Congestive Heart Failure**

The presence of signs and symptoms of either right (elevated central venous pressure, hepatomegaly, dependent edema) or left ventricular failure (exertionaldyspnea, cough, fatigue, orthopnea, paroxysmal nocturnal dyspnea, cardiac enlargement, rales, gallop rhythm, pulmonary venous congestion) or both, confirmed by non-invasive or invasive measurements demonstrating objective evidence of cardiac dysfunction.

Source: Refining clinical risk stratification for predicting stroke and thromboembolism in atrial fibrillation using a novel risk factor-based approach: the euro heart survey on atrial fibrillation Lip GH, Nieuwlaat R, Pisters R, Lane DA, Crijns HM. Chest.2010;137(2):263-272.

Element: 4015 CHA2DS2-VASc LV Dysfunction

Coding Instruction: Indicate if the patient has been diagnosed with Left Ventricular (LV) Dysfunction according to the CHA2DS2-VASc definition.

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

Supporting Definition: **CHA2DS2 -VASc LV Dysfunction**

Left Ventricular Ejection Fraction < 40%.

Source: Refining clinical risk stratification for predicting stroke and thromboembolism in atrial fibrillation using a novel risk factor-based approach: the euro heart survey on atrial fibrillation Lip GH, Nieuwlaat R, Pisters R, Lane DA, Crijns HM. Chest.2010;137(2):263-272.

Element: 4020 CHA2DS2-VASc Hypertension

Coding Instruction: Indicate if the patient has been diagnosed with hypertension according to the CHA2DS2-VASc definition.

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

Supporting Definition: **CHA2DS2-VASc Hypertension**

A resting blood pressure >140mmHg systolic and/or >90mmHg diastolic on at least 2 occasions or current antihypertensive pharmacologic treatment.

Source: Refining clinical risk stratification for predicting stroke and thromboembolism in atrial fibrillation using a novel risk factor-based approach: the euro heart survey on atrial fibrillation Lip GH, Nieuwlaat R, Pisters R, Lane DA, Crijns HM. Chest.2010;137(2):263-272.

Element: 4025 CHA2DS2-VASc Diabetes Mellitus

Coding Instruction: Indicate if the patient has been diagnosed with diabetes mellitus according to the CHA2DS2-VASc definition.

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

Supporting Definition: **CHA2DS2-VASc Diabetes Mellitus**

Fasting plasma glucose level ≥ 7.0 mmol/L (126 mg/dL) or treatment with oral hypoglycaemic agent and/or insulin.

Source: Refining clinical risk stratification for predicting stroke and thromboembolism in atrial fibrillation using a novel risk factor-based approach: the euro heart survey on atrial fibrillation Lip GH, Nieuwlaat R, Pisters R, Lane DA, Crijns HM. Chest.2010;137(2):263-272.

Element: 4045 CHA2DS2-VASc Vascular Disease

Coding Instruction: Indicate if the patient has been diagnosed with vascular disease according to the CHA2DS2-VASc definition.

Target Value: Any occurrence between birth and the procedure

Supporting Definition: **CHA2DS2-VASc Vascular Disease**

Coronary artery disease: Prior myocardial infarction, angina pectoris, percutaneous coronary intervention or coronary artery bypasses surgery.

Peripheral vascular disease: The presence of any the following: intermittent claudication, previous surgery or percutaneous intervention on the abdominal aorta or the lower extremity vessels, abdominal or thoracic surgery, arterial and venous thrombosis.

Source: Refining clinical risk stratification for predicting stroke and thromboembolism in atrial fibrillation using a novel risk factor-based approach: the euro heart survey on atrial fibrillation Lip GH, Nieuwlaat R, Pisters R, Lane DA, Crijns HM. Chest.2010;137(2):263-272.

Element: 4030 CHA2DS2-VASc Stroke

Coding Instruction: Indicate if the patient has been diagnosed with an ischemic stroke, according to the CHA2DS2-VASc definition, or a stroke with undetermined origin.

Note: If the stroke was Hemorrhagic in origin code 'No.'

Target Value: Any occurrence between birth and the procedure

Section: CHA2DS2-VASC Risk Scores **Parent: History and Risk Factors**

Supporting Definition: **CHA2DS2-VASc Stroke**

Ischemic stroke is defined as a focal neurologic deficit of sudden onset as diagnosed by a neurologist, lasting > 24 h and caused by ischemia.

Source: Refining clinical risk stratification for predicting stroke and thromboembolism in atrial fibrillation using a novel risk factor-based approach: the euro heart survey on atrial fibrillation Lip GH, Nieuwlaat R, Pisters R, Lane DA, Crijns HM. Chest.2010;137(2):263-272.

Element: 4035 CHA2DS2-VASc TIA

Coding Instruction: Indicate if the patient has been diagnosed with a transient ischemic attack (TIA) according to the CHA2DS2-VASc definition.

Target Value: Any occurrence between birth and the procedure

Supporting Definition: **CHA2DS2-VASc TIA**

Transient ischemic attack (TIA) is defined as a focal neurologic deficit of sudden onset as diagnosed by a neurologist, lasting < 24 hr.

Source: Refining clinical risk stratification for predicting stroke and thromboembolism in atrial fibrillation using a novel risk factor-based approach: the euro heart survey on atrial fibrillation. Lip GH, Nieuwlaat R, Pisters R, Lane DA, Crijns HM. Chest. 2010;137(2):263-272.

Element: 4040 CHA2DS2-VASc Thromboembolic Event

Coding Instruction: Indicate if the patient has been diagnosed with a thromboembolic event (TE) according to the CHA2DS2-VASc definition.

Target Value: Any occurrence between birth and the procedure

Supporting Definition: **Thromboembolic Events**

Thrombolembolic Event (TE) is defined as either an ischemic stroke, peripheral embolism, or pulmonary embolism. Peripheral embolism is defined as a TE outside the brain, heart, eyes, and lungs. Pulmonary embolism is defined by the responsible physician.

Source:

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

Element: 12903 Condition History Name

Coding Instruction: Select from the following list medical conditions based on prior diagnoses (or orders, such as for medication) given to the patient. Additional definitions below for those selections that may need additional clarification.

Target Value: N/A

Condition History Name - 1.3.6.1.4.1.19376.1.4.1.6.5.340

Selection	Definition	Source	Code	Code System
Symptoms During Afib/Aflutter			418799008+106063007:=195080001	SNOMED CT
Cardiomyopathy			85898001	SNOMED CT
Chronic Lung Disease	Coding requires a documented history or diagnosis of a chronic lung disease. Examples of these are: chronic inhalation reactive disease (asbestosis, mesothelioma, black lung disease or pneumoconiosis), Radiation induced pneumonitis or radiation fibrosis, chronic obstructive pulmonary disease, chronic bronchitis, or emphysema. It can also include a patient who is currently being chronically treated with inhaled or oral pharmacological therapy (e.g., beta-adrenergic agonist, anti-inflammatory agent, leukotriene receptor antagonist, or steroid). Patients not included are: history of a transient condition, for example: atelectasis. Patients with asthma or seasonal allergies are also not considered to have chronic lung disease.		413839001	SNOMED CT
Coronary Artery Disease	Other documentation that can be used to support a history of CAD: 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
Sleep Apnea	Sleep apnea must be diagnosed by a provider or by sleep study. *Do not capture suspected sleep apnea or that reported by family members as sleep apnea. *Both Obstructive and Central Sleep Apnea are captured. *Code "No" if sleep apnea has been surgically corrected. *CPAP or BiPAP therapy is not a requirement to code "Yes" for sleep apnea.		73430006	SNOMED CT
Valvular Atrial Fibrillation	Consider this selection if atrial fibrillation is present in the setting of valvular heart disease and believed to be, at least in part, directly attributable to valvular heart disease *Must be diagnosed by a provider.		100001118	ACC NCDR

Element: 15510 Condition History Occurrence

Coding Instruction: Please indicate whether the patient has or has not had a clinical diagnosis of the respective medical condition.

Please refer to "Condition History 12903" to view a list of selections and definitions.

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

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

Element: 15723 Symptoms Experienced

Coding Instruction: Indicate the symptoms that are documented in the medical record that are due to atrial fibrillation or atrial flutter.

Target Value: The last value between 90 days prior to the start of the current procedure and the start of procedure

Symptoms Prior to Ablation - 1.3.6.1.4.1.19376.1.4.1.6.5.948

Selection	Definition	Source	Code	Code System
Anxiety			48694002	SNOMED CT
Chest pain			29857009	SNOMED CT
Dyspnea at rest			161941007	SNOMED CT
Dyspnea on exertion			60845006	SNOMED CT
Fatigue			84229001	SNOMED CT
Irregular heartbeat			361137007	SNOMED CT
Light-headedness			386705008	SNOMED CT
Palpitations			80313002	SNOMED CT
Other			112000003645	ACC NCDR

Element: 4570 Cardiomyopathy Type

Coding Instruction: Indicate the type of cardiomyopathy experienced by the patient.

Note(s):
If the patient has had multiple cardiomyopathies, select all applicable types.

Target Value: Any occurrence between birth and the procedure

Cardiomyopathy Type - 1.3.6.1.4.1.19376.1.4.1.6.5.193

Selection	Definition	Source	Code	Code System
Hypertrophic	Characterized morphologically and defined by a hypertrophied, nondilated LV in the absence of another systemic or cardiac disease that is capable of producing the magnitude of wall thickening evident (eg, systemic hypertension, aortic valve stenosis). Clinical diagnosis is customarily made with 2-dimensional echocardiography (or alternatively with cardiac magnetic resonance imaging) by detection of otherwise unexplained LV wall thickening, usually in the presence of a small LV cavity, after suspicion is raised by the clinical profile or as part of family screening.		233873004	SNOMED CT
Ischemic	Considered to be present in patients with HF who have had a myocardial infarction (MI) or have evidence of viable hibernating myocardium or, on angiography, severe coronary disease. The term ischemic cardiomyopathy has been used to describe significantly impaired left ventricular function (left ventricular ejection fraction <=35 to 40 percent) that results from coronary artery disease. Despite the common clinical use of the term ischemic cardiomyopathy, ventricular dysfunction caused by coronary disease is not a cardiomyopathy as defined by the 2006 American Heart Association and 2008 European Society of Cardiology statements.		426856002	SNOMED CT
Non-ischemic	Includes cardiomyopathies resulting from volume or pressure overload, such as hypertension or valvular heart disease.		111000119104	SNOMED CT
Restrictive	Non Hypertrophied, Non Dilated: A rare form of heart muscle disease and a cause of heart failure that is characterized by normal or decreased volume of both ventricles associated with biatrial enlargement, normal LV wall thickness and AV valves, impaired ventricular filling with restrictive physiology, and normal (or near normal) systolic function.		415295002	SNOMED CT
Other	The term "unclassified cardiomyopathy" was included in the 2008 ESC classification system to describe disorders that do not readily fit into any of the above phenotypic categories [3]. Examples cited include LV noncompaction and stress-induced (takotsubo) cardiomyopathy.		100001065	ACC NCDR

Element: 4585 Sleep Apnea Recommended Treatment Followed

Coding Instruction: Indicate if the patient followed the sleep apnea treatment plan recommended.

