Section: A. Demographics **Parent: A. Demographics**

Element: 2000 Last Name

Code System Name	Code
ACC NCDR	1000142463

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

Supporting Definition:

Element: 2010 First Name

Code System Name	Code
ACC NCDR	1000142463

Coding Instruction: Indicate the patient's first name.

Target Value: The value on arrival at this facility

Supporting Definition:

Element: 2020 Middle Name

Code System Name	Code
ACC NCDR	1000142463

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

Supporting Definition:

Element: 2030 SSN

Code System Name	Code
United States Social Security Number (SSN)	2.16.840.1.113883.4.1

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

Supporting Definition:

Element: 2031 SSN N/A

Code System Name	Code
United States Social Security Number (SSN)	2.16.840.1.113883.4.1

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

Supporting Definition:

Element: 2040 Patient ID

Code System Name	Code
ACC NCDR	2.16.840.1.113883.3.3478.4.842

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

Supporting Definition:

Element: 2045 Other ID

Code System Name	Code
ACC NCDR	2.16.840.1.113883.3.3478.4.843

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

Target Value: N/A

Supporting Definition:

Element: 2050 Birth Date

Code System Name	Code
ACC NCDR	1000142447

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

Target Value: The value on arrival at this facility

Supporting Definition:

Element: 2060 Sex

Code System Name	Code
ACC NCDR	1000142448

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

Target Value: The value on arrival at this facility

Supporting Definition:

Code System Name	Code	Selection Text	Definition
HL7 Administrative Gender	M	Male	
HL7 Administrative Gender	F	Female	

Element: 2065 Patient Zip Code

Code System Name	Code
ACC NCDR	1000142449

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

Supporting Definition:

Element: 2066 Zip Code N/A

Code System Name	Code

ACC NCDR	1000142449

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

Supporting Definition:

Element: 2070 Race - White

Code System Name	Code
HL7 Race	2106-3

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

Note(s):
If the patient has multiple race origins, specify them using the other race selections in addition to this one.

Target Value: The value on arrival at this facility

Supporting Definition: **White (race)**

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

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

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Element: 2071 Race - Black/African American

Code System Name	Code
HL7 Race	2054-5

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

Note(s):
If the patient has multiple race origins, specify them using the other race selections in addition to this one.

Target Value: The value on arrival at this facility

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

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

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

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Element: 2073 Race - American Indian/Alaskan Native

Code System Name	Code
HL7 Race	1002-5

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

Note(s):
If the patient has multiple race origins, specify them using the other race selections in addition to this one.

Target Value: The value on arrival at this facility

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

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

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

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Element: 2072 Race - Asian

Code System Name	Code
HL7 Race	2028-9

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

Note(s):
If the patient has multiple race origins, specify them using the other race selections in addition to this one.

Target Value: The value on arrival at this facility

Supporting Definition: **Asian (race)**

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

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

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Element: 2074 Race - Native Hawaiian/Pacific Islander

Code System Name	Code
HL7 Race	2076-8

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

Note(s):
If the patient has multiple race origins, specify them using the other race selections in addition to this one.

Target Value: The value on arrival at this facility

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

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

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

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Element: 2080 Race - Asian Indian

Code System Name	Code
HL7 Race	2029-7

Coding Instruction: Indicate if the patient is Asian Indian 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 Indian**

Having origins in any of the original peoples of India.

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

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Element: 2081 Race - Chinese

Code System Name	Code
HL7 Race	2034-7

Coding Instruction: Indicate if the patient is Chinese 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 - Chinese**

Having origins in any of the original peoples of China.

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

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Element: 2082 Race - Filipino

Code System Name	Code
HL7 Race	2036-2

Coding Instruction: Indicate if the patient is Filipino 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 - Filipino**

Having origins in any of the original peoples of the Philippines.

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

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Element: 2083 Race - Japanese

Code System Name	Code
HL7 Race	2039-6

Coding Instruction: Indicate if the patient is Japanese 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 - Japanese**

Having origins in any of the original peoples of Japan.

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

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Element: 2084 Race - Korean

Code System Name	Code
HL7 Race	2040-4

Coding Instruction: Indicate if the patient is Korean 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 - Korean**

Having origins in any of the original peoples of Korea.

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

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Element: 2085 Race - Vietnamese

Code System Name	Code
HL7 Race	2047-9

Coding Instruction: Indicate if the patient is Vietnamese 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 - Vietnamese**

Having origins in any of the original peoples of Viet Nam.

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

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Element: 2086 Race - Other Asian

Code System Name	Code
ACC NCDR	100001130

Coding Instruction: Indicate if the patient is of Other Asian descent 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 - Other Asian**

Having origins in any of the original peoples elsewhere in Asia.

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

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Element: 2090 Race - Native Hawaiian

Code System Name	Code
HL7 Race	2079-2

Coding Instruction: Indicate if the patient is Native Hawaiian 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**

Having origins in any of the original peoples of the islands of Hawaii.

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

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Element: 2091 Race - Guamanian or Chamorro

Code System Name	Code
HL7 Race	2086-7

Coding Instruction: Indicate if the patient is Guamanian or Chamorro 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/Pacific Islander - Guamanian or Chamorro**

Having origins in any of the original peoples of the Mariana Islands or the island of Guam.

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

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Element: 2092 Race - Samoan

Code System Name	Code
HL7 Race	2080-0

Coding Instruction: Indicate if the patient is Samoan 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/Pacific Islander - Samoan**

Having origins in any of the original peoples of the island of the Samoa.

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

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Element: 2093 Race - Other Pacific Islander

Code System Name	Code
HL7 Race	2500-7

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

Note(s):
If the patient has multiple race origins, specify them using the other race selections in addition to this one.

Target Value: The value on arrival at this facility

Supporting Definition: **Native Hawaiian/Pacific Islander - Other Pacific Island**

Having origins in any of the original peoples of any other island in the Pacific.

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

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Element: 2076 Hispanic or Latino Ethnicity

Code System Name	Code
HL7 Ethnicity	2135-2

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

Note(s):
If the patient has multiple hispanic or latin ethnicity, specify them using the other ethnicity selections in addition to this one.

Target Value: The value on arrival at this facility

Supporting Definition: **Hispanic or Latino Ethnicity**

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

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

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Element: 2100 Hispanic Ethnicity Type - Mexican, Mexican-American, Chicano

Code System Name	Code
HL7 Ethnicity	2148-5

Coding Instruction: Indicate if the patient is Mexican, Mexican - American, or Chicano as determined by the patient/family.

Note(s):
If the patient has multiple hispanic or latin ethnicity, specify them using the other ethnicity selections in addition to this one.

Target Value: The value on arrival at this facility

Supporting Definition: **Hispanic Ethnicity - Mexican/Mexican American/Chicano**

Having origins in any of the original peoples of Mexico.

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

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Element: 2101 Hispanic Ethnicity Type - Puerto Rican

Code System Name	Code

HL7 Ethnicity	2180-8

Coding Instruction: Indicate if the patient is Puerto Rican as determined by the patient/family.

Note(s):
If the patient has multiple hispanic or latin ethnicity, specify them using the other ethnicity selections in addition to this one.

Target Value: The value on arrival at this facility

Supporting Definition: **Hispanic Ethnicity - Puerto Rican**

Having origins in any of the original peoples of Puerto Rico.

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

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Element: 2102 Hispanic Ethnicity Type - Cuban

Code System Name	**Code**
HL7 Ethnicity	2182-4

Coding Instruction: Indicate if the patient is Cuban as determined by the patient/family.

Note(s):
If the patient has multiple hispanic or latin ethnicity, specify them using the other ethnicity selections in addition to this one.

Target Value: The value on arrival at this facility

Supporting Definition: **Hispanic Ethnicity - Cuban**

Having origins in any of the original peoples of Cuba.

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

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Element: 2103 Hispanic Ethnicity Type - Other Hispanic, Latino or Spanish Origin

Code System Name	**Code**
ACC NCDR	100001131

Coding Instruction: Indicate if the patient is another Hispanic, Latino, or Spanish origin as determined by the patient/family.

Note(s):
If the patient has multiple hispanic or latin ethnicity, specify them using the other ethnicity selections in addition to this one.

Target Value: The value on arrival at this facility

Supporting Definition: **Hispanic Ethnicity - Other Hispanic/Latino/Spanish Origin**

Having origins in any of the originals peoples in other Hispanic, Latino or Spanish territories.

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

Section: B. Episode of Care **Parent: B. Episode of Care**

Element: 2999 Episode Unique Key

Code System Name	Code
ACC NCDR	2.16.840.1.113883.3.3478.4.855

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

Supporting Definition:

Element: 3000 Arrival Date

Code System Name	Code
ACC NCDR	1000142450

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

Target Value: N/A

Supporting Definition:

Element: 3040 Reason for Admission

Code System Name	Code
ACC NCDR	100001132

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

Target Value: The value on arrival at this facility

Supporting Definition:

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

Element: 3005 Health Insurance

Code System Name	Code
LOINC	63513-6

Coding Instruction: Indicate if the patient has health insurance.

Target Value: The value on arrival at this facility

Supporting Definition:

Element: 3010 Health Insurance Payment Source

Code System Name	Code
ACC NCDR	100001072

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

Supporting Definition:

Code System Name	Code	Selection Text	Definition
PHDSC	5	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.
PHDSC	1	Medicare	Medicare is the Federal program which helps pay health care costs for people 65 and older and for certain people under 65 with long-term disabilities.
PHDSC	2	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.
PHDSC	31	Military Health Care	Military Health care - Military health care includes TRICARE/CHAMPUS (Civilian Health and Medical Program of the Uniformed Services) and CHAMPVA (Civilian Health and Medical Program of the Department of Veterans Affairs), as well as care provided by the Department of Veterans Affairs (VA).
PHDSC	36	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.
PHDSC	33	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.
ACC NCDR	100000812	Non-US Insurance	Non-US insurance refers to individuals with a payor that does not originate in the United States.

