### **Independence at Home Quality Measure**

**Technical Specifications** 

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### INDEPENDENCE AT HOME QUALITY MEASURES TECHNICAL SPECIFICATIONS

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### **INTRODUCTION**

This document presents the technical specifications for the six quality measures related to payment in the Centers for Medicare & Medicaid Services' (CMS) Independence at Home (IAH) Demonstration. The six measures include the following:

Quality Measure 1: Follow-up Contacts within 48 Hours of Hospital Admissions, Hospital Discharges, and Emergency Department Visits;

Quality Measure 2: Medication Reconciliation in the Home within 48 Hours of Hospital Discharges and Emergency Department Visits

Quality Measure 3: All-Cause Hospital Readmissions within 30 Days

Quality Measure 4: Annual Documentation of Patient Preferences

Quality Measure 5: Hospital Admissions for Ambulatory Care Sensitive Conditions

Quality Measure 6: Emergency Department Visits for Ambulatory Care Sensitive Conditions

The technical specifications for each measure provide details on the rationale for the measure, data sources, the measure numerator and denominator, any risk adjustment used in calculating the measure, and a step by step outline of the calculations. The specifications also indicate the performance threshold set for each quality measure. The amount of shared savings that a practice may earn is dependent, among other things, on the number of quality measures for which the thresholds are met.

### QUALITY MEASURE 1: FOLLOW-UP CONTACTS WITHIN 48 HOURS OF HOSPITAL ADMISSIONS, HOSPITAL DISCHARGES, AND EMERGENCY DEPARTMENT VISITS

### **Data Sources**

Practice-reported data in the Independence at Home (IAH) Reporting System and Medicare claims data.

### **Measure Description**

Percent of hospital admissions, hospital discharges, and emergency department (ED) visits for beneficiaries enrolled in IAH with a follow-up contact within 48 hours.

### Rationale

Medicare beneficiaries with multiple conditions and complex needs are particularly vulnerable to breakdowns in care, insufficient communication among providers across health care settings, poor continuity of care, and inadequate patient and caregiver education. Transitions of care, from the home to the hospital or emergency departments (ED) and back to home require care, attention, and follow-up by the primary care provider. Timely communication, collaboration, and coordination among health care providers, patient and family during these episodes have the likely potential to improve health care quality and reduce costs.

The objective of this quality measure is to capture all hospital admissions, hospital discharges, and ED visits that are followed up by a qualifying ("allowed") contact from a member of the IAH practice's clinical staff within 48 hours. Practices must perform follow-ups within 48 hours for at least 50% of hospital admissions, hospital discharges, and ED visits for Quality Measure 1 to meet the threshold.

### Denominator

• Denominator Statement

Total number of hospital admissions, hospital discharges, and ED visits for beneficiaries enrolled in each IAH practice.

• Denominator Details

Hospital stays include stays at short-stay acute care hospitals, critical access hospitals, and inpatient psychiatric hospitals. Observation stays are also considered hospital stays for the purposes of this quality measure.

• Denominator Exceptions and Exclusions

Transfers from a hospital (different facility), and transfers from a skilled nursing facility (SNF), long-term care hospital (LTCH), or inpatient rehabilitation facility (IRF) are excluded from the denominator. These hospital stays are identified using the source of admission variable (SRC\_ADMS) on the inpatient claims. Observation

stays and ED visit claims do not have a source of admission variable. Observation stays and ED visit claims are excluded from the denominator if a claim for service use in another inpatient provider is identified as occurring immediately prior to the observation stay or ED visit.

If a beneficiary is discharged from a hospital stay to SNF, LTCH, IRF, or other inpatient stay, then a follow-up contact is not required. If a beneficiary is discharged from a hospital stay to home, but then admitted to SNF, LTCH, IRF, or other inpatient setting within two days, then a follow-up contact is not required.

If a beneficiary moves to observation status from ED, then only the observation requires follow-up contact (at admission and discharge).

If a beneficiary has a hospital stay that is less than three days, then a single follow-up contact is required. However, this follow-up contact must be a home visit.

#### Numerator

• Numerator Statement

Total number of hospital admissions, hospital discharges, and ED visits for beneficiaries enrolled in each IAH practice with a qualifying follow-up contact from a member of the IAH practice's clinical staff within 48 hours.

• Numerator Details

Qualifying follow-up contacts from an IAH practice clinical staff are identified using two data sources. First, the Medicare claims data and second, the practice-reported data in the IAH Reporting System.