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

Target Value: Any occurrence between birth and the procedure

Element: 4390 — Mechanical Valve in Mitral Position

Coding Instruction: Indicate if the patient has a mechanical valve placed in the mitral position.

Target Value: Any occurrence between birth and the procedure

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

Element: 4400 Atrial Fibrillation Classification

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

Note: If more than one Atrial Fibrillation Classification is documented, use the most recent classification that prompted the current ablation.

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

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. Classification 3A		26593000	SNOMED CT
Persistent	Continuous AF that is sustained >7 days or with electrical or pharmacological termination. Classification 3B		62459000	SNOMED CT
LS - Persistent	Continuous AF of >12 months duration. Classification 3C		100001029	ACC NCDR

Element: 4455 Atrial Flutter Classification

Coding Instruction: Indicate the presence of, as well as the predominant type of atrial flutter experienced by the patient.

Note:
- In the absence of physician documentation identifying the Aflutter Classification, please select 'Typical / CTI dependent'.
- If both Classifications are documented, please select 'Typical / CTI dependent'

Target Value: Any occurrence between birth and the procedure

Supporting Definition: **Atrial Flutter Type**

Atrial flutter is further classified into typical or atypical dependent on whether or not re-entry is dependent upon conduction through the cavotricuspid isthmus.

Source: January CT, Wann LS, Alpert JS, Calkins H, Cleveland Jr JC, Cigarroa JE, Conti JB, Ellinor PT, Ezekowitz MD, Field ME, Murray KT, Sacco RL, Stevenson WG, Tchou PJ, Tracy CM, Yancy CW, 2014 AHA/ACC/HRS Guideline for the Management of Patients With Atrial Fibrillation, Journal of the American College of Cardiology (2014), doi: 10.1016/j.jacc.2014.03.022.

Atrial Flutter Classification - 1.3.6.1.4.1.19376.1.4.1.6.5.191

Selection	Definition	Source	Code	Code System
No			100013073	ACC NCDR
Yes - Typical/CTI Dependent	Typical atrial flutter is a macro-re-entrant atrial tachycardia that usually proceeds up the atrial septum, down the lateral atrial wall, and through the cavotricuspid (subeustachian) isthmus between the tricuspid valve annulus and inferior vena cava, where it is commonly targeted for ablation.		100000982	ACC NCDR
Yes - Atypical	Atypical flutter, or "noncavotricuspid isthmus-dependent macro-re-entrant atrial tachycardia", describes macro-re-entrant atrial tachycardias that are not one of the typical forms of atrial flutter that use the cavotricuspid isthmus.		112231000	SNOMED CT

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

Element: 12905 Procedure History Name

Coding Instruction: The procedures listed in this field are controlled by the Procedure History Master file. This file is maintained by the NCDR and will be made available for downloading and importing/updating into your application.

Target Value: N/A

Procedure History Name - 1.3.6.1.4.1.19376.1.4.1.6.5.341

Selection	Definition	Source	Code	Code System
AV Node ablation with Pacemaker Implantation			428663009+307280005	SNOMED CT
Left Atrial Appendage Occlusion			112000002070	ACC NCDR
Atrial Fibrillation Termination Attempt	Therapeutic options for conversion of AF to sinus rhythm includes: antiarrhythmic drugs, direct current cardioversion, catheter ablation and surgical ablation.	McNamara RL, Brass LM, Drozda JP, Jr, et al. ACC/AHA key data elements and definitions for measuring the clinical management and outcomes of patients with atrial fibrillation: A report of the American College of Cardiology/American Heart Association Task Force on clinical data standards (writing committee to develop data standards on atrial fibrillation). J Am Coll Cardiol. 2004;44(2):475-495	100000936	ACC NCDR
Atrial Flutter Termination Attempt	Therapeutic options for conversion of atrial flutter to sinus rhythm includes: antiarrhythmic drugs, direct current cardioversion, and catheter ablation.	McNamara RL, Brass LM, Drozda JP, Jr, et al. ACC/AHA key data elements and definitions for measuring the clinical management and outcomes of patients with atrial fibrillation: A report of the American College of Cardiology/American Heart Association Task Force on clinical data standards (writing committee to develop data standards on atrial fibrillation). J Am Coll Cardiol. 2004;44(2):475-495.	100000937	ACC NCDR

Element: 14268 Procedure History Occurrence

Coding Instruction: Indicate if the patient does or does not have a history of the indicated medical procedure.

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

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

Element: 4415 Atrial Fibrillation Termination - Pharmacologic Cardioversion

Coding Instruction: Indicate if the patient has a history of pharmacological cardioversion.

These elements will be coded with successful as well as unsuccessful attempts.

Target Value: Any occurrence between birth and the procedure

Supporting Definition: **Pharmacologic Cardioversion**

Antiarrhythmic drugs can be administered for attempted conversion of AF to sinus rhythm or to facilitate electrical cardioversion.

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

Element: 4420 Atrial Fibrillation Termination - DC Cardioversion

Coding Instruction: Indicate if the patient has a history of direct current (DC) cardioversion.

These elements will be coded with successful as well as unsuccessful attempts

Target Value: Any occurrence between birth and the procedure

Supporting Definition: **DC Cardioversion**

Direct-current cardioversion involves the delivery of an electrical shock synchronized with the QRS complex to avoid inducing ventricular fibrillation as can occur by a shock applied during ventricular repolarization on the T wave.

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

Element: 4425 Atrial Fibrillation Termination - Catheter Ablation

Coding Instruction: Indicate if the patient has a history of catheter ablation for termination of atrial fibrillation.

These elements will be coded with successful as well as unsuccessful attempts.

Target Value: Any occurrence between birth and the procedure

Supporting Definition: **Catheter Ablation**

Various methods of catheter ablation are used. Currently most techniques focus on isolating the triggers in the pulmonary veins (PVs) from the vulnerable substrate in the left atrium. The majority of ablations performed use radiofrequency energy or cryothermy (cryoballoon ablation).

Source: January CT, Wann L, 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;64(21):e1-e76.

Element: 4430 Atrial Fibrillation Most Recent Catheter Ablation Date

Coding Instruction: Indicate the date of the most recent attempt to terminate the atrial fibrillation via catheter ablation.

Note(s):
If the month or day 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 ablation" 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 procedure

Element: 4435 Prior Catheter Ablation Strategy

Coding Instruction: Indicate the previously attempted catheter ablation strategy/strategies used to treat the atrial fibrillation.

Note(s):
The strategies that should be collected in your application are controlled by Ablation Strategy 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 birth and the procedure

Ablation Strategy - 1.3.6.1.4.1.19376.1.4.1.6.5.211

Selection	Definition	Source	Code	Code System
Complex Fractionated Atrial Electrogram	An ablation strategy targeting areas of continuous high -frequency (complex fractionated) atrial electrograms.		100000910	ACC NCDR
Convergent Procedure	The convergent procedure consists of epicardial (Epi) followed by endocardial (Endo) radio-frequency ablation in patients (pts) with atrial fibrillation (AF), deemed at high risk of recurrence with endo ablation only.		100000911	ACC NCDR

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

Cryoablation	Cryoablation, or freezing technology, involves a coolant being released into the catheter's balloon to freeze and ablate the tissue.	233161001	SNOMED CT
Empiric LA Linear Lesions	An ablation strategy that can include adjunctive linear lesions (such as a roof line or mitral annular line) that may accompany WACA, PVI, or other approaches, with a goal of preventing development of subsequent left atrial flutter.	100000912	ACC NCDR
Focal Ablation	An ablation strategy targeting one or more foci of putative triggers of atrial fibrillation. Ablation may be of a trigger of AF or just of a focal atrial tachycardia that accompanies AF or emerges following previous AF therapies (i.e. is a stand-alone rhythm).	100000913	ACC NCDR
Ganglion Plexus Ablation	An ablation strategy targeting one or more regions of autonomic nerve plexi around the left atrium.	100000914	ACC NCDR
Pulmonary Vein Isolation	An ablation strategy defined as electrical disconnection of atrial myocardium extending into the pulmonary veins from the body of the left atrium.	100000915	ACC NCDR
Pulsed Field Ablation	Pulsed field ablation uses electrical pulses to cause nonthermal irreversible electroporation and induce cardiac cell death.	112000003642	ACC NCDR
Rotor Based Mapping	An ablation strategy guided by mapping software technology employed to identify specific atrial fibrillation rotors.	100000917	ACC NCDR
Segmental PV Ablation	An ablation strategy with the goal of electrical isolation of pulmonary venous atrial tachycardia triggers from the body of the left atrium by ablating segmentally and/or circumferentially within a vein or near the venous ostium.	100000916	ACC NCDR
Wide Area Circumferential Ablation	An ablation strategy that includes placement of large circumferential ablation lesion sets encircling the right and left venous antra with the goal of either substrate modification, isolation of the pulmonary veins, or both. This approach generally implies that formal testing for entrance block and/or exit block is NOT performed.	100000918	ACC NCDR

Element: 4440 Atrial Fibrillation Termination - Surgical Ablation

Coding Instruction: Indicate if the patient has a history of surgical ablation.

Target Value: Any occurrence between birth and the procedure

Supporting Definition: **Surgical Ablation**

The Maze operation is one surgical ablation option treat patients with both paroxysmal and chronic AF refractory to antiarrhythmic therapy.

Source: The surgical treatment of atrial fibrillation. IV. Surgical technique. Cox JL . J Thorac Cardiovasc Surg. 1991;101(4):584.

Element: 4445 Atrial Fibrillation, Most Recent Surgical Ablation Date

Coding Instruction: Indicate the date of the most recent attempt to terminate the atrial fibrillation via surgical ablation.

