## Section: Demographics — Parent: Root

**Element:** 2000 — Last Name

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

**Target Value:** The value on arrival at this facility

**Element:** 2010 — First Name

**Coding Instruction:** Indicate the patient's first name.

**Target Value:** The value on arrival at this facility

**Element:** 2020 — Middle Name

**Coding Instruction:** Indicate the patient's middle name.

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

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

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

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

**Target Value:** The value on arrival at this facility

**Element:** 2050 — Birth Date

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

**Target Value:** The value on arrival at this facility

**Element:** 2030 — SSN

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

Note(s):
If the patient does not have a US Social Security Number (SSN), leave blank and check 'SSN NA'.

**Target Value:** The value on arrival at this facility

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

**Element:** 2031 — SSN N/A

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

**Target Value:** The value on arrival at this facility

**Element:** 2040 — Patient ID

**Coding Instruction:** This number is automatically generated by the data collection software system used by your facility to abstract data

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

**Target Value:** The value on arrival at this facility

**Element:** 2045 — Other ID

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

**Target Value:** N/A

**Element:** 2060 — Sex

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

**Target Value:** The value on arrival at this facility

**Person Sex - 1.3.6.1.4.1.19376.1.4.1.6.5.19**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| Male | | | M | HL7 Administrative Gender |

**Section: Demographics** **Parent: Root**

Female F HL7 Administrative Gender

**Element:** 2065 Patient Zip Code

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

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

**Target Value:** The value on arrival at this facility

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

**Element:** 2066 Zip Code N/A

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

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

**Target Value:** The value on arrival at this facility

**Element:** 2070 Race - White

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

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

**Target Value:** The value on arrival at this facility

**Supporting Definition:** **White**

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

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

**Element:** 2071 Race - Black/African American

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

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

**Target Value:** The value on arrival at this facility

**Supporting Definition:** **Black or African American**

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

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

**Element:** 2073 Race - American Indian/Alaskan Native

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

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

**Target Value:** The value on arrival at this facility

**Supporting Definition:** **American Indian or Alaska Native**

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

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

**Element:** 2072 Race - Asian

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

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

**Target Value:** The value on arrival at this facility

**Supporting Definition:** **Asian**

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

**Section: Demographics** **Parent: Root**

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

**Element:** 2074 Race - Native Hawaiian/Pacific Islander

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

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

**Target Value:** The value on arrival at this facility

**Supporting Definition:** **Native Hawaiian or Pacific Islander**

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

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

**Element:** 2075 Race - Middle Eastern/North African

**Coding Instruction:** Indicate if the patient is Middle Eastern or North African 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:** **Middle Eastern**

Individuals with origins in any of the original peoples of the Middle East or North Africa, including, for example, Lebanese, Iranian, Egyptian, Syrian, Iraqi, and Israeli.

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

**Element:** 2076 Hispanic or Latino Ethnicity

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

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**

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

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

## Section: Episode of Care — Parent: Root

**Element:** 2999 — Episode Unique Key

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

**Target Value:** N/A

**Element:** 3000 — Arrival Date

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

**Target Value:** N/A

**Vendor Instruction:** Arrival Date (3000) must be <= Discharge Date (10100)

Patient must be at least 18 years old at time of Arrival Date (3000)

**Element:** 3005 — Health Insurance

**Coding Instruction:** Indicate if the patient has health insurance.

**Target Value:** The value on arrival at this facility

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

**Element:** 3010 — Health Insurance Payment Source

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

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

If there is uncertainty regarding how to identify a specific health insurance plan, please discuss with your billing department to understand how it should be identified in the registry.

**Target Value:** The value on arrival at this facility

**Payor Category - 1.3.6.1.4.1.19376.1.4.1.6.5.5**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| Private health insurance | Private health insurance is coverage by a health plan provided through an employer or union or purchased by an individual from a private health insurance company. A health maintenance organization (HMO) is considered private health insurance. | | 5 | PHDSC |
| State-specific plan (non-Medicaid) | State Specific Plans - Some states have their own health insurance programs for low-income uninsured individuals. These health plans may be known by different names in different states. | | 36 | PHDSC |
| Medicare (Part A or B) | Medicare is the Federal program which helps pay health care costs for people 65 and older and for certain people under 65 with long-term disabilities. | | 1 | PHDSC |
| Medicare Advantage (Part C) | Medicare Part C (Medicare Advantage) – Part C is an alternative way to get Medicare coverage through private insurance companies instead of the federal government. Part C provides the same benefits as Medicare Part A and Part B, and may include additional benefits such as dental, vision, prescription drug and wellness programs coverage. | Medicare Advantage Plans (Part C) \| MedicareAdvantage.com | 112000002025 | ACC NCDR |
| Medicaid | Medicaid is a program administered at the state level, which provides medical assistance to the needy. Families with dependent children, the aged, blind, and disabled who are in financial need are eligible for Medicaid. It may be known by different names. | | 2 | PHDSC |
| Military health care | Military Health care - Military health care includes TRICARE/CHAMPUS (Civilian Health and Medical Program of the Uniformed Services) and CHAMPVA (Civilian Health and Medical Program of the Department of Veterans Affairs), as well as care provided by the Department of Veterans Affairs (VA). | | 31 | PHDSC |
| Indian Health Service | Indian Health Service (IHS) is a health care program through which the Department of Health and Human Services provides medical assistance to eligible American Indians at IHS facilities. In addition, the IHS helps pay the cost of selected health care services provided at non-HIS facilities. | | 33 | PHDSC |
| Non-US insurance | Non-US insurance refers to individuals with a payor | | 100000812 | ACC NCDR |

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

that does not originate in the United States.

**Element:** 12846 Medicare Beneficiary Identifier

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

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

**Target Value:** The value on arrival at this facility

**Supporting Definition:** **Medicare Beneficiary Identifier**

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

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

**Element:** 3020 Patient Enrolled in Research Study

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

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

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

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

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

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

**Element:** 3025 Research Study Name

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

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

**Target Value:** N/A

**Vendor Instruction:** A Research Study Name (3025) may only be entered/selected once

Research Study Name (3025) must be a valid study name for Renal Denervation Module

**Element:** 3030 Research Study Patient ID

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

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

**Target Value:** N/A

## Section: History and Risk Factors — Parent: Root

**Element:** 6000 Height

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

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

**Element:** 6005 Weight

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

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

**Element:** 4625 Tobacco Use

**Coding Instruction:** Indicate the frequency that the patient uses tobacco.

Note(s):
1. Consider use of any tobacco product as equivalent to a cigarette for referenced definitions.
2. Electronic devices (e.g. e-cigarettes, vaping pens, etc.,) that only deliver a nicotine-containing substance are not considered when coding this data element.

**Target Value:** The value on arrival at this facility

**Tobacco Use - 1.3.6.1.4.1.19376.1.4.1.6.5.427**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| Never | A person who has not smoked 100 cigarettes (5 packs) in his or her lifetime. | The Office of the National Coordinator for Health Information Technology; 2015 Edition Smoking status criterion (§ 170.315(a)(11)) | 266919005 | SNOMED CT |
| Former | A person who does not currently smoke tobacco but has smoked at least 100 cigarettes in his or her lifetime. | The Office of the National Coordinator for Health Information Technology; 2015 Edition Smoking status criterion (§ 170.315(a)(11)) | 8517006 | SNOMED CT |
| Current | A person who reports currently smoking tobacco every day or on some days. | The Office of the National Coordinator for Health Information Technology; 2015 Edition Smoking status criterion (§170.315(a)(11)) | 112000003599 | ACC NCDR |
| Unknown | A person whose current and prior smoking status is not known. | The Office of the National Coordinator for Health Information Technology; 2015 Edition Smoking status criterion (§ 170.315(a)(11)) | 266927001 | SNOMED CT |