Element: 12846 Medicare Beneficiary Identifier

Code System Name	Code
Center for medicare and medicaid services, MBI	2.16.840.1.113883.4.927

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: 3035 Patient Restriction

Code System Name	Code
ACC NCDR	100000922

Coding Instruction: Indicate if the patient requested for their information not to be used for any research or studies for the associated episode of care.

Note(s):
Documentation must be found in the patient record to support the request of removal of their information.

Intended for future use.

Target Value: The value on arrival at this facility

Supporting Definition:

Element: 3020 Patient Enrolled in Research Study

Code System Name	Code
ACC NCDR	100001095

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

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: Research Study**

Element: 3025 Research Study Name

Code System Name	Code
ACC NCDR	100001096

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.
Intended for future use.

Target Value: N/A

Supporting Definition:

Element: 3030 Research Study Patient ID

Code System Name	Code
ACC NCDR	2.16.840.1.113883.3.3478.4.852

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.
Intended for future use.

Target Value: N/A

Supporting Definition:

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

Element: 4000 Heart Failure

Code System Name	Code
SNOMED CT	84114007

Coding Instruction: Indicate if the patient has been diagnosed with heart failure.

Note(s):
Heart failure cannot be coded by the abstractor based on clinical symptoms or diagnostic studies.

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

Supporting Definition: **Heart Failure**

Heart failure is a complex clinical syndrome that results from any structural or functional impairment of ventricular filling or ejection of blood. The cardinal manifestations of HF are dyspnea and fatigue, which may limit exercise tolerance, and fluid retention, which may lead to pulmonary and/or splanchnic congestion and/or peripheral edema. Some patients have exercise intolerance but little evidence of fluid retention, whereas others complain primarily of edema, dyspnea, or fatigue. Because some patients present without signs or symptoms of volume overload, the term "heart failure" is preferred over "congestive heart failure." There is no single diagnostic test for HF because it is largely a clinical diagnosis based on a careful history and physical examination.

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

Element: 4010 NYHA Functional Classification

Code System Name	Code
SNOMED CT	420816009

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

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

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

Supporting Definition: **NYHA**

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

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

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

Element: 4150 Prior LVEF Assessed

Code System Name	Code
ACC NCDR	100001027

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

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

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

Supporting Definition:

Element: 4155 Most Recent LVEF Date

Code System Name	Code
ACC NCDR	100001027

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

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

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

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

Supporting Definition:

Element: 4160 Most Recent LVEF %

Code System Name	Code
LOINC	10230-1

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

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

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

Supporting Definition: **Most Recent LVEF %**

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

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

Element: 4165 Syndromes with Risk of Sudden Death

Code System Name	Code
ACC NCDR	100001202

Coding Instruction: Indicate if the patient has a syndrome that puts him/her at risk for sudden death.

Note(s):
The patient must be diagnosed with one of the syndromes listed in Seq. 4170 that puts him/her at risk for sudden death.

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

Supporting Definition:

Element: 4170 Syndromes with Risk of Sudden Death Type

Code System Name	Code
ACC NCDR	100001105

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

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

Supporting Definition:

Code System Name	Code	Selection Text	Definition
SNOMED CT	9651007	Long QT syndrome	Long QT syndrome (LQTS) describes a heterogeneous group of inherited channelopathies that confer risks of polymorphic ventricular tachycardia and sudden cardiac death. Diagnosis is clinical and is made on the basis of the presentation and electrocardiogram, with the probability of LQTS calculated by the Schwartz score. Genetic testing is generally advised; variants in KCNQ1, KCNH2, and SCN5A are responsible for LQT1, LQT2, and LQT3, respectively, accounting for approximately 75% of genetically resolved cases.
SNOMED CT	698272007	Short QT syndrome	Short QT (SQT) refers to the electrocardiographic manifestation of accelerated cardiac repolarization. Gussak et al. were the first to suggest an association with atrial and ventricular fibrillation in 2000. The familial nature and arrhythmogenic potential of SQT were confirmed by Gaita et al. in 2003. Acquired disease – the most common cause– results from electrolyte disturbances or drugs, in addition to hypercalcemia, hyperkalemia, and acidosis; SQT manifests with digoxin, androgen use, increased vagal tone and after ventricular fibrillation (Cheng, 2004; Hancox, Choisy, & James, 2009; Ramakrishna et al., 2015). SQTS is a rare, sporadic or autosomal dominant disease that manifests with atrial and ventricular arrhythmias, sudden cardiac death and shortened QT (Brugada et al., 2004). Cardiac arrest occurs as the presenting symptom in up to 40% of the cases (Mazzanti et al., 2014). Mutations in potassium (KCNH2, KCNQ1, KCNJ2) and calcium (CACNA1C, CACNB2, CACNA2D1) channels have been identified as disease causing.
SNOMED CT	418818005	Brugada syndrome	Polymorphic ventricular tachycardia in the absence of structural heart disease, associated with a baseline ECG pattern during sinus rhythm showing right bundle branch block with ST segment elevation in leads V1 through V3. It can also be characterized by documentation of ECG patterns associated with Brugada Syndrome, some of which may be unmasked when provoked with drugs. The most common genetic mutations identified for Brugada syndrome are in a sodium channel gene (SCN5A). Sodium channel blocking drugs, therefore, may exacerbate the electrocardiographic features and clinical presentation. Brugada syndrome typically presents before the age of 50 years.
ACC NCDR	100000956	Catecholaminergic polymorphic VT	CPVT is a highly malignant inheritable cardiac channelopathy in individuals without structural heart disease and QT prolongation. It is often thought of as a disease of childhood with patients presenting before the age of 21 with symptoms such as syncope or sudden cardiac arrest; however, the adult form

			presents between the ages of 32-48. CVPT is triggered by physical or emotional stress in patients ECG is normal.
ACC NCDR	100001014	Idiopathic/primary VT/VF	VT that occurs in patients without structural heart disease, metabolic abnormalities, or the long QT syndrome.

Element: 4175 Familial Syndrome with Risk of Sudden Death

Code System Name	Code
ACC NCDR	100001006

Coding Instruction: Indicate if the patient has any first degree family member, who is a direct blood relative (parents, siblings, children), who has been diagnosed with a syndrome with risk of sudden death.

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

Supporting Definition: **Familial Syndrome with Risk of Sudden Death**

Sudden cardiac death may result from a combination of epidemiological risk factors, structural, metabolic and genetic determinants. Syndromes with risk of sudden death may include:
- Brugada Syndrome
- Catecholaminergic Polymorphic Ventricular Tachycardia (CPVT)
- Long QT Syndrome (LQTS)
- Short QT Syndrome (SQTS)
- Timothy Syndrome
- Wolff Parkinson White (WPW)

Other related conditions may include structural malformations of the heart muscle. A dysplasia (misplaced) or cardiomyopathy (thickening) of the heart muscle can be related to Arrhythmogenic Right Ventricular Dysplasia/Cardiomyopathy (ARVD/C), hypertrophic cardiomyopathy (HCM), or Dilated Cardiomyopathy (DM).

Source: Circulation. 2008; 118: 1854-1863 doi: 10.1161/CIRCULATIONAHA.108.783654

Element: 4180 Familial History of Non-Ischemic Cardiomyopathy

Code System Name	Code
SNOMED CT	281666001:246090004=399020009

Coding Instruction: Indicate if the patient has any first degree family member, who is a direct blood relative (parents, siblings, children), who has a history of non-ischemic cardiomyopathy.

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

Supporting Definition:

Element: 4185 Ischemic Cardiomyopathy

Code System Name	Code
SNOMED CT	426856002

Coding Instruction: Indicate if the patient has been diagnosed with a history of ischemic cardiomyopathy (ICM).

Note(s):
ICM is a clinical diagnosis which must be documented by a provider. Documented mixed cardiomyopathy is coded as both ICM, Seq. 4185 and NICM, Seq. 4200.

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

Supporting Definition: **Ischemic Cardiomyopathy**

Indicate if the patient has a history of ischemic cardiomyopathy documented by heart failure and reduced systolic function (ejection fraction <40%) and history of any one of the following:
1. History of myocardial infarction (MI) manifested as
a) Wall motion abnormality felt consistent with MI on echocardiography, nuclear imaging, ventriculography, cardiac MR, or other imaging;
b) ECG evidence of prior MI or acute MI;
c) Cardiac biomarker elevation and clinical presentation (e.g., chest pain) consistent with MI;
2. History of Percutaneous Coronary Angioplasty;

3. History of Coronary Artery Bypass Graft Surgery;
4. Conventional coronary angiography demonstrates >=70% stenosis in at least one major coronary artery.
5. Stress testing (with or without imaging) diagnostic of coronary artery disease.

Source: NCDR

Element: 4190 Ischemic Cardiomyopathy Timeframe

Code System Name	Code
ACC NCDR	100001022

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

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

Supporting Definition:

Code System Name	Code	Selection Text	Definition
ACC NCDR	100001028	Less than 3 months	
ACC NCDR	100000924	3 months or more	

Element: 4195 Ischemic Cardiomyopathy Guideline Directed Medical Therapy Maximum Dose

Code System Name	Code
ACC NCDR	100001021

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

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

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

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

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

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

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

Element: 4200 Non-Ischemic Cardiomyopathy

Code System Name	Code
SNOMED CT	111000119104

Coding Instruction: Indicate if the patient has been diagnosed with a history of non-ischemic cardiomyopathy.

Note(s):
A patient with heart failure or a documented history of heart failure and an ejection fraction less than 40 would qualify as a 'Yes' if the operator identifies the cardiomyopathy is non-ischemic in origin.

NICM is a clinical diagnosis which must be documented by a provider. Documented mixed cardiomyopathy is coded as both ICM, Seq. 4185 and NICM, Seq. 4200.