Note(s):
If the month or day 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 surgical ablation" 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 procedure

Element: 4465 Atrial Flutter Termination - Pharmacologic Cardioversion

Coding Instruction: Indicate if the patient has a history of pharmacologic cardioversion to terminate the atrial flutter.

Target Value: Any occurrence between birth and the procedure

Supporting Definition: **Pharmacologic Cardioversion**

Antiarrhythmic drugs can be administered for attempted conversion of AF to sinus rhythm or to facilitate electrical cardioversion.

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

Element: 4470 Atrial Flutter Termination - DC Cardioversion

Coding Instruction: Indicate if the patient has a history of DC cardioversion to terminate the atrial flutter.

Target Value: Any occurrence between birth and the procedure

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

Supporting Definition: **DC Cardioversion**

Direct-current cardioversion involves the delivery of an electrical shock synchronized with the QRS complex to avoid inducing ventricular fibrillation as can occur by a shock applied during ventricular repolarization on the T wave.

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

Element: 4475 Atrial Flutter Termination - Catheter Ablation

Coding Instruction: Indicate if the patient has a history of catheter ablation to terminate the atrial flutter.

Target Value: Any occurrence between birth and the procedure

Element: 4480 Atrial Flutter Most Recent Catheter Ablation Date

Coding Instruction: Indicate the date of the most recent catheter ablation.

Note(s):
If the month or day 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 ablation" 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 procedure

Section: Diagnostic Studies **Parent: Root**

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. 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.

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: 5110 LVEF Assessed

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

Note(s):
If the LVEF is measured during the episode of care, and documented in the medical record, it can be used. There is no requirement for the LVEF to be documented in a formal diagnostic report.
LVEF values obtained prior to first medical contact are not used for coding.
Enter a percentage in the range of 1-99.
If a percentage range is reported, code the lowest number in the range (i.e. 50-55%, is reported as 50%).
In cases of conflicting measurements, the clinician should specify which value best represents the LVEF closest to discharge and this should be noted in the medical record to support coding.
If only a descriptive value is reported (i.e. normal), enter the corresponding percentage value from the list below:
Normal = 60%
Good function = 50%
Mildly reduced = 45%
Fair function = 40%
Moderately reduced = 30%
Poor function = 25%
Severely reduced = 20%

Target Value: The last value between 90 days prior to the start of the current procedure and the start of procedure

Element: 5115 Most Recent LVEF %

Coding Instruction: Indicate the most recent left ventricular ejection fraction.

Note(s):
Enter a percentage in the range of 01 - 99. If a percentage range was reported, report the lowest number of the range (i.e. 50 - 55%, is reported as 50%).

Target Value: The last value between 90 days prior to the start of the current procedure and the start of 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)

Element: 5120 Transthoracic Echo (TTE) Performed

Coding Instruction: Indicate if a transthoracic echocardiogram (TTE) was performed prior to the procedure.

Target Value: The last value between 90 days prior to the start of the current procedure and the start of procedure

Element: 5125 Most Recent TTE Date

Coding Instruction: Indicate the date of the most recent transthoracic echocardiogram (TTE) performed and used to evaluate the patient for this intervention.

Target Value: The last value between 90 days prior to the start of the current procedure and the start of procedure

Element: 15707 Echocardiogram Results

Coding Instruction: Indicate the echocardiography results that were present during the most recent transthoracic echocardiogram.

Section: Diagnostic Studies **Parent: Root**

Notes: Include any enlargement or hypertrophy of the heart as well as the severity.

Enter "none" if there was no hypertrophy identified.

Target Value: The last value between 90 days prior to the start of the current procedure and the start of procedure

Echocardiogram Results - 1.3.6.1.4.1.19376.1.4.1.6.5.946

Selection	Definition	Source	Code	Code System
Atrial thrombus detected			396339007:123005000=59652004	SNOMED CT
LV hypertrophy - none			100001231	ACC NCDR
Mild LV hypertrophy			255604002	SNOMED CT
Moderate LV hypertrophy			6736007	SNOMED CT
Severe LV hypertrophy			24484000	SNOMED CT
LA Not enlarged			253352002:116676008=442021009,17621005	SNOMED CT
Mild LA Enlargement			253352002:116676008=442021009,255604002	SNOMED CT
Moderate LA enlargement			253352002:116676008=442021009,6736007	SNOMED CT
Severe LA enlargement			253352002:116676008=442021009,24484000	SNOMED CT
RA Not enlarged			253339007:116676008=442021009,17621005	SNOMED CT
Mild RA Enlargement			253339007:116676008=442021009,255604002	SNOMED CT
Moderate RA enlargement			253339007:116676008=442021009,6736007	SNOMED CT
Severe RA Enlargement			253339007:116676008=442021009,24484000	SNOMED CT

Element: 5150 Mitral Stenosis

Coding Instruction: Indicate if the patient has mitral valve stenosis.

Target Value: The last value between 90 days prior to the start of the current procedure and the start of procedure

Element: 5145 Mitral Regurgitation

Coding Instruction: Indicate the severity of regurgitation through the mitral valve.

Note(s):
Code the highest value or most severe regurgitation when a range is reported.

Target Value: The last value between 90 days prior to the start of the current procedure and the start of procedure

Supporting Definition: **Mitral Regurgitation**

The approach to the evaluation of mitral regurgitation (aka. Mitral insufficiency) severity ideally integrates multiple parameters rather than depends on a single measurement.

Source: Recommendations for Evaluation of the Severity of Native Valvular Regurgitation with Two-dimensional and Doppler Echocardiography: J Am Soc Echocardiogr 2003;16:777-802

Mitral Regurgitation - 1.3.6.1.4.1.19376.1.4.1.6.5.215

Selection	Definition	Source	Code	Code System
None			100001231	ACC NCDR
Trace/Trivial			100001111	ACC NCDR
Mild			255604002	SNOMED CT
Moderate			6736007	SNOMED CT
Moderate-Severe			100001045	ACC NCDR
Severe			24484000	SNOMED CT

Element: 5170 Baseline Imaging Performed

Coding Instruction: Indicate if pre-procedure imaging was performed.

Target Value: The last value between 90 days prior to the start of the current procedure and the start of procedure

Element: 5175 Baseline CT Performed

Coding Instruction: Indicate if pre-procedure imaging was performed via CT.

Target Value: The last value between 90 days prior to the start of the current procedure and the start of procedure

Element: 5185 Baseline MRI Performed

Section: Diagnostic Studies **Parent: Root**

Coding Instruction: Indicate if pre-procedure imaging was performed via MRI.

Target Value: The last value between 90 days prior to the start of the current procedure and the start of procedure

Element: 5155 Transesophageal Echocardiogram (TEE) Performed

Coding Instruction: Indicate if transesophageal echocardiogram (TEE) was performed prior to the procedure.

Target Value: The last value between 90 days prior to the start of the current procedure and the start of procedure

Element: 5165 Atrial Thrombus Detected

Coding Instruction: Indicate if an atrial thrombus was detected.

Note(s):
Code 'Yes' for either probable or definitive diagnoses of thrombus.

Target Value: The last value between 90 days prior to the start of the current procedure and the start of procedure

Supporting Definition: **Atrial Thrombus Detected**

Presence of thrombus is considered to be definite if 3 of the following 5 criteria are present: Clear borders, echogenicity from the surrounding structures, independent mobility, longest diameter > 15mm, seen in more than one echocardiographic plane.

Source: Buxton AE, Calkins H, Callans DJ, et al. ACC/AHA/HRS 2006 Key Data Elements and Definitions for Electrophysiological Studies and Procedures: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Data Standards (ACC/AHA/HRS Writing Committee to Develop Data Standards on Electrophysiology). J Am Coll Cardiol. 2006;48(11):2360-2396.

Section: Pre-Procedure Medications **Parent: Root**

Element: 6985 Pre-procedure Medication Code

Coding Instruction: Indicate the prescribing history and administration status (past, current, held, never) of each medication.

Note(s): The medications that should be collected in your application are controlled by a Medication 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. Each medication in the Medication Master file is assigned a timing indicator. This indicator is used to separate procedural medications from medications prescribed at discharge. The separation of these medications is depicted on the data collection form.

Target Value: Any occurrence within 24 hours prior to start of current procedure

Vendor Instruction: Pre-procedure Medication Code (6985) should not be duplicated in an episode

Pre-Procedure Medication - 1.3.6.1.4.1.19376.1.4.1.6.5.216

Selection	Definition	Source	Code	Code System
Amiodarone			703	RxNorm
Angiotensin converting enzyme inhibitor (ACE-I) (Any)			41549009	SNOMED CT
Angiotensin receptor blocker (ARB) (Any)			372913009	SNOMED CT
Angiotensin II receptor blocker neprilysin inhibitor (ARNI)			1656341	RxNorm
Apixaban			1364430	RxNorm
Aspirin			1191	RxNorm
Aspirin, Extended-Release Dipyridamole			226718	RxNorm
Beta blocker (Any)			33252009	SNOMED CT
Betrixaban			1927851	RxNorm
Cangrelor			1656052	RxNorm
Clopidogrel			32968	RxNorm
Dabigatran			1546356	RxNorm
Digoxin			3407	RxNorm
Diltiazem			3443	RxNorm
Disopyramide			3541	RxNorm
Dofetilide			49247	RxNorm
Dronedarone			233698	RxNorm
Edoxaban			1599538	RxNorm
Flecainide			4441	RxNorm
GLP-1 agonist			772985004	SNOMED CT
Heparin Derivative			100000921	ACC NCDR
Low Molecular Weight Heparin			373294004	SNOMED CT
Prasugrel			613391	RxNorm
Procainamide			8700	RxNorm
Propafenone			8754	RxNorm
Quinidine			9068	RxNorm
Rivaroxaban			1114195	RxNorm
SGLT inhibitor			112000003634	ACC NCDR
Sotalol			9947	RxNorm
Ticagrelor			1116632	RxNorm
Ticlopidine			10594	RxNorm
Unfractionated Heparin			96382006	SNOMED CT
Verapamil			11170	RxNorm
Vorapaxar			1537034	RxNorm
Warfarin			11289	RxNorm

Element: 6990 Pre-procedure Medication Administered

Coding Instruction: Indicate the prescribing history and administration status (past, current, held, never) of each medication.

Target Value: Any occurrence within 24 hours prior to start of current procedure

Vendor Instruction: When Pre-procedure Medication Code (6985) is answered, Pre-procedure Medication Administered (6990) cannot be Null.