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

**Element:** 12903 Condition History Name

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

**Target Value:** N/A

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

**Condition Histories - 1.3.6.1.4.1.19376.1.4.1.6.5.927**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| Atrial fibrillation/flutter | Select if there is documentation / diagnosis of atrial fibrillation or atrial flutter. | | 195080001 | SNOMED CT |
| Coronary artery disease | Select if there is documentation of coronary artery disease (CAD) or a history of any of the following:<br>Coronary artery stenosis ≥50% documented by cardiac catheterization or other direct coronary imaging modality<br><br>Previous coronary artery bypass graft (CABG) surgery<br><br>Previous percutaneous coronary intervention (PCI)<br><br>Previous myocardial infarction (MI) | | 53741008 | SNOMED CT |
| Chronic kidney disease | Select only if there is a documented diagnosis of chronic kidney disease (CKD). This may also be documented as chronic renal insufficiency (CRI) or chronic renal failure (CRF). | | 709044004 | SNOMED CT |
| Diabetes mellitus | Select if there is documentation of a clinical diagnosis of diabetes. | | 73211009 | SNOMED CT |
| Heart failure | Select if there is documentation of a clinical diagnosis of heart failure. | | 84114007 | SNOMED CT |
| Obstructive sleep apnea | Select if there is documentation of a clinical diagnosis of obstructive or central sleep apnea. Do not capture suspected sleep apnea or sleep apnea reported by family members. Do not capture sleep apnea that has been surgically corrected. CPAP or BiPAP therapy is not required. | | 78275009 | SNOMED CT |
| Primary aldosteronism | Select if there is documentation / diagnosis of primary aldosteronism (also known as Conn's syndrome). Primary aldosteronism is a condition that occurs where adrenal glands make too much aldosterone. | | 190507007 | SNOMED CT |
| Renal artery stenosis | Select if there is documentation / diagnosis of renal artery stenosis or a history of any of the following:<br>Renal artery stent<br>Renal artery infarct<br>Renal artery imaging results of >=50% stenosis. | | 302233006 | SNOMED CT |
| Stroke | Select if there is documentation of a clinical diagnosis of stroke. | | 100000977 | ACC NCDR |
| Transient ischemic attack (TIA) | Select transient ischemic attack (TIA) if documentation of a transient episode of focal neurological dysfunction is present. A transient ischemic attack is defined as an acute episode of brain, spinal cord, or retinal ischemia without infarction, resulting in neurological symptoms that resolve within 24 hours. | | 266257000 | SNOMED CT |

**Element:** 15510 Condition History Occurrence

**Coding Instruction:** Indicate if the patient has or has not had a clinical diagnosis of the indicated medical condition.

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

**Vendor Instruction:** Condition History Occurrence (15510) cannot be Null when a Condition History Name (12903) is selected

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

**Element:** 16347 Prior Renal Artery Stent

**Coding Instruction:** Indicate if the patient had a prior renal artery stent.

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

**Element:** 16348 Renal Artery Stent Location

**Coding Instruction:** Indicate the location of the renal artery stent.

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

**Renal Artery Stent Location - 1.3.6.1.4.1.19376.1.4.1.6.5.1168**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| Left | The patient had a stent previously implanted in the left renal artery. | | 112000004368 | ACC NCDR |
| Right | The patient had a stent previously implanted in the right renal artery. | | 112000004369 | ACC NCDR |
| Both | The patient had a stent previously implanted in both the left and right renal arteries. | | 112000003646 | ACC NCDR |
| Not documented | | | 112000001830 | ACC NCDR |

**Section: Pre-Procedure Clinical Data** **Parent: Root**

**Element:** 16370 Hemoglobin

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

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

**Supporting Definition:** **Hemoglobin**

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

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

**Element:** 12239 Hemoglobin Not Drawn

**Coding Instruction:** Indicate if a pre-procedure hemoglobin was not collected.

**Target Value:** N/A

**Element:** 16374 Platelets

**Coding Instruction:** Indicate the pre-procedure platelet count in platelets per microliter.

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

**Element:** 13214 Platelet Count Not Drawn

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

**Target Value:** N/A

**Element:** 16375 Potassium

**Coding Instruction:** Indicate the potassium value in mEq/L.

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

**Supporting Definition:** **Potassium**

Potassium (symbol K from Latin:kalium) is a key chemical element involved in neuron function and influencing osmotic balance between cells and interstitial fluid. Depletion in potassium levels results in deficient fluid and electrolyte balance in the body as well as various nervous and cardiac dysfunctions. Studies suggest diets high in potassium can reduce the risk of hypertension and possibly stroke. Foods rich in potassium include parsley, dried apricots, potatoes, bananas, avocados, soybeans, and bran, as well as most fruits, vegetables, meat and fish. Overall, clear cases of potassium deficiency are rare in healthy individuals.

**Source:** http://s.details.loinc.org/LOINC/75940-7.html?sections=Simple

**Element:** 16345 Potassium Not Drawn

**Coding Instruction:** Indicate if the potassium value was not drawn.

**Target Value:** N/A

**Element:** 16371 Creatinine

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

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

**Supporting Definition:** **Creatinine**

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

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

**Element:** 6051 Creatinine Not Drawn

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

**Target Value:** N/A

**Element:** 16389 Glucose

**Section: Pre-Procedure Clinical Data** **Parent: Root**

**Coding Instruction:** Indicate the serum glucose value, in mg/dL.

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

**Element:** 16343 Glucose Not Drawn

**Coding Instruction:** Indicate if the glucose value was not drawn.

**Target Value:** N/A

**Element:** 16376 Hemoglobin A1c

**Coding Instruction:** Indicate the hemoglobin A1c value, in %.

**Target Value:** The last value within 12 months of procedure start

**Element:** 13006 Hemoglobin A1c Not Drawn

**Coding Instruction:** Indicate if a hemoglobin A1C was not collected.

**Target Value:** N/A

**Element:** 16416 Albumin

**Coding Instruction:** Indicate the total albumin, in g/dL.

**Target Value:** The last value within 12 months of procedure start

**Element:** 16417 Albumin Not Drawn

**Coding Instruction:** Indicate if a total albumin was not collected.

**Target Value:** N/A

**Element:** 16377 Plasma Renin Activity

**Coding Instruction:** Indicate the plasma renin activity, in ng/mL/hr.

**Target Value:** The last value within 12 months of procedure start

**Element:** 16346 Plasma Renin Activity Not Drawn

**Coding Instruction:** Indicate if the plasma renin activity level was not drawn.

**Target Value:** N/A

**Element:** 16378 Aldosterone

**Coding Instruction:** Indicate the aldosterone level, in ng/dL.

**Target Value:** The last value within 12 months of procedure start

**Element:** 16342 Aldosterone Not Drawn

**Coding Instruction:** Indicate if the aldosterone level was not drawn.

**Target Value:** N/A

**Element:** 16372 Total Cholesterol

**Coding Instruction:** Indicate the cholesterol level in mg/dL.

**Target Value:** The last value within 12 months of procedure start

**Supporting Definition:** **Cholesterol**

Cholesterol is a lipidic, waxy alcohol found in the cell membranes and transported in the blood plasma of all animals. It is an essential component of mammalian cell membranes where it establishes proper membrane permeability and fluidity. Cholesterol is the principal sterol synthesized by animals, but small quantities are synthesized in other eukaryotes, such as plants and fungi. It is almost completely absent among prokaryotes, which include bacteria. Cholesterol is classified as a sterol.

**Section: Pre-Procedure Clinical Data** **Parent: Root**

**Element:** 15539 Total Cholesterol Not Drawn

**Coding Instruction:** Indicate if the total cholesterol was not drawn.

**Target Value:** N/A

**Element:** 16373 High Density Lipoprotein

**Coding Instruction:** Indicate the high-density lipoprotein (HDL) level in mg/dL.

**Target Value:** The last value within 12 months of procedure start

**Supporting Definition:** **High-density lipoprotein**

High-density lipoprotein (HDL) is one of the five major groups of lipoproteins (chylomicrons, VLDL, IDL, LDL, HDL) which enable lipids like cholesterol and triglycerides to be transported within the water based blood stream. In healthy individuals, about thirty percent of blood cholesterol is carried by HDL. High levels of cholesterol in the blood have been linked to damage to arteries and cardiovascular disease.

**Source:** Regenstrief Institute, Inc. All Rights Reserved. To the extent included herein, the LOINC table and LOINC codes are copyright © 1995-2015, Regenstrief Institute, Inc. and the Logical Observation Identifiers Names and Codes (LOINC) Committee.



**Element:** 15540 High-density Lipoprotein Not Drawn

**Coding Instruction:** Indicate if the high-density lipoprotein (HDL) cholesterol was not drawn.

**Target Value:** N/A

**Element:** 16379 LDL Cholesterol

**Coding Instruction:** Indicate the low-density lipoprotein (LDL) cholesterol value in mg/dL.

**Target Value:** The last value within 12 months of procedure start

**Supporting Definition:** **Cholesterol in LDL**

A small dense LDL fraction, reported as part of LDL Subclasses panel. Seven LDL subclasses and 3 mid-band fractions can be determined by linear polyacrylamide gel electrophoresis and densitometric scanning.

**Source:** Regenstrief Institute

**Element:** 16344 Low Density Lipoprotein Not Drawn

**Coding Instruction:** Indicate if the low density lipoprotein was not drawn.

**Target Value:** N/A

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

**Element:** 5111 LVEF Assessed (Pre-Procedure)

**Coding Instruction:** Indicate if the left ventricular ejection fraction was assessed.

**Target Value:** Any occurrence between 6 months prior to procedure and the start of the current procedure

**Element:** 5116 LVEF % (Pre-Procedure)

**Coding Instruction:** Indicate the best estimate of the most recent left ventricular ejection fraction.

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

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

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.