Because only date of service, and not time of service, is recorded in the Medicare claims and in the IAH Reporting System, 48 hours is defined as less than or equal to 2 days (date of follow-up – date of event  $\leq 2$ ).

For each event requiring follow-up contact, the provider claims are used to identify a home visit (or a hospital visit for follow-ups to hospital admission) within 48 hours. HCPCS codes and place of service codes used to identify these visits are presented in Tables 1a and 1b. The NPI recorded on the claim must also be for a practice associated physician.

If a provider claim is not identified as occurring within 48 hours, then the IAH Reporting System data is the next source of data for identifying a follow-up contact. The Reporting System is the source of information on follow-ups contacts conducted by clinicians that do not separately bill to Medicare, e.g., home visits by registered nurses employed by the practice; or allowed follow-up by telephone, i.e., within 48 hours of a hospital admission or emergency department visit.

Qualifying follow-up contacts in the reporting system are defined as follows:

Hospital admission follow-up contacts include in-hospital visit to the patient, or telephone call to the hospital in which a person from the practice speaks to the patient, the patient's caregiver, or the attending clinical staff.

Hospital discharge follow-up contacts include in-home visit with the patient.

ED visit follow-up contacts include in-home visit with the patient, or telephone call in which a person from the practice speaks to either the patient or the patient's caregiver.

### Stratification or Risk Adjustment

None

### **Calculation Algorithm**

Calculation of this quality measure includes the following steps:

- 1. Identify beneficiaries enrolled in IAH for each practice.
- 2. Identify hospital admissions, hospital discharges, and ED visits to include in the denominator, using criteria described above.
- 3. For each hospital admission, hospital discharge, and ED visit in the denominator, use the provider claims to identify a home visit (or a hospital visit for follow-up contact to hospital admission) within 48 hours. HCPCS codes and place of service codes used to identify these visits are presented in Tables 1a and 1b. The NPI recorded on the claim must also be for a practice associated physician.
- 4. If a carrier claim is not identified as occurring within 48 hours, then search the IAH Reporting System data for a follow-up contact. Qualifying follow-up contacts are described above.
- 5. For each practice, sum the number of follow-up contacts and divide by the total number of hospital admissions, hospitals discharges, and ED visits.

CPT code	Description		
	Home visit, new patient:		
99341	Low severity problem, 20 min.		
99342	Moderate severity problem, 30 min.		
99343	Moderate to high severity problem, 45 min.		
99344	High severity problem, 60 min.		
99345	Patient unstable or significant new problem requiring immediate attention, 75 min.		
	Home visit, established patient:		
99347	Self-limited or minor problem, 15 min.		
99348	Low to moderate problem, 25 min.		
99349	Moderate to high problem, 40 min.		
99350	Patient unstable or significant new problem requiring immediate attention, 60 min.		
99324– 99328	Domiciliary or rest home visit for the evaluation and management of a new patient		
99334– 99337	Domiciliary or rest home visit for the evaluation and management of an established patient		
99339– 99340	Individual physician supervision of a patient (patient not present) in home, domiciliary or rest home (e.g., assisted living facility) requiring complex and multidisciplinary care modalities involving regular physician development and or revision of care plans		

### Table 1a **In-home visits**

All of the above codes must be billed in conjunction with one of the following Place of Service codes:

(12) home

(12) none
(13) assisted living facility
(33) custodial care facility
(14) group home
(32) nursing facility

### Table 1b In-hospital visits

CPT code	Description
99251– 99255	Inpatient consultation by a physician to hospital inpatients (only one per admission is allowed)

All of the above codes must be billed in conjunction with one of the following Place of Service codes:

(21) inpatient hospital

### QUALITY MEASURE 2: MEDICATION RECONCILIATION IN THE HOME WITHIN 48 HOURS OF HOSPITAL DISCHARGES AND EMERGENCY DEPARTMENT VISITS

### **Data Sources**

Practice-reported data in the Independence at Home (IAH) Reporting System and Medicare claims data.

#### **Measure Description**

Percent of hospital discharges and emergency department (ED) visits for beneficiaries enrolled in IAH with medication reconciliation in the home within 48 hours.

### Rationale

Medication reconciliation is at the center of transitional care for patients discharged from the ED or hospital and is an important component of follow-up care in order for discharged patients to remain stable at home. The intent of medication reconciliation within 48 hours of discharge is to improve quality of care, reduce hospital admissions and readmissions, and ultimately reduce costs.