Pre-procedure Medication Administration - 1.3.6.1.4.1.19376.1.4.1.6.5.44

Selection	Definition	Source	Code	Code System
Past	Code 'Past' if the medication was tried previously prior this hospital visit, and then discontinued with no intent to resume the medication after recovering from the ablation procedure.		100001070	ACC NCDR
Current	Code 'Current' if the patient is taking this medication prior to the procedure and the medication has neither		100000987	ACC NCDR

Section: Pre-Procedure Medications	Parent: Root		
	been held nor stopped for the procedure or if the patient has an active or a new prescription and is taking this medication.		
Held	Code 'Held' if the patient is routinely taking this medication, yet the medication was temporarily not administered prior to the procedure with an intent to resume the medication after recovering from the procedure.	100001010	ACC NCDR
Never	Code 'Never' if this medication was never prescribed for this patient.	100001046	ACC NCDR

Section: Procedure Information **Parent: Root**

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 and Time (3001)

Procedure Start Date and Time (7000) must be Greater than or Equal to Most Recent TTE Date (5125)

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

Element: 7025 Procedure Status

Coding Instruction: Indicate the status of the procedure.

Target Value: The value on current procedure

Procedure Status - 1.3.6.1.4.1.19376.1.4.1.6.5.226

Selection	Definition	Source	Code	Code System
Inpatient	Treatment/Billing status of the patient: Patient has been admitted to the hospital.		416800000	SNOMED CT
Outpatient	Patient/Billing status: Patient is an outpatient admission.		373864002	SNOMED CT

Element: 7005 Procedure End Date and Time

Coding Instruction: Indicate the ending date and time at which the operator completes the procedure and 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 for the last time.

Target Value: The value on current procedure

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

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

Procedure End Date and Time (7005) must be Less than or Equal to Discharge Date and Time (10101)

Element: 7100 Operator Last Name

Coding Instruction: Indicate the last name of operator.

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

Target Value: The value on current procedure

Element: 7105 Operator First Name

Coding Instruction: Indicate the first name of operator.

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

Target Value: The value on current procedure

Element: 7110 Operator Middle Name

Coding Instruction: Indicate the middle name of operator.

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

Section: Procedure Information **Parent: Root**

Element: 7115 Operator NPI

Coding Instruction: Indicate the National Provider Identifier (NPI) of the 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

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

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 .

Element: 7130 Sedation

Coding Instruction: Indicate the type of sedation used for the intervention.

Target Value: The value on current procedure

Supporting Definition: **Sedation**

1. Minimal Sedation (Anxiolysis) is a drug-induced state during which patients respond normally to verbal commands. Although cognitive function and physical coordination may be impaired, airway reflexes, and ventilatory and cardiovascular functions are unaffected.

2. Moderate Sedation/Analgesia ("Conscious Sedation") is a drug-induced depression of consciousness during which patients respond purposefully to verbal commands, either alone or accompanied by light tactile stimulation. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is usually maintained. Reflex withdrawal from a painful stimulus is NOT considered a purposeful response.

3. Deep Sedation/Analgesia is a drug-induced depression of consciousness during which patients cannot be easily aroused but respond purposefully following repeated or painful stimulation. The ability to independently maintain ventilatory function may be impaired. Patients may require assistance in maintaining a patent airway, and spontaneous ventilation may be inadequate. Cardiovascular function is usually maintained.

Section: Procedure Information **Parent: Root**

4. General Anesthesia is a drug-induced loss of consciousness during which patients are not arousable, even by painful stimulation. The ability to independently maintain ventilatory function is often impaired. Patients often require assistance in maintaining a patent airway, and positive pressure ventilation may be required because of depressed spontaneous ventilation or drug-induced depression of neuromuscular function. Cardiovascular function may be impaired.

Source: Committee on Quality Management and Departmental Administration. "Statement on Continuum of Depth of Sedation: Definition of General Anesthesia and Levels of Sedation/Analgesia." Last Amended: October 23, 2019 (original approval: October 13, 1999). American Society of Anesthesiologists. "Position on Monitored Anesthesia Care." Last amended on October 17, 2018.

https://www.asahq.org/standards-and-practice-parameters/statement-on-continuum-of-depth-of-sedation-definition-of-general-anesthesia-and-levels-of-sedation-analgesia

Sedation Method - 1.3.6.1.4.1.19376.1.4.1.6.5.199

Selection	Definition	Source	Code	Code System
Minimal Sedation/Anxiolysis			427255001	SNOMED CT
Moderate Sedation/Analgesia			314271007	SNOMED CT
Deep Sedation/Analgesia			426155000	SNOMED CT
General Anesthesia			420653000	SNOMED CT

Element: 7175 Transseptal Catheterization

Coding Instruction: Indicate if the procedure was performed with a single or a double transseptal catheterization.

Target Value: The value on current procedure

Transseptal Catheterization - 1.3.6.1.4.1.19376.1.4.1.6.5.196

Selection	Definition	Source	Code	Code System
Single			50607009	SNOMED CT
Double	Double may include either a single-puncture and double wiring of the transseptal catheterization technique or a second transseptal puncture for catheter access.		1305003	SNOMED CT

Element: 15726 Intracardiac Echocardiography

Coding Instruction: Indicate if imaging was performed via intracardiac echo (ICE).

Target Value: The value on current procedure

Intracardiac Echocardiography Types - 1.3.6.1.4.1.19376.1.4.1.6.5.951

Selection	Definition	Source	Code	Code System
No			100013073	ACC NCDR
Yes - 2D			112000003651	ACC NCDR
Yes - 3D			448761005	SNOMED CT
Yes - 4D			112000003652	ACC NCDR

Element: 15714 Pulmonary Vein Isolation

Coding Instruction: Indicate if a pulmonary vein isolation was performed during this procedure. This includes ablation of the carina/carina line(s).

Target Value: The value on current procedure

Element: 15722 Pulmonary Vein Isolation Energy Source

Coding Instruction: Indicate the energy source used during the pulmonary vein isolation.

Target Value: The value on current procedure

Ablation Energy Source - 1.3.6.1.4.1.19376.1.4.1.6.5.947

Selection	Definition	Source	Code	Code System
Cryoenergy	Cryoablation, or freezing technology, involves a coolant being released into the catheter's balloon to freeze and ablate the tissue.		112000003639	ACC NCDR
Ethanol	Ethanol infusion used during catheter ablation		112000003640	ACC NCDR
Laser	The laser balloon catheter comprises an inflatable balloon mounted on a catheter shaft, an endoscope lumen, and an optical fiber that can deliver laser energy		112000003641	ACC NCDR
Pulsed Field Ablation	Pulsed field ablation uses electrical pulses to cause nonthermal irreversible electroporation and induce cardiac cell death.		112000003642	ACC NCDR
Radiofrequency	Radiofrequency uses heat energy generated by radiofrequency waves to create lesions or scars on the heart tissue, disrupting abnormal electrical signals.		112000003643	ACC NCDR
Other	Any energy used during the procedure that is not listed		112000003644	ACC NCDR

Section: Adjunctive Ablation Lesions **Parent: Procedure Information**

Element: 7165 Adjunctive Ablation Lesions

Coding Instruction: Indicate whether additional lesions were created during the current ablation procedure, regardless of the arrythmia being treated with the additional lesions.

Intent: This element is intended to identify what additional targeted areas are ablated beyond the primary pulmonary vein isolation (PVI). Creating additional lesions are intended to enhance the success of the procedure by addressing other potential sources of arrythmia. Additional lesions may also be associated with longer procedure time and more opportunity for complications to occur.

Target Value: The value on current procedure

Supporting Definition: **Adjunctive Ablation Lesions**

Additional locations treated with ablation to increase the efficacy or safety of the primary procedure.

Source: NCDR

Section: Ablation Location **Parent: Adjunctive Ablation Lesions**

Element: 15725 Adjunctive Ablation Location

Coding Instruction: Indicate the location targeted for ablation during this procedure.

Note(s):
If the patient has multiple locations select all location targeted for ablation.

Target Value: The value on current procedure

Adjunctive Ablation Lesion Location - 1.3.6.1.4.1.19376.1.4.1.6.5.201

Selection	Definition	Source	Code	Code System
SVC isolation			48345005	SNOMED CT
Coronary sinus isolation			90219004	SNOMED CT
Cavotricuspid isthmus (CTI)			100000981	ACC NCDR
Ligament/vein of marshall			5208200	SNOMED CT
LA roof line			112000003647	ACC NCDR
Left auricular appendage			112000002380	ACC NCDR
LA floor line			112000003648	ACC NCDR
Mitral isthmus line			112000003650	ACC NCDR
Posterior wall isolation			112000003649	ACC NCDR
Other			100001063	ACC NCDR

Element: 15708 Adjuctive Ablation Lesion Occurrence

Coding Instruction: Indicate if additional lesions were created at the specified location during the ablation procedure.

Target Value: The value on current procedure

Element: 15709 Adjunctive Ablation Lesion Energy Source

Coding Instruction: Indicate the energy source used to create the lesion.

Target Value: The value on current procedure

Ablation Energy Source - 1.3.6.1.4.1.19376.1.4.1.6.5.947

Selection	Definition	Source	Code	Code System
Cryoenergy	Cryoablation, or freezing technology, involves a coolant being released into the catheter's balloon to freeze and ablate the tissue.		112000003639	ACC NCDR
Ethanol	Ethanol infusion used during catheter ablation		112000003640	ACC NCDR
Laser	The laser balloon catheter comprises an inflatable balloon mounted on a catheter shaft, an endoscope lumen, and an optical fiber that can deliver laser energy		112000003641	ACC NCDR
Pulsed Field Ablation	Pulsed field ablation uses electrical pulses to cause nonthermal irreversible electroporation and induce cardiac cell death.		112000003642	ACC NCDR
Radiofrequency	Radiofrequency uses heat energy generated by radiofrequency waves to create lesions or scars on the heart tissue, disrupting abnormal electrical signals.		112000003643	ACC NCDR
Other	Any energy used during the procedure that is not listed		112000003644	ACC NCDR

Section: Additional Ablations Attempted **Parent: Procedure Information**

Element: 15710 Additional Ablation

Coding Instruction: Indicate if additional ablations, other than PVI (pulmonary vein isolation), were performed or attempted during the procedure.