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

**Section: Blood Pressure - Ambulatory** **Parent: Blood Pressure**

**Element:** 16456 24 Hour Ambulatory Blood Pressure Monitor Available

**Coding Instruction:** Indicate if results from a 24-hour ambulatory blood pressure monitor are available. A 24-hour ambulatory blood pressure monitor is a portable device worn by the patient that automatically measures blood pressure at regular intervals.

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

**Element:** 16463 Ambulatory Blood Pressure Monitor Start Date

**Coding Instruction:** Indicate the date the twenty-four-hour ambulatory blood pressure monitoring was initiated.

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

**Section: Blood Pressure - Ambulatory Daytime** **Parent: Blood Pressure - Ambulatory**

**Element:** 16457 Average Daytime Systolic Blood Pressure From Ambulatory Blood Pressure Monitor

**Coding Instruction:** Indicate the average daytime systolic blood pressure from the twenty-four-hour ambulatory blood pressure monitor.

Note 1: The 24-hour ambulatory monitor captures the average daytime blood pressure beginning 30-60" after waking (prior to exercise, caffeine, or nicotine) until the patient goes to sleep.

Note 2: For shift workers, the monitor must be programmed appropriately to capture the daytime blood pressure after waking.

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

**Element:** 16458 Average Daytime Diastolic Blood Pressure From Ambulatory Blood Pressure Monitor

**Coding Instruction:** Indicate the average daytime diastolic blood pressure from the twenty-four-hour ambulatory blood pressure monitor.

Note 1: The 24-hour ambulatory monitor captures the average daytime blood pressure beginning 30-60" after waking (prior to exercise, caffeine, or nicotine) until the patient goes to sleep.

Note 2: For shift workers, the monitor must be programmed appropriately to capture the daytime blood pressure after waking.

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

**Section: Blood Pressure - Ambulatory Nocturnal** **Parent: Blood Pressure - Ambulatory**

**Element:** 16459 Average Nocturnal Systolic Blood Pressure From Ambulatory Blood Pressure Monitor

**Coding Instruction:** Indicate the average nocturnal systolic blood pressure from the twenty-four-hour ambulatory blood pressure monitor.

Note 1: The 24-hour ambulatory monitor captures the average nocturnal blood pressure beginning when the patient goes to sleep.

Note 2: For shift workers, the monitor must be programmed appropriately to capture the nocturnal blood pressure while sleeping.

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

**Element:** 16460 Average Nocturnal Diastolic Blood Pressure From Ambulatory Blood Pressure Monitor

**Coding Instruction:** Indicate the average nocturnal diastolic blood pressure from the twenty-four-hour ambulatory blood pressure monitor.

Note 1: The 24-hour ambulatory monitor captures the average nocturnal blood pressure beginning when the patient goes to sleep.

Note 2: For shift workers, the monitor must be programmed appropriately to capture the nocturnal blood pressure while sleeping.

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

**Section: Blood Pressure - Ambulatory Overall** **Parent: Blood Pressure - Ambulatory**

**Element:** 16461 Average Overall Systolic Blood Pressure From Ambulatory Blood Pressure Monitor

**Coding Instruction:** Indicate the average overall systolic blood pressure from the twenty four hour ambulatory blood pressure monitor.

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

**Element:** 16462 Average Overall Diastolic Blood Pressure From Ambulatory Blood Pressure Monitor

**Coding Instruction:** Indicate the average overall diastolic blood pressure from the twenty four hour ambulatory blood pressure monitor.

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

**Section: Blood Pressure - Office** **Parent: Blood Pressure**

**Element:** 16464 Office Blood Pressure and Heart Rate Data Available

**Coding Instruction:** Indicate if office blood pressure and heart rate readings are available.

Note: If both a standard blood pressure cuff and an automated office blood pressure reading is available (AOBP), code the AOBP reading.

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

**Element:** 16465 Office Blood Pressure Date

**Coding Instruction:** Indicate the date the blood pressure reading was obtained in the physician's office.

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

**Element:** 16466 Office Systolic Blood Pressure

**Coding Instruction:** Indicate the office systolic blood pressure reading.

Note(s): Use data from the most recent office visit prior to the procedure. Do not use inpatient vital signs or emergency department triage vitals for this field unless no other documentation is present.

Standard blood pressure is measured manually or with a single automated cuff reading taken by clinic staff. AOBP uses a device that takes multiple automated readings while the patient rests quietly, then reports an average blood pressure.

If both a standard blood pressure cuff and an automated office blood pressure reading is available (AOBP), code the average AOBP reading.

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

**Element:** 16467 Office Diastolic Blood Pressure

**Coding Instruction:** Indicate the office diastolic blood pressure reading.

Note(s): Use data from the most recent office visit prior to the procedure. Do not use inpatient vital signs or emergency department triage vitals for this field unless no other documentation is present.

Standard blood pressure is measured manually or with a single automated cuff reading taken by clinic staff. AOBP uses a device that takes multiple automated readings while the patient rests quietly, then reports an average blood pressure.

If both a standard blood pressure cuff and an automated office blood pressure reading is available (AOBP), code the average AOBP reading.

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

**Element:** 16508 Automated Office Blood Pressure

**Coding Instruction:** Indicate whether the blood pressure measurement was obtained using an Automated Office Blood Pressure (AOBP).

Note(s): If both a standard blood pressure cuff reading and an automated office blood pressure (AOBP) reading are available, code the average AOBP reading.

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

**Element:** 16468 Office Heart Rate

**Coding Instruction:** Indicate the office heart rate reading.

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

**Section: Blood Pressure - Home** **Parent: Blood Pressure**

**Element:** 16433 Home Blood Pressure Available

**Coding Instruction:** Indicate if home blood pressure data is available for as many days as available (up to 7 consecutive days).

**Target Value:** Any occurrence between 3 months before arrival at this facility and arrival at this facility

**Section: Blood Pressure - Seven Day** **Parent: Blood Pressure - Home**

**Element:** 16483 Home Blood Pressure Measurement Day

**Coding Instruction:** Indicate the day of home blood pressure measurement (Day 1–Day 7) based on the order in which measurements were recorded. Leave any missed days blank.

**Target Value:** All values between 3 months prior to arrival at this facility and start of the procedure

**Vendor Instruction:** Home Blood Pressure Measurement Day (16483) must not be duplicated in an episode

**Measurement Day - 1.3.6.1.4.1.19376.1.4.1.6.5.1179**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| Day 1 | | | 112000004432 | ACC NCDR |
| Day 2 | | | 112000004433 | ACC NCDR |
| Day 3 | | | 112000004434 | ACC NCDR |
| Day 4 | | | 112000004435 | ACC NCDR |
| Day 5 | | | 112000004436 | ACC NCDR |
| Day 6 | | | 112000004437 | ACC NCDR |
| Day 7 | | | 112000004438 | ACC NCDR |

**Element:** 16490 Average Home Systolic Blood Pressure

**Coding Instruction:** Indicate the average systolic blood pressure for the day. If only one blood pressure was available, code that blood pressure. It is recommended to code at least 3 (and preferably 7) days of blood pressures.

**Target Value:** All values between 3 months prior to arrival at this facility and start of the procedure

**Element:** 16492 Average Home Diastolic Blood Pressure

**Coding Instruction:** Indicate the average diastolic blood pressure for the day. If only one blood pressure was available, code that blood pressure. It is recommended to code at least 3 (and preferably 7) days of blood pressures.

**Target Value:** All values between 3 months prior to arrival at this facility and start of the procedure

## Section: Home Medications - Antihypertensive Medications  Parent: Home Medications

**Element:** 16423 Antihypertensive Medication

**Coding Instruction:** Indicate the antihypertensive medications the patient was taking routinely at home prior to this hospitalization.

Note: Do not include medications prescribed primarily for another clinical indication, even if they have blood pressure lowering effects.

**Target Value:** The value on arrival at this facility

**Vendor Instruction:** Antihypertensive Medication (16423) must not be duplicated in an episode

**Antihypertensive Medications - 1.3.6.1.4.1.19376.1.4.1.6.5.1178**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| acebutolol 200 MG | | | 328656 | RxNorm |

**Element:** 16427 Antihypertension Medication Frequency

**Coding Instruction:** Indicate the frequency of the medication the patient was taking routinely at home prior to this hospitalization.