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

Supporting Definition: **Non-Ischemic Cardiomyopathy**

Angiotensin-converting enzyme (ACE) inhibitors reduce morbidity and mortality in heart failure with reduced ejection fraction (HFrEF). Randomized controlled trials (RCTs) clearly establish the benefits of ACE inhibition in patients with mild, moderate, or severe symptoms of HF and in patients with or without coronary artery disease (128–133). ACE inhibitors can produce angioedema and should be given with caution to patients with low systemic blood pressures, renal insufficiency, or elevated serum potassium. ACE inhibitors also inhibit kininase and increase levels of bradykinin, which can induce cough but also may contribute to their beneficial effect through vasodilation.
Angiotensin receptor blockers (ARBs) were developed with the rationale that angiotensin II production continues in the presence of ACE inhibition, driven through alternative enzyme pathways. ARBs do not inhibit kininase and are associated with a much lower incidence of cough and angioedema than ACE inhibitors; but like ACE inhibitors, ARBs should be given with caution to patients with low systemic blood pressure, renal insufficiency, or elevated serum potassium. Long-term therapy with ARBs produces hemodynamic, neurohormonal, and clinical effects consistent with those expected after interference with the renin-angiotensin system and have been shown in RCTs (134–137) to reduce morbidity and mortality, especially in ACE inhibitor–intolerant patients.
In ARNI, an ARB is combined with an inhibitor of neprilysin, an enzyme that degrades natriuretic peptides, bradykinin, adrenomedullin, and other vasoactive peptides. In an RCT that compared the first approved ARNI, valsartan/sacubitril, with enalapril in symptomatic patients with HFrEF tolerating an adequate dose of either ACE inhibitor or ARB, the ARNI reduced the composite endpoint of cardiovascular death or HF hospitalization significantly, by 20% (138). The benefit was seen to a similar extent for both death and HF hospitalization and was consistent across subgroups. The use The use of ARNI is associated with the risk of hypotension and renal insufficiency and may lead to angioedema, as well.

Source: 2017 ACC/AHA/HFSA Focused Update of the 2013 ACCF/AHA Guideline for the Management of Heart Failure Clyde W. Yancy, MD, MSC, MACC, FAHA, FHFSA, Chair Mariell Jessup, MD, FACC, FAHA, Vice Chair

Element: 4205 Non-Ischemic Cardiomyopathy Timeframe

Code System Name	Code
ACC NCDR	100001054

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

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

Supporting Definition:

Code System Name	Code	Selection Text	Definition
ACC NCDR	100001028	Less than 3 months	
ACC NCDR	100000924	3 months or more	

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

Code System Name	Code
ACC NCDR	100001055

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

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

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

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

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

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

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

Element: 4215 On Inotropic Support

Code System Name	Code
ACC NCDR	100001061

Coding Instruction: Indicate if the patient is currently prescribed positive IV inotropic agents.

Note(s):
Code only if the patient is currently on a positive IV inotropic medication. Code On Inotropic Support, Seq. 4215, as No, for patients being administered IV Digoxin. Some examples of positive inotropic IV medications are Inamrinone, Milrinone, Norepinephrine, Dopamine and Dobutamine.

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

Supporting Definition: **On Inotropic Support**

On inotropic support includes beta adrenergic receptor agonist in an attempt to achieve beneficial hemodynamic effects in the patient with systolic heart failure (HF).

Source: O'Gara PT, Kushner FG, Ascheim DD, et al. 2013 ACCF/AHA guideline for the management of ST-elevation myocardial infarction: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. J Am Coll Cardiol 2013;61

Element: 4220 Prior Cardiac Arrest

Code System Name	Code
SNOMED CT	410429000

Coding Instruction: Indicate if the patient experienced cardiac arrest due to arrhythmia.

Note(s):
Code 'No' if a patient experienced ventricular fibrillation caused by lead manipulation during the procedure, and it required defibrillation.

Code 'No' to an appropriate ICD shock that aborts an arrest, whether for ventricular tachycardia or ventricular fibrillation

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

Supporting Definition: **Pre-Arrival 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.

Source: 2013 ACCF/AHA key data elements and definitions for measuring the clinical management and outcomes of patients with acute coronary syndromes and coronary artery disease.

Element: 4225 Most Recent Cardiac Arrest Date

Code System Name	Code
SNOMED CT	410429000

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

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

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

Supporting Definition:

Element: 4230 VTach Arrest

Code System Name	Code
SNOMED CT	410429000:42752001=25569003

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

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

Supporting Definition: **Ventricular Tachycardia**

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

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

Element: 4235 VFib Arrest

Code System Name	Code
SNOMED CT	410429000:42752001=71908006

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

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

Supporting Definition: **VFib Arrest**

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

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

Element: 4240 Bradycardia Arrest

Code System Name	Code
SNOMED CT	410429000:42752001=48867003

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

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

Supporting Definition:

Element: 4245 Ventricular Tachycardia

Code System Name	Code
SNOMED CT	25569003

Coding Instruction: Indicate if the patient has a history of ventricular tachycardia (VT). To qualify as history, VT should be spontaneous and not induced.

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

Supporting Definition: **Ventricular Tachycardia**

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

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

Element: 4250 Most Recent Ventricular Tachycardia Date

Code System Name	Code
SNOMED CT	25569003

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

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

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

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

Supporting Definition:

Element: 4275 Ventricular Tachycardia Type

Code System Name	Code
ACC NCDR	100001124

Coding Instruction: Indicate the type of ventricular tachycardia.

Note(s):
When only VT is documented code VT Type, Seq. 4275 as Non-sustained VT. If the VT is documented as sustained VT, code VT Type, Seq. 4275, as sustained monomorphic VT. If there is documentation of VT treated appropriately with ATP or Shock therapy or VT Arrest and the VT type is unknown, code as sustained monomorphic VT. If there are multiple episodes of VT, code the most significant episode of VT.

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

Supporting Definition:

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

Element: 4255 Ventricular Tachycardia Occurred Post Cardiac Surgery

Code System Name	Code
ACC NCDR	100001123

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

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

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

Supporting Definition:

Element: 4260 Bradycardia Dependent Ventricular Tachycardia

Code System Name	Code
ACC NCDR	100000946

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

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

Supporting Definition:

Element: 4265 Ventricular Tachycardia Reversible Cause

Code System Name	Code
ACC NCDR	100001126

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

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

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

Supporting Definition: **Ventricular Tachycardia Reversible Cause**

Definition of ventricular tachycardia due to a reversible cause.
The most common putative reversible causes of arrest are acute ischemia and electrolyte imbalance. Other common potential causes to which cardiac arrest is attributed include proarrhythmic effects of antiarrhythmic drugs (see supporting references).

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

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

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

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Element: 4270 Ventricular Tachycardia with Hemodynamic Instability

Code System Name	Code
ACC NCDR	100001125

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

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

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

Supporting Definition:

Element: 14719 Ventricular Fibrillation

Code System Name	Code
SNOMED CT	71908006

Coding Instruction: Indicate if the patient had a history of ventricular fibrillation not due to reversible cause.

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

Supporting Definition: **Ventricular Fibrillation**

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

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

Element: 14720 Ventricular Fibrillation Date

Code System Name	Code
SNOMED CT	71908006

Coding Instruction: Indicate the date of the ventricular fibrillation.

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

Supporting Definition:

Element: 4280 Syncope

Code System Name	Code
SNOMED CT	271594007

Coding Instruction: Indicate if the patient has a history of syncope, due to, or highly suspicious for, arrhythmic origin.

Note(s):
Code 'No' if the patient reports pre-syncope/near syncope (as described by dizziness, lightheadedness, feeling faint, or graying out).

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

Supporting Definition: **Syncope**

Syncope presents with an abrupt, transient, complete loss of consciousness, associated with inability to maintain postural tone, with

rapid and spontaneous recovery.

Source: 2017 ACC/AHA/HRS Guideline for the Evaluation and Management of Patients With Syncope: A Report of the ACC/AHA Task Force on Clinical Practice Guidelines and the HRS. Win-Kuang Shen, Robert S. Sheldon, David G. Benditt, Mitchell I. Cohen, Daniel E. Forman, Zachary D. Goldberger, Blair P. Grubb, Mohamed H. Hamdan, Andrew D. Krahn, Mark S. Link, Brian Olshansky, Satish R. Raj, Roopinder Kaur Sandhu, Dan Sorajja, Benjamin C. Sun, and Clyde W. Yancy

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Element: 4285 Coronary Artery Disease

Code System Name	Code
SNOMED CT	53741008

Coding Instruction: Indicate if the patient has a history of coronary artery disease (CAD).

Target Value: Any occurrence between birth and the procedure

Supporting Definition: **Coronary Artery Disease**

A history of any of the following:
- 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

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

Element: 4290 Prior Myocardial Infarction

Code System Name	Code
SNOMED CT	22298006

Coding Instruction: Indicate if the patient has ever been diagnosed with a myocardial infarction.

Note(s):
A myocardial infarction is a clinical diagnosis which must be documented by a provider.

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

Supporting Definition: **Myocardial Infarction/Prior MI**

Criteria for acute myocardial infarction:
The term acute myocardial infarction (MI) should be used when there is evidence of myocardial necrosis in a clinical setting consistent with acute myocardial ischemia. Under these conditions any one of the following criteria meets the diagnosis for MI:
- Detection of a rise and/or fall of cardiac biomarker values [preferably cardiac troponin (cTn) with at least one value above the 99th percentile upper reference limit (URL) and with at least one of the following:

Symptoms of ischemia.
New or presumed new significant ST-segment-T wave (ST-T) changes or new left bundle branch block (LBBB). Development of pathological Q waves in the ECG.
Imaging evidence of new loss of viable myocardium or new regional wall motion abnormality. Identification of an intracoronary thrombus by angiography or autopsy.

- Cardiac death with symptoms suggestive of myocardial ischemia and presumed new ischemic ECG changes or new LBBB, but death occurred before cardiac biomarkers were obtained, or before cardiac biomarker values would be increased.