Intent: This element, and the child fields, are meant to capture a comprehensive view of the ablation strategies, approaches, techniques utilized during atrial fibrillation (AF) ablation procedures. While pulmonary vein isolation is the primary and most common approach to AF ablation, additional ablation techniques may be employed depending on the patient's specific condition and the complexity of the AF. Understanding whether additional ablations were performed helps to document procedural variability, assess outcomes, and potentially guide future treatment protocols.

Target Value: The value on current procedure

Section: Ablation Approach **Parent: Additional Ablations Attempted**

Element: 15711 Additional Ablation Approach

Coding Instruction: Indicate the technique, strategy or approach used to perform the additional ablation.

Target Value: The value on current procedure

Additional Ablation Approach - 1.3.6.1.4.1.19376.1.4.1.6.5.953

Selection	Definition	Source	Code	Code System
Complex fractionated electrogram			100000910	ACC NCDR
Focal/trigger ablation			100000913	ACC NCDR
Ganglion plexus ablation			100000914	ACC NCDR
Rotor-based mapping			100000917	ACC NCDR
Temporo-spatial dispersion mapping/ablation			112000003656	ACC NCDR
Other			100000351	ACC NCDR

Element: 15712 Additional Ablation Occurrence

Coding Instruction: Indicate the occurrence of each additional ablation technique.

Target Value: The value on current procedure

Element: 15713 Additional Ablation Energy Source

Coding Instruction: Indicate the energy source used during the additional ablation.

Target Value: The value on current procedure

Ablation Energy Source - 1.3.6.1.4.1.19376.1.4.1.6.5.947

Selection	Definition	Source	Code	Code System
Cryoenergy	Cryoablation, or freezing technology, involves a coolant being released into the catheter's balloon to freeze and ablate the tissue.		112000003639	ACC NCDR
Ethanol	Ethanol infusion used during catheter ablation		112000003640	ACC NCDR
Laser	The laser balloon catheter comprises an inflatable balloon mounted on a catheter shaft, an endoscope lumen, and an optical fiber that can deliver laser energy		112000003641	ACC NCDR
Pulsed Field Ablation	Pulsed field ablation uses electrical pulses to cause nonthermal irreversible electroporation and induce cardiac cell death.		112000003642	ACC NCDR
Radiofrequency	Radiofrequency uses heat energy generated by radiofrequency waves to create lesions or scars on the heart tissue, disrupting abnormal electrical signals.		112000003643	ACC NCDR
Other	Any energy used during the procedure that is not listed		112000003644	ACC NCDR

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

Element: 7120 Phrenic Nerve Evaluation

Coding Instruction: Indicate if the phrenic nerve was evaluated.

Target Value: The value on current procedure

Element: 15724 Cardioversion Performed During Procedure and Type

Coding Instruction: Indicate if cardioversion was performed during this procedure.

Target Value: The value on current procedure

Cardioversion Performed During Procedure and Type - 1.3.6.1.4.1.19376.1.4.1.6.5.950

Selection	Definition	Source	Code	Code System
No			100013073	ACC NCDR
Yes - Pharmacologic			440142000	SNOMED CT
Yes - DC			180325003	SNOMED CT
Both			112000003646	ACC NCDR

Element: 15717 Atrial Flutter Observed During Procedure

Coding Instruction: Indicate if atrial flutter was observed during the procedure.

Note(s):
Code 'Yes' if atrial flutter was induced during the procedure.

Target Value: The value on current procedure

Supporting Definition: **Atrial Flutter**

Atrial flutter is defined as a cardiac arrhythmia arising in the atrium which has a regular rate typically between 250 and 350 bpm (cycle length 240-170 ms) in the absence of antiarrhythmic drugs.

Source: January CT, Wann LS, Alpert JS, Calkins H, Cleveland Jr JC, Cigarroa JE, Conti JB, Ellinor PT, Ezekowitz MD, Field ME, Murray KT, Sacco RL, Stevenson WG, Tchou PJ, Tracy CM, Yancy CW, 2014 AHA/ACC/HRS Guideline for the Management of Patients With Atrial Fibrillation, Journal of the American College of Cardiology (2014), doi: 10.1016/j.jacc.2014.03.022.

Ablation Performed After Observations - 1.3.6.1.4.1.19376.1.4.1.6.5.952

Selection	Definition	Source	Code	Code System
No			100013073	ACC NCDR
Yes - Ablated			112000003653	ACC NCDR
Yes - Not Ablated			112000003654	ACC NCDR

Element: 15718 Atrial Tachycardia Observed During Procedure

Coding Instruction: Indicate if atrial tachycardia was observed during the procedure.

Note(s):
Code 'Yes' if atrial tachycardia was induced during the procedure.

Target Value: The value on current procedure

Ablation Performed After Observations - 1.3.6.1.4.1.19376.1.4.1.6.5.952

Selection	Definition	Source	Code	Code System
No			100013073	ACC NCDR
Yes - Ablated			112000003653	ACC NCDR
Yes - Not Ablated			112000003654	ACC NCDR

Section: Device **Parent: Procedure Information**

Element: 7205 Catheter Manipulation

Coding Instruction: Indicate the method used for catheter manipulation during the procedure.

Target Value: The value on current procedure

Catheter Manipulation Method - 1.3.6.1.4.1.19376.1.4.1.6.5.200

Selection	Definition	Source	Code	Code System
Manual			100000958	ACC NCDR
Magnetic/Robotic			112000003635	ACC NCDR
Other			112000003636	ACC NCDR

Section: Catheter Ablation Devices **Parent: Device**

Element: 7255 Catheter Ablation Device

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

Note(s):
The devices that should be collected in your application are controlled by a Catheter Ablation 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

Vendor Instruction: When Catheter Ablation Unique Device Identifier (7260) is answered, Catheter Ablation Device (7255) cannot be Null.

Element: 7260 Catheter Ablation Unique Device Identifier

Coding Instruction: Indicate the direct identifier portion of the Unique Device Identifier (UDI) associated with the device. 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: Electroanatomical Mapping System **Parent: Device**

Element: 15715 Electroanatomic Mapping System

Coding Instruction: Indicate the electroanatomic mapping system used. If no mapping system was used, leave this field blank.

Note(s):

Electroanatomic mapping systems combine information of the anatomy and electrical properties of the cardiac structures under evaluation. These systems create a three-dimensional anatomical map used to help localize critical sites for ablation. To request a mapping system be added to this list please contact NCDR.

Target Value: Any occurrence on current procedure

Section: Radiation Exposure **Parent: Procedure Information**

Element: 7210 Cumulative Air Kerma

Coding Instruction: Indicate the total radiation dose (Cumulative Air Kerma, or Reference Air Kerma) recorded to the nearest milligray (mGy) or gray (Gy). The value recorded should include the total dose for the lab visit. Cumulative air kerma is the total air kerma accrued from the beginning of an examination or procedure and includes all contributions from fluoroscopic and radiographic irradiation.

Target Value: The total between start of current procedure and end of current procedure

Supporting Definition: **Cumulative (Reference) Air kerma**

Cumulative air kerma (also known as reference, reference dose, cumulative dose, or cumulative dose at a reference point) is the air kerma accumulated at a specific point in space (the patient entrance reference point) relative to the gantry of the fluoroscopy system.

The quantity, kerma, originated from the acronym, KERMA, for Kinetic Energy Released per unit Mass (of air).

Source: Miller DL, et al. Radiation doses in interventional radiology procedures. (J Vasc Interv Radiol 2003;14:711-727.)

Element: 15719 No Radiation Kerma Documented

Coding Instruction: Indicate if a cumulative air kerma value is not available.

Target Value: The value on current procedure

Element: 14278 Dose Area Product

Coding Instruction: Indicate the total fluoroscopy dose to the nearest integer. The value recorded should include the total dose for the lab visit.

Target Value: The total between start of current procedure and end of current procedure

Supporting Definition: **Dose Area Product**

Dose Area Product is the integral of air kerma (the energy extracted from an x-ray beam per unit mass of air in a small irradiated air volume; for diagnostic x-rays, the dose delivered to that volume of air) across the entire x-ray beam emitted from the x-ray tube. It is a surrogate measure of the amount of energy delivered to the patient.

Also known as KAP (Kerma Area Product).

Source: Miller DL, et al. Radiation doses in interventional radiology procedures. (J Vasc Interv Radiol 2003; 14:711-727.)

Element: 15720 No Fluoro Used

Coding Instruction: Indicate if fluoroscopy (i.e., radiation) was not used at all during the procedure.

Target Value: The value on current procedure

Element: 7214 Fluoroscopy Time

Coding Instruction: Indicate the total fluoroscopy time recorded to the nearest 0.1-minute. The time recorded should include the total time for the lab visit.

Target Value: The total between start of current procedure and end of current procedure

Section: Intraprocedure Anticoagulation Strategy **Parent: Procedure Information**

Element: 7225 Intraprocedure Anticoagulation

Coding Instruction: Indicate if intraprocedure anticoagulation therapy was provided.

Target Value: The value on current procedure

Element: 15775 Uninterrupted Anticoagulation Therapy

Coding Instruction: Indicate if the patient continued on warfarin, heparin, bivalirudin therapy or another anticoagulation therapy and it was not held for the procedure.