**Target Value:** The value on arrival at this facility

**Medication Frequency - 1.3.6.1.4.1.19376.1.4.1.6.5.1176**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| Daily | The medication was administered once a day, or "daily". | | 69620002 | SNOMED CT |
| Twice a Day | The medication was administered twice a day, or "BID". | | 112000004403 | ACC NCDR |
| Three Times a Day | The medication was administered three times a day, or "TID". | | 112000004404 | ACC NCDR |
| Four Times a Day | The medication was administered four times a day, or "QID". | | 112000004405 | ACC NCDR |
| Weekly | The medication was administered once a week, or weekly. | | 225769003 | SNOMED CT |
| Other | The medication was administered at a frequency not otherwise specified. | | 100000351 | ACC NCDR |

**Section: Home Medications - Other** **Parent: Home Medications**

**Element:** 12297 Home Medication Code

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

**Target Value:** N/A

**Vendor Instruction:** Home Medication Code (12297) must not be duplicated in an episode

**Home Medications - 2.16.840.1.113883.3.3478.6.5.302**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| Aspirin | | | 1191 | RxNorm |
| Direct oral anticoagulants | | | 112000002174 | ACC NCDR |
| GLP-1 agonist | | | 772985004 | SNOMED CT |
| Non-statin (lipid lowering) | | | 100014161 | ACC NCDR |
| Nonsteroidal anti-inflammatory | | | 112000004390 | ACC NCDR |
| SGLT2 inhibitor | | | 703673007 | SNOMED CT |
| Statin | | | 96302009 | SNOMED CT |
| Warfarin | | | 11289 | RxNorm |

**Element:** 16494 Home Medication Used

**Coding Instruction:** Indicate other medications the patient was taking routinely at home prior to this hospitalization.

**Target Value:** The value on arrival at this facility

**Vendor Instruction:** Home Medication Used (16494) cannot be Null when a Home Medication Code (12297) is selected

**Home Medication Prescribed - 1.3.6.1.4.1.19376.1.4.1.6.5.710**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| No | | | 112000000168 | ACC NCDR |
| Yes | | | 100001247 | ACC NCDR |

## Section: Procedure Information — Parent: Root

### Element: 7000 Procedure Start Date and Time

**Coding Instruction:** Indicate the date and time the procedure started.

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

The time the procedure started is defined as the time at which local anesthetic was first administered for vascular access, or the time of the first attempt at vascular access for the procedure (use whichever is earlier).

**Target Value:** Any occurrence on current procedure

**Vendor Instruction:** Procedure Start Date and Time (7000) must be >= Arrival Date (3000)

Procedure Start Date and Time (7000) must be <= Procedure End Date and Time (7005)

Procedure Start Date and Time (7000) must be <= Discharge Date (10100)

### Element: 7005 Procedure End Date and Time

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

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

**Target Value:** The value on current procedure

**Vendor Instruction:** Procedure End Date and Time (7005) must be <= Discharge Date (10100)

### Element: 7065 Concomitant Procedures Performed

**Coding Instruction:** Indicate if another procedure was performed in conjunction with the registry specific procedure.

Note(s): The intent of this data element is to capture additional procedures not inherent to the registry specific procedure. Additionally, procedures performed to correct an event that occurred as a result of the registry specific procedure are not captured in this data element.

**Target Value:** The value on current procedure

### Element: 7066 Concomitant Procedures Performed Type

**Coding Instruction:** Indicate the type of procedure performed in conjunction with the primary procedure.

Note(s):
The procedure(s) collected in your application is controlled by Procedure 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

**Concomitant Procedures Type - 2.16.840.1.113883.3.3478.6.4.10**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| Biopsy of heart | | | 197042001 | SNOMED CT |
| Structural repair | | | 100001273 | ACC NCDR |
| Left atrial appendage occlusion | | | 233032004 | SNOMED CT |
| Parachute device placement | | | 1000142393 | ACC NCDR |
| Mitral clip procedure | | | 112000000208 | ACC NCDR |
| TAVR | | | 441873006 | SNOMED CT |
| Right heart cath | | | 40403005 | SNOMED CT |
| EP study | | | 252425004 | SNOMED CT |
| Temporary pacemaker placement | | | 281556002 | SNOMED CT |
| Permanent pacemaker placement | | | 33331003 | SNOMED CT |
| Aortogram | | | 241230009 | SNOMED CT |
| Peripheral intervention | | | 100001272 | ACC NCDR |
| Peripheral angiogram | | | 1000142392 | ACC NCDR |
| Cardioversion | | | 250980009 | SNOMED CT |
| IMA (Native Position) Angiogram | | | 84311009 | SNOMED CT |
| Procedure type not listed | | | 10001424810 | ACC NCDR |

### Element: 16403 Procedure Indication

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

**Coding Instruction:** Indicate the reason the procedure is being performed.

**Target Value:** The value on current procedure

**Pre-Procedure Indications - 1.3.6.1.4.1.19376.1.4.1.6.5.1171**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| Uncontrolled hypertension | Blood pressure >140/90 mmHg despite active blood pressure management by a clinician. | | 112000004383 | ACC NCDR |
| Other | | | 100000351 | ACC NCDR |

## Element: 14732 Shared Decision Making

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

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

**Target Value:** The value on current procedure

**Supporting Definition:** **Shared Decision Making**

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

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

**Source:**

## Element: 7100 Operator Last Name

**Coding Instruction:** Indicate the last name of operator.

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

**Target Value:** The value on current procedure

## Element: 7105 Operator First Name

**Coding Instruction:** Indicate the first name of operator.

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

**Target Value:** The value on current procedure

## Element: 7110 Operator Middle Name

**Coding Instruction:** Indicate the middle name of operator.

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

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

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

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

**Target Value:** The value on current procedure

## Element: 7115 Operator NPI

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

**Target Value:** The value on current procedure

**Vendor Instruction:** Operator NPI (7115) cannot be Null

## Element: 15433 Fellow Last Name

**Coding Instruction:** Indicate the last name of the Fellow who is involved with the procedure.

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

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

**Target Value:** The value on current procedure

## Element: 15434 Fellow First Name

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

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

**Target Value:** The value on current procedure

## Element: 15435 Fellow Middle Name

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

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

**Target Value:** The value on current procedure

## Element: 15436 Fellow NPI

**Coding Instruction:** Indicate the National Provider Identifier (NPI) of the Fellow-In-Training operator who is performing the procedure.

National Provider Identifier (NPI) numbers, assigned by the Centers for Medicare and Medicaid Services (CMS), are used to uniquely identify physicians for Medicare billing purposes.

**Target Value:** The value on current procedure

**Vendor Instruction:** Operator NPI (7115) cannot be equal to the Fellow NPI (15436) within the same procedure, i.e., an individual cannot be the Operator and FIT for the same procedure.

## Element: 15431 Fellowship Program Identification Number

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

**Target Value:** The value on current procedure

**Supporting Definition:** **Fellowship Program Identification Number**

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

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

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

**Vendor Instruction:** Fellowship Program Identification Number (15431) must be a valid ACGME ID

## Element: 12871 Procedure Location

**Coding Instruction:** Indicate the location where the procedure was performed.

**Target Value:** The value on current procedure

**Procedure Location - 1.3.6.1.4.1.19376.1.4.1.6.5.327**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| Ambulatory Surgery Center | Select if a procedure was performed outside of a hospital setting. | | 405607001 | SNOMED CT |
| Cath Lab | Select if a procedure was performed in a hospital-based cath lab. | | 112000000616 | ACC NCDR |
| Interventional Radiology Laboratory | Select if a procedure was performed in a hospital-based interventional radiology suite. | | 112000000617 | ACC NCDR |
| EP Lab | Select if a procedure was performed in a hospital-based electrophysiology lab. | | 112000002109 | ACC NCDR |
| OR | Select if a procedure was performed in a hospital-based operating room. | | 225738002 | SNOMED CT |
| Other | | | 100000351 | ACC NCDR |

## Element: 13331 Anesthesia Type

**Coding Instruction:** Indicate the type of anesthesia used for the procedure.

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

**Target Value:** The highest value on current procedure

**Supporting Definition:** **Anesthesia**

Anesthesia is defined as the loss of sensation resulting from pharmacologic depression of nerve function. There are several types of anesthesia including neuraxial, general, or peripheral nerve block. Monitored Anesthesia Care is a specific type of anesthesia service that may be provided when neuraxial anesthesia, general anesthesia, or peripheral nerve block is not utilized.

