

ACO #10 – Prevention Quality Indicator (PQI): Ambulatory Care Sensitive Conditions: Admissions for Heart Failure (HF)

Measure Information Form (MIF)

Data Source

Medicare Part B Carrier claims data

- Medicare Outpatient claims data
- Medicare Inpatient claims data
- Medicare beneficiary enrollment data

Measure Set ID

- ACO #10

Version Number and effective date

- Version 2.11 effective 1/1/15

CMS approval date

- 11/19/20

NQF ID

- #277, adapted for quality measurement in Medicare Accountable Care Organizations

Date Endorsed

- N/A

Care Setting

- Hospital

Unit of Measurement

- Accountable Care Organization (ACO)

Measurement Duration

- Calendar Year

Measurement Period

- Calendar Year

Measure Type

- Outcome

Measure Scoring

- Prevention quality indicator (PQI) score, that is a ratio of observed admissions to expected admissions for Heart Failure (HF)

Payer source

- Medicare Fee-for-Service

Improvement notation

- Lower PQI scores are better

Measure steward

- Agency for Healthcare Research and Quality (AHRQ) with adaptations by Centers for Medicare and Medicaid Services (CMS) (co-stewards).

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- This Medicare ACO PQI HF quality measure is adapted from the general population PQI quality measure for HF that is developed by AHRQ (AHRQ, 2013).

Measure description

- All discharges with an ICD-9 or ICD-10 principal diagnosis code for HF in adults ages 18 years and older, for ACO assigned (SSP) or aligned (Pioneer) Medicare beneficiaries with HF, with risk-adjusted comparison of observed discharges to expected discharges for each ACO.

Rationale

Hospital admissions for HF are a Prevention Quality Indicator of interest to comprehensive health care delivery systems, including ACOs. HF can often be controlled in an outpatient setting. Evidence suggests that these hospital admissions could have been avoided through high quality outpatient care, or the condition would have been less severe if treated early and appropriately. Proper outpatient treatment and adherence to care may reduce the rate of occurrence for this event, and thus of hospital admissions.

Outpatient interventions such as the use of protocols for ambulatory management of low-severity patients and improvement of access to outpatient care would most likely decrease inpatient admissions for HF. In addition, physician management of patients with HF differs significantly by physician specialty (Edep, 1997; Reis, 1997). Such differences in practice may be reflected in differences in HF admission rates.

Clinical Recommendation Statement

Billings et al. (1993) found that low-income ZIP codes in New York City had 4.6 times more HF hospitalizations per capita than high-income ZIP codes. Millman (1993) reported that low-income ZIP codes had 6.1 times more HF hospitalizations per capita than high-income ZIP codes. Based on empirical results, areas with high rates of HF admissions also tend to have high rates of admissions for other Ambulatory Care Sensitive Conditions.

The signal ratio (i.e., the proportion of the total variation across areas that is truly related to systematic differences in area performance rather than random variation) is very high, at 93.0 percent, indicating that the observed differences in age-sex adjusted rates very likely represent true differences across areas (AHRQ, 2007). Risk adjustment for age and sex exerts

strongest influence in areas with highest admission rates. As a PQI, admissions for HF are not a measure of hospital quality, but rather one measure of outpatient and other health care.

This indicator was originally developed by Billings et al. in conjunction with the United Hospital Fund of New York. It was subsequently adopted by the Institute of Medicine and has been widely used in a variety of studies of avoidable hospitalizations (Bindman, 1995; Rosenthal, 1997).

References

- AHRQ. *Guide to Prevention Quality Indicators*. Rockville, Maryland: U.S. Agency for Healthcare Research and Quality, 2007.
- Billings J, Zeitel L, Lukomnik J, et al. Impact of socioeconomic status on hospital use in New York City, *Health Aff (Millwood)* 1993;12(1):162-73.
- Bindman AB, Grumbach K, Osmond D, et al. Preventable hospitalizations and access to health care. *JAMA* 1995;274(4):305-11.
- Millman M, editor. Committee on Monitoring Access to Personal Health Care Services. Washington, DC: National Academy Press; 1993.
- Reis, SE, Holubkov R, Edmundowicz D, et al. Treatment of patients admitted to the hospital with congestive heart failure: specialty-related disparities in practice patterns and outcomes. *J Am Coll Cardiol* 1997;30(3):733-8.
- Rosenthal GE, Harper DL, Shah A, et al. A regional evaluation of variation in low-severity hospital admissions. *J Gen Intern Med* 1997;12(7):416-22.

Release Notes / Summary of Changes

- There have been no substantial changes made to the measure specifications. The specifications reflect the most recent version (version 4.5, May 2013) of technical specifications posted on the AHRQ website for PQI #5.
- Updated the measure specifications to incorporate ICD-10 diagnosis and procedure codes in preparation for the October 2015 ICD-10 transitions.
- Corrections have been made to the ICD-9 and ICD-10 cardiac procedure codes between version 2.1 and version 2.11.

Technical Specifications

- Target Population: ACO assigned or aligned Medicare beneficiaries

Denominator

- Denominator Statement

Expected (risk adjusted) discharges from an acute care or critical access hospital with a principal diagnosis of HF, for Medicare FFS beneficiaries assigned or aligned to an ACO, aged 18 years and older, with HF

- Denominator Details

The ICD-9 and ICD-10 codes used to identify Medicare beneficiaries with HF for this Medicare ACO PQI quality measure are as follows:

ICD-9 Code	Description	ICD-10 Code	Description
398.91	Rheumatic heart failure (congestive)	I09.81	Rheumatic heart failure
428.0	Congestive heart failure, unspecified		
428.1	Left heart failure	I50.1	Left ventricular failure
428.20	Systolic heart failure, unspecified	I50.20	Unspecified systolic (congestive) heart failure
428.21	Acute systolic heart failure	I50.21	Acute systolic (congestive) heart failure
428.22	Chronic systolic heart failure	I50.22	Chronic systolic (congestive) heart failure
428.23	Acute on chronic systolic heart failure	I50.23	Acute on chronic systolic (congestive) heart failure
428.30	Diastolic heart failure, unspecified	I50.30	Unspecified diastolic (congestive) heart failure
428.31	Acute diastolic heart failure	I50.31	Acute diastolic (congestive) heart failure
428.32	Chronic diastolic heart failure	I50.32	Chronic diastolic (congestive) heart failure
428.33	Acute on chronic diastolic heart failure	I50.33	Acute on chronic diastolic (congestive) heart failure
428.40	Combined systolic and diastolic heart failure, unspecified	I50.40	Unspecified combined systolic (congestive) and diastolic (congestive) heart failure
428.41	Acute combined systolic and diastolic heart failure	I50.41	Acute combined systolic (congestive) and diastolic (congestive) heart failure
428.42	Chronic combined systolic and diastolic heart failure	I50.42	Chronic combined systolic (congestive) and diastolic (congestive) heart failure
428.43	Acute on chronic combined systolic and diastolic heart failure	I50.43	Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure
428.9	Heart failure, unspecified	I50.9	Heart failure, unspecified

These ICD-9 or ICD-10 codes for HF can be found in any Medicare Outpatient claims, Medicare Inpatient Claims, outpatient Claims, or Part B Carrier claims for the ACO's assigned or aligned beneficiary in the performance year for the beneficiary to be included in the denominator.

The Medicare ACO PQI quality measure denominator specifications are adapted from the AHRQ PQI specifications with adjustments to the reference population to focus on Medicare beneficiaries since they are likely to be older and more disabled than the general population. Additionally, ACOs may have more and varying proportions of patients with the chronic conditions targeted by the PQI quality measures (HF for this ACO PQI). As a result, the changes made to adapt the AHRQ PQIs to the Medicare population for the Medicare ACO PQIs include the following:

1. Change the PQI denominator to include only Medicare beneficiaries assigned or aligned to a Medicare ACO, instead of the general population in a geographic area (as currently specified for AHRQ PQIs), and allow part-year Medicare beneficiaries to be included in the denominator.
2. Change the PQI denominators to include only those beneficiaries who were diagnosed with the condition under consideration (HF) instead of patients of any disease status (as currently specified for AHRQ PQIs).

3. Exclude beneficiaries with a diagnosis of ESRD from the denominator populations. ESRD patients are significantly more prone to hospitalization, are severely ill, and are a much larger proportion of Medicare beneficiaries than they are in the general population. As a result, the PQI measures may not be good measures of quality of care in treatment of Medicare beneficiaries with HF who also have ESRD.
- Denominator Exceptions and Exclusions
 1. Beneficiaries with a diagnosis of ESRD
 2. Beneficiaries not eligible for both Medicare Part A and Part B
 3. Beneficiaries with missing data for gender, age, or principal diagnosis
 - Denominator Exceptions and Exclusions Details

To identify beneficiaries for the ESRD exclusion the MS_CD variable (CWF Beneficiary Medicare Status Code) is used. Excluded beneficiaries including those with MS_CD values equal to 11 (aged with ESRD), 21 (disabled with ESRD), or 31 (ESRD only).

Numerator

- Numerator Statement

Observed discharges from an acute care hospital or critical access hospital with a principal diagnosis of HF, for Medicare beneficiaries in the denominator population for this measure.

- Numerator Details

The ICD-9 and ICD-10 codes used to identify hospital discharges with a principal diagnosis of HF for this Medicare ACO PQI quality measure are as follows:

ICD-9 Code	Description	ICD-10 Code	Description
398.91	Rheumatic heart failure (congestive)	I09.81	Rheumatic heart failure
428.0	Congestive heart failure, unspecified		
428.1	Left heart failure	I50.1	Left ventricular failure
428.20	Systolic heart failure, unspecified	I50.20	Unspecified systolic (congestive) heart failure
428.21	Acute systolic heart failure	I50.21	Acute systolic (congestive) heart failure
428.22	Chronic systolic heart failure	I50.22	Chronic systolic (congestive) heart failure
428.23	Acute on chronic systolic heart failure	I50.23	Acute on chronic systolic (congestive) heart failure
428.30	Diastolic heart failure, unspecified	I50.30	Unspecified diastolic (congestive) heart failure
428.31	Acute diastolic heart failure	I50.31	Acute diastolic (congestive) heart failure
428.32	Chronic diastolic heart failure	I50.32	Chronic diastolic (congestive) heart failure
428.33	Acute on chronic diastolic heart failure	I50.33	Acute on chronic diastolic (congestive) heart failure
428.40	Combined systolic and diastolic heart failure, unspecified	I50.40	Unspecified combined systolic (congestive) and diastolic (congestive) heart failure

ICD-9 Code	Description	ICD-10 Code	Description
428.41	Acute combined systolic and diastolic heart failure	I50.41	Acute combined systolic (congestive) and diastolic (congestive) heart failure
428.42	Chronic combined systolic and diastolic heart failure	I50.42	Chronic combined systolic (congestive) and diastolic (congestive) heart failure
428.43	Acute on chronic combined systolic and diastolic heart failure	I50.43	Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure
428.9	Heart failure, unspecified	I50.9	Heart failure, unspecified

These ICD-9 or ICD-10 codes for HF diagnoses can be found for any Medicare Inpatient claims for the ACO's assigned or aligned beneficiary in the performance year for that discharge to be included in the numerator. The sum of all of these discharges is calculated for the performance year for all of the assigned or aligned beneficiaries for each ACO to calculate the numerator.

- Numerator Exceptions and Exclusions
 1. Transfers to a hospital, Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF), or another health care facility are excluded from the numerator
 2. Discharges are excluded from the numerator if a cardiac procedure was performed during the admission
- Numerator Exceptions and Exclusions Details
 1. The AHRQ PQI SAS software excludes admissions that are transfers to a hospital, skilled nursing facility or Intermediate Care Facility, or another healthcare facility, identifying these transfers using HCUP variables SID ASOURCE and POINTOFORIGINUB04 codes. The Medicare claims data available from the IDR does not include these codes. As a result, the Medicare ACO PQIs use the Medicare claims variable "Source of Admission (SRC_ADMS)" to identify transfers. For the Medicare ACO PQIs patients were excluded with an SCR_ADMS value of 4 (transfer from hospital), 5 (transfer from skilled nursing facility), or 6 (transfer from another health care facility). However, previous work with the SCR_ADMS variable has found that it is sometimes unreliable. As a result, to better ensure that all transfers were excluded the Medicare ACO PQI software excludes beneficiaries with two Part A Inpatient claims admissions on the same day at two different facilities.
 2. Cardiac procedures performed during the admission are indicated by any of the ICD-9 or ICD-10 procedures listed in **Appendix A**, found in the Medicare Inpatient Claims

Stratification or Risk Adjustment

This measure uses risk adjustment and is not stratified.

A Medicare claims data 5% file was used for re-estimating the AHRQ HF hospital discharge logistic regression prediction model used for risk adjustment for this Medicare ACO HF PQI measure. The 5% file is nationally representative for the Medicare FFS population, and replaced the general population data used for the AHRQ PQI measure prediction models. For this Medicare ACO PQI risk adjustment analysis it was further restricted to Medicare beneficiaries who met the inclusion criteria for the ACO program and the HF disease diagnosis criteria for the Medicare ACO PQI quality measure denominator. The prediction variables in this model were the age-sex categories identified for the Medicare populations for the ACO PQI quality measures. These models produced coefficients that were included in the ACO PQI calculation SAS software as risk adjusters to calculate the expected rate of hospital discharges for an ACO population given its age and sex distribution.

For this Medicare ACO PQI prediction model, the AHRQ age ranges used for risk adjustment were revised to reflect age ranges that are more appropriate for the Medicare FFS population. The new age ranges are: 0 to 39, 40 to 65, 65 to 69, 70 to 74, 75 to 79, 80 to 84, and 85+. They were used to calculate the age-sex categories used as predictors in the risk adjustment model.

Sampling

- N/A

Calculation Algorithm

Calculation of this Medicare ACO HF PQI quality measure includes the following steps:

1. Identify the assigned or aligned beneficiaries for each ACO.
2. Apply the eligibility criteria to identify beneficiaries of the correct age, Medicare enrollment status, ESRD status, and satisfying the other eligibility criteria.
3. Search Medicare Part A Inpatient, Outpatient, and Part B Carrier claims data to find all of the eligible assigned or aligned beneficiaries with at least one ICD-9 or ICD-10 diagnosis code for HF during the performance year for the denominator.
4. Apply the risk adjustment prediction model using the age/sex categories and distribution of the eligible assigned or aligned beneficiaries to calculate the expected number of admissions with a principal diagnosis of HF for each ACO for the performance year. This constitutes the denominator (i.e., expected rate).
5. Search Medicare Inpatient claims data to find all admissions with a principal diagnosis of HF for those eligible assigned or aligned beneficiaries with HF. This constitutes the numerator (i.e., observed rate).
6. Divide the numerator by the denominator to find the Medicare ACO HF PQI score.