Target Value: The value on current procedure

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
Cardiac tamponade			35304003	SNOMED CT
Pericardiocentesis			309849004	SNOMED CT
Acute kidney injury	Indicate if the patient had acute kidney injury, an abrupt decline in GFR defined as: 1. A new requirement for dialysis, OR 2. An increase from pre-procedure creatinine to post-procedure creatinine of 0.3mg/dL, OR 3. An increase of serum creatinine of >=50% of baseline.		14669001	SNOMED CT
A-V fistula requiring intervention	Indicate if the patient developed a new arteriovenous (AV) fistula, an abnormal connection between the arterial and venous systems, that required an intervention for repair.		439470001	SNOMED CT
Bleeding - access site (transfusion)	Indicate if there was bleeding at the percutaneous access site that required a transfusion.		100001237	ACC NCDR
Bradycardia adverse events	Indicate if the patient experienced symptomatic bradycardia (can include periods of reduced, unstable, or abnormal blood pressure with near syncope, or episodes of syncope), or bradycardia requiring pacing, or bradycardia requiring medical therapy.		48867003	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
Cardiac surgery (unplanned emergent)	Indicate if there is documentation that the patient required an unplanned or emergent cardiac surgery.		64915003	SNOMED CT
Deep vein thrombosis	Indicate if the patient was diagnosed with a deep vein thrombosis (DVT), a manifestation of venous thromboembolism (VTE) in which thrombi remain lodged in the deep veins.		128053003	SNOMED CT
GU Bleeding	Indicate if the patient experienced genital or urinary bleeding. To qualify, it must be associated with any of the following documented in the medical record: 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.		417941003	SNOMED CT
Heart failure	Indicate if the patient was newly diagnosed with heart failure or an acute decompensation of previously diagnosed HF.		84114007	SNOMED CT
Hematoma at access site	Indicate if the patient experienced a hematoma at the access or percutaneous entry site. To qualify, the bleeding should be associated with any of the following documented in the medical record: 1. Hemoglobin drop of >=3 g/dL; 2. Transfusion of whole blood or packed red blood cells; 3. Procedural intervention/surgery at the site to correct the hematoma.		385494008	SNOMED CT
Hemolysis	Hemolysis, the destruction of red blood cells, is a possible side effect of pulsed field ablation. At high levels, hemolysis can negatively impact renal function or cause anemia or jaundice. Clinically significant hemolysis may be indicated by		73320003	SNOMED CT

Section: Intra or Post-Procedure Events		Parent: Intra or Post-Procedure Events		
	laboratory findings such as increased lactate dehydrogenase (LDH) and elevated bilirubin levels, or by symptoms such as dark urine, fatigue, or jaundice. Indicate if there is provider documentation/diagnosis of hemolysis, in conjunction with any of the following: 1. Additional therapy required (such as IV fluids, dialysis, or transfusion); 2. Significant change in renal function; 3. Change in the planned length of stay; or 4. Clinician documentation of significant hemolysis.			
Hemorrhage (non access site)	Indicate if the patient was diagnosed with a hemorrhage at a site other than the access site used for the intervention. To qualify, it must be 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, endoscopy with cautery of a GI bleed).		50960005	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
Myocardial infarction	Indicate if the patient was diagnosed with a myocardial infarction.		22298006	SNOMED CT
Pericardial effusion requiring intervention	Indicate if the documented pericardial effusion required intervention, such as pericardiocentesis.		100001073	ACC NCDR
Pericardial effusion resulting in cardiac tamponade	Indicate if there is documentation that the patient experienced pericardial effusion (the presence of pericardial fluid in the pericardial space) leading to cardiac tamponade (hemodynamic instability that requires unplanned or emergent intervention).		100001074	ACC NCDR
Phrenic nerve damage	Indicate if there is a discharge diagnosis of phrenic nerve damage, new sensory or motor loss as a result of damage or inappropriate contact with the phrenic nerve during the procedure.		100001076	ACC NCDR
Pleural effusion	Indicate if there is documentation that the patient experienced pleural effusion, the abnormal buildup of fluid between the layers of tissue that line the lungs and chest cavity.		60046008	SNOMED CT
Pneumonia	Indicate if there is documentation that the patient experienced pneumonia.		233604007	SNOMED CT
Pneumothorax	Indicate if there is documentation that the patient experienced pneumothorax, air in the pleural space.		36118008	SNOMED CT
Pseudoaneurysm requiring intervention	Indicate if there is documentation that the patient experienced a pseudoaneurysm (PSA) that required treatment (e.g. thrombin injection, percutaneous or surgical therapeutic intervention).		443089001	SNOMED CT
Pulmonary embolism	Indicate if there is documentation that the patient experienced a pulmonary embolism, thrombosis involving the pulmonary tree or branches.		59282003	SNOMED CT
Pulmonary vein damage/dissection	Indicate if there is documentation that the patient experienced a disruption or tear within the venous intima of the pulmonary vein.		60366008	SNOMED CT
Respiratory failure	Indicate if there is documentation that the patient developed respiratory failure. Respiratory failure implies the requirement for mechanical ventilatory support.		409622000	SNOMED CT
Sepsis	Indicate if the patient was diagnosed with sepsis.		91302008	SNOMED CT
Stroke	Indicate if the patient was diagnosed with a stroke (ischemic, hemorrhagic, or undetermined).		230690007	SNOMED CT
Transient ischemic attack (TIA)	Indicate if the patient was diagnosed with a transient ischemic attack (TIA), a temporary episode of neurological dysfunction.		266257000	SNOMED CT
Vascular injury requiring surgical intervention	Indicate if there is documentation that the patient experienced a vascular complication attributable to the current procedure that required a surgical intervention. Vascular complications can include, but are not limited to: access site occlusions, dissections, pseudoaneurysms, and/or AV		30904006:363702006=57662003	SNOMED CT

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

fistulas. Any noted vascular complication must have had a surgical repair to qualify.

Element: 9002 Intra/Post-Procedure Events Occurred

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

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

Vendor Instruction: When Intra/Post-Procedure Events (9001) are provided then Intra/Post-Procedure Events Occurred (9002) cannot be Null

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

Element: 9030 Bradycardia Requiring Permanent Pacemaker

Coding Instruction: Indicate if the patient required a permanent pacemaker.

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

Element: 9210 Hemothorax Requiring Drainage

Coding Instruction: Indicate if the documented hemothorax required drainage.

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

Element: 9220 Pneumothorax Requiring Drainage

Coding Instruction: Indicate if there is documentation that the patient experienced pneumothorax requiring any form of intervention or drainage, such as a chest tube.

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

Section: Discharge **Parent: Root**

Element: 10025 Discharge Atrial Rhythm

Coding Instruction: Indicate the patient's atrial rhythm at the time of discharge.

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.

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

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: 14871 Post Procedure Hemoglobin

Coding Instruction: Indicate the lowest hemoglobin (Hgb) value (g/dL), obtained via lab assay or point of care assay, between the end of the procedure and the time of discharge.

Target Value: The lowest value between end of current procedure and discharge

Supporting Definition: **Hemoglobin**

Hemoglobin (Hb or Hgb) is the iron-containing oxygen-transport metalloprotein in the red blood cells. It carries oxygen from the lungs to the rest of the body (i.e. the tissues) where it releases the oxygen to burn nutrients and provide energy. Hemoglobin concentration measurement is among the most commonly performed blood tests, usually as part of a complete blood count. If the concentration is below normal, this is called anemia. Anemias are classified by the size of red blood cells: "microcytic" if red cells are small, "macrocytic" if they are large, and "normocytic" if otherwise. Dehydration or hyperhydration can greatly influence measured hemoglobin levels.

Source: http://s.details.loinc.org/LOINC/718-7.html?sections=Simple

Element: 14872 Post Procedure Hemoglobin Not Drawn

Coding Instruction: Indicate if the post-procedure hemoglobin was not drawn.

Target Value: N/A

Element: 10101 Discharge Date and Time

Coding Instruction: Indicate the date and time the patient was discharged from your facility as identified in the medical record.

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

If the exact discharge time is not specified in the medical record, then code the appropriate time as below.

0000 - 0559 (midnight to before 6AM) code 0300
0600 - 1159 (6AM - before noon) code 0900
1200 - 1759 (noon before 6PM) code 1500
1800 - 2359 (6PM to before midnight) code 2100

Target Value: The value on discharge

Vendor Instruction: Discharge Date and Time (10101) must be Greater than or Equal to 10/01/2024

Discharge Date and Time (10101) and Arrival Date and Time (3001) must not overlap on multiple episodes

Discharge Date and Time (10101) must be Greater than or Equal to Arrival Date and Time (3001)

Discharge Date and Time (10101) must be Greater than or Equal to Procedure Start Date and Time (7000)

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

Section: Discharge **Parent: Root**

Element: 10120 Death During the Procedure

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

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	Attribution of death to a cardiovascular etiology are acute myocardial infarction, sudden cardiac death, heart failure, stroke, cardiovascular procedure, cardiovascular hemorrhage, and other cardiovascular causes. “Death due to other cardiovascular causes” refers to a cardiovascular death not included in the above categories but with a specific known cause, such as a pulmonary embolism or peripheral arterial disease. In addition, “death due to cardiovascular hemorrhage” refers to a death related to hemorrhage such as a non-stroke intracranial hemorrhage, non-procedural or non-traumatic vascular rupture (e.g., aortic aneurysm), or pulmonary hemorrhage from a pulmonary embolism. In contrast, if a pulmonary hemorrhage were a result of a contusion from a motor vehicle accident, the cause of death would be non-cardiovascular (death due to trauma).	Hicks KA, Tcheng JE, Bozkurt B. 2014 ACC/AHA key data elements and definitions for cardiovascular endpoint events in clinical trials: a report of the ACC/AHA Task Force on Clinical Data Standards (Writing Committee to Develop Cardiovascular Endpoints Data Standards). J Am Coll Cardiol 2015;66:403-69	100014107	ACC NCDR
Non-Cardiac	Mortality attributed to any non-cardiovascular organ, system, infection, malignancy, trauma or drug reaction/overdose.	Hicks KA, Tcheng JE, Bozkurt B. 2014 ACC/AHA key data elements and definitions for cardiovascular endpoint events in clinical trials: a report of the ACC/AHA Task Force on Clinical Data Standards (Writing Committee to Develop Cardiovascular Endpoints Data Standards). J Am Coll Cardiol 2015;66:403-69	112000000343	ACC NCDR
Undetermined	Attribution of causality may be limited or impossible if information available at the time of death is minimal or nonexistent. In such cases, the date of death may be the only data element captured and 'undetermined' should be selected for cause of death.	Hicks KA, Tcheng JE, Bozkurt B. 2014 ACC/AHA key data elements and definitions for cardiovascular endpoint events in clinical trials: a report of the ACC/AHA Task Force on Clinical Data Standards (Writing Committee to Develop Cardiovascular Endpoints Data Standards). J Am Coll Cardiol 2015;66:403-69	112000000342	ACC NCDR

Section: Discharge Medications **Parent: Discharge**

Element: 10200 Discharge Medication Code

Coding Instruction: Indicate the assigned identification number associated with the medications the patient was prescribed upon discharge.

Note(s):
Discharge medications not required for patients who expired, discharged to "Other acute care hospital", "Left against medical advice (AMA)" or are receiving Hospice Care.

The medication(s) collected in this field are controlled by the Medication 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. Each medication in the Medication Master file is assigned to a value set. The value set is used to separate procedural medications from medications prescribed at discharge. The separation of these medications is depicted on the data collection form.