**Source:** Anesthesia Quality Institute (2018). 2018 AQI NACOR data element conceptual definition. Retrieved from http://www.aqihq.org/files/AQI_NACOR_DATA_ELEMENT_DEFINITIONS_v3%202018_FINAL.pdf

**Anesthesia Type - 1.3.6.1.4.1.19376.1.4.1.6.5.463**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| General anesthesia | General Anesthesia is a drug-induced loss of consciousness during which patients are not arousable, even by painful stimulation. The ability to independently maintain ventilatory function is often impaired. Patients often require assistance in maintaining a patent airway, and positive pressure ventilation may be required because of depressed spontaneous ventilation or drug-induced depression of neuromuscular function. Cardiovascular function may be impaired. | | 420653000 | SNOMED CT |
| Deep sedation/analgesia | Deep Sedation/Analgesia is a drug-induced depression of consciousness during which patients cannot be easily aroused but respond purposefully following repeated or painful stimulation. The ability to independently maintain ventilatory function may be impaired. Patients may require assistance in maintaining a patent airway, and spontaneous ventilation may be inadequate. Cardiovascular function is usually maintained. | | 426155000 | SNOMED CT |
| Moderate sedation/analgesia | Moderate Sedation/Analgesia ("Conscious Sedation") is a drug-induced depression of consciousness during which patients respond purposefully to verbal commands, either alone or accompanied by light tactile stimulation. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is usually maintained. Reflex withdrawal from a painful stimulus is NOT considered a purposeful response. | | 314271007 | SNOMED CT |
| Minimal sedation/anxiolysis/local only | Minimal Sedation (Anxiolysis) is a drug-induced state during which patients respond normally to verbal commands. Although cognitive function and physical coordination may be impaired, airway reflexes, and ventilatory and cardiovascular functions are unaffected. | | 427255001 | SNOMED CT |

## **Element:** 16382 Mechanical Ventilation Required

**Coding Instruction:** Indicate if the patient required invasive or non-invasive ventilation to assist or replace spontaneous breathing during the procedure.

**Target Value:** The highest value on current procedure

**Mechanical Ventilation Required - 1.3.6.1.4.1.19376.1.4.1.6.5.1180**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| Invasive mechanical ventilation | Invasive ventilation is the administration of ventilatory support with utilization of an artificial airway such as an endotracheal tube or tracheostomy. | | 112000001990 | ACC NCDR |
| Noninvasive mechanical ventilation | Noninvasive ventilation is the administration of a face mask connected to a ventilator (e.g. BiPAP, CPAP, HFNT, etc.). | | 430191008 | SNOMED CT |
| None | No mechanical ventilation required. | | 260413007 | SNOMED CT |

## **Element:** 7214 Fluoroscopy Time

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

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

## **Element:** 7210 Cumulative Air Kerma

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

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

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

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

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

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

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

**Element:** 14278 Dose Area Product

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

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

**Supporting Definition:** **Dose Area Product**

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

Also known as KAP (Kerma Area Product).

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

**Element:** 7215 Contrast Volume

**Coding Instruction:** Indicate the volume of contrast (ionic and non-ionic) used in milliliters (ml). The volume recorded should be the total volume for the lab visit.

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

**Section: Renal Denervation Procedure Information** **Parent: Procedure Information**

**Element:** 16418 Accessory Artery Present

**Coding Instruction:** Indicate whether accessory renal artery(ies) were identified, and if present, document laterality

**Target Value:** The value on current procedure

**Accessory Artery Present - 1.3.6.1.4.1.19376.1.4.1.6.5.1174**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| No | | | 100013073 | ACC NCDR |
| Yes - Left | | | 112000004391 | ACC NCDR |
| Yes - Right | | | 112000004392 | ACC NCDR |
| Yes - Both | | | 112000004393 | ACC NCDR |

**Element:** 16422 Renal Artery Sizing Method

**Coding Instruction:** Indicate the imaging modalities used to determine renal artery diameter for procedural planning or device sizing.

**Target Value:** The value on current procedure

**Renal Artery Sizing Method - 1.3.6.1.4.1.19376.1.4.1.6.5.1175**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| Angiography | | | 77343006 | SNOMED CT |
| Computed tomography angiography | | | 418272005 | SNOMED CT |
| Intravascular ultrasound | | | 112000004398 | ACC NCDR |
| Magnetic resonance angiography | | | 241663008 | SNOMED CT |
| Visual assessment with fluoroscopy | | | 112000004396 | ACC NCDR |

**Element:** 16495 Renal Artery Sizing Method Not Documented

**Coding Instruction:** Indicate if the imaging modalities used to determine renal artery diameter for procedural planning or device sizing was not documented.

**Target Value:** N/A

**Section: Renal Artery Treatment** **Parent: Renal Denervation Procedure Information**

**Element:** 16397 Renal Artery Ablation Attempted

**Coding Instruction:** Indicate each renal artery where ablation was attempted or performed.

**Target Value:** The value on current procedure

**Supporting Definition:** **Renal Artery Ablation Attempted**

An ablation attempt is defined as the insertion of a renal artery ablation device with intent to perform renal denervation.

**Source:**

**Renal Artery Ablation Attempted - 1.3.6.1.4.1.19376.1.4.1.6.5.1177**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| 1 - Right Main Renal Artery | The main trunk of the right main renal artery only (from ostium to first bifurcation). Branch treatments are coded separately. | | 112000004373 | ACC NCDR |
| 2 - Right Main - Anterior Segment | The anterior segment of the right main renal artery is a segment beyond the right main renal artery bifurcation. It is in the primary renal vascular tree (not the accessory artery) | | 112000004406 | ACC NCDR |
| 3 - Right Main - Anterior Superior Segment | The anterior superior segment of the right main renal artery is a segment beyond the right main renal artery bifurcation. It is in the primary renal vascular tree (not the accessory artery). | | 112000004374 | ACC NCDR |
| 4 - Right Main - Anterior Inferior Segment | The anterior inferior segment of the right main renal artery is a segment beyond the right main renal artery bifurcation. It is in the primary renal vascular tree (not the accessory artery) | | 112000004407 | ACC NCDR |
| 5 - Right Main - Posterior Segment | The posterior segment of the right main renal artery is a segment beyond the right main renal artery bifurcation. It is in the primary renal vascular tree (not the accessory artery). | | 112000004409 | ACC NCDR |
| 6 - Right Main - Inferior Segment | The inferior segment of the right main renal artery is a segment beyond the right main renal artery bifurcation. It is in the primary renal vascular tree (not the accessory artery). | | 112000004408 | ACC NCDR |
| 7 - Right Accessory Renal Artery | The main trunk of the right accessory renal artery (from ostium to first bifurcation). A right accessory artery is an additional artery that some patients have. It supplies the kidney from the aorta. Branch segments are coded separately. | | 112000004418 | ACC NCDR |
| 8 - Right Accessory - Superior Segment | The superior segment of the right accessory renal artery is a segment beyond the accessory artery bifurcation, within an accessory renal vascular tree. | | 112000004376 | ACC NCDR |
| 9 - Right Accessory - Inferior Segment | The inferior segment of the right accessory renal artery is a segment beyond the accessory artery bifurcation, within an accessory renal vascular tree. | | 112000004410 | ACC NCDR |
| 10 - Left Main Renal Artery | The main trunk of the left main renal artery only (from ostium to first bifurcation). Branch treatments are coded separately. | | 112000004377 | ACC NCDR |
| 11 - Left Main - Anterior Segment | The anterior segment of the left main renal artery is a segment beyond the left main renal artery bifurcation. It is in the primary renal vascular tree (not the accessory artery). | | 112000004411 | ACC NCDR |
| 12 - Left Main - Anterior Superior Segment | The anterior superior segment of the left main renal artery is a segment beyond the left main renal artery bifurcation. It is in the primary renal vascular tree (not the accessory artery) | | 112000004378 | ACC NCDR |
| 13 - Left Main - Anterior Inferior Segment | The anterior inferior segment of the left main renal artery is a segment beyond the left main renal artery bifurcation. It is in the primary renal vascular tree (not the accessory artery). | | 112000004412 | ACC NCDR |
| 14 - Left Main - Posterior Segment | The posterior segment of the left main renal artery is a segment beyond the left main renal artery bifurcation. It is in the primary renal vascular tree (not the accessory artery). | | 112000004415 | ACC NCDR |
| 15 - Left Main - Inferior Segment | The inferior segment of the left main renal artery is a segment beyond the left main renal artery bifurcation. It is in the primary renal vascular tree (not the accessory artery). | | 112000004414 | ACC NCDR |
| 16 - Left Accessory Renal Artery | The main trunk of the left accessory renal artery (from ostium to first bifurcation). A left accessory artery is an additional artery that some patients have. It supplies the kidney from the aorta. Branch segments are coded separately. | | 112000004379 | ACC NCDR |

| Section: Renal Artery Treatment | | Parent: Renal Denervation Procedure Information | |
|---|---|---|---|
| 17 - Left Accessory - Superior Segment | The superior segment of the left accessory renal artery is a segment beyond the accessory artery bifurcation, within an accessory renal vascular tree. | 112000004380 | ACC NCDR |
| 18 - Left Accessory - Inferior Segment | The inferior segment of the left accessory renal artery is a segment beyond the accessory artery bifurcation, within an accessory renal vascular tree. | 112000004416 | ACC NCDR |

**Element:** 16399 Ablations Performed

**Coding Instruction:** Indicate if at least one ablation was performed on the renal artery.

**Target Value:** The value on current procedure

**Element:** 16398 Number of Ablations Performed on Artery Treated

**Coding Instruction:** Indicate the total number of ablations performed on the treated artery.

Note(s):

For radiofrequency ablation, one catheter placement with four (>45 second) ablations equals four ablations.