Appendix A: Cardiac Procedure Codes

Appendix A-1: ICD-9 Cardiac Procedure Codes

ICD-9 Code	Description	ICD-9 Code	Description	ICD-9 Code	Description
00.50	Implantation of cardiac resynchronization pacemaker without mention of defibrillation, total system [CRT-P]	35.53	Repair of ventricular septal defect with prosthesis, open technique	36.99	Other operations on vessels of heart
00.51	Implantation of cardiac resynchronization defibrillator, total system [CRT-D]	35.54	Repair of endocardial cushion defect with prosthesis	37.31	Pericardiectomy
00.52	Implantation or replacement of transvenous lead [electrode] into left ventricular coronary venous system	35.55	Repair of ventricular septal defect with prosthesis, closed technique	37.32	Excision of aneurysm of heart
00.53	Implantation or replacement of cardiac resynchronization pacemaker pulse generator only [CRT-P]	35.60	Repair of unspecified septal defect of heart with tissue graft	37.33	Excision or destruction of other lesion or tissue of heart, open approach
00.54	Implantation or replacement of cardiac resynchronization defibrillator pulse generator only [CRT-D]	35.61	Repair of atrial septal defect with tissue graft	37.34	Excision or destruction of other lesion or tissue of heart, endovascular approach
00.56	Insertion or replacement of implantable pressure sensor with lead for intracardiac or great vessel hemodynamic monitoring	35.62	Repair of ventricular septal defect with tissue graft	37.35	Partial ventriculectomy
00.57	Implantation or replacement of subcutaneous device for intracardiac or great vessel hemodynamic monitoring	35.63	Repair of endocardial cushion defect with tissue graft	37.36	Excision, destruction, or exclusion of left atrial appendage (LAA)
00.66	Percutaneous transluminal coronary angioplasty [PTCA]	35.70	Other and unspecified repair of unspecified septal defect of heart	37.37	Excision or destruction of other lesion or tissue of heart, thoroscopic approach

(continued)

Appendix A-1: ICD-9 Cardiac Procedure Codes (continued)

ICD-9 Code	Description	ICD-9 Code	Description	ICD-9 Code	Description
17.51	Implantation of rechargeable cardiac contractility modulation [CCM], total system	35.71	Other and unspecified repair of atrial septal defect	37.41	Implantation of prosthetic cardiac support device around the heart
17.52	Implantation or replacement of cardiac contractility modulation [CCM] rechargeable pulse generator only	35.72	Other and unspecified repair of ventricular septal defect	37.51	Heart transplantation
17.55	Transluminal coronary atherectomy	35.73	Other and unspecified repair of endocardial cushion defect	37.52	Implantation of total internal biventricular heart replacement system
35.00	Closed heart valvotomy, unspecified valve	35.81	Total repair of tetralogy of fallot	37.53	Replacement or repair of thoracic unit of (total) replacement heart system
35.01	Closed heart valvotomy, aortic valve	35.82	Total repair of total anomalous pulmonary venous connection	37.54	Replacement or repair of other implantable component of (total) replacement heart system
35.02	Closed heart valvotomy, mitral valve	35.83	Total repair of truncus arteriosus	37.55	Removal of internal biventricular heart replacement system
35.03	Closed heart valvotomy, pulmonary valve	35.84	Total correction of transposition of great vessels, not elsewhere classified	37.60	Implantation or insertion of biventricular external heart assist system
35.04	Closed heart valvotomy, tricuspid valve	35.91	Interatrial transposition of venous return	37.61	Implant of pulsation balloon
35.05	Endovascular replacement of aortic valve	35.92	Creation of conduit between right ventricle and pulmonary artery	37.62	Insertion of temporary non-implantable extracorporeal circulatory assist device
35.06	Transapical replacement of aortic valve	35.93	Creation of conduit between left ventricle and aorta	37.63	Repair of heart assist system
35.07	Endovascular replacement of pulmonary valve	35.94	Creation of conduit between atrium and pulmonary artery	37.64	Removal of external heart assist system(s) or device(s)
35.08	Transapical replacement of pulmonary valve	35.95	Revision of corrective procedure on heart	37.65	Implant of single ventricular (extracorporeal) external heart assist system
35.09	Endovascular replacement of unspecified heart valve	35.96	Percutaneous balloon valvuloplasty	37.66	Insertion of implantable heart assist system

(continued)

Appendix A-1: ICD-9 Cardiac Procedure Codes (continued)

ICD-9 Code	Description	ICD-9 Code	Description	ICD-9 Code	Description
35.10	Open heart valvuloplasty without replacement, unspecified valve	35.97	Percutaneous mitral valve repair with implant	37.70	Initial insertion of lead [electrode], not otherwise specified
35.11	Open heart valvuloplasty of aortic valve without replacement	35.98	Other operations on septa of heart	37.71	Initial insertion of transvenous lead [electrode] into ventricle
35.12	Open heart valvuloplasty of mitral valve without replacement	35.99	Other operations on valves of heart	37.72	Initial insertion of transvenous leads [electrodes] into atrium and ventricle
35.13	Open heart valvuloplasty of pulmonary valve without replacement	36.03	Open chest coronary artery angioplasty	37.73	Initial insertion of transvenous lead [electrode] into atrium
35.14	Open heart valvuloplasty of tricuspid valve without replacement	36.04	Intracoronary artery thrombolytic infusion	37.74	Insertion or replacement of epicardial lead [electrode] into epicardium
35.20	Open and other replacement of unspecified heart valve	36.06	Insertion of non-drug-eluting coronary artery stent(s)	37.75	Revision of lead [electrode]
35.21	Open and other replacement of aortic valve with tissue graft	36.07	Insertion of drug-eluting coronary artery stent(s)	37.76	Replacement of transvenous atrial and/or ventricular lead(s) [electrode]
35.22	Open and other replacement of aortic valve	36.09	Other removal of coronary artery obstruction	37.77	Removal of lead(s) [electrode] without replacement
35.23	Open and other replacement of mitral valve with tissue graft	36.10	Aortocoronary bypass for heart revascularization, not otherwise specified	37.78	Insertion of temporary transvenous pacemaker system
35.24	Open and other replacement of mitral valve	36.11	(Aorto)coronary bypass of one coronary artery	37.79	Revision or relocation of cardiac device pocket
35.25	Open and other replacement of pulmonary valve with tissue graft	36.12	(Aorto)coronary bypass of two coronary arteries	37.80	Insertion of permanent pacemaker, initial or replacement, type of device not specified
35.26	Open and other replacement of pulmonary valve	36.13	(Aorto)coronary bypass of three coronary arteries	37.81	Initial insertion of single-chamber device, not specified as rate responsive
35.27	Open and other replacement of tricuspid valve with tissue graft	36.14	(Aorto)coronary bypass of four or more coronary arteries	37.82	Initial insertion of single-chamber device, rate responsive

(continued)

Appendix A-1: ICD-9 Cardiac Procedure Codes (continued)

ICD-9 Code	Description	ICD-9 Code	Description	ICD-9 Code	Description
35.28	Open and other replacement of tricuspid valve	36.15	Single internal mammary-coronary artery bypass	37.83	Initial insertion of dual-chamber device
35.31	Operations on papillary muscle	36.16	Double internal mammary-coronary artery bypass	37.85	Replacement of any type pacemaker device with single-chamber device, not specified as rate responsive
35.32	Operations on chordae tendineae	36.17	Abdominal-coronary artery bypass	37.86	Replacement of any type of pacemaker device with single-chamber device, rate responsive
35.33	Annuloplasty	36.19	Other bypass anastomosis for heart revascularization	37.87	Replacement of any type pacemaker device with dual-chamber device
35.34	Infundibulectomy	36.2	Heart revascularization by arterial implant	37.89	Revision or removal of pacemaker device
35.35	Operations on trabeculae carneae cordis	36.31	Open chest transmyocardial revascularization	37.94	Implantation or replacement of automatic cardioverter/defibrillator, total system [AICD]
35.39	Operations on other structures adjacent to valves of heart	36.32	Other transmyocardial revascularization	37.95	Implantation of automatic cardioverter/defibrillator lead(s) only
35.41	Enlargement of existing atrial septal defect	36.33	Endoscopic transmyocardial revascularization	37.96	Implantation of automatic cardioverter/defibrillator pulse generator only
35.42	Creation of septal defect in heart	36.34	Percutaneous transmyocardial revascularization	37.97	Replacement of automatic cardioverter/defibrillator lead(s) only
35.50	Repair of unspecified septal defect of heart with prosthesis	36.39	Other heart revascularization	37.98	Replacement of automatic cardioverter/defibrillator pulse generator only
35.51	Repair of atrial septal defect with prosthesis, open technique	36.91	Repair of aneurysm of coronary vessel	38.26	Insertion of implantable pressure sensor without lead for intracardiac or great vessel hemodynamic monitoring
35.52	Repair of atrial septal defect with prosthesis, closed technique				