Medication reconciliation is the process of identifying the most accurate list of all medications that the patient should be taking including name, dosage, frequency, and route by comparing the medical record with an external list of medications obtained from the patient/caregiver, hospital or other provider and reviewing all information by an in-home practice clinician with clinical expertise, an understanding of the patient's medical status and the clinical authority to make changes to the regimen.

Early medication reconciliation comparing what has been taken in one setting with what is being prescribed in the next can avoid medication errors such as omissions, duplications, dosing errors, drug-drug interactions, drug –disease interactions, incomplete allergy histories and other discrepancies. Clarifying medication orders during early in-home follow-up can avert inadequate medications, not resuming medications held during the hospital stay, and insufficient patient education at discharge. Timely, comprehensive medication reconciliation done at every transition from hospital/ED to home can improve medication adherence and reduce hospitalizations or rehospitalizations when paired with the education and oversight of the patient/caregiver.

The objective of this quality measure is to capture all hospital discharges, and ED visits that are followed by medication reconciliation in the home by a qualifying ("allowed") contact from a member of the IAH practice's clinical staff within 48 hours of hospital or ED discharge to ensure the patient/caregiver has correct information about their medication regimen. Practices must perform follow-ups within 48 hours for at least 50% of hospital discharges and ED visits to meet the performance threshold for Quality Measure 2.

### Denominator

• Denominator Statement

Total number of hospital discharges, and ED visits for beneficiaries enrolled in each IAH practice.

• Denominator Details

Hospital stays include stays at short-stay acute care hospitals, critical access hospitals, and inpatient psychiatric hospitals. Observation stays are also considered hospital stays for the purposes of this quality measure.

• Denominator Exceptions and Exclusions

Transfers from a hospital (different facility), and transfers from a skilled nursing facility (SNF), long-term care hospital (LTCH), or inpatient rehabilitation facility (IRF) are excluded from the denominator. These hospital stays are identified using the source of admission variable (SRC\_ADMS) on the inpatient claims. Observation stays and ED visit claims do not have a source of admission variable. Observation stays and ED visit claims are excluded from the denominator if a claim for service use in another inpatient provider is identified as occurring immediately prior to the observation stay or ED visit.

If a beneficiary is discharged from a hospital stay to SNF, LTCH, IRF, or other inpatient stay, then medication reconciliation is not required. Note that if a beneficiary is discharged from a hospital stay to home, but then admitted to SNF, LTCH, IRF, or other inpatient setting within two days then medication reconciliation is not required.

If a beneficiary moves to observation status from ED, then only the observation discharge requires medication reconciliation.

### Numerator

• Numerator Statement

Total number of hospital discharges and ED visits for beneficiaries enrolled in each IAH practice with medication reconciliation from a member of the IAH practice's clinical staff within 48 hours.

• Numerator Details

Medication reconciliations are identified using the practice-reported data in the IAH Reporting System.

Because only date of service, and not time of service, is recorded in the Medicare claims and in the IAH Reporting System, 48 hours is defined as less than or equal to 2 days (date of medication reconciliation – date of event  $\leq 2$ ).

### Stratification or Risk Adjustment

None

### **Calculation Algorithm**

Calculation of this quality measure includes the following steps:

- 1. Identify beneficiaries enrolled in IAH for each practice.
- 2. Identify hospitals discharges and ED visits to include in the denominator using criteria described above.
- 3. For each hospital discharge and ED visit in the denominator, search the IAH Reporting System data for medication reconciliation within two days.
- 4. For each practice, sum the number of medication reconciliations and divide by the total number of hospital discharges and ED visits.

### QUALITY MEASURE 3: ALL-CAUSE HOSPITAL READMISSIONS WITHIN 30 DAYS

### **Data Source**

Medicare claims data.

### **Measure Description**

Risk-adjusted readmissions to a hospital within 30 days following discharge from the hospital for an index admission. The measure is constructed as a ratio of the observed number of readmissions to a risk-adjusted predicted number of readmissions.

### Rationale

Readmission following an acute care hospitalization is a costly and often preventable event. During 2003 and 2004, almost one-fifth of Medicare beneficiaries who were discharged from a hospital—more than 2.3 million patients—were readmitted within 30 days of discharge (Jencks et al., 2009).