For ultrasound, one balloon-based treatment >7 seconds equals one ablation.

Code '0' if an ablation device was inserted, but none of the above criteria are met.

**Target Value:** The value on current procedure

**Vendor Instruction:** Number of Ablations Performed on Artery Treated (16398) must be <= 30

**Section: Renal Device Information** **Parent: Renal Artery Treatment**

**Element:** 16394 Unique Device Identifier - Renal Denervation Procedure

**Coding Instruction:** Indicate the Unique Device Identifier (UDI) for the renal denervation device used on each renal artery.
Notes:
If multiple devices were used, report the one that delivered the most ablations.
Enter the Device Identifier (01) first, then add optional Production Identifiers: (17) Expiration date and (10) Lot number
Or, you may scan or copy paste the full UDI from the device label.

**Target Value:** The value on current procedure

**Section: Renal Post Ablation** **Parent: Renal Denervation Procedure Information**

**Element:** 16401 Post Ablation Intravascular Ultrasound

**Coding Instruction:** Indicate if intravascular ultrasound was used post ablation(s). Intravascular ultrasound is used to assess for vessel integrity or damage after the renal denervation device was used.

**Target Value:** The value on end of current procedure

**Section: IPP Events** **Parent: Intra and Post Procedure Events**

**Element:** 9001 Intra/Post-Procedure Events

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

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

**Vendor Instruction:** An Intra or Post Procedure Events (9001) must not be duplicated in an episode

**Post-Procedure Events - 2.16.840.1.113883.3.3478.6.3.10**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| Embolic event | Select if the patient had an embolic event documented in the medical record. An embolic event occurs when a thrombus or other material breaks away and travels to another area of the body, causing a blockage. | | 54687002 | SNOMED CT |
| Major bleeding | Select if there is documentation of a confirmed bleeding event observed in the medical record that was associated with any of the following:<br><br>Hemoglobin drop of ≥3 g/dL;<br><br>Transfusion of whole blood or packed red blood cells;<br><br>Procedural intervention or surgery at the bleeding site to reverse, stop, or correct the bleeding (such as surgical closures or exploration of the arteriotomy site, balloon angioplasty to seal an arterial tear, or endoscopy with cautery of a gastrointestinal bleed). | | 112000001889 | ACC NCDR |
| New requirement for dialysis | Indicate if the patient experienced acute or worsening renal failure necessitating renal dialysis.<br><br>Note: If a patient is receiving continuous veno-venous hemofiltration (CVVH) as a result of renal failure (and not as treatment to remove fluid for heart failure), code "Yes". | | 100014076 | ACC NCDR |
| Renal artery injury requiring an invasive intervention | Select if there is documentation of a renal artery or renal artery branch injury resulting from the renal denervation procedure that required invasive intervention. This may include, but is not limited to, the following:<br><br>Renal artery perforation<br><br>Renal artery dissection<br><br>Other documented injury to the renal artery or its branches (for example, thrombosis or pseudoaneurysm) when directly attributed to the renal denervation procedure<br><br>Invasive intervention may include, but is not limited to, glue, coils, stenting, surgical repair, or other documented invasive vascular intervention performed to treat the injury. | | 112000004365 | ACC NCDR |
| Peripheral vascular injury (any) | Select if there is documentation of a vascular injury attributable to the current procedure that required an intervention. Vascular injuries may include, but are not limited to:<br><br>Access site occlusions<br><br>Dissections<br><br>Pseudoaneurysms<br><br>and/or AV fistulas<br><br>Any noted vascular injury must have had an intervention such as fibrin injection, angioplasty, or surgical repair to qualify.<br><br>Prolonged pressure does not qualify as an intervention; however, ultrasound-guided compression after diagnosis of pseudoaneurysm does qualify.<br><br>A bleeding event is not considered a vascular injury under this data element. | | 112000004043 | ACC NCDR |

**Section: IPP Events** **Parent: Intra and Post Procedure Events**

**Element:** 9002 Intra/Post-Procedure Events Occurred

**Coding Instruction:** Indicate if the intra or post procedure event did or did not occur.

Note(s):
The term 'procedure' that is mentioned in the target value is in reference to a renal denervation procedure during the current episode of care.

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

**Vendor Instruction:** Intra/Post-Procedure Events Occurred (9002) cannot be Null when an Intra/Post Procedure Events (9001) is selected

**Section: IPP Event Details** **Parent: Intra and Post Procedure Events**

**Element:** 9275 Packed Red Blood Cell Transfusion

**Coding Instruction:** Indicate if there was a transfusion(s) of packed red blood cells.

Note(s):
The term 'procedure' that is mentioned in the target value is in reference to a renal denervation procedure during the current episode of care.

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

## Section: Discharge — Parent: Root

**Element:** 10100 Discharge Date

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

**Target Value:** The value on discharge

**Vendor Instruction:** Discharge Date (10100) and Arrival Date (3000) must not overlap on multiple episodes

Discharge Date (10100) must be >= 01/01/2024

**Element:** 10105 Discharge Status

**Coding Instruction:** Indicate the patient's vital status.

**Target Value:** The value on discharge

**Discharge Life Status - 1.3.6.1.4.1.19376.1.4.1.6.5.42**

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

**Element:** 10125 Cause of Death

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

**Target Value:** The value on time of death

**Cause of Death Clinical Finding - 1.3.6.1.4.1.19376.1.4.1.6.5.88**

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

## Section: Follow-Up — Parent: Root

**Element:** 10999 — Follow-Up Unique Key

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

**Target Value:** N/A

**Element:** 11000 — Follow-Up Assessment Date

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

**Target Value:** The value on Follow-up

**Vendor Instruction:** Follow-Up Assessment Date (11000) must be >= 01/01/2024

**Element:** 14946 — Reference Episode Arrival Date

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

**Target Value:** The value on Follow-up

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

**Coding Instruction:** Indicate the start date and time of the reference procedure.

**Target Value:** The value on Follow-up

**Element:** 14338 — Follow-Up Reference Discharge Date

**Coding Instruction:** Indicate the date of discharge for the episode of care that included the reference procedure.

**Target Value:** The value on Follow-up

**Element:** 11004 — Follow-Up Status

**Coding Instruction:** Indicate the patient's vital status.

**Target Value:** The value on Follow-up

**Follow-Up Status - 1.3.6.1.4.1.19376.1.4.1.6.5.372**

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

**Element:** 11006 — Follow-Up Date of Death

**Coding Instruction:** Indicate the date of death.

**Target Value:** The value on Follow-up

**Vendor Instruction:** Follow-Up Date of Death (11006) must be >= to the Follow-Up Assessment Date (11000) of a prior follow-up assessment with Follow-Up Status (11004) of Alive

**Element:** 11007 — Cause of Death

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

**Target Value:** The value on Follow-up

**Cause of Death Clinical Finding - 1.3.6.1.4.1.19376.1.4.1.6.5.88**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| Cardiac | Attribution of death to a cardiovascular etiology are acute myocardial infarction, sudden cardiac death, heart failure, stroke, cardiovascular procedure, cardiovascular hemorrhage, and other cardiovascular causes.<br><br>"Death due to other cardiovascular causes" refers to a cardiovascular death not included in the above categories but with a specific known cause, such as a pulmonary embolism or peripheral arterial disease.<br><br>In addition, "death due to cardiovascular hemorrhage" refers to a death related to hemorrhage such as a non-stroke intracranial hemorrhage, non-procedural or non- | Hicks KA, Tcheng JE, Bozkurt B. 2014 ACC/AHA key data elements and definitions for cardiovascular endpoint events in clinical trials: a report of the ACC/AHA Task Force on Clinical Data Standards (Writing Committee to Develop Cardiovascular Endpoints Data Standards). J Am Coll Cardiol 2015;66:403-69 | 100014107 | ACC NCDR |

| Section: Follow-Up | | Parent: Root | | |
|---|---|---|---|---|
| | traumatic vascular rupture (e.g., aortic aneurysm), or pulmonary hemorrhage from a pulmonary embolism.<br><br>In contrast, if a pulmonary hemorrhage were a result of a contusion from a motor vehicle accident, the cause of death would be non-cardiovascular (death due to trauma). | | | |
| Non-Cardiac | Mortality attributed to any non-cardiovascular organ, system, infection, malignancy, trauma or drug reaction/overdose. | Hicks KA, Tcheng JE, Bozkurt B. 2014 ACC/AHA key data elements and definitions for cardiovascular endpoint events in clinical trials: a report of the ACC/AHA Task Force on Clinical Data Standards (Writing Committee to Develop Cardiovascular Endpoints Data Standards). J Am Coll Cardiol 2015;66:403-69 | 112000000343 | ACC NCDR |
| Undetermined | Attribution of causality may be limited or impossible if information available at the time of death is minimal or nonexistent. | | 112000000342 | ACC NCDR |

**Element:** 16381 Hospitalization

**Coding Instruction:** Indicate if the patient was hospitalized (or is currently hospitalized) or has had an emergency department visit.