Appendix A-2: ICD-10 Cardiac Procedure Codes

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
0210093	Bypass Coronary Artery, One Site from Coronary Artery with Autologous Venous Tissue, Open Approach	02563ZZ	Destruction of Right Atrium, Percutaneous Approach	02NL3ZZ	Release Left Ventricle, Percutaneous Approach
0210098	Bypass Coronary Artery, One Site from Right Internal Mammary with Autologous Venous Tissue, Open Approach	02564ZZ	Destruction of Right Atrium, Percutaneous Endoscopic Approach	02NL4ZZ	Release Left Ventricle, Percutaneous Endoscopic Approach
0210099	Bypass Coronary Artery, One Site from Left Internal Mammary with Autologous Venous Tissue, Open Approach	02570ZK	Destruction of Left Atrial Appendage, Open Approach	02NM0ZZ	Release Ventricular Septum, Open Approach
021009C	Bypass Coronary Artery, One Site from Thoracic Artery with Autologous Venous Tissue, Open Approach	02570ZZ	Destruction of Left Atrium, Open Approach	02NM3ZZ	Release Ventricular Septum, Percutaneous Approach
021009F	Bypass Coronary Artery, One Site from Abdominal Artery with Autologous Venous Tissue, Open Approach	02573ZK	Destruction of Left Atrial Appendage, Percutaneous Approach	02NM4ZZ	Release Ventricular Septum, Percutaneous Endoscopic Approach
021009W	Bypass Coronary Artery, One Site from Aorta with Autologous Venous Tissue, Open Approach	02573ZZ	Destruction of Left Atrium, Percutaneous Approach	02PA0MZ	Removal of Cardiac Lead from Heart, Open Approach
02100A3	Bypass Coronary Artery, One Site from Coronary Artery with Autologous Arterial Tissue, Open Approach	02574ZK	Destruction of Left Atrial Appendage, Percutaneous Endoscopic Approach	02PA0QZ	Removal of Implantable Heart Assist System from Heart, Open Approach
02100A8	Bypass Coronary Artery, One Site from Right Internal Mammary with Autologous Arterial Tissue, Open Approach	02574ZZ	Destruction of Left Atrium, Percutaneous Endoscopic Approach	02PA0RZ	Removal of External Heart Assist System from Heart, Open Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02100A9	Bypass Coronary Artery, One Site from Left Internal Mammary with Autologous Arterial Tissue, Open Approach	02580ZZ	Destruction of Conduction Mechanism, Open Approach	02PA3MZ	Removal of Cardiac Lead from Heart, Percutaneous Approach
02100AC	Bypass Coronary Artery, One Site from Thoracic Artery with Autologous Arterial Tissue, Open Approach	02583ZZ	Destruction of Conduction Mechanism, Percutaneous Approach	02PA3QZ	Removal of Implantable Heart Assist System from Heart, Percutaneous Approach
02100AF	Bypass Coronary Artery, One Site from Abdominal Artery with Autologous Arterial Tissue, Open Approach	02584ZZ	Destruction of Conduction Mechanism, Percutaneous Endoscopic Approach	02PA3RZ	Removal of External Heart Assist System from Heart, Percutaneous Approach
02100AW	Bypass Coronary Artery, One Site from Aorta with Autologous Arterial Tissue, Open Approach	02590ZZ	Destruction of Chordae Tendineae, Open Approach	02PA4MZ	Removal of Cardiac Lead from Heart, Percutaneous Endoscopic Approach
02100J3	Bypass Coronary Artery, One Site from Coronary Artery with Synthetic Substitute, Open Approach	02593ZZ	Destruction of Chordae Tendineae, Percutaneous Approach	02PA4QZ	Removal of Implantable Heart Assist System from Heart, Percutaneous Endoscopic Approach
02100J8	Bypass Coronary Artery, One Site from Right Internal Mammary with Synthetic Substitute, Open Approach	02594ZZ	Destruction of Chordae Tendineae, Percutaneous Endoscopic Approach	02PA4RZ	Removal of External Heart Assist System from Heart, Percutaneous Endoscopic Approach
02100J9	Bypass Coronary Artery, One Site from Left Internal Mammary with Synthetic Substitute, Open Approach	025D0ZZ	Destruction of Papillary Muscle, Open Approach	02PAXMZ	Removal of Cardiac Lead from Heart, External Approach
02100JC	Bypass Coronary Artery, One Site from Thoracic Artery with Synthetic Substitute, Open Approach	025D3ZZ	Destruction of Papillary Muscle, Percutaneous Approach	02Q00ZZ	Repair Coronary Artery, One Site, Open Approach
02100JF	Bypass Coronary Artery, One Site from Abdominal Artery with Synthetic Substitute, Open Approach	025D4ZZ	Destruction of Papillary Muscle, Percutaneous Endoscopic Approach	02Q03ZZ	Repair Coronary Artery, One Site, Percutaneous Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02100JW	Bypass Coronary Artery, One Site from Aorta with Synthetic Substitute, Open Approach	025F0ZZ	Destruction of Aortic Valve, Open Approach	02Q04ZZ	Repair Coronary Artery, One Site, Percutaneous Endoscopic Approach
02100K3	Bypass Coronary Artery, One Site from Coronary Artery with Nonautologous Tissue Substitute, Open Approach	025F3ZZ	Destruction of Aortic Valve, Percutaneous Approach	02Q10ZZ	Repair Coronary Artery, Two Sites, Open Approach
02100K8	Bypass Coronary Artery, One Site from Right Internal Mammary with Nonautologous Tissue Substitute, Open Approach	025F4ZZ	Destruction of Aortic Valve, Percutaneous Endoscopic Approach	02Q13ZZ	Repair Coronary Artery, Two Sites, Percutaneous Approach
02100K9	Bypass Coronary Artery, One Site from Left Internal Mammary with Nonautologous Tissue Substitute, Open Approach	025G0ZZ	Destruction of Mitral Valve, Open Approach	02Q14ZZ	Repair Coronary Artery, Two Sites, Percutaneous Endoscopic Approach
02100KC	Bypass Coronary Artery, One Site from Thoracic Artery with Nonautologous Tissue Substitute, Open Approach	025G3ZZ	Destruction of Mitral Valve, Percutaneous Approach	02Q20ZZ	Repair Coronary Artery, Three Sites, Open Approach
02100KF	Bypass Coronary Artery, One Site from Abdominal Artery with Nonautologous Tissue Substitute, Open Approach	025G4ZZ	Destruction of Mitral Valve, Percutaneous Endoscopic Approach	02Q23ZZ	Repair Coronary Artery, Three Sites, Percutaneous Approach
02100KW	Bypass Coronary Artery, One Site from Aorta with Nonautologous Tissue Substitute, Open Approach	025H0ZZ	Destruction of Pulmonary Valve, Open Approach	02Q24ZZ	Repair Coronary Artery, Three Sites, Percutaneous Endoscopic Approach
02100Z3	Bypass Coronary Artery, One Site from Coronary Artery, Open Approach	025H3ZZ	Destruction of Pulmonary Valve, Percutaneous Approach	02Q30ZZ	Repair Coronary Artery, Four or More Sites, Open Approach
02100Z8	Bypass Coronary Artery, One Site from Right Internal Mammary, Open Approach	025H4ZZ	Destruction of Pulmonary Valve, Percutaneous Endoscopic Approach	02Q33ZZ	Repair Coronary Artery, Four or More Sites, Percutaneous Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02100Z9	Bypass Coronary Artery, One Site from Left Internal Mammary, Open Approach	025J0ZZ	Destruction of Tricuspid Valve, Open Approach	02Q34ZZ	Repair Coronary Artery, Four or More Sites, Percutaneous Endoscopic Approach
02100ZC	Bypass Coronary Artery, One Site from Thoracic Artery, Open Approach	025J3ZZ	Destruction of Tricuspid Valve, Percutaneous Approach	02Q40ZZ	Repair Coronary Vein, Open Approach
02100ZF	Bypass Coronary Artery, One Site from Abdominal Artery, Open Approach	025J4ZZ	Destruction of Tricuspid Valve, Percutaneous Endoscopic Approach	02Q43ZZ	Repair Coronary Vein, Percutaneous Approach
0210344	Bypass Coronary Artery, One Site from Coronary Vein with Drug-eluting Intraluminal Device, Percutaneous Approach	025K0ZZ	Destruction of Right Ventricle, Open Approach	02Q44ZZ	Repair Coronary Vein, Percutaneous Endoscopic Approach
02103D4	Bypass Coronary Artery, One Site from Coronary Vein with Intraluminal Device, Percutaneous Approach	025K3ZZ	Destruction of Right Ventricle, Percutaneous Approach	02Q50ZZ	Repair Atrial Septum, Open Approach
0210444	Bypass Coronary Artery, One Site from Coronary Vein with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	025K4ZZ	Destruction of Right Ventricle, Percutaneous Endoscopic Approach	02Q53ZZ	Repair Atrial Septum, Percutaneous Approach
0210493	Bypass Coronary Artery, One Site from Coronary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	025L0ZZ	Destruction of Left Ventricle, Open Approach	02Q54ZZ	Repair Atrial Septum, Percutaneous Endoscopic Approach
0210498	Bypass Coronary Artery, One Site from Right Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	025L3ZZ	Destruction of Left Ventricle, Percutaneous Approach	02Q70ZZ	Repair Left Atrium, Open Approach
0210499	Bypass Coronary Artery, One Site from Left Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	025L4ZZ	Destruction of Left Ventricle, Percutaneous Endoscopic Approach	02Q73ZZ	Repair Left Atrium, Percutaneous Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
021049C	Bypass Coronary Artery, One Site from Thoracic Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	025M0ZZ	Destruction of Ventricular Septum, Open Approach	02Q74ZZ	Repair Left Atrium, Percutaneous Endoscopic Approach
021049F	Bypass Coronary Artery, One Site from Abdominal Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	025M3ZZ	Destruction of Ventricular Septum, Percutaneous Approach	02Q90ZZ	Repair Chordae Tendineae, Open Approach
021049W	Bypass Coronary Artery, One Site from Aorta with Autologous Venous Tissue, Percutaneous Endoscopic Approach	025M4ZZ	Destruction of Ventricular Septum, Percutaneous Endoscopic Approach	02Q93ZZ	Repair Chordae Tendineae, Percutaneous Approach
02104A3	Bypass Coronary Artery, One Site from Coronary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	025N0ZZ	Destruction of Pericardium, Open Approach	02Q94ZZ	Repair Chordae Tendineae, Percutaneous Endoscopic Approach
02104A8	Bypass Coronary Artery, One Site from Right Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	025N3ZZ	Destruction of Pericardium, Percutaneous Approach	02QA0ZZ	Repair Heart, Open Approach
02104A9	Bypass Coronary Artery, One Site from Left Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	025N4ZZ	Destruction of Pericardium, Percutaneous Endoscopic Approach	02QA3ZZ	Repair Heart, Percutaneous Approach
02104AC	Bypass Coronary Artery, One Site from Thoracic Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	0270046	Dilation of Coronary Artery, One Site, Bifurcation, with Drug-eluting Intraluminal Device, Open Approach	02QA4ZZ	Repair Heart, Percutaneous Endoscopic Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02104AF	Bypass Coronary Artery, One Site from Abdominal Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	027004Z	Dilation of Coronary Artery, One Site with Drug-eluting Intraluminal Device, Open Approach	02QB0ZZ	Repair Right Heart, Open Approach
02104AW	Bypass Coronary Artery, One Site from Aorta with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02700D6	Dilation of Coronary Artery, One Site, Bifurcation, with Intraluminal Device, Open Approach	02QB3ZZ	Repair Right Heart, Percutaneous Approach
02104D4	Bypass Coronary Artery, One Site from Coronary Vein with Intraluminal Device, Percutaneous Endoscopic Approach	02700DZ	Dilation of Coronary Artery, One Site with Intraluminal Device, Open Approach	02QB4ZZ	Repair Right Heart, Percutaneous Endoscopic Approach
02104J3	Bypass Coronary Artery, One Site from Coronary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02700T6	Dilation of Coronary Artery, One Site, Bifurcation, with Radioactive Intraluminal Device, Open Approach	02QC0ZZ	Repair Left Heart, Open Approach
02104J8	Bypass Coronary Artery, One Site from Right Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	02700TZ	Dilation of Coronary Artery, One Site with Radioactive Intraluminal Device, Open Approach	02QC3ZZ	Repair Left Heart, Percutaneous Approach
02104J9	Bypass Coronary Artery, One Site from Left Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	02700Z6	Dilation of Coronary Artery, One Site, Bifurcation, Open Approach	02QC4ZZ	Repair Left Heart, Percutaneous Endoscopic Approach
02104JC	Bypass Coronary Artery, One Site from Thoracic Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02700ZZ	Dilation of Coronary Artery, One Site, Open Approach	02QD0ZZ	Repair Papillary Muscle, Open Approach
02104JF	Bypass Coronary Artery, One Site from Abdominal Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	0270346	Dilation of Coronary Artery, One Site, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Approach	02QD3ZZ	Repair Papillary Muscle, Percutaneous Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02104JW	Bypass Coronary Artery, One Site from Aorta with Synthetic Substitute, Percutaneous Endoscopic Approach	027034Z	Dilation of Coronary Artery, One Site with Drug-eluting Intraluminal Device, Percutaneous Approach	02QD4ZZ	Repair Papillary Muscle, Percutaneous Endoscopic Approach
02104K3	Bypass Coronary Artery, One Site from Coronary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02703D6	Dilation of Coronary Artery, One Site, Bifurcation, with Intraluminal Device, Percutaneous Approach	02QF0ZZ	Repair Aortic Valve, Open Approach
02104K8	Bypass Coronary Artery, One Site from Right Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02703DZ	Dilation of Coronary Artery, One Site with Intraluminal Device, Percutaneous Approach	02QF3ZZ	Repair Aortic Valve, Percutaneous Approach
02104K9	Bypass Coronary Artery, One Site from Left Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02703T6	Dilation of Coronary Artery, One Site, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Approach	02QF4ZZ	Repair Aortic Valve, Percutaneous Endoscopic Approach
02104KC	Bypass Coronary Artery, One Site from Thoracic Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02703TZ	Dilation of Coronary Artery, One Site with Radioactive Intraluminal Device, Percutaneous Approach	02QG0ZZ	Repair Mitral Valve, Open Approach
02104KF	Bypass Coronary Artery, One Site from Abdominal Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02703Z6	Dilation of Coronary Artery, One Site, Bifurcation, Percutaneous Approach	02QG3ZZ	Repair Mitral Valve, Percutaneous Approach
02104KW	Bypass Coronary Artery, One Site from Aorta with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02703ZZ	Dilation of Coronary Artery, One Site, Percutaneous Approach	02QG4ZZ	Repair Mitral Valve, Percutaneous Endoscopic Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02104Z3	Bypass Coronary Artery, One Site from Coronary Artery, Percutaneous Endoscopic Approach	0270446	Dilation of Coronary Artery, One Site, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	02QH0ZZ	Repair Pulmonary Valve, Open Approach
02104Z8	Bypass Coronary Artery, One Site from Right Internal Mammary, Percutaneous Endoscopic Approach	027044Z	Dilation of Coronary Artery, One Site with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	02QH3ZZ	Repair Pulmonary Valve, Percutaneous Approach
02104Z9	Bypass Coronary Artery, One Site from Left Internal Mammary, Percutaneous Endoscopic Approach	02704D6	Dilation of Coronary Artery, One Site, Bifurcation, with Intraluminal Device, Percutaneous Endoscopic Approach	02QH4ZZ	Repair Pulmonary Valve, Percutaneous Endoscopic Approach
02104ZC	Bypass Coronary Artery, One Site from Thoracic Artery, Percutaneous Endoscopic Approach	02704DZ	Dilation of Coronary Artery, One Site with Intraluminal Device, Percutaneous Endoscopic Approach	02QJ0ZZ	Repair Tricuspid Valve, Open Approach
02104ZF	Bypass Coronary Artery, One Site from Abdominal Artery, Percutaneous Endoscopic Approach	02704T6	Dilation of Coronary Artery, One Site, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	02QJ3ZZ	Repair Tricuspid Valve, Percutaneous Approach
0211093	Bypass Coronary Artery, Two Sites from Coronary Artery with Autologous Venous Tissue, Open Approach	02704TZ	Dilation of Coronary Artery, One Site with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	02QJ4ZZ	Repair Tricuspid Valve, Percutaneous Endoscopic Approach
0211098	Bypass Coronary Artery, Two Sites from Right Internal Mammary with Autologous Venous Tissue, Open Approach	02704Z6	Dilation of Coronary Artery, One Site, Bifurcation, Percutaneous Endoscopic Approach	02QM0ZZ	Repair Ventricular Septum, Open Approach
0211099	Bypass Coronary Artery, Two Sites from Left Internal Mammary with Autologous Venous Tissue, Open Approach	02704ZZ	Dilation of Coronary Artery, One Site, Percutaneous Endoscopic Approach	02QM3ZZ	Repair Ventricular Septum, Percutaneous Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
021109C	Bypass Coronary Artery, Two Sites from Thoracic Artery with Autologous Venous Tissue, Open Approach	0271046	Dilation of Coronary Artery, Two Sites, Bifurcation, with Drug-eluting Intraluminal Device, Open Approach	02QM4ZZ	Repair Ventricular Septum, Percutaneous Endoscopic Approach
021109F	Bypass Coronary Artery, Two Sites from Abdominal Artery with Autologous Venous Tissue, Open Approach	027104Z	Dilation of Coronary Artery, Two Sites with Drug-eluting Intraluminal Device, Open Approach	02R907Z	Replacement of Chordae Tendineae with Autologous Tissue Substitute, Open Approach
021109W	Bypass Coronary Artery, Two Sites from Aorta with Autologous Venous Tissue, Open Approach	02710D6	Dilation of Coronary Artery, Two Sites, Bifurcation, with Intraluminal Device, Open Approach	02R908Z	Replacement of Chordae Tendineae with Zooplastic Tissue, Open Approach
02110A3	Bypass Coronary Artery, Two Sites from Coronary Artery with Autologous Arterial Tissue, Open Approach	02710DZ	Dilation of Coronary Artery, Two Sites with Intraluminal Device, Open Approach	02R90JZ	Replacement of Chordae Tendineae with Synthetic Substitute, Open Approach
02110A8	Bypass Coronary Artery, Two Sites from Right Internal Mammary with Autologous Arterial Tissue, Open Approach	02710T6	Dilation of Coronary Artery, Two Sites, Bifurcation, with Radioactive Intraluminal Device, Open Approach	02R90KZ	Replacement of Chordae Tendineae with Nonautologous Tissue Substitute, Open Approach
02110A9	Bypass Coronary Artery, Two Sites from Left Internal Mammary with Autologous Arterial Tissue, Open Approach	02710TZ	Dilation of Coronary Artery, Two Sites with Radioactive Intraluminal Device, Open Approach	02R947Z	Replacement of Chordae Tendineae with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
02110AC	Bypass Coronary Artery, Two Sites from Thoracic Artery with Autologous Arterial Tissue, Open Approach	02710Z6	Dilation of Coronary Artery, Two Sites, Bifurcation, Open Approach	02R948Z	Replacement of Chordae Tendineae with Zooplastic Tissue, Percutaneous Endoscopic Approach
02110AF	Bypass Coronary Artery, Two Sites from Abdominal Artery with Autologous Arterial Tissue, Open Approach	02710ZZ	Dilation of Coronary Artery, Two Sites, Open Approach	02R94JZ	Replacement of Chordae Tendineae with Synthetic Substitute, Percutaneous Endoscopic Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02110AW	Bypass Coronary Artery, Two Sites from Aorta with Autologous Arterial Tissue, Open Approach	0271346	Dilation of Coronary Artery, Two Sites, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Approach	02R94KZ	Replacement of Chordae Tendineae with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
02110J3	Bypass Coronary Artery, Two Sites from Coronary Artery with Synthetic Substitute, Open Approach	027134Z	Dilation of Coronary Artery, Two Sites with Drug-eluting Intraluminal Device, Percutaneous Approach	02RD07Z	Replacement of Papillary Muscle with Autologous Tissue Substitute, Open Approach
02110J8	Bypass Coronary Artery, Two Sites from Right Internal Mammary with Synthetic Substitute, Open Approach	02713D6	Dilation of Coronary Artery, Two Sites, Bifurcation, with Intraluminal Device, Percutaneous Approach	02RD08Z	Replacement of Papillary Muscle with Zooplastic Tissue, Open Approach
02110J9	Bypass Coronary Artery, Two Sites from Left Internal Mammary with Synthetic Substitute, Open Approach	02713DZ	Dilation of Coronary Artery, Two Sites with Intraluminal Device, Percutaneous Approach	02RD0JZ	Replacement of Papillary Muscle with Synthetic Substitute, Open Approach
02110JC	Bypass Coronary Artery, Two Sites from Thoracic Artery with Synthetic Substitute, Open Approach	02713T6	Dilation of Coronary Artery, Two Sites, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Approach	02RD0KZ	Replacement of Papillary Muscle with Nonautologous Tissue Substitute, Open Approach
02110JF	Bypass Coronary Artery, Two Sites from Abdominal Artery with Synthetic Substitute, Open Approach	02713TZ	Dilation of Coronary Artery, Two Sites with Radioactive Intraluminal Device, Percutaneous Approach	02RD47Z	Replacement of Papillary Muscle with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
02110JW	Bypass Coronary Artery, Two Sites from Aorta with Synthetic Substitute, Open Approach	02713Z6	Dilation of Coronary Artery, Two Sites, Bifurcation, Percutaneous Approach	02RD48Z	Replacement of Papillary Muscle with Zooplastic Tissue, Percutaneous Endoscopic Approach
02110K3	Bypass Coronary Artery, Two Sites from Coronary Artery with Nonautologous Tissue Substitute, Open Approach	02713ZZ	Dilation of Coronary Artery, Two Sites, Percutaneous Approach	02RD4JZ	Replacement of Papillary Muscle with Synthetic Substitute, Percutaneous Endoscopic Approach
02110K8	Bypass Coronary Artery, Two Sites from Right Internal Mammary with Nonautologous Tissue Substitute, Open Approach	0271446	Dilation of Coronary Artery, Two Sites, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	02RD4KZ	Replacement of Papillary Muscle with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02110K9	Bypass Coronary Artery, Two Sites from Left Internal Mammary with Nonautologous Tissue Substitute, Open Approach	027144Z	Dilation of Coronary Artery, Two Sites with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	02RF07Z	Replacement of Aortic Valve with Autologous Tissue Substitute, Open Approach
02110KC	Bypass Coronary Artery, Two Sites from Thoracic Artery with Nonautologous Tissue Substitute, Open Approach	02714D6	Dilation of Coronary Artery, Two Sites, Bifurcation, with Intraluminal Device, Percutaneous Endoscopic Approach	02RF08Z	Replacement of Aortic Valve with Zooplasic Tissue, Open Approach
02110KF	Bypass Coronary Artery, Two Sites from Abdominal Artery with Nonautologous Tissue Substitute, Open Approach	02714DZ	Dilation of Coronary Artery, Two Sites with Intraluminal Device, Percutaneous Endoscopic Approach	02RF0JZ	Replacement of Aortic Valve with Synthetic Substitute, Open Approach
02110KW	Bypass Coronary Artery, Two Sites from Aorta with Nonautologous Tissue Substitute, Open Approach	02714T6	Dilation of Coronary Artery, Two Sites, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	02RF0KZ	Replacement of Aortic Valve with Nonautologous Tissue Substitute, Open Approach
02110Z3	Bypass Coronary Artery, Two Sites from Coronary Artery, Open Approach	02714TZ	Dilation of Coronary Artery, Two Sites with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	02RF37H	Replacement of Aortic Valve with Autologous Tissue Substitute, Transapical, Percutaneous Approach
02110Z8	Bypass Coronary Artery, Two Sites from Right Internal Mammary, Open Approach	02714Z6	Dilation of Coronary Artery, Two Sites, Bifurcation, Percutaneous Endoscopic Approach	02RF37Z	Replacement of Aortic Valve with Autologous Tissue Substitute, Percutaneous Approach
02110Z9	Bypass Coronary Artery, Two Sites from Left Internal Mammary, Open Approach	02714ZZ	Dilation of Coronary Artery, Two Sites, Percutaneous Endoscopic Approach	02RF38H	Replacement of Aortic Valve with Zooplasic Tissue, Transapical, Percutaneous Approach
02110ZC	Bypass Coronary Artery, Two Sites from Thoracic Artery, Open Approach	0272046	Dilation of Coronary Artery, Three Sites, Bifurcation, with Drug-eluting Intraluminal Device, Open Approach	02RF38Z	Replacement of Aortic Valve with Zooplasic Tissue, Percutaneous Approach
02110ZF	Bypass Coronary Artery, Two Sites from Abdominal Artery, Open Approach	027204Z	Dilation of Coronary Artery, Three Sites with Drug-eluting Intraluminal Device, Open Approach	02RF3JH	Replacement of Aortic Valve with Synthetic Substitute, Transapical, Percutaneous Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
0211344	Bypass Coronary Artery, Two Sites from Coronary Vein with Drug-eluting Intraluminal Device, Percutaneous Approach	02720D6	Dilation of Coronary Artery, Three Sites, Bifurcation, with Intraluminal Device, Open Approach	02RF3JZ	Replacement of Aortic Valve with Synthetic Substitute, Percutaneous Approach
02113D4	Bypass Coronary Artery, Two Sites from Coronary Vein with Intraluminal Device, Percutaneous Approach	02720DZ	Dilation of Coronary Artery, Three Sites with Intraluminal Device, Open Approach	02RF3KH	Replacement of Aortic Valve with Nonautologous Tissue Substitute, Transapical, Percutaneous Approach
0211444	Bypass Coronary Artery, Two Sites from Coronary Vein with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	02720T6	Dilation of Coronary Artery, Three Sites, Bifurcation, with Radioactive Intraluminal Device, Open Approach	02RF3KZ	Replacement of Aortic Valve with Nonautologous Tissue Substitute, Percutaneous Approach
0211493	Bypass Coronary Artery, Two Sites from Coronary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02720TZ	Dilation of Coronary Artery, Three Sites with Radioactive Intraluminal Device, Open Approach	02RF47Z	Replacement of Aortic Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
0211498	Bypass Coronary Artery, Two Sites from Right Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02720Z6	Dilation of Coronary Artery, Three Sites, Bifurcation, Open Approach	02RF48Z	Replacement of Aortic Valve with Zooplastic Tissue, Percutaneous Endoscopic Approach
0211499	Bypass Coronary Artery, Two Sites from Left Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02720ZZ	Dilation of Coronary Artery, Three Sites, Open Approach	02RF4JZ	Replacement of Aortic Valve with Synthetic Substitute, Percutaneous Endoscopic Approach
021149C	Bypass Coronary Artery, Two Sites from Thoracic Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	0272346	Dilation of Coronary Artery, Three Sites, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Approach	02RF4KZ	Replacement of Aortic Valve with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
021149F	Bypass Coronary Artery, Two Sites from Abdominal Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	027234Z	Dilation of Coronary Artery, Three Sites with Drug-eluting Intraluminal Device, Percutaneous Approach	02RG07Z	Replacement of Mitral Valve with Autologous Tissue Substitute, Open Approach
021149W	Bypass Coronary Artery, Two Sites from Aorta with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02723D6	Dilation of Coronary Artery, Three Sites, Bifurcation, with Intraluminal Device, Percutaneous Approach	02RG08Z	Replacement of Mitral Valve with Zooplasic Tissue, Open Approach
02114A3	Bypass Coronary Artery, Two Sites from Coronary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02723DZ	Dilation of Coronary Artery, Three Sites with Intraluminal Device, Percutaneous Approach	02RG0JZ	Replacement of Mitral Valve with Synthetic Substitute, Open Approach
02114A8	Bypass Coronary Artery, Two Sites from Right Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02723T6	Dilation of Coronary Artery, Three Sites, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Approach	02RG0KZ	Replacement of Mitral Valve with Nonautologous Tissue Substitute, Open Approach
02114A9	Bypass Coronary Artery, Two Sites from Left Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02723TZ	Dilation of Coronary Artery, Three Sites with Radioactive Intraluminal Device, Percutaneous Approach	02RG37H	Replacement of Mitral Valve with Autologous Tissue Substitute, Transapical, Percutaneous Approach
02114AC	Bypass Coronary Artery, Two Sites from Thoracic Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02723Z6	Dilation of Coronary Artery, Three Sites, Bifurcation, Percutaneous Approach	02RG37Z	Replacement of Mitral Valve with Autologous Tissue Substitute, Percutaneous Approach