Target Value: N/A

Vendor Instruction: Discharge Medication Code (10200) should 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
Amiodarone			703	RxNorm
Angiotensin converting enzyme inhibitor (ACE-I) (Any)			41549009	SNOMED CT
Angiotensin receptor blocker (ARB) (Any)			372913009	SNOMED CT
Angiotensin II receptor blocker neprilysin inhibitor (ARNI)			1656341	RxNorm
Apixaban			1364430	RxNorm
Aspirin			1191	RxNorm
Aspirin, Extended-Release Dipyridamole			226718	RxNorm
Beta blocker (Any)			33252009	SNOMED CT
Betrixaban			1927851	RxNorm
Cangrelor			1656052	RxNorm
Clopidogrel			32968	RxNorm
Dabigatran			1546356	RxNorm
Digoxin			3407	RxNorm
Diltiazem			3443	RxNorm
Disopyramide			3541	RxNorm
Dofetilide			49247	RxNorm
Dronedarone			233698	RxNorm
Edoxaban			1599538	RxNorm
Flecainide			4441	RxNorm
GLP-1 agonist			772985004	SNOMED CT
Heparin Derivative			100000921	ACC NCDR
Low Molecular Weight Heparin			373294004	SNOMED CT
Prasugrel			613391	RxNorm
Procainamide			8700	RxNorm
Propafenone			8754	RxNorm
Quinidine			9068	RxNorm
Rivaroxaban			1114195	RxNorm
SGLT inhibitor			112000003634	ACC NCDR
Sotalol			9947	RxNorm
Ticagrelor			1116632	RxNorm
Ticlopidine			10594	RxNorm
Unfractionated Heparin			96382006	SNOMED CT
Verapamil			11170	RxNorm
Vorapaxar			1537034	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.

Target Value: The value on discharge

Vendor Instruction: When Discharge Medication Code (10200) is answered, Discharge Medication 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 - Prescribed	Code 'Yes' if this medication was initiated (or prescribed) post procedure and for discharge.		100001247	ACC NCDR

Section: Discharge Medications		Parent: Discharge		
Not Prescribed - 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
Not Prescribed - 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
Not Prescribed - 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: Follow-Up **Parent: Root**

Element: 10999 Follow-Up Unique Key

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

Target Value: N/A

Element: 11000 Follow-Up Assessment Date

Coding Instruction: Indicate the date the follow-up assessment was performed.

Target Value: The value on Follow-up

Vendor Instruction: Follow-Up Assessment Date (11000) must be Greater than or Equal to 10/01/2024

Follow-Up Assessment Date (11000) must be Greater than Follow-Up Reference Episode Discharge Date and Time (11015)

Follow-Up Assessment Date (11000) must be Less than that of a previously submitted follow-up assessment with Follow-Up Status (11004) of Deceased

Element: 11002 Follow-Up Reference Episode Arrival Date and Time

Coding Instruction: Indicate the date and time of arrival for the episode of care that included the reference procedure.

Target Value: The value on Follow-up

Element: 11001 Follow-Up Reference Procedure Start Date and Time

Coding Instruction: Indicate the reference procedure start date and time on the follow-up assessment date.

Target Value: The value on Follow-up

Element: 11015 Follow-Up Reference Episode Discharge Date and Time

Coding Instruction: Indicate the date and time of discharge for the relevant episode of care.

Target Value: The value on Follow-up

Element: 11003 Method to Determine Follow-Up Status

Coding Instruction: Indicate the method(s) used to determine the patient's vital status for follow up.

Target Value: The value on Follow-up

Method to Determine Follow-up status - 1.3.6.1.4.1.19376.1.4.1.6.5.370

Selection	Definition	Source	Code	Code System
Office visit			183654001	SNOMED CT
Medical records			100014060	ACC NCDR
Letter from medical provider			100014061	ACC NCDR
Video call			448337001	SNOMED CT
Remote Monitoring Tool			88140007	SNOMED CT
Phone call			100014062	ACC NCDR
State Registry / Social Security death master file			419099009	SNOMED CT
Hospitalization			1000142363	ACC NCDR
CMS Linked Data			112000001407	ACC NCDR
Other			100000351	ACC NCDR

Element: 11004 Follow-Up Status

Coding Instruction: Indicate the patient status as of the date on which the follow-up assessment was performed.

Target Value: The value on Follow-up

Vendor Instruction: Follow-Up Status (11004) = Deceased may only be submitted once across the Follow-up Assessment Dates (11000) for the Follow-Up Reference Procedure Start Date and Time (11001)

Follow-Up Status - 1.3.6.1.4.1.19376.1.4.1.6.5.372

Selection	Definition	Source	Code	Code System
Alive			438949009	SNOMED CT
Deceased			20	HL7 Discharge disposition
Lost to follow-up			399307001	SNOMED CT

Element: 11007 Cause of Death

Section: Follow-Up **Parent: Root**

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 Follow-up

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	Attribution of death to a cardiovascular etiology are acute myocardial infarction, sudden cardiac death, heart failure, stroke, cardiovascular procedure, cardiovascular hemorrhage, and other cardiovascular causes. "Death due to other cardiovascular causes" refers to a cardiovascular death not included in the above categories but with a specific known cause, such as a pulmonary embolism or peripheral arterial disease. In addition, "death due to cardiovascular hemorrhage" refers to a death related to hemorrhage such as a non-stroke intracranial hemorrhage, non-procedural or non-traumatic vascular rupture (e.g., aortic aneurysm), or pulmonary hemorrhage from a pulmonary embolism. In contrast, if a pulmonary hemorrhage were a result of a contusion from a motor vehicle accident, the cause of death would be non-cardiovascular (death due to trauma).	Hicks KA, Tcheng JE, Bozkurt B. 2014 ACC/AHA key data elements and definitions for cardiovascular endpoint events in clinical trials: a report of the ACC/AHA Task Force on Clinical Data Standards (Writing Committee to Develop Cardiovascular Endpoints Data Standards). J Am Coll Cardiol 2015;66:403-69	100014107	ACC NCDR
Non-Cardiac	Mortality attributed to any non-cardiovascular organ, system, infection, malignancy, trauma or drug reaction/overdose.	Hicks KA, Tcheng JE, Bozkurt B. 2014 ACC/AHA key data elements and definitions for cardiovascular endpoint events in clinical trials: a report of the ACC/AHA Task Force on Clinical Data Standards (Writing Committee to Develop Cardiovascular Endpoints Data Standards). J Am Coll Cardiol 2015;66:403-69	112000000343	ACC NCDR
Undetermined	Attribution of causality may be limited or impossible if information available at the time of death is minimal or nonexistent. In such cases, the date of death may be the only data element captured and 'undetermined' should be selected for cause of death.	Hicks KA, Tcheng JE, Bozkurt B. 2014 ACC/AHA key data elements and definitions for cardiovascular endpoint events in clinical trials: a report of the ACC/AHA Task Force on Clinical Data Standards (Writing Committee to Develop Cardiovascular Endpoints Data Standards). J Am Coll Cardiol 2015;66:403-69	112000000342	ACC NCDR

Element: 11006 Follow-Up Date of Death

Coding Instruction: Indicate the date of death.

Target Value: The value on Follow-up

Vendor Instruction: Follow-Up Date of Death (11006) must be Greater than or Equal to Follow-Up Reference Discharge Date and Time (11015)

Follow-Up Date of Death (11006) must be Less than or Equal to Follow-Up Assessment Date (11000)

Follow-Up Date of Death (11006) must be Greater than or Equal to the Follow-Up Assessment Date (11000) of a follow-up assessment with Follow-Up Status (11004) of Alive

Element: 15749 Follow-up Atrial Rhythm

Coding Instruction: Indicate the patient's atrial rhythm determined during this follow-up assessment.

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.

Target Value: Any occurrence between discharge (or previous follow-up) and current follow-up assessment

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: 15750 Documented Atrial Arrhythmia Recurrence

Coding Instruction: Indicate if the patient had a documented recurrence of any atrial arrhythmia between discharge (or previous follow-up) and current follow-up assessment.

Section: Follow-Up **Parent: Root**

Acceptable documentation includes provider notes indicating atrial arrhythmia or catheter ablation failure, or provider confirmation of atrial arrhythmia on any of the following: 12-lead ECG (EKG) or rhythm strip, Holter monitor report, smart watch alert, implantable device.

Note(s): Code 'Yes' to any documentation of recurrence of atrial arrhythmia, unless it is documented to last less than 30 seconds. If there is documentation that the atrial arrythmia lasted less than 30 seconds, then code 'No.'

Target Value: Any occurrence between discharge (or previous follow-up) and current follow-up assessment

Supporting Definition: **Documented Atrial Arrhythmia Recurrence**

An AF/flutter/tachycardia episode is present if it is documented by ECG and lasts at least 30 seconds. An episode of AF/flutter/tachycardia detected by monitoring should be considered a recurrence if it has a duration of 30 seconds or more.

Source: Calkins H, Brugada J, Packer DL, Cappato R, Chen S-A, Crijns HJG, Damiano R, Davies WD, Haines DE, Haissaguerre M, Iesaka Y, Jackman WJ, Jais P, Kottkamp H, Kuck KH, Lindsay BD, Marchlinski FE, McCarthy PM, Mont L, Morady F, Nademanee K, Natale A, Pappone C, Prystowsky E, Raviele A, Ruskin JN, Shemin RJ. HRS/EHRA/ECAS expert consensus statement on catheter and surgical ablation of atrial fibrillation: recommendations for personnel, policy, procedures and follow-up. Heart Rhythm. 2007; 4:1–46.

Atrial Arrhythmia - 1.3.6.1.4.1.19376.1.4.1.6.5.954

Selection	Definition	Source	Code	Code System
No			100013073	ACC NCDR
Yes - Asymptomatic			84387000	SNOMED CT
Yes - Symptomatic			264931009	SNOMED CT

Section: Follow-Up Symptoms **Parent: Follow-Up**

Element: 15751 Follow-up Symptoms Experienced

Coding Instruction: Indicate which symptom(s), if any, the patient experienced between discharge (or previous follow-up) and current follow-up assessment. If the patient had both symptomatic and asymptomatic episodes, code "yes."

Target Value: Any occurrence between discharge (or previous follow-up) and current follow-up assessment

Symptoms Prior to Ablation - 1.3.6.1.4.1.19376.1.4.1.6.5.948

Selection	Definition	Source	Code	Code System
Anxiety			48694002	SNOMED CT
Chest pain			29857009	SNOMED CT
Dyspnea at rest			161941007	SNOMED CT
Dyspnea on exertion			60845006	SNOMED CT
Fatigue			84229001	SNOMED CT
Irregular heartbeat			361137007	SNOMED CT
Light-headedness			386705008	SNOMED CT
Palpitations			80313002	SNOMED CT
Other			112000003645	ACC NCDR

Element: 15752 Follow-up Symptom Status

Coding Instruction: Indicate whether a patient experienced symptom(s) between discharge (or previous follow-up) and current follow-up assessment.