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

**Section: Follow-Up Hospitalization Event** **Parent: Follow-Up**

**Element:** 11011 Follow-Up Events

**Coding Instruction:** Indicate the event(s) assessed for the patient.

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

**Target Value:** N/A

**Vendor Instruction:** Follow-Up Events (11011) must not be duplicated in a follow-up

**Follow-up Events - 2.16.840.1.113883.3.3478.6.3.20**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| Hypertensive crisis | Select if there is documentation/diagnosis of hypertensive crisis. Hypertensive emergency and hypertensive urgency are understood to be types of hypertensive crisis.<br><br>Hypertensive crisis is a severely elevated blood pressure (BP), usually higher than 180/110 mmHg, together with progressive or impending target organ damage, requiring in-subject hospitalization and typically admission to the Intensive Care Unit (ICU) (e.g., with parenteral [IV] antihypertensive medications) . | | 706882009 | SNOMED CT |
| Heart failure | Select if there is documentation of a clinical diagnosis of heart failure. | | 84114007 | SNOMED CT |
| Myocardial infarction | Select myocardial infarction if documentation of a clinical diagnosis of NSTEMI or STEMI. | | 57054005 | SNOMED CT |
| Renal artery denervation reintervention | Select if the patient had a renal artery denervation reintervention. | | 112000004372 | ACC NCDR |
| Renal failure | Select if the patient was hospitalized with a diagnosis of renal failure. | | 36225005 | SNOMED CT |
| Stroke | Select if there is documentation of a clinical diagnosis of stroke. | | 100000977 | ACC NCDR |
| Transient ischemic attack | Select if there is documentation of a clinical diagnosis of a transient ischemic attack (TIA). | | 266257000 | SNOMED CT |
| Other | Not otherwise specified. | | 100000351 | ACC NCDR |

**Element:** 11012 Follow-Up Events Occurred

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

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

**Element:** 16496 Follow-Up Event Date

**Coding Instruction:** Indicate the date the event occurred.

Note(s):
For events that occurred with an unknown date, leave the date field blank.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

## Section: Follow-Up New Diagnoses — Parent: Follow-Up

### Element: 16410 Follow-Up New Diagnosis

**Coding Instruction:** The diagnoses listed in this field are controlled by the master file. This file is maintained by the NCDR and will be made available for downloading and importing/updating into your third-party software application.

**Target Value:** N/A

**Vendor Instruction:** Follow-Up New Diagnosis (16410) must not be duplicated in a follow-up

**Follow-up New Diagnoses - 1.3.6.1.4.1.19376.1.4.1.6.5.1172**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| Atrial fibrillation/flutter | Select if there is documentation of a new diagnosis of atrial fibrillation or atrial flutter. | | 195080001 | SNOMED CT |
| New requirement for dialysis | Indicate if the patient experienced acute or worsening renal failure necessitating renal dialysis.<br><br>Note: If a patient is receiving continuous veno-venous hemofiltration (CVVH) as a result of renal failure (and not as treatment to remove fluid for heart failure), code "Yes". | | 100014076 | ACC NCDR |
| New renal artery stenosis of greater than 50 percent | Select if there is documentation of new renal artery stenosis of >50%. | | 112000004385 | ACC NCDR |

### Element: 16411 Follow-Up New Diagnosis Occurred

**Coding Instruction:** Indicate if the new diagnosis(es) occurred.

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

### Element: 16414 New Diagnosis Date

**Coding Instruction:** Identify the date when the specified diagnosis occurred.

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

**Section: Follow-Up New Diagnoses Details** **Parent: Follow-Up**

**Element:** 16412 Follow-Up Renal Artery Stenosis Method of Diagnosis

**Coding Instruction:** Indicate the method to diagnose renal artery stenosis.

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

**Follow-up Renal Artery Stenosis Method of Diagnosis - 1.3.6.1.4.1.19376.1.4.1.6.5.1173**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| Computed tomography angiography | Select if the new renal artery stenosis was documented by CT angiography. | | 418272005 | SNOMED CT |
| Duplex ultrasound | Select if the new renal artery stenosis was documented by duplex ultrasound. | | 112000001042 | ACC NCDR |
| Invasive angiogram | Select if the new renal artery stenosis was documented by invasive angiogram. | | 77343006 | SNOMED CT |
| Magnetic resonance angiogram | Select if the new renal artery stenosis was documented by magnetic resonance angiography. | | 241663008 | SNOMED CT |

**Element:** 16413 Follow-Up Renal Artery Stent Required

**Coding Instruction:** Indicate if renal artery stenting was required to treat the renal artery stenosis.

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

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

**Element:** 13775 Hemoglobin

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

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Supporting Definition:** **Hemoglobin**

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

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

**Element:** 14326 Hemoglobin Not Drawn

**Coding Instruction:** Indicate if a follow-up hemoglobin was not collected.

**Target Value:** N/A

**Element:** 16390 Potassium

**Coding Instruction:** Indicate the potassium (K) value in mEq/L.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Element:** 16391 Potassium not Drawn

**Coding Instruction:** Indicate if a follow-up potassium value was not collected.

**Target Value:** N/A

**Element:** 13310 Creatinine

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

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Supporting Definition:** **Creatinine**

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

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

**Element:** 13311 Creatinine Not Drawn

**Coding Instruction:** Indicate if a follow-up creatinine level was not collected.

**Target Value:** N/A

**Element:** 16392 Glucose

**Coding Instruction:** Indicate the glucose value in mg/dL.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Element:** 16393 Glucose Not Drawn

**Coding Instruction:** Indicate if a follow-up glucose value was not collected.

**Target Value:** N/A

**Element:** 16415 Albumin

**Coding Instruction:** Indicate the total albumin, in g/dL.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Element:** 14211 Albumin Not Drawn

**Coding Instruction:** Indicate if a total albumin was not collected.

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

**Target Value:** N/A

## Section: Follow-Up Antihypertensive Medications — Parent: Follow-Up

**Element:** 16426 — Antihypertensive Medication in Follow-Up

**Coding Instruction:** Indicate the antihypertensive medications the patient was taking routinely at home.

Note: Do not include medications prescribed primarily for another clinical indication, even if they have blood pressure lowering effects.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Vendor Instruction:** Antihypertensive Medication in Follow-Up (16426) must not be duplicated in a follow-up

**Antihypertensive Medications - 1.3.6.1.4.1.19376.1.4.1.6.5.1178**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| acebutolol 200 MG | | | 328656 | RxNorm |

**Element:** 16428 — Antihypertension Medication Frequency in Follow-Up

**Coding Instruction:** Indicate the frequency of the medication the patient was taking routinely.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Medication Frequency - 1.3.6.1.4.1.19376.1.4.1.6.5.1176**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| Daily | The medication was administered once a day, or "daily". | | 69620002 | SNOMED CT |
| Twice a Day | The medication was administered twice a day, or "BID". | | 112000004403 | ACC NCDR |
| Three Times a Day | The medication was administered three times a day, or "TID". | | 112000004404 | ACC NCDR |
| Four Times a Day | The medication was administered four times a day, or "QID". | | 112000004405 | ACC NCDR |
| Weekly | The medication was administered once a week, or weekly. | | 225769003 | SNOMED CT |
| Other | The medication was administered at a frequency not otherwise specified. | | 100000351 | ACC NCDR |

**Section: Follow-Up Blood Pressure - Ambulatory** **Parent: Follow-Up Blood Pressure**

**Element:** 16475 24 Hour Ambulatory Blood Pressure Monitor Available

**Coding Instruction:** Indicate if results from a 24-hour ambulatory blood pressure monitor are available. A 24-hour ambulatory blood pressure monitor is a portable device worn by the patient that automatically measures blood pressure at regular intervals.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Element:** 16481 Ambulatory Blood Pressure Monitor Start Date

**Coding Instruction:** Indicate the date the twenty-four-hour ambulatory blood pressure monitoring was initiated.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Section: Follow-Up Blood Pressure - Ambulatory Daytime** **Parent: Follow-Up Blood Pressure - Ambulatory**

**Element:** 16469 Average Daytime Systolic Blood Pressure From Ambulatory Blood Pressure Monitor

**Coding Instruction:** Indicate the average daytime systolic blood pressure from the twenty-four-hour ambulatory blood pressure monitor.