02114AF	Bypass Coronary Artery, Two Sites from Abdominal Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02723ZZ	Dilation of Coronary Artery, Three Sites, Percutaneous Approach	02RG38H	Replacement of Mitral Valve with Zooplasic Tissue, Transapical, Percutaneous Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02114AW	Bypass Coronary Artery, Two Sites from Aorta with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	0272446	Dilation of Coronary Artery, Three Sites, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	02RG38Z	Replacement of Mitral Valve with Zooplasic Tissue, Percutaneous Approach
02114D4	Bypass Coronary Artery, Two Sites from Coronary Vein with Intraluminal Device, Percutaneous Endoscopic Approach	027244Z	Dilation of Coronary Artery, Three Sites with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	02RG3JH	Replacement of Mitral Valve with Synthetic Substitute, Transapical, Percutaneous Approach
02114J3	Bypass Coronary Artery, Two Sites from Coronary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02724D6	Dilation of Coronary Artery, Three Sites, Bifurcation, with Intraluminal Device, Percutaneous Endoscopic Approach	02RG3JZ	Replacement of Mitral Valve with Synthetic Substitute, Percutaneous Approach
02114J8	Bypass Coronary Artery, Two Sites from Right Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	02724DZ	Dilation of Coronary Artery, Three Sites with Intraluminal Device, Percutaneous Endoscopic Approach	02RG3KH	Replacement of Mitral Valve with Nonautologous Tissue Substitute, Transapical, Percutaneous Approach
02114J9	Bypass Coronary Artery, Two Sites from Left Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	02724T6	Dilation of Coronary Artery, Three Sites, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	02RG3KZ	Replacement of Mitral Valve with Nonautologous Tissue Substitute, Percutaneous Approach
02114JC	Bypass Coronary Artery, Two Sites from Thoracic Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02724TZ	Dilation of Coronary Artery, Three Sites with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	02RG47Z	Replacement of Mitral Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
02114JF	Bypass Coronary Artery, Two Sites from Abdominal Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02724Z6	Dilation of Coronary Artery, Three Sites, Bifurcation, Percutaneous Endoscopic Approach	02RG48Z	Replacement of Mitral Valve with Zooplasic Tissue, Percutaneous Endoscopic Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02114JW	Bypass Coronary Artery, Two Sites from Aorta with Synthetic Substitute, Percutaneous Endoscopic Approach	02724ZZ	Dilation of Coronary Artery, Three Sites, Percutaneous Endoscopic Approach	02RG4JZ	Replacement of Mitral Valve with Synthetic Substitute, Percutaneous Endoscopic Approach
02114K3	Bypass Coronary Artery, Two Sites from Coronary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	0273046	Dilation of Coronary Artery, Four or More Sites, Bifurcation, with Drug-eluting Intraluminal Device, Open Approach	02RG4KZ	Replacement of Mitral Valve with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
02114K8	Bypass Coronary Artery, Two Sites from Right Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	027304Z	Dilation of Coronary Artery, Four or More Sites with Drug-eluting Intraluminal Device, Open Approach	02RH07Z	Replacement of Pulmonary Valve with Autologous Tissue Substitute, Open Approach
02114K9	Bypass Coronary Artery, Two Sites from Left Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02730D6	Dilation of Coronary Artery, Four or More Sites, Bifurcation, with Intraluminal Device, Open Approach	02RH08Z	Replacement of Pulmonary Valve with Zooplastic Tissue, Open Approach
02114KC	Bypass Coronary Artery, Two Sites from Thoracic Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02730DZ	Dilation of Coronary Artery, Four or More Sites with Intraluminal Device, Open Approach	02RH0JZ	Replacement of Pulmonary Valve with Synthetic Substitute, Open Approach
02114KF	Bypass Coronary Artery, Two Sites from Abdominal Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02730T6	Dilation of Coronary Artery, Four or More Sites, Bifurcation, with Radioactive Intraluminal Device, Open Approach	02RH0KZ	Replacement of Pulmonary Valve with Nonautologous Tissue Substitute, Open Approach
02114KW	Bypass Coronary Artery, Two Sites from Aorta with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02730TZ	Dilation of Coronary Artery, Four or More Sites with Radioactive Intraluminal Device, Open Approach	02RH37H	Replacement of Pulmonary Valve with Autologous Tissue Substitute, Transapical, Percutaneous Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02114Z3	Bypass Coronary Artery, Two Sites from Coronary Artery, Percutaneous Endoscopic Approach	02730Z6	Dilation of Coronary Artery, Four or More Sites, Bifurcation, Open Approach	02RH37Z	Replacement of Pulmonary Valve with Autologous Tissue Substitute, Percutaneous Approach
02114Z8	Bypass Coronary Artery, Two Sites from Right Internal Mammary, Percutaneous Endoscopic Approach	02730ZZ	Dilation of Coronary Artery, Four or More Sites, Open Approach	02RH38H	Replacement of Pulmonary Valve with Zooplastic Tissue, Transapical, Percutaneous Approach
02114Z9	Bypass Coronary Artery, Two Sites from Left Internal Mammary, Percutaneous Endoscopic Approach	0273346	Dilation of Coronary Artery, Four or More Sites, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Approach	02RH38Z	Replacement of Pulmonary Valve with Zooplastic Tissue, Percutaneous Approach
02114ZC	Bypass Coronary Artery, Two Sites from Thoracic Artery, Percutaneous Endoscopic Approach	027334Z	Dilation of Coronary Artery, Four or More Sites with Drug-eluting Intraluminal Device, Percutaneous Approach	02RH3JH	Replacement of Pulmonary Valve with Synthetic Substitute, Transapical, Percutaneous Approach
02114ZF	Bypass Coronary Artery, Two Sites from Abdominal Artery, Percutaneous Endoscopic Approach	02733D6	Dilation of Coronary Artery, Four or More Sites, Bifurcation, with Intraluminal Device, Percutaneous Approach	02RH3JZ	Replacement of Pulmonary Valve with Synthetic Substitute, Percutaneous Approach
0212093	Bypass Coronary Artery, Three Sites from Coronary Artery with Autologous Venous Tissue, Open Approach	02733DZ	Dilation of Coronary Artery, Four or More Sites with Intraluminal Device, Percutaneous Approach	02RH3KH	Replacement of Pulmonary Valve with Nonautologous Tissue Substitute, Transapical, Percutaneous Approach
0212098	Bypass Coronary Artery, Three Sites from Right Internal Mammary with Autologous Venous Tissue, Open Approach	02733T6	Dilation of Coronary Artery, Four or More Sites, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Approach	02RH3KZ	Replacement of Pulmonary Valve with Nonautologous Tissue Substitute, Percutaneous Approach
0212099	Bypass Coronary Artery, Three Sites from Left Internal Mammary with Autologous Venous Tissue, Open Approach	02733TZ	Dilation of Coronary Artery, Four or More Sites with Radioactive Intraluminal Device, Percutaneous Approach	02RH47Z	Replacement of Pulmonary Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
021209C	Bypass Coronary Artery, Three Sites from Thoracic Artery with Autologous Venous Tissue, Open Approach	02733Z6	Dilation of Coronary Artery, Four or More Sites, Bifurcation, Percutaneous Approach	02RH48Z	Replacement of Pulmonary Valve with Zooplastic Tissue, Percutaneous Endoscopic Approach
021209F	Bypass Coronary Artery, Three Sites from Abdominal Artery with Autologous Venous Tissue, Open Approach	02733ZZ	Dilation of Coronary Artery, Four or More Sites, Percutaneous Approach	02RH4JZ	Replacement of Pulmonary Valve with Synthetic Substitute, Percutaneous Endoscopic Approach
021209W	Bypass Coronary Artery, Three Sites from Aorta with Autologous Venous Tissue, Open Approach	0273446	Dilation of Coronary Artery, Four or More Sites, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	02RH4KZ	Replacement of Pulmonary Valve with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
02120A3	Bypass Coronary Artery, Three Sites from Coronary Artery with Autologous Arterial Tissue, Open Approach	027344Z	Dilation of Coronary Artery, Four or More Sites with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	02RJ07Z	Replacement of Tricuspid Valve with Autologous Tissue Substitute, Open Approach
02120A8	Bypass Coronary Artery, Three Sites from Right Internal Mammary with Autologous Arterial Tissue, Open Approach	02734D6	Dilation of Coronary Artery, Four or More Sites, Bifurcation, with Intraluminal Device, Percutaneous Endoscopic Approach	02RJ08Z	Replacement of Tricuspid Valve with Zooplastic Tissue, Open Approach
02120A9	Bypass Coronary Artery, Three Sites from Left Internal Mammary with Autologous Arterial Tissue, Open Approach	02734DZ	Dilation of Coronary Artery, Four or More Sites with Intraluminal Device, Percutaneous Endoscopic Approach	02RJ0JZ	Replacement of Tricuspid Valve with Synthetic Substitute, Open Approach
02120AC	Bypass Coronary Artery, Three Sites from Thoracic Artery with Autologous Arterial Tissue, Open Approach	02734T6	Dilation of Coronary Artery, Four or More Sites, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	02RJ0KZ	Replacement of Tricuspid Valve with Nonautologous Tissue Substitute, Open Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02120AF	Bypass Coronary Artery, Three Sites from Abdominal Artery with Autologous Arterial Tissue, Open Approach	02734TZ	Dilation of Coronary Artery, Four or More Sites with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	02RJ47Z	Replacement of Tricuspid Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
02120AW	Bypass Coronary Artery, Three Sites from Aorta with Autologous Arterial Tissue, Open Approach	02734Z6	Dilation of Coronary Artery, Four or More Sites, Bifurcation, Percutaneous Endoscopic Approach	02RJ48Z	Replacement of Tricuspid Valve with Zooplastic Tissue, Percutaneous Endoscopic Approach
02120J3	Bypass Coronary Artery, Three Sites from Coronary Artery with Synthetic Substitute, Open Approach	02734ZZ	Dilation of Coronary Artery, Four or More Sites, Percutaneous Endoscopic Approach	02RJ4JZ	Replacement of Tricuspid Valve with Synthetic Substitute, Percutaneous Endoscopic Approach
02120J8	Bypass Coronary Artery, Three Sites from Right Internal Mammary with Synthetic Substitute, Open Approach	027F04Z	Dilation of Aortic Valve with Drug-eluting Intraluminal Device, Open Approach	02RJ4KZ	Replacement of Tricuspid Valve with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
02120J9	Bypass Coronary Artery, Three Sites from Left Internal Mammary with Synthetic Substitute, Open Approach	027F0DZ	Dilation of Aortic Valve with Intraluminal Device, Open Approach	02RK07Z	Replacement of Right Ventricle with Autologous Tissue Substitute, Open Approach
02120JC	Bypass Coronary Artery, Three Sites from Thoracic Artery with Synthetic Substitute, Open Approach	027F0ZZ	Dilation of Aortic Valve, Open Approach	02RK0JZ	Replacement of Right Ventricle with Synthetic Substitute, Open Approach
02120JF	Bypass Coronary Artery, Three Sites from Abdominal Artery with Synthetic Substitute, Open Approach	027F34Z	Dilation of Aortic Valve with Drug-eluting Intraluminal Device, Percutaneous Approach	02RK0KZ	Replacement of Right Ventricle with Nonautologous Tissue Substitute, Open Approach
02120JW	Bypass Coronary Artery, Three Sites from Aorta with Synthetic Substitute, Open Approach	027F3DZ	Dilation of Aortic Valve with Intraluminal Device, Percutaneous Approach	02RK47Z	Replacement of Right Ventricle with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
02120K3	Bypass Coronary Artery, Three Sites from Coronary Artery with Nonautologous Tissue Substitute, Open Approach	027F3ZZ	Dilation of Aortic Valve, Percutaneous Approach	02RK4KZ	Replacement of Right Ventricle with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02120K8	Bypass Coronary Artery, Three Sites from Right Internal Mammary with Nonautologous Tissue Substitute, Open Approach	027F44Z	Dilation of Aortic Valve with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	02RL07Z	Replacement of Left Ventricle with Autologous Tissue Substitute, Open Approach
02120K9	Bypass Coronary Artery, Three Sites from Left Internal Mammary with Nonautologous Tissue Substitute, Open Approach	027F4DZ	Dilation of Aortic Valve with Intraluminal Device, Percutaneous Endoscopic Approach	02RL0JZ	Replacement of Left Ventricle with Synthetic Substitute, Open Approach
02120KC	Bypass Coronary Artery, Three Sites from Thoracic Artery with Nonautologous Tissue Substitute, Open Approach	027F4ZZ	Dilation of Aortic Valve, Percutaneous Endoscopic Approach	02RL0KZ	Replacement of Left Ventricle with Nonautologous Tissue Substitute, Open Approach
02120KF	Bypass Coronary Artery, Three Sites from Abdominal Artery with Nonautologous Tissue Substitute, Open Approach	027G04Z	Dilation of Mitral Valve with Drug-eluting Intraluminal Device, Open Approach	02RL47Z	Replacement of Left Ventricle with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
02120KW	Bypass Coronary Artery, Three Sites from Aorta with Nonautologous Tissue Substitute, Open Approach	027G0DZ	Dilation of Mitral Valve with Intraluminal Device, Open Approach	02RL4KZ	Replacement of Left Ventricle with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
02120Z3	Bypass Coronary Artery, Three Sites from Coronary Artery, Open Approach	027G0ZZ	Dilation of Mitral Valve, Open Approach	02RM07Z	Replacement of Ventricular Septum with Autologous Tissue Substitute, Open Approach
02120Z8	Bypass Coronary Artery, Three Sites from Right Internal Mammary, Open Approach	027G34Z	Dilation of Mitral Valve with Drug-eluting Intraluminal Device, Percutaneous Approach	02RM0JZ	Replacement of Ventricular Septum with Synthetic Substitute, Open Approach
02120Z9	Bypass Coronary Artery, Three Sites from Left Internal Mammary, Open Approach	027G3DZ	Dilation of Mitral Valve with Intraluminal Device, Percutaneous Approach	02RM0KZ	Replacement of Ventricular Septum with Nonautologous Tissue Substitute, Open Approach
02120ZC	Bypass Coronary Artery, Three Sites from Thoracic Artery, Open Approach	027G3ZZ	Dilation of Mitral Valve, Percutaneous Approach	02RM47Z	Replacement of Ventricular Septum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02120ZF	Bypass Coronary Artery, Three Sites from Abdominal Artery, Open Approach	027G44Z	Dilation of Mitral Valve with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	02RM4JZ	Replacement of Ventricular Septum with Synthetic Substitute, Percutaneous Endoscopic Approach
0212344	Bypass Coronary Artery, Three Sites from Coronary Vein with Drug-eluting Intraluminal Device, Percutaneous Approach	027G4DZ	Dilation of Mitral Valve with Intraluminal Device, Percutaneous Endoscopic Approach	02RM4KZ	Replacement of Ventricular Septum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
02123D4	Bypass Coronary Artery, Three Sites from Coronary Vein with Intraluminal Device, Percutaneous Approach	027G4ZZ	Dilation of Mitral Valve, Percutaneous Endoscopic Approach	02RP0JZ	Replacement of Pulmonary Trunk with Synthetic Substitute, Open Approach
0212444	Bypass Coronary Artery, Three Sites from Coronary Vein with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	027H04Z	Dilation of Pulmonary Valve with Drug-eluting Intraluminal Device, Open Approach	02RQ07Z	Replacement of Right Pulmonary Artery with Autologous Tissue Substitute, Open Approach
0212493	Bypass Coronary Artery, Three Sites from Coronary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	027H0DZ	Dilation of Pulmonary Valve with Intraluminal Device, Open Approach	02RQ0JZ	Replacement of Right Pulmonary Artery with Synthetic Substitute, Open Approach
0212498	Bypass Coronary Artery, Three Sites from Right Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	027H0ZZ	Dilation of Pulmonary Valve, Open Approach	02RR07Z	Replacement of Left Pulmonary Artery with Autologous Tissue Substitute, Open Approach
0212499	Bypass Coronary Artery, Three Sites from Left Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	027H34Z	Dilation of Pulmonary Valve with Drug-eluting Intraluminal Device, Percutaneous Approach	02RR0JZ	Replacement of Left Pulmonary Artery with Synthetic Substitute, Open Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
021249C	Bypass Coronary Artery, Three Sites from Thoracic Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	027H3DZ	Dilation of Pulmonary Valve with Intraluminal Device, Percutaneous Approach	02SP0ZZ	Reposition Pulmonary Trunk, Open Approach
021249F	Bypass Coronary Artery, Three Sites from Abdominal Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	027H3ZZ	Dilation of Pulmonary Valve, Percutaneous Approach	02SW0ZZ	Reposition Thoracic Aorta, Open Approach
021249W	Bypass Coronary Artery, Three Sites from Aorta with Autologous Venous Tissue, Percutaneous Endoscopic Approach	027H44Z	Dilation of Pulmonary Valve with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	02T50ZZ	Resection of Atrial Septum, Open Approach
02124A3	Bypass Coronary Artery, Three Sites from Coronary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	027H4DZ	Dilation of Pulmonary Valve with Intraluminal Device, Percutaneous Endoscopic Approach	02T53ZZ	Resection of Atrial Septum, Percutaneous Approach
02124A8	Bypass Coronary Artery, Three Sites from Right Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	027H4ZZ	Dilation of Pulmonary Valve, Percutaneous Endoscopic Approach	02T54ZZ	Resection of Atrial Septum, Percutaneous Endoscopic Approach
02124A9	Bypass Coronary Artery, Three Sites from Left Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	027J04Z	Dilation of Tricuspid Valve with Drug-eluting Intraluminal Device, Open Approach	02T80ZZ	Resection of Conduction Mechanism, Open Approach
02124AC	Bypass Coronary Artery, Three Sites from Thoracic Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	027J0DZ	Dilation of Tricuspid Valve with Intraluminal Device, Open Approach	02T83ZZ	Resection of Conduction Mechanism, Percutaneous Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02124AF	Bypass Coronary Artery, Three Sites from Abdominal Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	027J0ZZ	Dilation of Tricuspid Valve, Open Approach	02T84ZZ	Resection of Conduction Mechanism, Percutaneous Endoscopic Approach
02124AW	Bypass Coronary Artery, Three Sites from Aorta with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	027J34Z	Dilation of Tricuspid Valve with Drug-eluting Intraluminal Device, Percutaneous Approach	02T90ZZ	Resection of Chordae Tendineae, Open Approach
02124D4	Bypass Coronary Artery, Three Sites from Coronary Vein with Intraluminal Device, Percutaneous Endoscopic Approach	027J3DZ	Dilation of Tricuspid Valve with Intraluminal Device, Percutaneous Approach	02T93ZZ	Resection of Chordae Tendineae, Percutaneous Approach
02124J3	Bypass Coronary Artery, Three Sites from Coronary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	027J3ZZ	Dilation of Tricuspid Valve, Percutaneous Approach	02T94ZZ	Resection of Chordae Tendineae, Percutaneous Endoscopic Approach
02124J8	Bypass Coronary Artery, Three Sites from Right Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	027J44Z	Dilation of Tricuspid Valve with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	02TD0ZZ	Resection of Papillary Muscle, Open Approach
02124J9	Bypass Coronary Artery, Three Sites from Left Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	027J4DZ	Dilation of Tricuspid Valve with Intraluminal Device, Percutaneous Endoscopic Approach	02TD3ZZ	Resection of Papillary Muscle, Percutaneous Approach
02124JC	Bypass Coronary Artery, Three Sites from Thoracic Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	027J4ZZ	Dilation of Tricuspid Valve, Percutaneous Endoscopic Approach	02TD4ZZ	Resection of Papillary Muscle, Percutaneous Endoscopic Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02124JF	Bypass Coronary Artery, Three Sites from Abdominal Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02890ZZ	Division of Chordae Tendineae, Open Approach	02TH0ZZ	Resection of Pulmonary Valve, Open Approach
02124JW	Bypass Coronary Artery, Three Sites from Aorta with Synthetic Substitute, Percutaneous Endoscopic Approach	02893ZZ	Division of Chordae Tendineae, Percutaneous Approach	02TH3ZZ	Resection of Pulmonary Valve, Percutaneous Approach
02124K3	Bypass Coronary Artery, Three Sites from Coronary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02894ZZ	Division of Chordae Tendineae, Percutaneous Endoscopic Approach	02TH4ZZ	Resection of Pulmonary Valve, Percutaneous Endoscopic Approach
02124K8	Bypass Coronary Artery, Three Sites from Right Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	028D0ZZ	Division of Papillary Muscle, Open Approach	02TM0ZZ	Resection of Ventricular Septum, Open Approach
02124K9	Bypass Coronary Artery, Three Sites from Left Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	028D3ZZ	Division of Papillary Muscle, Percutaneous Approach	02TM3ZZ	Resection of Ventricular Septum, Percutaneous Approach
02124KC	Bypass Coronary Artery, Three Sites from Thoracic Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	028D4ZZ	Division of Papillary Muscle, Percutaneous Endoscopic Approach	02TM4ZZ	Resection of Ventricular Septum, Percutaneous Endoscopic Approach
02124KF	Bypass Coronary Artery, Three Sites from Abdominal Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02B40ZZ	Excision of Coronary Vein, Open Approach	02TN0ZZ	Resection of Pericardium, Open Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02124KW	Bypass Coronary Artery, Three Sites from Aorta with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02B43ZZ	Excision of Coronary Vein, Percutaneous Approach	02TN3ZZ	Resection of Pericardium, Percutaneous Approach
02124Z3	Bypass Coronary Artery, Three Sites from Coronary Artery, Percutaneous Endoscopic Approach	02B44ZZ	Excision of Coronary Vein, Percutaneous Endoscopic Approach	02TN4ZZ	Resection of Pericardium, Percutaneous Endoscopic Approach
02124Z8	Bypass Coronary Artery, Three Sites from Right Internal Mammary, Percutaneous Endoscopic Approach	02B50ZZ	Excision of Atrial Septum, Open Approach	02U507Z	Supplement Atrial Septum with Autologous Tissue Substitute, Open Approach
02124Z9	Bypass Coronary Artery, Three Sites from Left Internal Mammary, Percutaneous Endoscopic Approach	02B53ZZ	Excision of Atrial Septum, Percutaneous Approach	02U508Z	Supplement Atrial Septum with Zooplastic Tissue, Open Approach
02124ZC	Bypass Coronary Artery, Three Sites from Thoracic Artery, Percutaneous Endoscopic Approach	02B54ZZ	Excision of Atrial Septum, Percutaneous Endoscopic Approach	02U50JZ	Supplement Atrial Septum with Synthetic Substitute, Open Approach
02124ZF	Bypass Coronary Artery, Three Sites from Abdominal Artery, Percutaneous Endoscopic Approach	02B60ZZ	Excision of Right Atrium, Open Approach	02U50KZ	Supplement Atrial Septum with Nonautologous Tissue Substitute, Open Approach
0213093	Bypass Coronary Artery, Four or More Sites from Coronary Artery with Autologous Venous Tissue, Open Approach	02B63ZZ	Excision of Right Atrium, Percutaneous Approach	02U537Z	Supplement Atrial Septum with Autologous Tissue Substitute, Percutaneous Approach
0213098	Bypass Coronary Artery, Four or More Sites from Right Internal Mammary with Autologous Venous Tissue, Open Approach	02B64ZZ	Excision of Right Atrium, Percutaneous Endoscopic Approach	02U538Z	Supplement Atrial Septum with Zooplastic Tissue, Percutaneous Approach
0213099	Bypass Coronary Artery, Four or More Sites from Left Internal Mammary with Autologous Venous Tissue, Open Approach	02B70ZK	Excision of Left Atrial Appendage, Open Approach	02U53JZ	Supplement Atrial Septum with Synthetic Substitute, Percutaneous Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
021309C	Bypass Coronary Artery, Four or More Sites from Thoracic Artery with Autologous Venous Tissue, Open Approach	02B70ZZ	Excision of Left Atrium, Open Approach	02U53KZ	Supplement Atrial Septum with Nonautologous Tissue Substitute, Percutaneous Approach
021309F	Bypass Coronary Artery, Four or More Sites from Abdominal Artery with Autologous Venous Tissue, Open Approach	02B73ZK	Excision of Left Atrial Appendage, Percutaneous Approach	02U547Z	Supplement Atrial Septum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
021309W	Bypass Coronary Artery, Four or More Sites from Aorta with Autologous Venous Tissue, Open Approach	02B73ZZ	Excision of Left Atrium, Percutaneous Approach	02U548Z	Supplement Atrial Septum with Zooplastic Tissue, Percutaneous Endoscopic Approach
02130A3	Bypass Coronary Artery, Four or More Sites from Coronary Artery with Autologous Arterial Tissue, Open Approach	02B74ZK	Excision of Left Atrial Appendage, Percutaneous Endoscopic Approach	02U54JZ	Supplement Atrial Septum with Synthetic Substitute, Percutaneous Endoscopic Approach
02130A8	Bypass Coronary Artery, Four or More Sites from Right Internal Mammary with Autologous Arterial Tissue, Open Approach	02B74ZZ	Excision of Left Atrium, Percutaneous Endoscopic Approach	02U54KZ	Supplement Atrial Septum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
02130A9	Bypass Coronary Artery, Four or More Sites from Left Internal Mammary with Autologous Arterial Tissue, Open Approach	02B80ZZ	Excision of Conduction Mechanism, Open Approach	02U607Z	Supplement Right Atrium with Autologous Tissue Substitute, Open Approach
02130AC	Bypass Coronary Artery, Four or More Sites from Thoracic Artery with Autologous Arterial Tissue, Open Approach	02B83ZZ	Excision of Conduction Mechanism, Percutaneous Approach	02U608Z	Supplement Right Atrium with Zooplastic Tissue, Open Approach
02130AF	Bypass Coronary Artery, Four or More Sites from Abdominal Artery with Autologous Arterial Tissue, Open Approach	02B84ZZ	Excision of Conduction Mechanism, Percutaneous Endoscopic Approach	02U60KZ	Supplement Right Atrium with Nonautologous Tissue Substitute, Open Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02130AW	Bypass Coronary Artery, Four or More Sites from Aorta with Autologous Arterial Tissue, Open Approach	02B90ZZ	Excision of Chordae Tendineae, Open Approach	02U707Z	Supplement Left Atrium with Autologous Tissue Substitute, Open Approach
02130J3	Bypass Coronary Artery, Four or More Sites from Coronary Artery with Synthetic Substitute, Open Approach	02B93ZZ	Excision of Chordae Tendineae, Percutaneous Approach	02U708Z	Supplement Left Atrium with Zooplasic Tissue, Open Approach
02130J8	Bypass Coronary Artery, Four or More Sites from Right Internal Mammary with Synthetic Substitute, Open Approach	02B94ZZ	Excision of Chordae Tendineae, Percutaneous Endoscopic Approach	02U70JZ	Supplement Left Atrium with Synthetic Substitute, Open Approach
02130J9	Bypass Coronary Artery, Four or More Sites from Left Internal Mammary with Synthetic Substitute, Open Approach	02BD0ZZ	Excision of Papillary Muscle, Open Approach	02U70KZ	Supplement Left Atrium with Nonautologous Tissue Substitute, Open Approach
02130JC	Bypass Coronary Artery, Four or More Sites from Thoracic Artery with Synthetic Substitute, Open Approach	02BD3ZZ	Excision of Papillary Muscle, Percutaneous Approach	02U737Z	Supplement Left Atrium with Autologous Tissue Substitute, Percutaneous Approach
02130JF	Bypass Coronary Artery, Four or More Sites from Abdominal Artery with Synthetic Substitute, Open Approach	02BD4ZZ	Excision of Papillary Muscle, Percutaneous Endoscopic Approach	02U738Z	Supplement Left Atrium with Zooplasic Tissue, Percutaneous Approach