Hospital readmission is also disruptive to patients and caregivers, and puts patients at additional risk of hospital-acquired infections and complications (Horwitz et al., 2011). Some readmissions are unavoidable, but readmissions may also result from poor quality of care, inadequate coordination of care, or lack of effective discharge planning and transitional care.

Studies have shown readmissions within 30 days to often be related to quality of care, coordination of care, or other factors within the control of health care providers (Halfton et al., 2006; Hernandez et al., 2010; Horowitz et al., 2011). This suggests opportunities for interventions to reduce 30-day readmission rates for a variety of medical conditions and indicates the value of an all-condition 30-day readmission rate as a quality measure (Courtney et al., 2009, Horwitz et al., 2011; Jack et al., 2009, Koehler et al., 2009; Voss et al., 2011).

This all-condition readmission quality measure is adapted from the ACO measure #8 which is based on the measure previously developed for CMS by Yale. The objective of this quality measure is to capture all unplanned readmissions within 30 days. Practices must perform at least as well as predicted based on analysis of IAH eligible beneficiaries in the same geographic area to meet the performance threshold.

### Denominator

• Denominator Statement

Expected (risk-adjusted) readmissions to acute care hospitals within 30 days following discharge from the hospital for an index admission.

• Denominator Details

Hospital admissions include admissions to short-stay acute care hospitals and critical access hospitals.

• Denominator Exceptions and Exclusions

Index admissions exclude patients dying during a stay; patients discharged against medical advice; patients with medical treatment of cancer (Table 2); patients treated for psychiatric disease (Table 3); patients treated for rehabilitation care, fitting of prostheses and adjustment devices; patients discharged to another acute hospital; and patients without 30 days of post-discharge data. Index admissions are identified for the medical treatment of cancer and psychiatric disease if the CCS values listed in Tables 2 and 3 correspond to the first diagnosis code.

Note that all exclusions are made using the Agency for Healthcare Research and Quality (AHRQ) Clinical Classifications System (CCS).

Index admissions with discharge days within 30 days of the end of the performance year for years where there is a performance year immediately following (performance years 1, 2, and 4) will be included in the denominator for the next performance year. Index admissions with discharge dates within 30 days of the end of the performance year where there is no performance year immediately following (performance years 3 and 5) will be excluded.

### Numerator

• Numerator Statement

Observed unplanned readmissions to acute care hospitals within 30 days following discharge from the hospital for an index admission.

Readmissions are considered planned and, therefore, are not counted in the numerator if any of the following occurs during the readmission:

- 1. A procedure is performed that is in one of the procedure categories that are always planned regardless of diagnosis (Table 4);
- 2. The principal diagnosis is in one of the diagnosis categories that are always planned (Table 5); or
- 3. A procedure is performed that is in one of the potentially planned procedure categories (or partial categories) (Table 6) and the principal diagnosis is not in the list of acute discharge diagnoses (Table 7).

• Numerator Details

The denominator details, exceptions, and exclusions noted above are also applied to the numerator.

### Stratification or Risk Adjustment

A Medicare 50% file was used to develop predictive models for this measure. Separate predictive models were run for each practice. Beneficiaries included in each model (Comparison Beneficiaries) were beneficiaries meeting the Independence at Home (IAH) Demonstration eligibility criteria residing in the same geographic area as beneficiaries enrolled by the IAH practice. The geographic area was determined by looking at the first three digits of zip codes for enrolled IAH beneficiaries. Beneficiaries included in the predictive models did not receive home visits, in order to reflect an "unmanaged" population. Beneficiaries enrolled in other CMS shared shavings programs were also excluded from the predictive models.

Demonstration eligibility criteria included the following:

- No HMO enrollment.
- Community residence.
- Enrollment in Medicare Part A and Part B.
- At least one acute hospitalization or observation stay in the year prior to the predictive model year.
- At least one post-acute care claim in the year prior to the predictive model year where post-acute care includes home health agency (HHA), skilled nursing facility (SNF), inpatient rehabilitation facility (IRF), or long-term care hospital (LTCH).
- At least two chronic conditions identified using the CCW flags in the CCW data in the year prior to the predictive model year.
- At least two impairments in activities of daily living (ADLs) based on at least one OASIS, MDS, or IRF-PAI assessment in the year prior to the predictive model year. Note that if at least one assessment was not identified, but a beneficiary had an LTCH claim, then the beneficiary was considered to be impaired in at least two ADLs.