- Percutaneous coronary intervention (PCI) related MI is arbitrarily defined by elevation of cTn values (>5 x 99th percentile URL) in patients with normal baseline values (99th percentile URL) or a rise of cTn values >20% if the baseline values are elevated and are stable or falling. In addition, either (i) symptoms suggestive of myocardial ischemia or (ii) new ischemic ECG changes or (iii) angiographic findings consistent with a procedural complication or (iv) imaging demonstration of new loss of viable myocardium or new regional wall motion abnormality are required.

- Stent thrombosis associated with MI when detected by coronary angiography or autopsy in the setting of myocardial ischemia and with a rise and/or fall of cardiac biomarker values with at least one value above the 99th percentile URL.

- Coronary artery bypass grafting (CABG) related MI is arbitrarily defined by elevation of cardiac biomarker values (>10 x 99th

percentile URL) in patients with normal baseline cTn values (99th percentile URL). In addition, either (i) new pathological Q waves or new LBBB, or (ii) angiographic documented new graft or new native coronary artery occlusion, or (iii) imaging evidence of new loss of viable myocardium or new regional wall motion abnormality.

Any one of the following criteria meets the diagnosis for prior MI:
- Pathological Q waves with or without symptoms in the absence of non-ischemic causes.
- Imaging evidence of a region of loss of viable myocardium that is thinned and fails to contract, in the absence of a non-ischemic cause.
- Pathological findings of a prior MI.

Source: Thygesen K, Alpert JS, Jaffe AS, et al. Third Universal Definition of Myocardial Infarction. J Am Coll Cardiol. 2012;60 (16):1581-1598. doi:10.1016/j.jacc.2012.08.001.

Element: 4295 Most Recent MI Date

Code System Name	Code
SNOMED CT	22298006

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

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

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

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

Supporting Definition:

Element: 4300 Coronary Angiography

Code System Name	Code
SNOMED CT	33367005

Coding Instruction: Indicate if the patient has had a prior diagnostic coronary angiography.

Note(s):
When a patient has had a CABG/PCI in the past and there is not a repeat coronary angiography after the CABG/PCI, please code as follows:
Coronary Angiography, Seq. 4300 will be "Yes" as the patient had to have an angiogram prior to the CABG/PCI.
Results of Angiography, Seq. 4310 will be "Significant disease" as the surgery/PCI would not have been performed.
Revascularization performed, Seq. 4315, will be "Yes" as the patient had a CABG/PCI.
Revascularization Outcome, Seq. 4320, will be complete as the clinician would have addressed all revascularizable vessels.

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

Supporting Definition: **Coronary Angiography**

Coronary angiography is defined as the passage of a catheter into the aortic root or other great vessels for angiography of the native coronary arteries or bypass grafts supplying native coronary arteries. This element would NOT include noninvasive CT angiography.

Source: American College of Cardiology and American Heart Association Task Force on Clinical Data Standards (Writing Committee to Develop Artery Disease: A Report of the American College of Cardiology Foundation/American. Management and Outcomes of Patients With Acute Coronary Syndromes and Coronary 2013 ACCF/AHA Key Data Elements and Definitions for Measuring the Clinical Circulation. 2013;127:1052-1089; originally published online January 28, 2013;

Element: 4305 Performed After Most Recent Cardiac Arrest

Code System Name	Code

ACC NCDR	100001201

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

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

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

Supporting Definition:

Element: 4310 Results of Angiography

Code System Name	Code
SNOMED CT	365853002:418775008=77343006

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

Target Value: Any occurrence between birth and the procedure

Supporting Definition:

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

Element: 4315 Revascularization Performed

Code System Name	Code
SNOMED CT	81266008

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

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

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

Supporting Definition:

Element: 4320 Revascularization Outcome

Code System Name	Code
ACC NCDR	100001224

Coding Instruction: Indicate the outcome of the revascularization.

Target Value: The last value between birth and current procedure

Supporting Definition:

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

Element: 4325 Prior Cardiovascular Implantable Electronic Device

Code System Name	Code
ACC NCDR	100000954

Coding Instruction: Indicate if the patient currently has a permanent pacemaker or defibrillator present or if they had at any time in the past.

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

Supporting Definition:

Element: 4355 On Heart Transplant Waiting List

Code System Name	Code
SNOMED CT	471300007

Coding Instruction: Indicate if the patient is currently on a waiting list to receive a heart transplant.

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

Supporting Definition:

Element: 4360 Candidate for Transplant

Code System Name	Code
ACC NCDR	100000821

Coding Instruction: Indicate if the patient has been identified as a candidate for a heart transplant or is actively under consideration by an advanced heart failure/cardiac team.

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

Supporting Definition: **Candidate for Transplant**

Refer to the source for the supporting definition

Source: Mehra MR, Kobashigawa J, Starling R, et al. Listing criteria for heart transplantation: International Society for Heart and Lung Transplantation guidelines for the care of cardiac transplant candidates-2006. J Heart Lung Transplant. 2006;25:1024-42

Element: 14751 Candidate for VAD

Code System Name	Code
ACC NCDR	112000002045

Coding Instruction: Indicate if the patient has been identified as a candidate for any ventricular assist device (LVAD, RVAD or BiVAD) as a patient with refractory, end-stage heart failure.

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

Supporting Definition: **Candidate for VAD**

Refer to the source for the supporting definition.

Source: Jessup M, Abraham WT, Casey DE, et al. 2009 focused update: ACCF/AHA guidelines for the diagnosis and management of heart failure in adults: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. J Am Coll Cardiol 2009;53:1343-82

Element: 14752 Currently on VAD

Code System Name	Code
ACC NCDR	112000002046

Coding Instruction: Indicate if the patient is currently on a ventricular assist device (LVAD, RVAD or BiVAD) as a patient with refractory, end-stage heart failure.

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

Supporting Definition:

Element: 4399 Atrial Fibrillation

Code System Name	Code
SNOMED CT	49436004

Coding Instruction: Indicate if the patient has a history of atrial fibrillation.

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

Supporting Definition:

Element: 4400 Atrial Fibrillation Classification

Code System Name	Code
ACC NCDR	100000935

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

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

Supporting Definition: **Atrial Fibrillation Classification**

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

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

Atrial Fibrillation can be further characterized as:

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

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

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

Element: 4405 Plans for Cardioversion of Atrial Fibrillation

Code System Name	Code
ACC NCDR	100000934

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

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

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

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

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

Element: 4490 Paroxysmal SVT History

Code System Name	Code
SNOMED CT	67198005

Coding Instruction: Indicate if the patient has a history of paroxysmal supraventricular tachycardia (SVT).

Note(s):
Code 'Yes' if the patient has a history of atrial flutter, atrioventricular nodal reentrant tachycardia (AVNRT), atrioventricular reciprocating tachycardia (AVRT) e.g. Wolff-Parkinson-White syndrome, atrial tachycardia, junctional tachycardia, and / or multifocal atrial tachycardia. However, it will not include paroxysmal atrial fibrillation.

Target Value: Any occurrence between birth and the procedure

Supporting Definition:

Element: 4495 Prior Percutaneous Coronary Intervention

Code System Name	Code
SNOMED CT	415070008

Coding Instruction: Indicate if the patient had a percutaneous coronary intervention (PCI), prior to this admission.

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

Supporting Definition: **Percutaneous Coronary Intervention**

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

Source: Medline Plus, 2017 by Merriam-Webster, Incorporated

Element: 4500 Most Recent Percutaneous Coronary Intervention Date

Code System Name	Code
SNOMED CT	415070008

Coding Instruction: Indicate the date of the most recent percutaneous coronary intervention (PCI) that the patient received prior to this admission.

Note(s):
If the month or day of the PCI 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. For example: If the patient had "most recent PCI" documented in a record from 2011, then the year 2011 can be utilized and coded as 01/01/2011.

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

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

Supporting Definition:

Element: 4505 Prior PCI Elective

Code System Name	Code
ACC NCDR	100000997

Coding Instruction: Indicate if the prior PCI was performed as an elective procedure and was not performed in an urgent or emergent situation. For stable inpatients, the procedure was performed during the hospitalization for convenience and ease of scheduling and NOT because the patient's clinical situation demanded the procedure prior to discharge.

Note(s):
If the facility is unable to determine whether the procedure was elective, leave blank.

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

Supporting Definition:

Element: 4510 Cardiomyopathy prior to PCI

Code System Name	Code
ACC NCDR	100000952

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

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

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

Supporting Definition:

Element: 4515 Prior Coronary Artery Bypass Graft

Code System Name	Code
SNOMED CT	232717009

Coding Instruction: Indicate if the patient had coronary artery bypass graft (CABG) surgery prior to this admission.

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

Supporting Definition:

Element: 4520 Most Recent Coronary Artery Bypass Graft Date

Code System Name	Code
SNOMED CT	232717009

Coding Instruction: Indicate the date of the most recent CABG that the patient received prior to this admission.

Note(s):
When the patient has a history of an 'old or 'remote' CABG documented in the medical record by the clinician and a time frame is unable to be determined from prior medical records or by consulting with the clinician, code the CABG as having occurred 5 years ago. For example: If the physician documents on 05/01/2020, that the patient has a history of CABG, code Most Recent CABG Date, Seq. 4520, as 05/01/2015.

If the month or day of the CABG 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 CABG" 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 arrival at this facility

Supporting Definition:

Element: 4525 Prior CABG Elective

Code System Name	Code
ACC NCDR	100000996

Coding Instruction: Indicate if the prior CABG was performed as an elective procedure and was not performed in an urgent or emergent situation. For stable inpatients, the procedure was performed during the hospitalization for convenience and ease of scheduling and NOT because the patient's clinical situation demanded the procedure prior to discharge.

Note(s):
If the facility is unable to determine whether the procedure was elective, leave blank.

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

Supporting Definition:

Element: 4530 Cardiomyopathy prior to Coronary Artery Bypass Graft

Code System Name	Code
ACC NCDR	100000951

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

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

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

Supporting Definition:

Element: 14722 Prior Aortic Valve Procedure

Code System Name	Code
ACC NCDR	112000001755

Coding Instruction: Indicate if the patient had a prior aortic valve procedure.