02130JW	Bypass Coronary Artery, Four or More Sites from Aorta with Synthetic Substitute, Open Approach	02BF0ZZ	Excision of Aortic Valve, Open Approach	02U73KZ	Supplement Left Atrium with Nonautologous Tissue Substitute, Percutaneous Approach
02130K3	Bypass Coronary Artery, Four or More Sites from Coronary Artery with Nonautologous Tissue Substitute, Open Approach	02BF3ZZ	Excision of Aortic Valve, Percutaneous Approach	02U747Z	Supplement Left Atrium with Autologous Tissue Substitute, Percutaneous Endoscopic Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02130K8	Bypass Coronary Artery, Four or More Sites from Right Internal Mammary with Nonautologous Tissue Substitute, Open Approach	02BF4ZZ	Excision of Aortic Valve, Percutaneous Endoscopic Approach	02U748Z	Supplement Left Atrium with Zooplasic Tissue, Percutaneous Endoscopic Approach
02130K9	Bypass Coronary Artery, Four or More Sites from Left Internal Mammary with Nonautologous Tissue Substitute, Open Approach	02BG0ZZ	Excision of Mitral Valve, Open Approach	02U74KZ	Supplement Left Atrium with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
02130KC	Bypass Coronary Artery, Four or More Sites from Thoracic Artery with Nonautologous Tissue Substitute, Open Approach	02BG3ZZ	Excision of Mitral Valve, Percutaneous Approach	02U907Z	Supplement Chordae Tendineae with Autologous Tissue Substitute, Open Approach
02130KF	Bypass Coronary Artery, Four or More Sites from Abdominal Artery with Nonautologous Tissue Substitute, Open Approach	02BG4ZZ	Excision of Mitral Valve, Percutaneous Endoscopic Approach	02U908Z	Supplement Chordae Tendineae with Zooplasic Tissue, Open Approach
02130KW	Bypass Coronary Artery, Four or More Sites from Aorta with Nonautologous Tissue Substitute, Open Approach	02BH0ZZ	Excision of Pulmonary Valve, Open Approach	02U90JZ	Supplement Chordae Tendineae with Synthetic Substitute, Open Approach
02130Z3	Bypass Coronary Artery, Four or More Sites from Coronary Artery, Open Approach	02BH3ZZ	Excision of Pulmonary Valve, Percutaneous Approach	02U90KZ	Supplement Chordae Tendineae with Nonautologous Tissue Substitute, Open Approach
02130Z8	Bypass Coronary Artery, Four or More Sites from Right Internal Mammary, Open Approach	02BH4ZZ	Excision of Pulmonary Valve, Percutaneous Endoscopic Approach	02U937Z	Supplement Chordae Tendineae with Autologous Tissue Substitute, Percutaneous Approach
02130Z9	Bypass Coronary Artery, Four or More Sites from Left Internal Mammary, Open Approach	02BJ0ZZ	Excision of Tricuspid Valve, Open Approach	02U938Z	Supplement Chordae Tendineae with Zooplasic Tissue, Percutaneous Approach
02130ZC	Bypass Coronary Artery, Four or More Sites from Thoracic Artery, Open Approach	02BJ3ZZ	Excision of Tricuspid Valve, Percutaneous Approach	02U93JZ	Supplement Chordae Tendineae with Synthetic Substitute, Percutaneous Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02130ZF	Bypass Coronary Artery, Four or More Sites from Abdominal Artery, Open Approach	02BJ4ZZ	Excision of Tricuspid Valve, Percutaneous Endoscopic Approach	02U93KZ	Supplement Chordae Tendineae with Nonautologous Tissue Substitute, Percutaneous Approach
0213344	Bypass Coronary Artery, Four or More Sites from Coronary Vein with Drug-eluting Intraluminal Device, Percutaneous Approach	02BK0ZZ	Excision of Right Ventricle, Open Approach	02U947Z	Supplement Chordae Tendineae with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
02133D4	Bypass Coronary Artery, Four or More Sites from Coronary Vein with Intraluminal Device, Percutaneous Approach	02BK3ZZ	Excision of Right Ventricle, Percutaneous Approach	02U948Z	Supplement Chordae Tendineae with Zooplastic Tissue, Percutaneous Endoscopic Approach
0213444	Bypass Coronary Artery, Four or More Sites from Coronary Vein with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	02BK4ZZ	Excision of Right Ventricle, Percutaneous Endoscopic Approach	02U94JZ	Supplement Chordae Tendineae with Synthetic Substitute, Percutaneous Endoscopic Approach
0213493	Bypass Coronary Artery, Four or More Sites from Coronary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02BL0ZZ	Excision of Left Ventricle, Open Approach	02U94KZ	Supplement Chordae Tendineae with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
0213498	Bypass Coronary Artery, Four or More Sites from Right Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02BL3ZZ	Excision of Left Ventricle, Percutaneous Approach	02UA0JZ	Supplement Heart with Synthetic Substitute, Open Approach
0213499	Bypass Coronary Artery, Four or More Sites from Left Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02BL4ZZ	Excision of Left Ventricle, Percutaneous Endoscopic Approach	02UA3JZ	Supplement Heart with Synthetic Substitute, Percutaneous Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
021349C	Bypass Coronary Artery, Four or More Sites from Thoracic Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02BM0ZZ	Excision of Ventricular Septum, Open Approach	02UA4JZ	Supplement Heart with Synthetic Substitute, Percutaneous Endoscopic Approach
021349F	Bypass Coronary Artery, Four or More Sites from Abdominal Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02BM3ZZ	Excision of Ventricular Septum, Percutaneous Approach	02UD07Z	Supplement Papillary Muscle with Autologous Tissue Substitute, Open Approach
021349W	Bypass Coronary Artery, Four or More Sites from Aorta with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02BM4ZZ	Excision of Ventricular Septum, Percutaneous Endoscopic Approach	02UD08Z	Supplement Papillary Muscle with Zooplasic Tissue, Open Approach
02134A3	Bypass Coronary Artery, Four or More Sites from Coronary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02BN0ZZ	Excision of Pericardium, Open Approach	02UD0JZ	Supplement Papillary Muscle with Synthetic Substitute, Open Approach
02134A8	Bypass Coronary Artery, Four or More Sites from Right Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02BN3ZZ	Excision of Pericardium, Percutaneous Approach	02UD0KZ	Supplement Papillary Muscle with Nonautologous Tissue Substitute, Open Approach
02134A9	Bypass Coronary Artery, Four or More Sites from Left Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02BN4ZZ	Excision of Pericardium, Percutaneous Endoscopic Approach	02UD37Z	Supplement Papillary Muscle with Autologous Tissue Substitute, Percutaneous Approach
02134AC	Bypass Coronary Artery, Four or More Sites from Thoracic Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02C00ZZ	Extirpation of Matter from Coronary Artery, One Site, Open Approach	02UD38Z	Supplement Papillary Muscle with Zooplasic Tissue, Percutaneous Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02134AF	Bypass Coronary Artery, Four or More Sites from Abdominal Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02C03ZZ	Extirpation of Matter from Coronary Artery, One Site, Percutaneous Approach	02UD3JZ	Supplement Papillary Muscle with Synthetic Substitute, Percutaneous Approach
02134AW	Bypass Coronary Artery, Four or More Sites from Aorta with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02C04ZZ	Extirpation of Matter from Coronary Artery, One Site, Percutaneous Endoscopic Approach	02UD3KZ	Supplement Papillary Muscle with Nonautologous Tissue Substitute, Percutaneous Approach
02134D4	Bypass Coronary Artery, Four or More Sites from Coronary Vein with Intraluminal Device, Percutaneous Endoscopic Approach	02C10ZZ	Extirpation of Matter from Coronary Artery, Two Sites, Open Approach	02UD47Z	Supplement Papillary Muscle with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
02134J3	Bypass Coronary Artery, Four or More Sites from Coronary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02C13ZZ	Extirpation of Matter from Coronary Artery, Two Sites, Percutaneous Approach	02UD48Z	Supplement Papillary Muscle with Zooplastic Tissue, Percutaneous Endoscopic Approach
02134J8	Bypass Coronary Artery, Four or More Sites from Right Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	02C14ZZ	Extirpation of Matter from Coronary Artery, Two Sites, Percutaneous Endoscopic Approach	02UD4JZ	Supplement Papillary Muscle with Synthetic Substitute, Percutaneous Endoscopic Approach
02134J9	Bypass Coronary Artery, Four or More Sites from Left Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	02C20ZZ	Extirpation of Matter from Coronary Artery, Three Sites, Open Approach	02UD4KZ	Supplement Papillary Muscle with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
02134JC	Bypass Coronary Artery, Four or More Sites from Thoracic Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02C23ZZ	Extirpation of Matter from Coronary Artery, Three Sites, Percutaneous Approach	02UF07Z	Supplement Aortic Valve with Autologous Tissue Substitute, Open Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02134JF	Bypass Coronary Artery, Four or More Sites from Abdominal Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02C24ZZ	Extirpation of Matter from Coronary Artery, Three Sites, Percutaneous Endoscopic Approach	02UF08Z	Supplement Aortic Valve with Zooplasic Tissue, Open Approach
02134JW	Bypass Coronary Artery, Four or More Sites from Aorta with Synthetic Substitute, Percutaneous Endoscopic Approach	02C30ZZ	Extirpation of Matter from Coronary Artery, Four or More Sites, Open Approach	02UF0JZ	Supplement Aortic Valve with Synthetic Substitute, Open Approach
02134K3	Bypass Coronary Artery, Four or More Sites from Coronary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02C33ZZ	Extirpation of Matter from Coronary Artery, Four or More Sites, Percutaneous Approach	02UF0KZ	Supplement Aortic Valve with Nonautologous Tissue Substitute, Open Approach
02134K8	Bypass Coronary Artery, Four or More Sites from Right Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02C34ZZ	Extirpation of Matter from Coronary Artery, Four or More Sites, Percutaneous Endoscopic Approach	02UF37Z	Supplement Aortic Valve with Autologous Tissue Substitute, Percutaneous Approach
02134K9	Bypass Coronary Artery, Four or More Sites from Left Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02C40ZZ	Extirpation of Matter from Coronary Vein, Open Approach	02UF38Z	Supplement Aortic Valve with Zooplasic Tissue, Percutaneous Approach
02134KC	Bypass Coronary Artery, Four or More Sites from Thoracic Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02C43ZZ	Extirpation of Matter from Coronary Vein, Percutaneous Approach	02UF3JZ	Supplement Aortic Valve with Synthetic Substitute, Percutaneous Approach
02134KF	Bypass Coronary Artery, Four or More Sites from Abdominal Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02C44ZZ	Extirpation of Matter from Coronary Vein, Percutaneous Endoscopic Approach	02UF3KZ	Supplement Aortic Valve with Nonautologous Tissue Substitute, Percutaneous Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02134KW	Bypass Coronary Artery, Four or More Sites from Aorta with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02C50ZZ	Extirpation of Matter from Atrial Septum, Open Approach	02UF47Z	Supplement Aortic Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
02134Z3	Bypass Coronary Artery, Four or More Sites from Coronary Artery, Percutaneous Endoscopic Approach	02C53ZZ	Extirpation of Matter from Atrial Septum, Percutaneous Approach	02UF48Z	Supplement Aortic Valve with Zooplastic Tissue, Percutaneous Endoscopic Approach
02134Z8	Bypass Coronary Artery, Four or More Sites from Right Internal Mammary, Percutaneous Endoscopic Approach	02C54ZZ	Extirpation of Matter from Atrial Septum, Percutaneous Endoscopic Approach	02UF4JZ	Supplement Aortic Valve with Synthetic Substitute, Percutaneous Endoscopic Approach
02134Z9	Bypass Coronary Artery, Four or More Sites from Left Internal Mammary, Percutaneous Endoscopic Approach	02CD0ZZ	Extirpation of Matter from Papillary Muscle, Open Approach	02UF4KZ	Supplement Aortic Valve with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
02134ZC	Bypass Coronary Artery, Four or More Sites from Thoracic Artery, Percutaneous Endoscopic Approach	02CD3ZZ	Extirpation of Matter from Papillary Muscle, Percutaneous Approach	02UG07Z	Supplement Mitral Valve with Autologous Tissue Substitute, Open Approach
02134ZF	Bypass Coronary Artery, Four or More Sites from Abdominal Artery, Percutaneous Endoscopic Approach	02CD4ZZ	Extirpation of Matter from Papillary Muscle, Percutaneous Endoscopic Approach	02UG08Z	Supplement Mitral Valve with Zooplastic Tissue, Open Approach
021609P	Bypass Right Atrium to Pulmonary Trunk with Autologous Venous Tissue, Open Approach	02CF0ZZ	Extirpation of Matter from Aortic Valve, Open Approach	02UG0JZ	Supplement Mitral Valve with Synthetic Substitute, Open Approach
021609Q	Bypass Right Atrium to Right Pulmonary Artery with Autologous Venous Tissue, Open Approach	02CF3ZZ	Extirpation of Matter from Aortic Valve, Percutaneous Approach	02UG0KZ	Supplement Mitral Valve with Nonautologous Tissue Substitute, Open Approach
021609R	Bypass Right Atrium to Left Pulmonary Artery with Autologous Venous Tissue, Open Approach	02CF4ZZ	Extirpation of Matter from Aortic Valve, Percutaneous Endoscopic Approach	02UG37Z	Supplement Mitral Valve with Autologous Tissue Substitute, Percutaneous Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02160AP	Bypass Right Atrium to Pulmonary Trunk with Autologous Arterial Tissue, Open Approach	02CG0ZZ	Extirpation of Matter from Mitral Valve, Open Approach	02UG38Z	Supplement Mitral Valve with Zooplasic Tissue, Percutaneous Approach
02160AQ	Bypass Right Atrium to Right Pulmonary Artery with Autologous Arterial Tissue, Open Approach	02CG3ZZ	Extirpation of Matter from Mitral Valve, Percutaneous Approach	02UG3JZ	Supplement Mitral Valve with Synthetic Substitute, Percutaneous Approach
02160AR	Bypass Right Atrium to Left Pulmonary Artery with Autologous Arterial Tissue, Open Approach	02CG4ZZ	Extirpation of Matter from Mitral Valve, Percutaneous Endoscopic Approach	02UG3KZ	Supplement Mitral Valve with Nonautologous Tissue Substitute, Percutaneous Approach
02160JP	Bypass Right Atrium to Pulmonary Trunk with Synthetic Substitute, Open Approach	02CH0ZZ	Extirpation of Matter from Pulmonary Valve, Open Approach	02UG47Z	Supplement Mitral Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
02160JQ	Bypass Right Atrium to Right Pulmonary Artery with Synthetic Substitute, Open Approach	02CH3ZZ	Extirpation of Matter from Pulmonary Valve, Percutaneous Approach	02UG48Z	Supplement Mitral Valve with Zooplasic Tissue, Percutaneous Endoscopic Approach
02160JR	Bypass Right Atrium to Left Pulmonary Artery with Synthetic Substitute, Open Approach	02CH4ZZ	Extirpation of Matter from Pulmonary Valve, Percutaneous Endoscopic Approach	02UG4JZ	Supplement Mitral Valve with Synthetic Substitute, Percutaneous Endoscopic Approach
02160KP	Bypass Right Atrium to Pulmonary Trunk with Nonautologous Tissue Substitute, Open Approach	02CJ0ZZ	Extirpation of Matter from Tricuspid Valve, Open Approach	02UG4KZ	Supplement Mitral Valve with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
02160KQ	Bypass Right Atrium to Right Pulmonary Artery with Nonautologous Tissue Substitute, Open Approach	02CJ3ZZ	Extirpation of Matter from Tricuspid Valve, Percutaneous Approach	02UH07Z	Supplement Pulmonary Valve with Autologous Tissue Substitute, Open Approach
02160KR	Bypass Right Atrium to Left Pulmonary Artery with Nonautologous Tissue Substitute, Open Approach	02CJ4ZZ	Extirpation of Matter from Tricuspid Valve, Percutaneous Endoscopic Approach	02UH08Z	Supplement Pulmonary Valve with Zooplasic Tissue, Open Approach
02160ZP	Bypass Right Atrium to Pulmonary Trunk, Open Approach	02CM0ZZ	Extirpation of Matter from Ventricular Septum, Open Approach	02UH0JZ	Supplement Pulmonary Valve with Synthetic Substitute, Open Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02160ZQ	Bypass Right Atrium to Right Pulmonary Artery, Open Approach	02CM3ZZ	Extirpation of Matter from Ventricular Septum, Percutaneous Approach	02UH0KZ	Supplement Pulmonary Valve with Nonautologous Tissue Substitute, Open Approach
02160ZR	Bypass Right Atrium to Left Pulmonary Artery, Open Approach	02CM4ZZ	Extirpation of Matter from Ventricular Septum, Percutaneous Endoscopic Approach	02UH37Z	Supplement Pulmonary Valve with Autologous Tissue Substitute, Percutaneous Approach
021649P	Bypass Right Atrium to Pulmonary Trunk with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02H400Z	Insertion of Pressure Sensor Monitoring Device into Coronary Vein, Open Approach	02UH38Z	Supplement Pulmonary Valve with Zooplastic Tissue, Percutaneous Approach
021649Q	Bypass Right Atrium to Right Pulmonary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02H402Z	Insertion of Monitoring Device into Coronary Vein, Open Approach	02UH3JZ	Supplement Pulmonary Valve with Synthetic Substitute, Percutaneous Approach
021649R	Bypass Right Atrium to Left Pulmonary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02H403Z	Insertion of Infusion Device into Coronary Vein, Open Approach	02UH3KZ	Supplement Pulmonary Valve with Nonautologous Tissue Substitute, Percutaneous Approach
02164AP	Bypass Right Atrium to Pulmonary Trunk with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02H40DZ	Insertion of Intraluminal Device into Coronary Vein, Open Approach	02UH47Z	Supplement Pulmonary Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
02164AQ	Bypass Right Atrium to Right Pulmonary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02H40JZ	Insertion of Pacemaker Lead into Coronary Vein, Open Approach	02UH48Z	Supplement Pulmonary Valve with Zooplastic Tissue, Percutaneous Endoscopic Approach
02164AR	Bypass Right Atrium to Left Pulmonary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02H40KZ	Insertion of Defibrillator Lead into Coronary Vein, Open Approach	02UH4JZ	Supplement Pulmonary Valve with Synthetic Substitute, Percutaneous Endoscopic Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02164JP	Bypass Right Atrium to Pulmonary Trunk with Synthetic Substitute, Percutaneous Endoscopic Approach	02H40MZ	Insertion of Cardiac Lead into Coronary Vein, Open Approach	02UH4KZ	Supplement Pulmonary Valve with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
02164JQ	Bypass Right Atrium to Right Pulmonary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02H430Z	Insertion of Pressure Sensor Monitoring Device into Coronary Vein, Percutaneous Approach	02UJ07Z	Supplement Tricuspid Valve with Autologous Tissue Substitute, Open Approach
02164JR	Bypass Right Atrium to Left Pulmonary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02H432Z	Insertion of Monitoring Device into Coronary Vein, Percutaneous Approach	02UJ08Z	Supplement Tricuspid Valve with Zooplasic Tissue, Open Approach
02164KP	Bypass Right Atrium to Pulmonary Trunk with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02H433Z	Insertion of Infusion Device into Coronary Vein, Percutaneous Approach	02UJ0JZ	Supplement Tricuspid Valve with Synthetic Substitute, Open Approach
02164KQ	Bypass Right Atrium to Right Pulmonary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02H43DZ	Insertion of Intraluminal Device into Coronary Vein, Percutaneous Approach	02UJ0KZ	Supplement Tricuspid Valve with Nonautologous Tissue Substitute, Open Approach
02164KR	Bypass Right Atrium to Left Pulmonary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02H43JZ	Insertion of Pacemaker Lead into Coronary Vein, Percutaneous Approach	02UJ37Z	Supplement Tricuspid Valve with Autologous Tissue Substitute, Percutaneous Approach
02164ZP	Bypass Right Atrium to Pulmonary Trunk, Percutaneous Endoscopic Approach	02H43KZ	Insertion of Defibrillator Lead into Coronary Vein, Percutaneous Approach	02UJ38Z	Supplement Tricuspid Valve with Zooplasic Tissue, Percutaneous Approach
02164ZQ	Bypass Right Atrium to Right Pulmonary Artery, Percutaneous Endoscopic Approach	02H43MZ	Insertion of Cardiac Lead into Coronary Vein, Percutaneous Approach	02UJ3JZ	Supplement Tricuspid Valve with Synthetic Substitute, Percutaneous Approach
02164ZR	Bypass Right Atrium to Left Pulmonary Artery, Percutaneous Endoscopic Approach	02H440Z	Insertion of Pressure Sensor Monitoring Device into Coronary Vein, Percutaneous Endoscopic Approach	02UJ3KZ	Supplement Tricuspid Valve with Nonautologous Tissue Substitute, Percutaneous Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
021709P	Bypass Left Atrium to Pulmonary Trunk with Autologous Venous Tissue, Open Approach	02H442Z	Insertion of Monitoring Device into Coronary Vein, Percutaneous Endoscopic Approach	02UJ47Z	Supplement Tricuspid Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
021709Q	Bypass Left Atrium to Right Pulmonary Artery with Autologous Venous Tissue, Open Approach	02H443Z	Insertion of Infusion Device into Coronary Vein, Percutaneous Endoscopic Approach	02UJ48Z	Supplement Tricuspid Valve with Zooplasic Tissue, Percutaneous Endoscopic Approach
021709R	Bypass Left Atrium to Left Pulmonary Artery with Autologous Venous Tissue, Open Approach	02H44DZ	Insertion of Intraluminal Device into Coronary Vein, Percutaneous Endoscopic Approach	02UJ4JZ	Supplement Tricuspid Valve with Synthetic Substitute, Percutaneous Endoscopic Approach
02170AP	Bypass Left Atrium to Pulmonary Trunk with Autologous Arterial Tissue, Open Approach	02H44JZ	Insertion of Pacemaker Lead into Coronary Vein, Percutaneous Endoscopic Approach	02UJ4KZ	Supplement Tricuspid Valve with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
02170AQ	Bypass Left Atrium to Right Pulmonary Artery with Autologous Arterial Tissue, Open Approach	02H44KZ	Insertion of Defibrillator Lead into Coronary Vein, Percutaneous Endoscopic Approach	02UK0KZ	Supplement Right Ventricle with Nonautologous Tissue Substitute, Open Approach
02170AR	Bypass Left Atrium to Left Pulmonary Artery with Autologous Arterial Tissue, Open Approach	02H44MZ	Insertion of Cardiac Lead into Coronary Vein, Percutaneous Endoscopic Approach	02UK3KZ	Supplement Right Ventricle with Nonautologous Tissue Substitute, Percutaneous Approach
02170JP	Bypass Left Atrium to Pulmonary Trunk with Synthetic Substitute, Open Approach	02H600Z	Insertion of Pressure Sensor Monitoring Device into Right Atrium, Open Approach	02UK4KZ	Supplement Right Ventricle with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
02170JQ	Bypass Left Atrium to Right Pulmonary Artery with Synthetic Substitute, Open Approach	02H60JZ	Insertion of Pacemaker Lead into Right Atrium, Open Approach	02UL0KZ	Supplement Left Ventricle with Nonautologous Tissue Substitute, Open Approach
02170JR	Bypass Left Atrium to Left Pulmonary Artery with Synthetic Substitute, Open Approach	02H60KZ	Insertion of Defibrillator Lead into Right Atrium, Open Approach	02UL3KZ	Supplement Left Ventricle with Nonautologous Tissue Substitute, Percutaneous Approach
02170KP	Bypass Left Atrium to Pulmonary Trunk with Nonautologous Tissue Substitute, Open Approach	02H60MZ	Insertion of Cardiac Lead into Right Atrium, Open Approach	02UL4KZ	Supplement Left Ventricle with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02170KQ	Bypass Left Atrium to Right Pulmonary Artery with Nonautologous Tissue Substitute, Open Approach	02H630Z	Insertion of Pressure Sensor Monitoring Device into Right Atrium, Percutaneous Approach	02UM07Z	Supplement Ventricular Septum with Autologous Tissue Substitute, Open Approach
02170KR	Bypass Left Atrium to Left Pulmonary Artery with Nonautologous Tissue Substitute, Open Approach	02H63JZ	Insertion of Pacemaker Lead into Right Atrium, Percutaneous Approach	02UM0JZ	Supplement Ventricular Septum with Synthetic Substitute, Open Approach
02170ZP	Bypass Left Atrium to Pulmonary Trunk, Open Approach	02H63KZ	Insertion of Defibrillator Lead into Right Atrium, Percutaneous Approach	02UM0KZ	Supplement Ventricular Septum with Nonautologous Tissue Substitute, Open Approach
02170ZQ	Bypass Left Atrium to Right Pulmonary Artery, Open Approach	02H63MZ	Insertion of Cardiac Lead into Right Atrium, Percutaneous Approach	02UM37Z	Supplement Ventricular Septum with Autologous Tissue Substitute, Percutaneous Approach
02170ZR	Bypass Left Atrium to Left Pulmonary Artery, Open Approach	02H640Z	Insertion of Pressure Sensor Monitoring Device into Right Atrium, Percutaneous Endoscopic Approach	02UM38Z	Supplement Ventricular Septum with Zooplastic Tissue, Percutaneous Approach
021749P	Bypass Left Atrium to Pulmonary Trunk with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02H64JZ	Insertion of Pacemaker Lead into Right Atrium, Percutaneous Endoscopic Approach	02UM3JZ	Supplement Ventricular Septum with Synthetic Substitute, Percutaneous Approach
021749Q	Bypass Left Atrium to Right Pulmonary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02H64KZ	Insertion of Defibrillator Lead into Right Atrium, Percutaneous Endoscopic Approach	02UM3KZ	Supplement Ventricular Septum with Nonautologous Tissue Substitute, Percutaneous Approach
021749R	Bypass Left Atrium to Left Pulmonary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02H64MZ	Insertion of Cardiac Lead into Right Atrium, Percutaneous Endoscopic Approach	02UM47Z	Supplement Ventricular Septum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
02174AP	Bypass Left Atrium to Pulmonary Trunk with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02H700Z	Insertion of Pressure Sensor Monitoring Device into Left Atrium, Open Approach	02UM48Z	Supplement Ventricular Septum with Zooplastic Tissue, Percutaneous Endoscopic Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02174AQ	Bypass Left Atrium to Right Pulmonary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02H70JZ	Insertion of Pacemaker Lead into Left Atrium, Open Approach	02UM4JZ	Supplement Ventricular Septum with Synthetic Substitute, Percutaneous Endoscopic Approach
02174AR	Bypass Left Atrium to Left Pulmonary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02H70KZ	Insertion of Defibrillator Lead into Left Atrium, Open Approach	02UM4KZ	Supplement Ventricular Septum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
02174JP	Bypass Left Atrium to Pulmonary Trunk with Synthetic Substitute, Percutaneous Endoscopic Approach	02H70MZ	Insertion of Cardiac Lead into Left Atrium, Open Approach	02VR0ZT	Restriction of Ductus Arteriosus, Open Approach
02174JQ	Bypass Left Atrium to Right Pulmonary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02H730Z	Insertion of Pressure Sensor Monitoring Device into Left Atrium, Percutaneous Approach	02W50JZ	Revision of Synthetic Substitute in Atrial Septum, Open Approach
02174JR	Bypass Left Atrium to Left Pulmonary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02H73JZ	Insertion of Pacemaker Lead into Left Atrium, Percutaneous Approach	02W54JZ	Revision of Synthetic Substitute in Atrial Septum, Percutaneous Endoscopic Approach
02174KP	Bypass Left Atrium to Pulmonary Trunk with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02H73KZ	Insertion of Defibrillator Lead into Left Atrium, Percutaneous Approach	02WA0JZ	Revision of Synthetic Substitute in Heart, Open Approach
02174KQ	Bypass Left Atrium to Right Pulmonary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02H73MZ	Insertion of Cardiac Lead into Left Atrium, Percutaneous Approach	02WA0MZ	Revision of Cardiac Lead in Heart, Open Approach
02174KR	Bypass Left Atrium to Left Pulmonary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02H740Z	Insertion of Pressure Sensor Monitoring Device into Left Atrium, Percutaneous Endoscopic Approach	02WA0QZ	Revision of Implantable Heart Assist System in Heart, Open Approach