Logit models were run predicting the presence of a readmission within 30 days controlling for age, gender, ESRD status, Medicaid enrollment, community hierarchical condition category (HCC) risk score, CCW indicators for Congestive Heart Failure, Diabetes, COPD, and months of eligibility.

### **Calculation Algorithm**

Calculation of this quality measure includes the following steps:

- 1. Identify beneficiaries enrolled in IAH for each practice (IAH Benes).
- 2. Identify IAH eligible beneficiaries residing in same 3-digit zip code defined geographic areas as beneficiaries enrolled in each IAH practice, but not receiving home visits, from the 50% Medicare files (Comparison Benes).
- 3. Identify index admissions for both IAH Benes and for Comparison Benes.
- 4. Identify the presence or absence of an unplanned readmission within 30 days for each index admission.
- 5. Run logit model on Comparison Bene index admissions by practice area to predict the presence of an unplanned readmission within 30 days.
- 6. Use the coefficients generated from logit models to calculate a predicted log odds of a readmission for each IAH Bene index admission.
- 7. Calculate the predicted odds from the predicted log odds for each IAH Bene index admission.
- 8. Calculate the predicted probability from the predicted odds for each IAH Bene index admission.
- 9. Sum predicted probabilities by practice for IAH Bene index admission.
- 10. Compare the sum of observed events (1= readmission within 30 days; 0=no readmission within 30 days) to the sum of the predicted probabilities (expected) for each practice. If the ratio of the sum of the observed events to the sum of the predicted probabilities is less than one (1) then the practice performs better than predicted and therefore meets the quality measure. If the ratio is greater than one (1) then the practice performs worse than predicted and therefore does not meet the quality measure.

### References

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Voss R, Gardner R, Baier R, Butterfield K, Lehrman S, Gravenstein S. The care transitions intervention: translating from efficacy to effectiveness. Archives of Internal Medicine. Jul 25 2011;171(14):1232-1237

AHRQ CCS	Description	AHRQ CCS	Description
42	Secondary malignancies	33	Cancer of kidney and renal pelvis
19	Cancer of bronchus; lung	32	Cancer of bladder
45	Maintenance chemotherapy; radiotherapy	24	Cancer of breast
44	Neoplasms of unspecified nature or uncertain behavior	43	Malignant neoplasm without specification of site
17	Cancer of pancreas	25	Cancer of uterus
38	Non-Hodgkin`s lymphoma	36	Cancer of thyroid
39	Leukemias	21	Cancer of bone and connective tissue
14	Cancer of colon	41	Cancer; other and unspecified primary
40	Multiple myeloma	20	Cancer; other respiratory and intrathoracic
35	Cancer of brain and nervous system	23	Other non-epithelial cancer of skin
16	Cancer of liver and intrahepatic bile duct	26	Cancer of cervix
13	Cancer of stomach	28	Cancer of other female genital organs
29	Cancer of prostate	34	Cancer of other urinary organs
15	Cancer of rectum and anus	37	Hodgkin`s disease
18	Cancer of other GI organs; peritoneum	22	Melanomas of skin
12	Cancer of esophagus	31	Cancer of other male genital organs
11	Cancer of head and neck	30	Cancer of testis
27	Cancer of ovary		

 Table 2

 Cancer Condition Categories Excluded from the Readmission Measure

 Table 3

 Psychiatric Condition Categories Excluded from the Readmission Measure

AHRQ CCS	Description	AHRQ CCS	Description
657	Mood disorders	658	Personality disorders
659	Schizophrenia and other psychotic disorders	652	Attention-deficit, conduct, and disruptive behavior disorders
651	Anxiety disorders	656	Impulse control disorders, NEC
670	Miscellaneous disorders	655	Disorders usually diagnosed in infancy,
654	Developmental disorders		childhood, or adolescence
650	Adjustment disorders	662	Suicide and intentional self-inflicted injury

Table 4 **Procedure Categories Considered Planned** 

AHRQ CCS	Description	AHRQ CCS	Description
64	Bone marrow transplant	135	Forceps; vacuum; and breech delivery
105	Kidney transplant	176	Organ transplantation (other than bone
134	Cesarean section		marrow, corneal, or kidney)

Table 5 **Diagnosis Categories Considered Planned** 

AHRQ CCS	Description	AHRQ CCS	Description
45	Maintenance chemotherapy;	196	Normal pregnancy and/or delivery
	radiotherapy	254	Rehabilitation care; fitting of
194	Forceps delivery		prostheses; and adjustment of devices