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

Supporting Definition:

Element: 14725 Prior Aortic Valve Procedure Date

Code System Name	Code
ACC NCDR	112000001755

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

Note(s):
If the month or day of the Aortic Valve Procedure is unknown, please code 01/01/YYYY. If the specific year is unknown in the current record, the year may be estimated based on timeframes found in prior medical record documentation (Example: If the patient had "aortic valve procedure" documented in a record from 2018, then the year 2018 can be utilized and coded as 01/01/2018).

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

Supporting Definition:

Element: 14726 Prior Aortic Valve Procedure Elective

Code System Name	Code
SNOMED CT	118798003

Coding Instruction: Indicate if the prior aortic valve procedure was performed as an elective procedure and was not performed in an urgent or emergent situation. For stable inpatients, the procedure was performed during the hospitalization for convenience and ease of scheduling and NOT because the patient's clinical situation demanded the procedure prior to discharge.

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

Supporting Definition:

Element: 4535 Primary Valvular Heart Disease

Code System Name	Code
SNOMED CT	368009

Coding Instruction: Indicate if the patient has a history of primary valvular heart disease that is moderately severe or severe.

Note(s):
Lack of supporting documentation as evidence that the valve replacement was done for the purposes of treating Primary Valvular Heart Disease, code "No".

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

Supporting Definition: **Valvular Disease**

Primary valvular heart disease is defined by heart disease that is primarily due to a valvular defect or abnormality, and is classified as:
1. Moderately severe or severe, or 3+ or 4+ aortic insufficiency.
2. Moderately severe or severe, or 3+ or 4+ mitral insufficiency with echocardiographic evidence that mitral insufficiency is a primary abnormality and not secondary to ventricular dilation.
3. Moderately severe or severe aortic stenosis defined by estimated aortic valve area by catheterization or Doppler echocardiography of <=1.0 cm2.
4. Moderately severe or severe mitral stenosis defined by estimated mitral valve area by catheterization or Doppler echocardiography of <1.0 cm2.
5. Moderately severe or severe pulmonic or tricuspid valve disease that is known to be a primary abnormality.

Element: 4540 Other Structural Abnormalities

Code System Name	Code
ACC NCDR	100000949

Coding Instruction: Indicate if the patient has any other structural abnormality of the heart, ventricles or great vessels (excluding primary valvular heart disease). These conditions are frequently found in imaging reports such as echo, MRI, CAT scan, MUGA or other imaging studies.

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

Supporting Definition:

Element: 4545 Structural Abnormality Type

Code System Name	Code
ACC NCDR	100000949

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

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

Supporting Definition: **Structural Abnormality Type**

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

Hypertrophic Cardiomyopathy with High Risk Features:
High risk features include:
- Cardiac arrest (VF)
- Spontaneous sustained VT
- Family history of premature sudden death
- Unexplained syncope
- LV thickness greater than or equal to 30 mm
- Abnormal exercise BP
- Nonsustained spontaneous VT
- AF
- Myocardial ischemia
- LV outflow obstruction
- High-risk mutation
- Intense (competitive) physical exertion

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

Code System Name	Code	Selection Text	Definition
SNOMED CT	87878005	LV structural abnormality associated with risk for sudden cardiac arrest	Left ventricular structural abnormalities including but not limited to left ventricular aneurysm, LV non-compaction syndrome that put the patient at risk for sudden cardiac arrest.
SNOMED CT	233873004	Hypertrophic cardiomyopathy (HCM) with high risk features	
ACC NCDR	100001018	Infiltrative	Infiltrative structural abnormalities including but not limited to amyloidosis, sarcoidosis, giant cell myocarditis, and Chagas disease.
SNOMED CT	281170005	Arrhythmogenic right ventricular cardiomyopathy (ARVC)	
SNOMED CT	13213009	Congenital heart disease associated with sudden cardiac arrest	Congenital heart disease including but not limited to Tetralogy of Fallot and Ventricular Septal Defect that put the patient at risk for sudden cardiac arrest.

Element: 4550 Cerebrovascular Disease

Code System Name	Code
SNOMED CT	62914000

Coding Instruction: Indicate if the patient has a history of cerebrovascular disease.

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

Supporting Definition: **Cerebrovascular Disease**

Cerebrovascular Disease documented by any one of the following:

1). Cerebrovascular Accident (CVA): An acute episode of focal or global neurological dysfunction caused by brain, spinal cord, or retinal vascular injury as a result of hemorrhage or infarction. The duration of > 24 h has been used as an operational definition of persisting symptoms of stroke rather than TIA, based mostly on consensual practice rather than objective evidence.

2). Transient Ischemic Attack (TIA): Transient episode of neurological dysfunction caused by focal or global brain, spinal cord, or retinal ischemia without acute infarction Note: The distinction between a TIA and ischemic stroke is the presence of infarction. The unifying concept driving the definition is that stroke is a marker of potentially disabling vascular brain injury. The duration of > 24 h has been used as an operational definition of persisting symptoms of stroke rather than TIA, based mostly on consensual practice rather than objective evidence.

3). Non-invasive/invasive carotid test with > 79% occlusion. Noninvasive or invasive arterial imaging test: Noninvasive or invasive arterial imaging test demonstrating > 50% stenosis of any of the major extracranial or intracranial vessels to the brain

4). Previous carotid artery surgery/intervention for carotid artery stenosis. History of cervical or cerebral artery revascularization surgery or percutaneous intervention

This does not include chronic (nonvascular) neurological disease or other acute neurological insults such as metabolic and anoxic ischemic encephalopathy.

Source: Cannon CP, Brindis RG, Chaitman BR, et al. 2013 ACCF/AHA key data elements and definitions for measuring the clinical management and outcomes of patients with acute coronary syndromes and coronary artery disease: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Clinical Data Standards (Writing Committee to Develop Acute Coronary Syndromes and Coronary Artery Disease Clinical Data Standards). J Am Coll Cardiol. 2013;61:992–1025 (7)."

Element: 4555 Diabetes Mellitus

Code System Name	Code
SNOMED CT	73211009

Coding Instruction: Indicate if the patient has a history of diabetes mellitus regardless of duration of disease or need for diabetic medications.

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

Supporting Definition: **Diabetes Mellitus**

The American Diabetes Association criteria include documentation of the following:

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

This does not include gestational diabetes.

Source: American Diabetes Association Care. 2011;34 Suppl 1:S4-10.

Element: 4560 Currently on Dialysis

Code System Name	Code
SNOMED CT	108241001

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

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

Supporting Definition:

Element: 4575 Chronic Lung Disease

Code System Name	Code
SNOMED CT	413839001

Coding Instruction: Indicate if the patient has a history of chronic lung disease.

Note(s):
A history of chronic inhalation reactive disease (asbestosis, mesothelioma, black lung disease or pneumoconiosis) may qualify as chronic lung disease. Radiation induced pneumonitis or radiation fibrosis also qualifies as chronic lung disease. A history of atelectasis is a transient condition and does not qualify.

Target Value: Any occurrence between birth and the procedure

Supporting Definition: **Chronic Lung Disease**

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

Source: ACC/AHA Key Data Elements and Definitions for Measuring the Clinical Management and Outcomes of Patients With Chronic Heart Failure Circulation. 2005;112:1888-1916

Section: D. Diagnostic Studies **Parent: D. Diagnostic Studies**

Element: 5000 Electrophysiology Study

Code System Name	Code
SNOMED CT	252425004

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

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

Supporting Definition: **Electrophysiology Study**

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

Source: NCDR

Element: 5005 Electrophysiology Study Date

Code System Name	Code
SNOMED CT	252425004

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

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

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

Supporting Definition: **Electrophysiology Study**

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

Source: NCDR

Element: 5010 Electrophysiology Study Date Unknown

Code System Name	Code
SNOMED CT	252425004

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

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

Supporting Definition: **Electrophysiology Study**

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

Source: NCDR

Element: 5015 Clinically Relevant Ventricular Arrhythmias Induced

Code System Name	Code
ACC NCDR	100001119

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

Notes(s):

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

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

Supporting Definition:

Element: 5030 Electrocardiogram Performed

Code System Name	Code
SNOMED CT	164847006

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

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

Supporting Definition:

Element: 5035 Electrocardiogram Date

Code System Name	Code
SNOMED CT	164847006

Coding Instruction: Indicate the date in which the most recent electrocardiogram (ECG) was performed.

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

Supporting Definition:

Element: 5040 Electrocardiogram Normal

Code System Name	Code
SNOMED CT	164854000

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

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

Supporting Definition:

Element: 5105 Ventricular Paced

Code System Name	Code
SNOMED CT	251266004

Coding Instruction: Indicate if the patient is ventricular paced.

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

Target Value: The last value on start of the procedure

Supporting Definition:

Element: 5045 Only Ventricular Paced QRS Complexes Present

Code System Name	Code
ACC NCDR	100001120

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

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

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

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

Supporting Definition:

Element: 5050 Ventricular Paced QRS Duration

Code System Name	Code
ACC NCDR	100001121

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

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

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

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

Supporting Definition:

Element: 5055 Non-Ventricular Paced QRS duration

Code System Name	Code
SNOMED CT	251208001

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

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

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

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

Supporting Definition:

Element: 5060 Abnormal Intraventricular Conduction

Code System Name	Code
SNOMED CT	4554005

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

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

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

Supporting Definition:

Element: 5065 Abnormal Intraventricular Conduction Types

Code System Name	Code
ACC NCDR	100001142

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

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

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

Supporting Definition: Intraventricular Conduction Types

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

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

Code System Name	Code	Selection Text	Definition
SNOMED CT	164909002	Left bundle branch block	
SNOMED CT	164907000	Right bundle branch block	
SNOMED CT	698252002	Delay, Non-specific	
SNOMED CT	32758004	Alternating RBBB and LBBB	

Element: 5100 Atrial Rhythm

Code System Name	Code
SNOMED CT	106068003

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.