(continued)

Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
02174ZP	Bypass Left Atrium to Pulmonary Trunk, Percutaneous Endoscopic Approach	02H74JZ	Insertion of Pacemaker Lead into Left Atrium, Percutaneous Endoscopic Approach	02WA0RZ	Revision of External Heart Assist System in Heart, Open Approach
02174ZQ	Bypass Left Atrium to Right Pulmonary Artery, Percutaneous Endoscopic Approach	02H74KZ	Insertion of Defibrillator Lead into Left Atrium, Percutaneous Endoscopic Approach	02WA3MZ	Revision of Cardiac Lead in Heart, Percutaneous Approach
02174ZR	Bypass Left Atrium to Left Pulmonary Artery, Percutaneous Endoscopic Approach	02H74MZ	Insertion of Cardiac Lead into Left Atrium, Percutaneous Endoscopic Approach	02WA3QZ	Revision of Implantable Heart Assist System in Heart, Percutaneous Approach
021K09P	Bypass Right Ventricle to Pulmonary Trunk with Autologous Venous Tissue, Open Approach	02HA0QZ	Insertion of Implantable Heart Assist System into Heart, Open Approach	02WA3RZ	Revision of External Heart Assist System in Heart, Percutaneous Approach
021K09Q	Bypass Right Ventricle to Right Pulmonary Artery with Autologous Venous Tissue, Open Approach	02HA0RS	Insertion of Biventricular External Heart Assist System into Heart, Open Approach	02WA4MZ	Revision of Cardiac Lead in Heart, Percutaneous Endoscopic Approach
021K09R	Bypass Right Ventricle to Left Pulmonary Artery with Autologous Venous Tissue, Open Approach	02HA0RZ	Insertion of External Heart Assist System into Heart, Open Approach	02WA4QZ	Revision of Implantable Heart Assist System in Heart, Percutaneous Endoscopic Approach
021K0AP	Bypass Right Ventricle to Pulmonary Trunk with Autologous Arterial Tissue, Open Approach	02HA3QZ	Insertion of Implantable Heart Assist System into Heart, Percutaneous Approach	02WA4RZ	Revision of External Heart Assist System in Heart, Percutaneous Endoscopic Approach
021K0AQ	Bypass Right Ventricle to Right Pulmonary Artery with Autologous Arterial Tissue, Open Approach	02HA3RS	Insertion of Biventricular External Heart Assist System into Heart, Percutaneous Approach	02WF07Z	Revision of Autologous Tissue Substitute in Aortic Valve, Open Approach
021K0AR	Bypass Right Ventricle to Left Pulmonary Artery with Autologous Arterial Tissue, Open Approach	02HA3RZ	Insertion of External Heart Assist System into Heart, Percutaneous Approach	02WF08Z	Revision of Zooplasic Tissue in Aortic Valve, Open Approach
021K0JP	Bypass Right Ventricle to Pulmonary Trunk with Synthetic Substitute, Open Approach	02HA4QZ	Insertion of Implantable Heart Assist System into Heart, Percutaneous Endoscopic Approach	02WF0JZ	Revision of Synthetic Substitute in Aortic Valve, Open Approach