If yes there is documentation that the patient experienced symptoms, indicate whether the symptoms are improved, unchanged or worse. If symptoms are documented but no documentation is present about whether symptoms are improved, unchanged, or worse than code "Yes-Unknown." If there is no documentation of symptoms then code "Not Documented."

Target Value: Any occurrence between discharge (or previous follow-up) and current follow-up assessment

Follow-up Symptom Status - 1.3.6.1.4.1.19376.1.4.1.6.5.955

Selection	Definition	Source	Code	Code System
No			100013073	ACC NCDR
Yes - Improved			385425000	SNOMED CT
Yes - Unchanged			260388006	SNOMED CT
Yes - Worse			231877006	SNOMED CT
Yes - Unknown			261665006	SNOMED CT
Not Documented			112000001830	ACC NCDR

Section: Follow-Up **Parent: Follow-Up**

Element: 15759 Hospitalization

Coding Instruction: Indicate if the patient was hospitalized (or is currently hospitalized) or has had an emergency department visit between discharge (or previous follow-up) and current follow-up assessment.

Target Value: Any occurrence between discharge (or previous follow-up) and current follow-up assessment

Hospitalization Cardiac Reason - 1.3.6.1.4.1.19376.1.4.1.6.5.958

Selection	Definition	Source	Code	Code System
No			100013073	ACC NCDR
Yes - Cardiac			112000000678	ACC NCDR
Yes - Non-cardiac			100014165	ACC NCDR

Element: 15760 Hospitalization Date

Coding Instruction: Indicate the date of the start of the hospitalization.

Target Value: Any occurrence between discharge (or previous follow-up) and current follow-up assessment

Element: 15761 Repeat Ablation

Coding Instruction: Indicate if the patient had a repeat ablation between discharge (or previous follow-up) and current follow-up assessment.
Note: Code 'yes' only if the repeat ablation was for an atrial arrhythmia.

Target Value: Any occurrence between discharge (or previous follow-up) and current follow-up assessment

Element: 15762 Repeat Ablation Date

Coding Instruction: Indicate the repeat ablation procedure date.

Target Value: Any occurrence between discharge (or previous follow-up) and current follow-up assessment

Section: Follow-Up Medications **Parent: Follow-Up**

Element: 15772 Follow-up Medications

Coding Instruction: The medication(s) collected in this field are controlled by the Medication 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. Each medication in the Medication Master file is assigned to a value set. The value set is used to separate procedural medications from medications prescribed at discharge. The separation of these medications is depicted on the data collection form.

Target Value: Any occurrence between discharge (or previous follow-up) and current follow-up assessment

Follow-up Medications - 1.3.6.1.4.1.19376.1.4.1.6.5.960

Selection	Definition	Source	Code	Code System
Amiodarone			703	RxNorm
Apixaban			1364430	RxNorm
Betrixaban			1927851	RxNorm
Dabigatran			1546356	RxNorm
Dofetilide			49247	RxNorm
Dronedarone			233698	RxNorm
Edoxaban			1599538	RxNorm
Flecainide			4441	RxNorm
Procainamide			8700	RxNorm
Propafenone			8754	RxNorm
Quinidine			9068	RxNorm
Rivaroxaban			1114195	RxNorm
Sotalol			9947	RxNorm
Warfarin			11289	RxNorm

Element: 15773 Follow-up Medication Prescribed

Coding Instruction: Indicate the medication(s) the patient is currently prescribed or the medication(s) that were prescribed at the current follow-up assessment.

Target Value: Any occurrence between discharge (or previous follow-up) and current follow-up assessment

Follow-Up Medication Administration - 1.3.6.1.4.1.19376.1.4.1.6.5.371

Selection	Definition	Source	Code	Code System
No			100001048	ACC NCDR
Yes			100001247	ACC NCDR

Element: 15774 Follow-up Medication Discontinued

Coding Instruction: Indicate if the medication(s) the patient is currently prescribed has been discontinued anytime between discharge (or previous follow-up) and current follow-up assessment.

Code 'Yes' if the medication was discontinued during the follow-up assessment.

Target Value: Any occurrence between discharge (or previous follow-up) and current follow-up assessment

Section: Follow-Up Events **Parent: Follow-Up**

Element: 11011 Follow-Up Events

Coding Instruction: The events listed in this field are controlled by the Event Master file. This file is maintained by the NCDR and will be made available for downloading and importing/updating into your application.

Target Value: N/A

Vendor Instruction: A Follow-up - combination Events (11011), Occurred (11012) and Dates (11014) - may only be entered/selected once

Follow-up Events - 2.16.840.1.113883.3.3478.6.3.20

Selection	Definition	Source	Code	Code System
Vascular Injury Requiring 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 hematoma requiring transfusion is not a vascular complication under this data element. To qualify, this adverse outcome should be attributable to this procedure and not related to a previous or subsequent procedure.		112000004261	ACC NCDR
Vascular Injury Requiring Intervention - Access Site Complication Requiring Intervention	The patient experienced significant external bleeding that occurred at the access or percutaneous entry site. To qualify, the bleeding should be associated with any of the following documented in the medical record: Hemoglobin drop of >=3 g/dL; Transfusion of whole blood or packed red blood cells; 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).		112000004262	ACC NCDR
Vascular Injury Requiring Intervention - AV-Fistula			112000004264	ACC NCDR
Vascular Injury Requiring Intervention - Pseudoaneurysm			112000004263	ACC NCDR
Other Unplanned Cardiac Surgery or Intervention			112000001892	ACC NCDR
Cardiac Arrest	"Sudden" Cardiac arrest is the sudden cessation of cardiac activity. The victim becomes unresponsive with no normal breathing and no signs of circulation. If corrective measures are not taken rapidly, this condition progresses to sudden death. Cardiac arrest should be used to signify an event as described above that is reversed, usually by CPR and/or defibrillation or cardioversion or cardiac pacing.	ACCF/AHA 2011 Key Data Elements and Definitions of a Base Cardiovascular Vocabulary for Electronic Health Records. JACC Vol. 58, No. 2, 2011 Weintraub et al. 203; July 5, 2011:202-22	410429000	SNOMED CT
Atrial-Esophageal Fistula			112000004265	ACC NCDR
Hemolysis Requiring Intervention			112000004266	ACC NCDR
Cardiac Tamponade	Fluid in the pericardial space compromising cardiac filling and requiring intervention.		35304003	SNOMED CT
Pericardiocentesis			309849004	SNOMED CT
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.		100001073	ACC NCDR
Pericardial effusion resulting in cardiac tamponade	Indicate if the patient experienced fluid in the pericardial space compromising cardiac filling and requiring intervention. A perforation of the myocardium, aortic annulus or aorta, with or without tamponade associated with the perforation. If tamponade occurs there would be fluid in the pericardial space compromising cardiac filling, and requiring intervention such as pericardiocentesis or returning to the operating room. This should be documented by either: 1. Echo showing pericardial fluid and signs of tamponade such as right heart compromise, or 2. Systemic hypotension due to pericardial fluid compromising cardiac function.		100001074	ACC NCDR

Section: Follow-Up Events		Parent: Follow-Up		
Phrenic nerve damage	Indicate if the patient experienced phrenic nerve damage. Development of new sensory or motor loss of the phrenic nerve function from external nerve compression (e.g., as a result of positioning during a procedure), or internal compression or direct nerve damage from the procedure, occurring within 72 h of a procedure.		100001076	ACC NCDR
Stroke	An ischemic stroke is an acute episode of focal or global neurological dysfunction caused by brain, spinal cord, or retinal vascular injury as a result of infarction of central nervous system tissue. Hemorrhage may be a consequence of ischemic stroke. In this situation, the stroke is an ischemic stroke with hemorrhagic transformation and not a hemorrhagic stroke. A hemorrhagic stroke is defined as an acute episode of focal or global cerebral or spinal dysfunction caused by intraparenchymal, intraventricular, or subarachnoid hemorrhage (note: subdural hematomas are intracranial hemorrhagic events and not strokes).		100000977	ACC NCDR
Transient ischemic attack (TIA)	Transient episode of focal neurological dysfunction caused by brain, spinal cord, or retinal ischemia without acute infarction. Persistence of symptoms is an acceptable indicator of acute infarction. If it is used, duration of symptom persistence that will be used to distinguish between transient ischemia and acute infarction should be defined for any clinical trial in which it is used.		266257000	SNOMED CT

Element: 11012 Follow-Up Events Occurred

Coding Instruction: Indicate if the event(s) occurred.

Target Value: Any occurrence between discharge (or previous follow-up) and current follow-up assessment

Vendor Instruction: When a Follow-Up Events (11011) code has been entered/selected more than once, then its Follow-Up Events Occurred (11012) cannot have a response of No.

Element: 11014 Follow-Up Event Dates

Coding Instruction: Indicate the date the event occurred.

Note(s):

If an event occurred more than once on the same date, record only the first event.

If an event occurred multiple times within the target timeframe, but on different dates, record each occurrence with its respective date.

For events that occurred with an unknown date, leave the date field blank.

Target Value: All values between discharge (or previous follow-up) and current follow-up assessment

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

Element: 1085 Submission Type

Coding Instruction: Indicate if the data contained in the harvest/data file contains either standard patient episode of care records (arrival date to discharge only) or if it contains patient follow-up records.

Section: Administration **Parent: Root**

A transmission file with all episode of care records (from Arrival to Discharge only) is considered a 'Base Registry Record'.

A file with patient follow-up records (any follow-up assessments performed during the quarter selected) is considered a 'Follow-Up Record'.

Note(s):
Selecting 'Follow-Up Records Only' will transmit all patient records with Follow-up Assessment Dates (Element Ref# 11000) contained in the selected timeframe, regardless of the procedure or discharge date. For example, if a patient has a procedure on 3/30/2017, is discharged on 3/31/2017, and has a follow-up assessment on 5/6/2017, the patient's episode of care data will be transmitted in the 2017Q1 Base Registry Record file, but the Follow-up data will be transmitted in the 2017Q2 Follow-Up File.

Target Value: N/A

Submission Type

Selection	Definition	Source	Code	Code System
Episode of Care Records Only			1000142424	ACC NCDR
Follow-Up Records Only			1000142425	ACC NCDR