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

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

Supporting Definition:

Code System Name	Code	Selection Text	Definition
SNOMED CT	106067008	Sinus node rhythm	
SNOMED CT	49436004	Atrial fibrillation	
SNOMED CT	276796006	Atrial tachycardia	
SNOMED CT	5370000	Atrial flutter	
SNOMED CT	5609005	Sinus arrest	
SNOMED CT	251268003	Atrial paced	

Section: E. Labs **Parent: E. Labs**

Element: 6025 Blood Urea Nitrogen

Code System Name	Code
LOINC	6299-2

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

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

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

Supporting Definition:

Element: 6026 BUN Not Drawn

Code System Name	Code
LOINC	6299-2

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

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

Supporting Definition:

Element: 6030 Hemoglobin

Code System Name	Code
LOINC	718-7

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

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

Supporting Definition:

Element: 6031 Hemoglobin Not Drawn

Code System Name	Code
LOINC	718-7

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:

Element: 6035 Sodium

Code System Name	Code
LOINC	2950-4

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

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

Supporting Definition:

Element: 6036 Sodium Not Drawn

Code System Name	Code
LOINC	2950-4

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

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

Supporting Definition:

Section: F. Procedure Information **Parent: F. Procedure Information**

Element: 7000 Procedure Start Date and Time

Code System Name	Code
ACC NCDR	1000142460

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

Supporting Definition:

Element: 7005 Procedure End Date and Time

Code System Name	Code
ACC NCDR	1000142459

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

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

Target Value: The value on current procedure

Supporting Definition:

Element: 7010 Procedure Type

Code System Name	Code
ACC NCDR	112000001857

Coding Instruction: Indicate the procedure that was performed.

Target Value: Any occurrence on current procedure

Supporting Definition:

Code System Name	Code	Selection Text	Definition
SNOMED CT	233170003	Initial Generator Implant	The patient is receiving a device for the first time. Complete all sections of the data collection form for all patients having an initial generator implant.
SNOMED CT	428625001	Generator change	The patient already has a device and is receiving a generator that is an upgrade or a change from one that was previously implanted. Complete all sections of the data collection form for all patients having a generator change/upgrade.
SNOMED CT	233171004	Generator explant	Patient already has a device and is having the generator removed without re-implant of another generator during the current procedure.
ACC NCDR	100001025	Lead Only	A lead procedure is being performed without a generator change. Complete all sections of the data collection form, except section D (Diagnostic Studies), section E (Labs), and section G (Device Implant/Explant) for all patients having a procedure where new leads were implanted and/or existing leads were reused, extracted or abandoned.

Element: 7015 ICD Indication

Code System Name	Code
SNOMED CT	432678004

Coding Instruction: Indicate the ICD procedure indication

Target Value: Any occurrence on current procedure

Supporting Definition:

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

Element: 14732 Shared Decision Making

Code System Name	Code
ACC NCDR	112000002041

Coding Instruction: Indicate if Shared Decision Making was performed for a primary prevention procedure.

Target Value: The value on current procedure

Supporting Definition: **Shared Decision Making**

Shared decision-making is when patients and clinicians work as a team to make care decisions. Tools can help facilitate a collaborative process between providers and patients and can:
- Increase knowledge and satisfaction regarding care
- Define clearer goals for treatment
- Align health decisions with patient values

Element: 14733 Shared Decision Making Tool Used

Code System Name	Code
SNOMED CT	415806002

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

Target Value: The value on current procedure

Supporting Definition:

Element: 14734 Shared Decision Making Tool Name

Code System Name	Code
SNOMED CT	405083000

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

Target Value: The value on current procedure

Supporting Definition:

Code System Name	Code	Selection Text	Definition
ACC NCDR	112000002028	Colorado Shared Decision Making Tool	
ACC NCDR	112000002029	Mayo ICD Shared Decision Making Tool	
ACC NCDR	100000351	Other Shared Decision Making Tool	
ACC NCDR	112000002040	CMS Shared Decision Making Tool	

Element: 7020 Premarket Clinical Trial

Code System Name	Code

SNOMED CT	428024001

Coding Instruction: Indicate if the ICD procedure (generator implant or lead procedure) is part of a clinical trial, excluding post-market surveillance trials.

Target Value: Any occurrence on current procedure

Supporting Definition:

Section: G. Device Implant/Explant **Parent: G. Device Implant/Explant**

Element: 7600 Generator Operator Last Name

Code System Name	Code
ACC NCDR	112000001853

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

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

Target Value: The value on current procedure

Supporting Definition:

Element: 7605 Generator Operator First Name

Code System Name	Code
ACC NCDR	112000001853

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

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

Target Value: The value on current procedure

Supporting Definition:

Element: 7610 Generator Operator Middle Name

Code System Name	Code
ACC NCDR	112000001853

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

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

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

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

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

Target Value: The value on current procedure

Supporting Definition:

Element: 7615 Generator Operator NPI

Code System Name	Code
ACC NCDR	2.16.840.1.113883.4.6

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

Target Value: The value on current procedure

Supporting Definition:

Element: 7620 Device Implanted

Code System Name	Code
SNOMED CT	232965003

Coding Instruction: Indicate if a device was implanted.

Target Value: Any occurrence on current procedure

Supporting Definition:

Element: 7625 Final Device Type

Code System Name	Code
SNOMED CT	260846005

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

Target Value: Any occurrence on current procedure

Supporting Definition:

Code System Name	Code	Selection Text	Definition
ACC NCDR	100001214	ICD Single Chamber	A single-chamber ICD defibrillates the ventricle and paces the ventricle.
ACC NCDR	100001215	ICD Dual Chamber	A dual-chamber ICD defibrillates the ventricle and paces the atrium and ventricle.
ACC NCDR	100001216	CRT-D	A cardiac resynchronization therapy device and defibrillator (CRT-D) has dual capabilities. It is a biventricular pacemaker that sends electrical signals to both ventricles as well as a defibrillator. It may or may not have an atrial pacing wire.
ACC NCDR	100001217	S-ICD (Sub Q)	A subcutaneous only defibrillator.
SNOMED CT	704708004	CRT-P	A CRT procedure is the placement of a biventricular pacemaker that sends electrical signals to both ventricles that resynchronizes the heart chambers and helps it pump more effectively. It may or may not have an atrial pacing wire.
ACC NCDR	112000002030	Leadless Single Chamber Pacemaker	A self-contained transvenous pacemaker generator and electrode system implanted directly into the right ventricle. The device is implanted via a femoral vein transcatheter approach; it requires no chest incision or subcutaneous generator pocket.
ACC NCDR	112000002039	His/Left Bundle Pacemaker	His-bundle pacing is a method for delivering permanent pacing. It produces physiological ventricular activation via the His-Purkinje system. / Left bundle pacing is a method for delivering permanent pacing. It produces physiological ventricular activation via the Left bundle.

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

Code System Name	Code
ACC NCDR	100000985

Coding Instruction: Indicate if the coronary sinus/left ventricular (CS/LV) lead was implanted during the current procedure.

Target Value: Any occurrence on current procedure

Supporting Definition:

Code System Name	Code	Selection Text	Definition
ACC NCDR	100001057	Not Attempted	
ACC NCDR	100001107	Successfully Implanted	
ACC NCDR	100001084	Previously Implanted	
ACC NCDR	100001143	Implant unsuccessful	

Element: 14739 His/Left Bundle Lead

Code System Name	Code
ACC NCDR	112000002024

Coding Instruction: Indicate if the His/left bundle lead was implanted during the current procedure.

Target Value: The value on current procedure

Supporting Definition:

Code System Name	Code	Selection Text	Definition
ACC NCDR	100001057	Not Attempted	
ACC NCDR	100001107	Successfully Implanted	
ACC NCDR	100001084	Previously Implanted	
ACC NCDR	100001143	Implant unsuccessful	

Element: 14729 Primary Tachycardia Indication Present

Code System Name	Code
ACC NCDR	112000002043

Coding Instruction: Indicate if there was a primary tachycardia indication for ICD implantation.

Target Value: The value on current procedure

Supporting Definition:

Element: 14730 Bradycardia Indication Present

Code System Name	Code
ACC NCDR	112000002042

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

Target Value: The value on current procedure

Supporting Definition:

Element: 14737 Primary Bradycardia Indication Present

Code System Name	Code
ACC NCDR	112000002044

Coding Instruction: Indicate if the primary indication was bradycardia.

Target Value: The value on current procedure

Supporting Definition:

Element: 14731 Reason Pacing Indicated

Code System Name	Code
ACC NCDR	100001097

Coding Instruction: Select the reason pacing was indicated.

Target Value: The value on current procedure

Supporting Definition: **Reason Pacing Indicated**

Refer to the source for the supporting definition.

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

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

Element: 14735 Primary Pacing Mode

Code System Name	Code
ACC NCDR	112000002023

Coding Instruction: Select the primary pacing mode.