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Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
021K0JQ	Bypass Right Ventricle to Right Pulmonary Artery with Synthetic Substitute, Open Approach	02HA4RS	Insertion of Biventricular External Heart Assist System into Heart, Percutaneous Endoscopic Approach	02WF0KZ	Revision of Nonautologous Tissue Substitute in Aortic Valve, Open Approach
021K0JR	Bypass Right Ventricle to Left Pulmonary Artery with Synthetic Substitute, Open Approach	02HA4RZ	Insertion of External Heart Assist System into Heart, Percutaneous Endoscopic Approach	02WF47Z	Revision of Autologous Tissue Substitute in Aortic Valve, Percutaneous Endoscopic Approach
021K0KP	Bypass Right Ventricle to Pulmonary Trunk with Nonautologous Tissue Substitute, Open Approach	02HK00Z	Insertion of Pressure Sensor Monitoring Device into Right Ventricle, Open Approach	02WF48Z	Revision of Zooplastic Tissue in Aortic Valve, Percutaneous Endoscopic Approach
021K0KQ	Bypass Right Ventricle to Right Pulmonary Artery with Nonautologous Tissue Substitute, Open Approach	02HK02Z	Insertion of Monitoring Device into Right Ventricle, Open Approach	02WF4JZ	Revision of Synthetic Substitute in Aortic Valve, Percutaneous Endoscopic Approach
021K0KR	Bypass Right Ventricle to Left Pulmonary Artery with Nonautologous Tissue Substitute, Open Approach	02HK0JZ	Insertion of Pacemaker Lead into Right Ventricle, Open Approach	02WF4KZ	Revision of Nonautologous Tissue Substitute in Aortic Valve, Percutaneous Endoscopic Approach
021K0Z5	Bypass Right Ventricle to Coronary Circulation, Open Approach	02HK0KZ	Insertion of Defibrillator Lead into Right Ventricle, Open Approach	02WG07Z	Revision of Autologous Tissue Substitute in Mitral Valve, Open Approach
021K0Z8	Bypass Right Ventricle to Right Internal Mammary, Open Approach	02HK0MZ	Insertion of Cardiac Lead into Right Ventricle, Open Approach	02WG08Z	Revision of Zooplastic Tissue in Mitral Valve, Open Approach
021K0Z9	Bypass Right Ventricle to Left Internal Mammary, Open Approach	02HK30Z	Insertion of Pressure Sensor Monitoring Device into Right Ventricle, Percutaneous Approach	02WG0JZ	Revision of Synthetic Substitute in Mitral Valve, Open Approach
021K0ZC	Bypass Right Ventricle to Thoracic Artery, Open Approach	02HK32Z	Insertion of Monitoring Device into Right Ventricle, Percutaneous Approach	02WG0KZ	Revision of Nonautologous Tissue Substitute in Mitral Valve, Open Approach
021K0ZF	Bypass Right Ventricle to Abdominal Artery, Open Approach	02HK3JZ	Insertion of Pacemaker Lead into Right Ventricle, Percutaneous Approach	02WG47Z	Revision of Autologous Tissue Substitute in Mitral Valve, Percutaneous Endoscopic Approach
021K0ZP	Bypass Right Ventricle to Pulmonary Trunk, Open Approach	02HK3KZ	Insertion of Defibrillator Lead into Right Ventricle, Percutaneous Approach	02WG48Z	Revision of Zooplastic Tissue in Mitral Valve, Percutaneous Endoscopic Approach

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Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
021K0ZQ	Bypass Right Ventricle to Right Pulmonary Artery, Open Approach	02HK3MZ	Insertion of Cardiac Lead into Right Ventricle, Percutaneous Approach	02WG4JZ	Revision of Synthetic Substitute in Mitral Valve, Percutaneous Endoscopic Approach
021K0ZR	Bypass Right Ventricle to Left Pulmonary Artery, Open Approach	02HK40Z	Insertion of Pressure Sensor Monitoring Device into Right Ventricle, Percutaneous Endoscopic Approach	02WG4KZ	Revision of Nonautologous Tissue Substitute in Mitral Valve, Percutaneous Endoscopic Approach
021K0ZW	Bypass Right Ventricle to Aorta, Open Approach	02HK42Z	Insertion of Monitoring Device into Right Ventricle, Percutaneous Endoscopic Approach	02WH07Z	Revision of Autologous Tissue Substitute in Pulmonary Valve, Open Approach
021K49P	Bypass Right Ventricle to Pulmonary Trunk with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02HK4JZ	Insertion of Pacemaker Lead into Right Ventricle, Percutaneous Endoscopic Approach	02WH08Z	Revision of Zooplastic Tissue in Pulmonary Valve, Open Approach
021K49Q	Bypass Right Ventricle to Right Pulmonary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02HK4KZ	Insertion of Defibrillator Lead into Right Ventricle, Percutaneous Endoscopic Approach	02WH0JZ	Revision of Synthetic Substitute in Pulmonary Valve, Open Approach
021K49R	Bypass Right Ventricle to Left Pulmonary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02HK4MZ	Insertion of Cardiac Lead into Right Ventricle, Percutaneous Endoscopic Approach	02WH0KZ	Revision of Nonautologous Tissue Substitute in Pulmonary Valve, Open Approach
021K4AP	Bypass Right Ventricle to Pulmonary Trunk with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02HL00Z	Insertion of Pressure Sensor Monitoring Device into Left Ventricle, Open Approach	02WH47Z	Revision of Autologous Tissue Substitute in Pulmonary Valve, Percutaneous Endoscopic Approach
021K4AQ	Bypass Right Ventricle to Right Pulmonary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02HL0JZ	Insertion of Pacemaker Lead into Left Ventricle, Open Approach	02WH48Z	Revision of Zooplastic Tissue in Pulmonary Valve, Percutaneous Endoscopic Approach

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Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
021K4AR	Bypass Right Ventricle to Left Pulmonary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02HL0KZ	Insertion of Defibrillator Lead into Left Ventricle, Open Approach	02WH4JZ	Revision of Synthetic Substitute in Pulmonary Valve, Percutaneous Endoscopic Approach
021K4JP	Bypass Right Ventricle to Pulmonary Trunk with Synthetic Substitute, Percutaneous Endoscopic Approach	02HL0MZ	Insertion of Cardiac Lead into Left Ventricle, Open Approach	02WH4KZ	Revision of Nonautologous Tissue Substitute in Pulmonary Valve, Percutaneous Endoscopic Approach
021K4JQ	Bypass Right Ventricle to Right Pulmonary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02HL30Z	Insertion of Pressure Sensor Monitoring Device into Left Ventricle, Percutaneous Approach	02WJ07Z	Revision of Autologous Tissue Substitute in Tricuspid Valve, Open Approach
021K4JR	Bypass Right Ventricle to Left Pulmonary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02HL3JZ	Insertion of Pacemaker Lead into Left Ventricle, Percutaneous Approach	02WJ08Z	Revision of Zooplasic Tissue in Tricuspid Valve, Open Approach
021K4KP	Bypass Right Ventricle to Pulmonary Trunk with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02HL3KZ	Insertion of Defibrillator Lead into Left Ventricle, Percutaneous Approach	02WJ0JZ	Revision of Synthetic Substitute in Tricuspid Valve, Open Approach
021K4KQ	Bypass Right Ventricle to Right Pulmonary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02HL3MZ	Insertion of Cardiac Lead into Left Ventricle, Percutaneous Approach	02WJ0KZ	Revision of Nonautologous Tissue Substitute in Tricuspid Valve, Open Approach
021K4KR	Bypass Right Ventricle to Left Pulmonary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02HL40Z	Insertion of Pressure Sensor Monitoring Device into Left Ventricle, Percutaneous Endoscopic Approach	02WJ47Z	Revision of Autologous Tissue Substitute in Tricuspid Valve, Percutaneous Endoscopic Approach
021K4Z5	Bypass Right Ventricle to Coronary Circulation, Percutaneous Endoscopic Approach	02HL4JZ	Insertion of Pacemaker Lead into Left Ventricle, Percutaneous Endoscopic Approach	02WJ48Z	Revision of Zooplasic Tissue in Tricuspid Valve, Percutaneous Endoscopic Approach