Note 1: The 24-hour ambulatory monitor captures the average daytime blood pressure beginning 30-60" after waking (prior to exercise, caffeine, or nicotine) until the patient goes to sleep.

Note 2: For shift workers, the monitor must be programmed appropriately to capture the daytime blood pressure after waking.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Element:** 16470 Average Daytime Diastolic Blood Pressure From Ambulatory Blood Pressure Monitor

**Coding Instruction:** Indicate the average daytime diastolic blood pressure from the twenty-four-hour ambulatory blood pressure monitor.

Note 1: The 24-hour ambulatory monitor captures the average daytime blood pressure beginning 30-60" after waking (prior to exercise, caffeine, or nicotine) until the patient goes to sleep.

Note 2: For shift workers, the monitor must be programmed appropriately to capture the daytime blood pressure after waking.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Section: Follow-Up Blood Pressure - Ambulatory Nocturnal** **Parent: Follow-Up Blood Pressure - Ambulatory**

**Element:** 16471 Average Nocturnal Systolic Blood Pressure From Ambulatory Blood Pressure Monitor

**Coding Instruction:** Indicate the average nocturnal systolic blood pressure from the twenty-four-hour ambulatory blood pressure monitor.

Note 1: The 24-hour ambulatory monitor captures the average nocturnal blood pressure beginning when the patient goes to sleep.

Note 2: For shift workers, the monitor must be programmed appropriately to capture the nocturnal blood pressure while sleeping.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Element:** 16472 Average Nocturnal Diastolic Blood Pressure From Ambulatory Blood Pressure Monitor

**Coding Instruction:** Indicate the average nocturnal diastolic blood pressure from the twenty-four-hour ambulatory blood pressure monitor.

Note 1: The 24-hour ambulatory monitor captures the average nocturnal blood pressure beginning when the patient goes to sleep.

Note 2: For shift workers, the monitor must be programmed appropriately to capture the nocturnal blood pressure while sleeping.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Section: Follow-Up Blood Pressure - Ambulatory Overall** **Parent: Follow-Up Blood Pressure - Ambulatory**

**Element:** 16473 Average Overall Systolic Blood Pressure From Ambulatory Blood Pressure Monitor

**Coding Instruction:** Indicate the average overall systolic blood pressure from the twenty-four-hour ambulatory blood pressure monitor.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Element:** 16474 Average Overall Diastolic Blood Pressure From Ambulatory Blood Pressure Monitor

**Coding Instruction:** Indicate the average overall diastolic blood pressure from the twenty-four-hour ambulatory blood pressure monitor.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Section: Follow-Up Blood Pressure - Office** **Parent: Follow-Up Blood Pressure**

**Element:** 16476 Office Blood Pressure and Heart Rate Data Available

**Coding Instruction:** Indicate if office blood pressure and heart rate readings are available.

Note: If both a standard blood pressure cuff and an automated office blood pressure reading is available (AOBP), code the AOBP reading.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Element:** 16477 Office Blood Pressure Date

**Coding Instruction:** Indicate the date the blood pressure reading was obtained in the physician's office.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Element:** 16478 Office Systolic Blood Pressure

**Coding Instruction:** Indicate the office systolic blood pressure reading.

Note(s): Standard blood pressure is measured manually or with a single automated cuff reading taken by clinic staff. AOBP uses a device that takes multiple automated readings while the patient rests quietly, then reports an average blood pressure.

If both a standard blood pressure cuff and an automated office blood pressure reading is available (AOBP), code the average AOBP reading.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Element:** 16479 Office Diastolic Blood Pressure

**Coding Instruction:** Indicate the office diastolic blood pressure reading.

Note(s): Standard blood pressure is measured manually or with a single automated cuff reading taken by clinic staff. AOBP uses a device that takes multiple automated readings while the patient rests quietly, then reports an average blood pressure.

If both a standard blood pressure cuff and an automated office blood pressure reading is available (AOBP), code the average AOBP reading.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Element:** 16509 Automated Office Blood Pressure

**Coding Instruction:** Indicate whether the blood pressure measurement was obtained using an Automated Office Blood Pressure (AOBP).

Note(s): If both a standard blood pressure cuff reading and an automated office blood pressure (AOBP) reading are available, code the average AOBP reading.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Element:** 16482 Office Heart Rate

**Coding Instruction:** Indicate the office heart rate reading.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Section: Follow-Up Blood Pressure - Home** **Parent: Follow-Up Blood Pressure**

**Element:** 16447 Home Blood Pressure Available

**Coding Instruction:** Indicate if home blood pressure data is available for as many days as available (up to 7 consecutive days) prior to follow-up.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Section: Follow-Up Blood Pressure - Seven Day** **Parent: Follow-Up Blood Pressure - Home**

**Element:** 16484 Home Blood Pressure Measurement Day

**Coding Instruction:** Indicate the day of home blood pressure measurement (Day 1–Day 7) based on the order in which measurements were recorded. Leave any missed days blank.

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

**Vendor Instruction:** Home Blood Pressure Measurement Day (16484) must not be duplicated in an episode

**Measurement Day - 1.3.6.1.4.1.19376.1.4.1.6.5.1179**

| Selection | Definition | Source | Code | Code System |
|---|---|---|---|---|
| Day 1 | | | 112000004432 | ACC NCDR |
| Day 2 | | | 112000004433 | ACC NCDR |
| Day 3 | | | 112000004434 | ACC NCDR |
| Day 4 | | | 112000004435 | ACC NCDR |
| Day 5 | | | 112000004436 | ACC NCDR |
| Day 6 | | | 112000004437 | ACC NCDR |
| Day 7 | | | 112000004438 | ACC NCDR |

**Element:** 16491 Average Home Systolic Blood Pressure in Follow-Up

**Coding Instruction:** Indicate the average systolic blood pressure for the day. If only one blood pressure was available, code that blood pressure. It is recommended to code at least 3 (and preferably 7) days of blood pressures.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Element:** 16493 Average Home Diastolic Blood Pressure in Follow-Up

**Coding Instruction:** Indicate the average diastolic blood pressure for the day. If only one blood pressure was available, code that blood pressure. It is recommended to code at least 3 (and preferably 7) days of blood pressures.

**Target Value:** The last value between discharge (or previous follow-up) and current follow-up assessment

**Section: Administration** **Parent: Root**

**Element:** 1000 Participant ID

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

**Target Value:** N/A

**Element:** 1010 Participant Name

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

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

**Target Value:** N/A

**Element:** 1020 Time Frame of Data Submission

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

**Target Value:** N/A

**Element:** 1040 Transmission Number

**Coding Instruction:** This is a unique number created, and automatically inserted by the software into export file. It identifies the number of times the software has created a data submission file. The transmission number should be incremented by one every time the data submission files are exported. The transmission number should never be repeated.

**Target Value:** N/A

**Element:** 1050 Vendor Identifier

**Coding Instruction:** Vendor identification (agreed upon by mutual selection between the vendor and the NCDR) to identify software vendor. This is entered into the schema automatically by vendor software. Vendors must use consistent name identification across sites. Changes to vendor name identification must be approved by the NCDR.

**Target Value:** N/A

**Element:** 1060 Vendor Software Version

**Coding Instruction:** Vendor's software product name and version number identifying the software which created this record (assigned by vendor). Vendor controls the value in this field. This is entered into the schema automatically by vendor software.

**Target Value:** N/A

**Element:** 1070 Registry Identifier

**Coding Instruction:** The NCDR registry identifier describes the data registry to which these records apply. It is implemented in the software at the time the data is collected and records are created. This is entered into the schema automatically by software.

**Target Value:** N/A

**Element:** 1071 Registry Schema Version

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

**Target Value:** N/A

**Element:** 1085 Submission Type

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

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

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

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

## Section: Administration — Parent: Root

**Target Value:** N/A

**Submission Type**

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