Target Value: The value on current procedure

Supporting Definition:

Code System Name	Code	Selection Text	Definition
ACC NCDR	112000002019	DDD(R)	
ACC NCDR	112000002018	VVI(R)	
ACC NCDR	112000002020	DDI(R)	
ACC NCDR	112000002021	DDD(R)/AAI(R)	
ACC NCDR	112000002022	RVPP (Right Ventricular Pacing Prevention Algorithm)	

Element: 7635 Implant Device ID

Code System Name	Code
ACC NCDR Defibrillator Devices	2.16.840.1.113883.3.3478.6.1.21

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

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

Target Value: Any occurrence on current procedure

Supporting Definition:

Element: 7640 Implant Device Serial Number

Code System Name	Code

ACC NCDR	2.16.840.1.113883.3.3478.4.850

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

Target Value: Any occurrence on current procedure

Supporting Definition:

Element: 7645 Implant Unique Device Identifier

Code System Name	Code
ACC NCDR	2.16.840.1.113883.3.3719

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

Target Value: Any occurrence on current procedure

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

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

Source: US FDA

Element: 7650 Reason(s) for Generator Replacement

Code System Name	Code
ACC NCDR	100000991

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

Target Value: Any occurrence on current procedure

Supporting Definition:

Code System Name	Code	Selection Text	Definition
ACC NCDR	100001088	Reimplant Reason - End of Battery Life	
ACC NCDR	100001092	Reimplant Reason - Replaced At Time of Lead Revision	
ACC NCDR	100001094	Reimplant Reason - Upgrade	
ACC NCDR	100001091	Reimplant Reason - Infection	
ACC NCDR	100001093	Reimplant Reason - Under Manufacturer Advisory/Recall	
ACC NCDR	100001089	Reimplant Reason - Faulty Connector/Header	
ACC NCDR	100001087	Reimplant Reason - Device Relocation	
ACC NCDR	100001090	Reimplant Reason - Generator Malfunction	

Element: 7660 Device Explanted

Code System Name	Code
SNOMED CT	233171004

Coding Instruction: Indicate if the previous device was explanted.

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

Supporting Definition:

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

Element: 7665 Prior Generator Explant Date

Code System Name	Code

SNOMED CT	416940007:363589002=233171004

Coding Instruction: Indicate the date the device was explanted.

Note(s):
If the month or day of the device explanted 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 device explanted documented in a record from 2011, then the year 2011 can be utilized and coded as 01/01/2011).

Target Value: The last value between the implant and the end of current procedure

Supporting Definition:

Element: 7675 Explant Device ID

Code System Name	Code
ACC NCDR Defibrillator Devices	2.16.840.1.113883.3.3478.6.1.21

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

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

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

Supporting Definition:

Element: 7680 Explant Device Serial Number

Code System Name	Code
ACC NCDR	2.16.840.1.113883.3.3478.4.850

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

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

Supporting Definition:

Element: 7685 Explant Unique Device Identifier

Code System Name	Code
ACC NCDR	2.16.840.1.113883.3.3719

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

Target Value: Any occurrence on current procedure

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

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

Source: US FDA

Element: 7670 Explant Treatment Recommendation

Code System Name	Code
ACC NCDR	100001003

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

Target Value: Any occurrence on current procedure

Supporting Definition:

Code System Name	Code	Selection Text	Definition
ACC NCDR	100001049	No Re-implant	The device has been explanted with no re-implant of any device with pacing or defibrillation capabilities during the current procedure.
ACC NCDR	100000995	Downgrade	The ICD/CRT-D device has been explanted with re-implant of a device with only pacing and no defibrillation capabilities during the current procedure.

Section: H. Lead Assessment **Parent: H. Lead Assessment**

Element: 7690 Lead Operator Last Name

Code System Name	Code
ACC NCDR	112000001853

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

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

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

Target Value: The value on current procedure

Supporting Definition:

Element: 7695 Lead Operator First Name

Code System Name	Code
ACC NCDR	112000001853

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

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

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

Target Value: The value on current procedure

Supporting Definition:

Element: 7700 Lead Operator Middle Name

Code System Name	Code
ACC NCDR	112000001853

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

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

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

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

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

Target Value: The value on current procedure

Supporting Definition:

Element: 7705 Lead Operator NPI

Code System Name	Code
ACC NCDR	2.16.840.1.113883.4.6

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

Target Value: The value on current procedure

Supporting Definition:

Element: 7710 Lead Counter

Code System Name	Code
ACC NCDR	112000001858

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

Target Value: N/A

Supporting Definition:

Element: 7715 Lead Identification

Code System Name	Code
ACC NCDR	100000990

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

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

Target Value: The value on current procedure

Supporting Definition:

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

Element: 7720 Lead Identification Number

Code System Name	Code
ACC NCDR Lead Devices	2.16.840.1.113883.3.3478.6.1.20

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

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

Target Value: The value on current procedure

Supporting Definition:

Element: 7725 Lead Serial Number

Code System Name	Code
ACC NCDR	2.16.840.1.113883.3.3478.4.850

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

Target Value: The value on current procedure

Supporting Definition:

Element: 7730 Lead Unique Device Identifier

Code System Name	Code
ACC NCDR	2.16.840.1.113883.3.3719

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

Target Value: The value on current procedure

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

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

Source: US FDA

Element: 7735 Lead Location

Code System Name	Code
ACC NCDR	100001246

Coding Instruction: Indicate the location of the lead.

Target Value: Any occurrence on current procedure

Supporting Definition:

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

Element: 7740 Existing Lead Implant Date

Code System Name	Code
ACC NCDR	100001015

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

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

Target Value: The last value between birth and current procedure

Supporting Definition:

Element: 7745 Existing Lead Status

Code System Name	Code
ACC NCDR	100000989

Coding Instruction: Indicate the status of the existing lead.

Target Value: Any occurrence on current procedure

Supporting Definition:

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

Section: I. Intra Or Post Procedure Events **Parent: I. Intra Or Post Procedure Events**

Element: 9000 Cardiac Arrest

Code System Name	Code
SNOMED CT	410429000

Coding Instruction: Indicate if the patient experienced cardiac arrest.

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

Supporting Definition: **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.

Source: 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

Element: 9005 Myocardial Infarction

Code System Name	Code
SNOMED CT	22298006

Coding Instruction: Indicate if the patient had a myocardial infarction.

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

Supporting Definition: **Myocardial Infarction/Prior MI**

Criteria for acute myocardial infarction:
The term acute myocardial infarction (MI) should be used when there is evidence of myocardial necrosis in a clinical setting consistent with acute myocardial ischemia. Under these conditions any one of the following criteria meets the diagnosis for MI:
- Detection of a rise and/or fall of cardiac biomarker values [preferably cardiac troponin (cTn) with at least one value above the 99th percentile upper reference limit (URL) and with at least one of the following:

Symptoms of ischemia.
New or presumed new significant ST-segment-T wave (ST-T) changes or new left bundle branch block (LBBB). Development of pathological Q waves in the ECG.
Imaging evidence of new loss of viable myocardium or new regional wall motion abnormality. Identification of an intracoronary thrombus by angiography or autopsy.

- Cardiac death with symptoms suggestive of myocardial ischemia and presumed new ischemic ECG changes or new LBBB, but death occurred before cardiac biomarkers were obtained, or before cardiac biomarker values would be increased.

- Percutaneous coronary intervention (PCI) related MI is arbitrarily defined by elevation of cTn values (>5 x 99th percentile URL) in patients with normal baseline values (99th percentile URL) or a rise of cTn values >20% if the baseline values are elevated and are stable or falling. In addition, either (i) symptoms suggestive of myocardial ischemia or (ii) new ischemic ECG changes or (iii) angiographic findings consistent with a procedural complication or (iv) imaging demonstration of new loss of viable myocardium or new regional wall motion abnormality are required.

- Stent thrombosis associated with MI when detected by coronary angiography or autopsy in the setting of myocardial ischemia and with a rise and/or fall of cardiac biomarker values with at least one value above the 99th percentile URL.

- Coronary artery bypass grafting (CABG) related MI is arbitrarily defined by elevation of cardiac biomarker values (>10 x 99th percentile URL) in patients with normal baseline cTn values (99th percentile URL). In addition, either (i) new pathological Q waves or new LBBB, or (ii) angiographic documented new graft or new native coronary artery occlusion, or (iii) imaging evidence of new loss of viable myocardium or new regional wall motion abnormality.

Any one of the following criteria meets the diagnosis for prior MI:
- Pathological Q waves with or without symptoms in the absence of non-ischemic causes.
- Imaging evidence of a region of loss of viable myocardium that is thinned and fails to contract, in the absence of a non-ischemic cause.
- Pathological findings of a prior MI.

Source: Thygesen K, Alpert JS, Jaffe AS, et al. Third Universal Definition of Myocardial Infarction. J Am Coll Cardiol. 2012;60

(16):1581-1598. doi:10.1016/j.jacc.2012.08.001.

Element: 9010 Cardiac Perforation

Code System Name	Code
SNOMED CT	36191001:123005000=302509004

Coding Instruction: Indicate if the patient had a new cardiac perforation occurred.

Note(s):
Cardiac perforation may or may not be symptomatic and may or may not be self sealing. It can be documented by migration of pacing or defibrillator leads to the epicardial surface, resulting in pain and/or hypotension, pericardial effusion, cardiac tamponade, failure to capture, capture of the diaphragm, phrenic nerve or intercostals muscle of sufficient magnitude to require repositioning.

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

Supporting Definition:

Element: 9015 Coronary Venous Dissection

Code System Name	Code
ACC NCDR	100000029

Coding Instruction: Indicate if the patient had a coronary venous dissection as documented by manipulation of the pacing or defibrillating leads in the coronary sinus which can result in a tear of the coronary sinus endothelium with dissection into the coronary sinus wall sometimes at times referred to as "staining" following contrast injection. This can also result in perforation of the coronary sinus.

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

Supporting Definition:

Element: 9055 Cardiac Tamponade

Code System Name	Code
SNOMED CT	35304003

Coding Instruction: Indicate if the patient experienced fluid in the pericardial space compromising cardiac filling and requiring intervention.

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

Supporting Definition:

Element: 9120 Stroke

Code System Name	Code
SNOMED CT	230690007

Coding Instruction: Indicate if the patient was diagnosed with a stroke.

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

Supporting Definition: **Stroke (CVA)**

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).

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.

Element: 9140 Transient Ischemic Attack (TIA)

Code System Name	Code
SNOMED CT	266257000

Coding Instruction: Indicate if the patient had a transient ischemic attack (TIA).

Note(s):
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.

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

Supporting Definition: **Transient Ischemic Attack (TIA)**

Transient episode of focal neurological dysfunction caused by brain, spinal cord, or retinal ischemia without acute infarction.

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.