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Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
021K4Z8	Bypass Right Ventricle to Right Internal Mammary, Percutaneous Endoscopic Approach	02HL4KZ	Insertion of Defibrillator Lead into Left Ventricle, Percutaneous Endoscopic Approach	02WJ4JZ	Revision of Synthetic Substitute in Tricuspid Valve, Percutaneous Endoscopic Approach
021K4Z9	Bypass Right Ventricle to Left Internal Mammary, Percutaneous Endoscopic Approach	02HL4MZ	Insertion of Cardiac Lead into Left Ventricle, Percutaneous Endoscopic Approach	02WJ4KZ	Revision of Nonautologous Tissue Substitute in Tricuspid Valve, Percutaneous Endoscopic Approach
021K4ZC	Bypass Right Ventricle to Thoracic Artery, Percutaneous Endoscopic Approach	02HN0JZ	Insertion of Pacemaker Lead into Pericardium, Open Approach	02WM0JZ	Revision of Synthetic Substitute in Ventricular Septum, Open Approach
021K4ZF	Bypass Right Ventricle to Abdominal Artery, Percutaneous Endoscopic Approach	02HN0KZ	Insertion of Defibrillator Lead into Pericardium, Open Approach	02WM4JZ	Revision of Synthetic Substitute in Ventricular Septum, Percutaneous Endoscopic Approach
021K4ZP	Bypass Right Ventricle to Pulmonary Trunk, Percutaneous Endoscopic Approach	02HN0MZ	Insertion of Cardiac Lead into Pericardium, Open Approach	02YA0Z0	Transplantation of Heart, Allogeneic, Open Approach
021K4ZQ	Bypass Right Ventricle to Right Pulmonary Artery, Percutaneous Endoscopic Approach	02HN3JZ	Insertion of Pacemaker Lead into Pericardium, Percutaneous Approach	02YA0Z1	Transplantation of Heart, Syngeneic, Open Approach
021K4ZR	Bypass Right Ventricle to Left Pulmonary Artery, Percutaneous Endoscopic Approach	02HN3KZ	Insertion of Defibrillator Lead into Pericardium, Percutaneous Approach	02YA0Z2	Transplantation of Heart, Zooplasmic, Open Approach
021K4ZW	Bypass Right Ventricle to Aorta, Percutaneous Endoscopic Approach	02HN3MZ	Insertion of Cardiac Lead into Pericardium, Percutaneous Approach	0JH600Z	Insertion of Hemodynamic Monitoring Device into Chest Subcutaneous Tissue and Fascia, Open Approach
021L09P	Bypass Left Ventricle to Pulmonary Trunk with Autologous Venous Tissue, Open Approach	02HN4JZ	Insertion of Pacemaker Lead into Pericardium, Percutaneous Endoscopic Approach	0JH604Z	Insertion of Pacemaker, Single Chamber into Chest Subcutaneous Tissue and Fascia, Open Approach

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Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
021L09Q	Bypass Left Ventricle to Right Pulmonary Artery with Autologous Venous Tissue, Open Approach	02HN4KZ	Insertion of Defibrillator Lead into Pericardium, Percutaneous Endoscopic Approach	0JH605Z	Insertion of Pacemaker, Single Chamber Rate Responsive into Chest Subcutaneous Tissue and Fascia, Open Approach
021L09R	Bypass Left Ventricle to Left Pulmonary Artery with Autologous Venous Tissue, Open Approach	02HN4MZ	Insertion of Cardiac Lead into Pericardium, Percutaneous Endoscopic Approach	0JH606Z	Insertion of Pacemaker, Dual Chamber into Chest Subcutaneous Tissue and Fascia, Open Approach
021L0AP	Bypass Left Ventricle to Pulmonary Trunk with Autologous Arterial Tissue, Open Approach	02HS00Z	Insertion of Pressure Sensor Monitoring Device into Right Pulmonary Vein, Open Approach	0JH607Z	Insertion of Cardiac Resynchronization Pacemaker Pulse Generator into Chest Subcutaneous Tissue and Fascia, Open Approach
021L0AQ	Bypass Left Ventricle to Right Pulmonary Artery with Autologous Arterial Tissue, Open Approach	02HS30Z	Insertion of Pressure Sensor Monitoring Device into Right Pulmonary Vein, Percutaneous Approach	0JH608Z	Insertion of Defibrillator Generator into Chest Subcutaneous Tissue and Fascia, Open Approach
021L0AR	Bypass Left Ventricle to Left Pulmonary Artery with Autologous Arterial Tissue, Open Approach	02HS40Z	Insertion of Pressure Sensor Monitoring Device into Right Pulmonary Vein, Percutaneous Endoscopic Approach	0JH609Z	Insertion of Cardiac Resynchronization Defibrillator Pulse Generator into Chest Subcutaneous Tissue and Fascia, Open Approach
021L0JP	Bypass Left Ventricle to Pulmonary Trunk with Synthetic Substitute, Open Approach	02HT00Z	Insertion of Pressure Sensor Monitoring Device into Left Pulmonary Vein, Open Approach	0JH60AZ	Insertion of Contractility Modulation Device into Chest Subcutaneous Tissue and Fascia, Open Approach
021L0JQ	Bypass Left Ventricle to Right Pulmonary Artery with Synthetic Substitute, Open Approach	02HT30Z	Insertion of Pressure Sensor Monitoring Device into Left Pulmonary Vein, Percutaneous Approach	0JH60PZ	Insertion of Cardiac Rhythm Related Device into Chest Subcutaneous Tissue and Fascia, Open Approach
021L0JR	Bypass Left Ventricle to Left Pulmonary Artery with Synthetic Substitute, Open Approach	02HT40Z	Insertion of Pressure Sensor Monitoring Device into Left Pulmonary Vein, Percutaneous Endoscopic Approach	0JH630Z	Insertion of Hemodynamic Monitoring Device into Chest Subcutaneous Tissue and Fascia, Percutaneous Approach

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Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
021L0KP	Bypass Left Ventricle to Pulmonary Trunk with Nonautologous Tissue Substitute, Open Approach	02HV00Z	Insertion of Pressure Sensor Monitoring Device into Superior Vena Cava, Open Approach	0JH634Z	Insertion of Pacemaker, Single Chamber into Chest Subcutaneous Tissue and Fascia, Percutaneous Approach
021L0KQ	Bypass Left Ventricle to Right Pulmonary Artery with Nonautologous Tissue Substitute, Open Approach	02HV30Z	Insertion of Pressure Sensor Monitoring Device into Superior Vena Cava, Percutaneous Approach	0JH635Z	Insertion of Pacemaker, Single Chamber Rate Responsive into Chest Subcutaneous Tissue and Fascia, Percutaneous Approach
021L0KR	Bypass Left Ventricle to Left Pulmonary Artery with Nonautologous Tissue Substitute, Open Approach	02HV40Z	Insertion of Pressure Sensor Monitoring Device into Superior Vena Cava, Percutaneous Endoscopic Approach	0JH636Z	Insertion of Pacemaker, Dual Chamber into Chest Subcutaneous Tissue and Fascia, Percutaneous Approach
021L0Z5	Bypass Left Ventricle to Coronary Circulation, Open Approach	02L70CK	Occlusion of Left Atrial Appendage with Extraluminal Device, Open Approach	0JH637Z	Insertion of Cardiac Resynchronization Pacemaker Pulse Generator into Chest Subcutaneous Tissue and Fascia, Percutaneous Approach
021L0Z8	Bypass Left Ventricle to Right Internal Mammary, Open Approach	02L70DK	Occlusion of Left Atrial Appendage with Intraluminal Device, Open Approach	0JH638Z	Insertion of Defibrillator Generator into Chest Subcutaneous Tissue and Fascia, Percutaneous Approach
021L0Z9	Bypass Left Ventricle to Left Internal Mammary, Open Approach	02L70ZK	Occlusion of Left Atrial Appendage, Open Approach	0JH639Z	Insertion of Cardiac Resynchronization Defibrillator Pulse Generator into Chest Subcutaneous Tissue and Fascia, Percutaneous Approach
021L0ZC	Bypass Left Ventricle to Thoracic Artery, Open Approach	02L73CK	Occlusion of Left Atrial Appendage with Extraluminal Device, Percutaneous Approach	0JH63AZ	Insertion of Contractility Modulation Device into Chest Subcutaneous Tissue and Fascia, Percutaneous Approach

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Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
021L0ZF	Bypass Left Ventricle to Abdominal Artery, Open Approach	02L73DK	Occlusion of Left Atrial Appendage with Intraluminal Device, Percutaneous Approach	0JH63PZ	Insertion of Cardiac Rhythm Related Device into Chest Subcutaneous Tissue and Fascia, Percutaneous Approach
021L0ZP	Bypass Left Ventricle to Pulmonary Trunk, Open Approach	02L73ZK	Occlusion of Left Atrial Appendage, Percutaneous Approach	0JH800Z	Insertion of Hemodynamic Monitoring Device into Abdomen Subcutaneous Tissue and Fascia, Open Approach
021L0ZQ	Bypass Left Ventricle to Right Pulmonary Artery, Open Approach	02L74CK	Occlusion of Left Atrial Appendage with Extraluminal Device, Percutaneous Endoscopic Approach	0JH804Z	Insertion of Pacemaker, Single Chamber into Abdomen Subcutaneous Tissue and Fascia, Open Approach
021L0ZR	Bypass Left Ventricle to Left Pulmonary Artery, Open Approach	02L74DK	Occlusion of Left Atrial Appendage with Intraluminal Device, Percutaneous Endoscopic Approach	0JH805Z	Insertion of Pacemaker, Single Chamber Rate Responsive into Abdomen Subcutaneous Tissue and Fascia, Open Approach
021L0ZW	Bypass Left Ventricle to Aorta, Open Approach	02L74ZK	Occlusion of Left Atrial Appendage, Percutaneous Endoscopic Approach	0JH806Z	Insertion of Pacemaker, Dual Chamber into Abdomen Subcutaneous Tissue and Fascia, Open Approach
021L49P	Bypass Left Ventricle to Pulmonary Trunk with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02LR0ZT	Occlusion of Ductus Arteriosus, Open Approach	0JH807Z	Insertion of Cardiac Resynchronization Pacemaker Pulse Generator into Abdomen Subcutaneous Tissue and Fascia, Open Approach
021L49Q	Bypass Left Ventricle to Right Pulmonary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02LS0ZZ	Occlusion of Right Pulmonary Vein, Open Approach	0JH808Z	Insertion of Defibrillator Generator into Abdomen Subcutaneous Tissue and Fascia, Open Approach
021L49R	Bypass Left Ventricle to Left Pulmonary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02LT0ZZ	Occlusion of Left Pulmonary Vein, Open Approach	0JH809Z	Insertion of Cardiac Resynchronization Defibrillator Pulse Generator into Abdomen Subcutaneous Tissue and Fascia, Open Approach

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Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
021L4AP	Bypass Left Ventricle to Pulmonary Trunk with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02N50ZZ	Release Atrial Septum, Open Approach	0JH80AZ	Insertion of Contractility Modulation Device into Abdomen Subcutaneous Tissue and Fascia, Open Approach
021L4AQ	Bypass Left Ventricle to Right Pulmonary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02N53ZZ	Release Atrial Septum, Percutaneous Approach	0JH80PZ	Insertion of Cardiac Rhythm Related Device into Abdomen Subcutaneous Tissue and Fascia, Open Approach
021L4AR	Bypass Left Ventricle to Left Pulmonary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02N54ZZ	Release Atrial Septum, Percutaneous Endoscopic Approach	0JH830Z	Insertion of Hemodynamic Monitoring Device into Abdomen Subcutaneous Tissue and Fascia, Percutaneous Approach
021L4JP	Bypass Left Ventricle to Pulmonary Trunk with Synthetic Substitute, Percutaneous Endoscopic Approach	02N90ZZ	Release Chordae Tendineae, Open Approach	0JH834Z	Insertion of Pacemaker, Single Chamber into Abdomen Subcutaneous Tissue and Fascia, Percutaneous Approach
021L4JQ	Bypass Left Ventricle to Right Pulmonary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02N93ZZ	Release Chordae Tendineae, Percutaneous Approach	0JH835Z	Insertion of Pacemaker, Single Chamber Rate Responsive into Abdomen Subcutaneous Tissue and Fascia, Percutaneous Approach
021L4JR	Bypass Left Ventricle to Left Pulmonary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02N94ZZ	Release Chordae Tendineae, Percutaneous Endoscopic Approach	0JH836Z	Insertion of Pacemaker, Dual Chamber into Abdomen Subcutaneous Tissue and Fascia, Percutaneous Approach
021L4KP	Bypass Left Ventricle to Pulmonary Trunk with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02ND0ZZ	Release Papillary Muscle, Open Approach	0JH837Z	Insertion of Cardiac Resynchronization Pacemaker Pulse Generator into Abdomen Subcutaneous Tissue and Fascia, Percutaneous Approach

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Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
021L4KQ	Bypass Left Ventricle to Right Pulmonary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02ND3ZZ	Release Papillary Muscle, Percutaneous Approach	0JH838Z	Insertion of Defibrillator Generator into Abdomen Subcutaneous Tissue and Fascia, Percutaneous Approach
021L4KR	Bypass Left Ventricle to Left Pulmonary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02ND4ZZ	Release Papillary Muscle, Percutaneous Endoscopic Approach	0JH839Z	Insertion of Cardiac Resynchronization Defibrillator Pulse Generator into Abdomen Subcutaneous Tissue and Fascia, Percutaneous Approach
021L4Z5	Bypass Left Ventricle to Coronary Circulation, Percutaneous Endoscopic Approach	02NF0ZZ	Release Aortic Valve, Open Approach	0JH83AZ	Insertion of Contractility Modulation Device into Abdomen Subcutaneous Tissue and Fascia, Percutaneous Approach
021L4Z8	Bypass Left Ventricle to Right Internal Mammary, Percutaneous Endoscopic Approach	02NF3ZZ	Release Aortic Valve, Percutaneous Approach	0JH83PZ	Insertion of Cardiac Rhythm Related Device into Abdomen Subcutaneous Tissue and Fascia, Percutaneous Approach
021L4Z9	Bypass Left Ventricle to Left Internal Mammary, Percutaneous Endoscopic Approach	02NF4ZZ	Release Aortic Valve, Percutaneous Endoscopic Approach	0JPT0PZ	Removal of Cardiac Rhythm Related Device from Trunk Subcutaneous Tissue and Fascia, Open Approach
021L4ZC	Bypass Left Ventricle to Thoracic Artery, Percutaneous Endoscopic Approach	02NG0ZZ	Release Mitral Valve, Open Approach	0JPT3PZ	Removal of Cardiac Rhythm Related Device from Trunk Subcutaneous Tissue and Fascia, Percutaneous Approach
021L4ZF	Bypass Left Ventricle to Abdominal Artery, Percutaneous Endoscopic Approach	02NG3ZZ	Release Mitral Valve, Percutaneous Approach	0JWT0PZ	Revision of Cardiac Rhythm Related Device in Trunk Subcutaneous Tissue and Fascia, Open Approach
021L4ZP	Bypass Left Ventricle to Pulmonary Trunk, Percutaneous Endoscopic Approach	02NG4ZZ	Release Mitral Valve, Percutaneous Endoscopic Approach	0JWT3PZ	Revision of Cardiac Rhythm Related Device in Trunk Subcutaneous Tissue and Fascia, Percutaneous Approach

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Appendix A-2: ICD-10 Cardiac Procedure Codes (continued)

ICD-10 Code	Description	ICD-10 Code	Description	ICD-10 Code	Description
021L4ZQ	Bypass Left Ventricle to Right Pulmonary Artery, Percutaneous Endoscopic Approach	02NH0ZZ	Release Pulmonary Valve, Open Approach	3E07017	Introduction of Other Thrombolytic into Coronary Artery, Open Approach
021L4ZR	Bypass Left Ventricle to Left Pulmonary Artery, Percutaneous Endoscopic Approach	02NH3ZZ	Release Pulmonary Valve, Percutaneous Approach	3E070PZ	Introduction of Platelet Inhibitor into Coronary Artery, Open Approach
021L4ZW	Bypass Left Ventricle to Aorta, Percutaneous Endoscopic Approach	02NH4ZZ	Release Pulmonary Valve, Percutaneous Endoscopic Approach	3E07317	Introduction of Other Thrombolytic into Coronary Artery, Percutaneous Approach
02540ZZ	Destruction of Coronary Vein, Open Approach	02NJ0ZZ	Release Tricuspid Valve, Open Approach	3E073PZ	Introduction of Platelet Inhibitor into Coronary Artery, Percutaneous Approach
02543ZZ	Destruction of Coronary Vein, Percutaneous Approach	02NJ3ZZ	Release Tricuspid Valve, Percutaneous Approach	5A02110	Assistance with Cardiac Output using Balloon Pump, Intermittent
02544ZZ	Destruction of Coronary Vein, Percutaneous Endoscopic Approach	02NJ4ZZ	Release Tricuspid Valve, Percutaneous Endoscopic Approach	5A02116	Assistance with Cardiac Output using Other Pump, Intermittent
02550ZZ	Destruction of Atrial Septum, Open Approach	02NK0ZZ	Release Right Ventricle, Open Approach	5A02210	Assistance with Cardiac Output using Balloon Pump, Continuous
02553ZZ	Destruction of Atrial Septum, Percutaneous Approach	02NK3ZZ	Release Right Ventricle, Percutaneous Approach	5A02216	Assistance with Cardiac Output using Other Pump, Continuous
02554ZZ	Destruction of Atrial Septum, Percutaneous Endoscopic Approach	02NK4ZZ	Release Right Ventricle, Percutaneous Endoscopic Approach	5A1213Z	Performance of Cardiac Pacing, Intermittent
02560ZZ	Destruction of Right Atrium, Open Approach	02NL0ZZ	Release Left Ventricle, Open Approach	5A1223Z	Performance of Cardiac Pacing, Continuous