Element: 9180 Hematoma

Code System Name	Code
SNOMED CT	385494008

Coding Instruction: Indicate if the patient experienced a pocket hematoma as a result of the procedure, requiring a reoperation, evacuation or transfusion.

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

Supporting Definition:

Element: 9195 Infection Requiring Antibiotics

Code System Name	Code
ACC NCDR	100001017

Coding Instruction: Indicate if the patient experienced an infection related to the procedure which required antibiotics.

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

Supporting Definition:

Element: 9205 Hemothorax

Code System Name	Code
SNOMED CT	31892009

Coding Instruction: Indicate if the patient experienced a hemothorax as documented by accumulation of blood in the thorax.

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

Supporting Definition:

Element: 9215 Pneumothorax

Code System Name	Code
SNOMED CT	36118008

Coding Instruction: Indicate if the patient experienced a pneumothorax requiring intervention (chest tube).

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

Supporting Definition:

Element: 9250 Urgent Cardiac Surgery

Code System Name	Code
SNOMED CT	64915003:260870009=103391001

Coding Instruction: Indicate if the patient needed to have urgent, unplanned cardiac surgery.

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

Supporting Definition:

Element: 9255 Set Screw Problem

Code System Name	Code
ACC NCDR	100000038

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

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

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

Supporting Definition:

Element: 9260 Lead Dislodgement

Code System Name	Code
SNOMED CT	234233007

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

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

Supporting Definition:

Element: 9265 Lead Location (Dislodgement)

Code System Name	Code
ACC NCDR	100001246

Coding Instruction: Indicate the location of the lead in which the dislodgement occurred.

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

Supporting Definition:

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

Section: J. Discharge **Parent: J. Discharge**

Element: 10005 Coronary Artery Bypass Graft

Code System Name	Code
SNOMED CT	232717009

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

Target Value: Any occurrence between arrival and discharge

Supporting Definition:

Element: 10010 Coronary Artery Bypass Graft Date

Code System Name	Code
SNOMED CT	232717009

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

Note(s):
If the month or day of the CABG 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 CABG documented in a record from 2011, then the year 2011 can be utilized and coded as 01/01/2011).

Target Value: The first value between arrival and discharge

Supporting Definition:

Element: 10015 Percutaneous Coronary Intervention

Code System Name	Code
SNOMED CT	415070008

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

Target Value: Any occurrence between arrival and discharge

Supporting Definition:

Element: 10020 Percutaneous Coronary Intervention Date

Code System Name	Code
SNOMED CT	415070008

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

Note(s):
If the month or day of the PCI 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 PCI documented in a record from 2011, then the year 2011 can be utilized and coded as 01/01/2011).

Target Value: The first value between arrival and discharge

Supporting Definition:

Element: 10100 Discharge Date

Code System Name	Code
ACC NCDR	1000142457

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

Target Value: The value on discharge

Supporting Definition:

Element: 10105 Discharge Status

Code System Name	Code
LOINC	75527-2

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

Target Value: The value on discharge

Supporting Definition:

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

Element: 10110 Discharge Location

Code System Name	Code
LOINC	75528-0

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

Target Value: The value on discharge

Supporting Definition:

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

Element: 10120 Death During the Procedure

Code System Name	Code
ACC NCDR	100000923

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

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

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

Target Value: Any occurrence on discharge

Supporting Definition:

Element: 10125 Cause of Death

Code System Name	Code
SNOMED CT	184305005

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.

Code System Name	Code	Selection Text	Definition
ACC NCDR	100000960	Acute myocardial infarction	Death by any cardiovascular mechanism (e.g., arrhythmia, sudden death, heart failure, stroke, pulmonary embolus, peripheral arterial disease) within 30 days after an acute myocardial infarction, related to the immediate consequences of the MI, such as progressive HF or recalcitrant arrhythmia. There may be other assessable (attributable) mechanisms of cardiovascular death during this time period, but for simplicity, if the cardiovascular death occurs <=30 days of an acute myocardial infarction, it will be considered a death due to myocardial infarction.
ACC NCDR	100000978	Sudden cardiac death	Death that occurs unexpectedly, and not within 30 days of an acute MI.
ACC NCDR	100000964	Heart failure	Death associated with clinically worsening symptoms and/or signs of heart failure.
ACC NCDR	100000977	Stroke	Death after a stroke that is either a direct consequence of the stroke or a complication of the stroke.
ACC NCDR	100000962	Cardiovascular procedure	Death caused by the immediate complication(s) of a cardiovascular procedure.
ACC NCDR	100000961	Cardiovascular hemorrhage	Death related to hemorrhage such as a non-stroke intracranial hemorrhage, non-procedural or non-traumatic vascular rupture (e.g., aortic aneurysm), or hemorrhage causing cardiac tamponade.
ACC NCDR	100000972	Other cardiovascular reason	Cardiovascular death not included in the above categories but with a specific, known cause (e.g., pulmonary embolism, peripheral arterial disease).
ACC NCDR	100000975	Pulmonary	Non-cardiovascular death attributable to disease of the lungs (excludes malignancy).
ACC NCDR	100000976	Renal	Non-cardiovascular death attributable to renal failure.
ACC NCDR	100000963	Gastrointestinal	Non-cardiovascular death attributable to disease of the esophagus, stomach, or intestines (excludes malignancy).
ACC NCDR	100000966	Hepatobiliary	Non-cardiovascular death attributable to disease of the liver, gall bladder, or biliary ducts (exclude malignancy).
ACC NCDR	100000974	Pancreatic	Non-cardiovascular death attributable to disease of the pancreas (excludes malignancy).
ACC NCDR	100000967	Infection	Non-cardiovascular death attributable to an infectious disease.
ACC NCDR	100000968	Inflammatory/Immunologic	Non-cardiovascular death attributable to an inflammatory or immunologic disease process.
ACC NCDR	100000965	Hemorrhage	Non-cardiovascular death attributable to bleeding that is not considered cardiovascular hemorrhage or stroke per this classification.
ACC NCDR	100000971	Non-cardiovascular procedure or surgery	Death caused by the immediate complication(s) of a non-cardiovascular procedure or surgery.
ACC NCDR	100000980	Trauma	Non-cardiovascular death attributable to trauma.
ACC NCDR	100000979	Suicide	Non-cardiovascular death attributable to suicide.
ACC NCDR	100000970	Neurological	Non-cardiovascular death attributable to disease of the nervous system (excludes malignancy).
ACC NCDR	100000969	Malignancy	Non-cardiovascular death attributable to malignancy.
ACC NCDR	100000973	Other non-cardiovascular reason	Non-cardiovascular death attributable to a cause other than those listed in this classification (specify organ system).

Element: 10200 Discharge Medication Code

Code System Name	Code

ACC NCDR	100013057

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

Supporting Definition:

Code System Name	Code	Selection Text	Definition
SNOMED CT	41549009	Angiotensin Converting Enzyme Inhibitor	
SNOMED CT	372603003	Aldosterone Antagonist	
ACC NCDR	112000001832	Angiotensin Receptor-Neprilysin Inhibitor	
SNOMED CT	67507000	Antiarrhythmic Drug	
RxNorm	11289	Warfarin	
SNOMED CT	372560006	Antiplatelet agent	
RxNorm	1191	Aspirin	
SNOMED CT	372913009	Angiotensin II Receptor Blocker	
SNOMED CT	33252009	Beta Blocker	
RxNorm	1364430	Apixaban	
RxNorm	1546356	Dabigatran	
RxNorm	1599538	Edoxaban	
RxNorm	1114195	Rivaroxaban	
SNOMED CT	426228001	Renin Inhibitor	
ACC NCDR	112000001831	Selective Sinus Node I/f Channel Inhibitor	
SNOMED CT	96302009	Statin	

Element: 10205 Discharge Medication Prescribed

Code System Name	Code
SNOMED CT	432102000

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

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

Target Value: The value on discharge

Supporting Definition:

Code System Name	Code	Selection Text	Definition
ACC NCDR	100001247	Yes - Prescribed	Code 'Yes' if this medication was initiated (or prescribed) post procedure and for discharge.
ACC NCDR	100001048	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.
ACC NCDR	100001034	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.
ACC NCDR	100001071	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.

Section: Z. Administration **Parent: Z. Administration**

Element: 1000 Participant ID

Code System Name	Code
ACC NCDR	2.16.840.1.113883.3.3478.4.836

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

Code System Name	Code
ACC NCDR	2.16.840.1.113883.3.3478.4.836

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

Supporting Definition:

Element: 1020 Time Frame of Data Submission

Code System Name	Code
ACC NCDR	1.3.6.1.4.1.19376.1.4.1.6.5.45

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

Target Value: N/A

Supporting Definition:

Element: 1040 Transmission Number

Code System Name	Code
ACC NCDR	1.3.6.1.4.1.19376.1.4.1.6.5.45

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

Supporting Definition:

Element: 1050 Vendor Identifier

Code System Name	Code
ACC NCDR	2.16.840.1.113883.3.3478.4.840

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
Supporting Definition:

Element: 1060 Vendor Software Version

Code System Name	Code
ACC NCDR	2.16.840.1.113883.3.3478.4.847

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
Supporting Definition:

Element: 1070 Registry Identifier

Code System Name	Code
ACC NCDR	2.16.840.1.113883.3.3478.4.841

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
Supporting Definition:

Element: 1090 Patient Population

Code System Name	Code
ACC NCDR	112000001856

Coding Instruction: Indicate the population of patients and procedures that are included in the data submission.
Target Value: N/A
Supporting Definition:

Code System Name	Code	Selection Text	Definition
ACC NCDR	100000930	All Patients	All patients, all procedures, regardless of insurance payor, ICD indication, or procedure performed.
ACC NCDR	100001239	Medicare Primary Prevention Patients	Patient procedures in which Insurance Payor is coded as 'Medicare', Procedure Performed is coded as 'Initial Implant', 'Generator Change' or 'Generator Explant' and ICD Indication is coded as 'Primary Prevention'.