Table 6
<b>Procedure Categories That Are Potentially Planned</b>

AHRQ CCS or ICD-10 code	Description	AHRQ CCS or ICD-10 code	Description
3	Excision, destruction, or resection of	49	Other OR heart procedures
	intervertebral disc	51	Endarterectomy; vessel of head and neck
5	Insertion of catheter or spinal stimulator and injection into spinal canal	52	Aortic resection; replacement or anastomosis
9	Other OR therapeutic nervous system procedures	53	Varicose vein stripping; lower limb
10	Thyroidectomy; partial or complete	55	Peripheral vascular bypass
12	Therapeutic endocrine procedures	56	Other vascular bypass and shunt; not heart
33	Other OR procedures on mouth and throat	59	Other OR procedures on vessels of head and neck
36	Lobectomy or pneumonectomy	62	Other diagnostic cardiovascular procedures
38	Other diagnostic procedures on lung and bronchus	66	Procedures on spleen
40	Other diagnostic procedures on the respiratory system and mediastinum	67	Other procedures; hemic and lymphatic systems
43	Heart valve procedures	74	Gastrectomy; partial and total
44	Coronary artery bypass graft (CABG)	78	Colorectal resection
45	Percutaneous transluminal coronary angioplasty (PTCA) with or without stent	79	Excision (partial) of large intestine (not endoscopic)
	placement	84	Cholecystectomy and common duct
47	Diagnostic cardiac catheterization; coronary		exploration
	arteriography	85	Inguinal and femoral hernia repair
48	Insertion; revision; replacement; removal of cardiac pacemaker or cardioverter/defibrillator		(continued

AHRQ CCS or ICD-10 code	Description	AHRQ CCS or ICD-10 code	Description
86	Other hernia repair	0B114F4	Bypass Trachea to Cutaneous with Tracheostomy Device, Percutaneous
99	Other OR gastrointestinal therapeutic procedures		Endoscopic Approach
104	Nephrectomy; partial or complete	0B114Z4	Bypass Trachea to Cutaneous, Percutaneous Endoscopic Approach
106	Genitourinary incontinence procedures	0CBS3ZZ	Excision of Larynx, Percutaneous
107	Extracorporeal lithotripsy; urinary		Approach
109	Procedures on the urethra	0CBS4ZZ	Excision of Larynx, Percutaneous Endoscopic Approach
112	Other OR therapeutic procedures of urinary tract	0CBS7ZZ	Excision of Larynx, Via Natural or
113	Transurethral resection of prostate (TURP)	0000077	Artificial Opening
114	Open prostatectomy	0CBS8ZZ	Excision of Larynx, Via Natural or Artificial Opening Endoscopic
119	Oophorectomy; unilateral and bilateral	0CTS0ZZ	Resection of Larynx, Open Approach
120	Other operations on ovary	0CTS4ZZ	Resection of Larynx, Percutaneous
124	Hysterectomy; abdominal and vaginal		Endoscopic Approach
129	Repair of cystocele and rectocele; obliteration of vaginal vault	0CTS7ZZ	Resection of Larynx, Via Natural or Artificial Opening
132	Other OR therapeutic procedures; female organs	0CTS8ZZ	Resection of Larynx, Via Natural or Artificial Opening Endoscopic
142	Partial excision bone	04CK0ZZ	Extirpation of Matter from Right Femoral
152	Arthroplasty knee	A 1011000	Artery, Open Approach
153	Hip replacement; total and partial	04CK3ZZ	Extirpation of Matter from Right Femoral Artery, Percutaneous Approach
154	Arthroplasty other than hip or knee	04CK4ZZ	Extirpation of Matter from Right Femoral
157	Amputation of lower extremity		Artery, Percutaneous Endoscopic Approach
158	Spinal fusion	04CL0ZZ	Extirpation of Matter from Left Femoral Artery, Open Approach
159	Other diagnostic procedures on musculoskeletal system	04CL3ZZ	Extirpation of Matter from Left Femoral
166	Lumpectomy; quadrantectomy of breast	04CL4ZZ	Artery, Percutaneous Approach Extirpation of Matter from Left Femoral
167	Mastectomy	04CL4ZZ	Artery, Percutaneous Endoscopic Approach
172	Skin graft	04CM0ZZ	Extirpation of Matter from Right Popliteal
175	Other OR therapeutic procedures on skin subcutaneous tissue fascia and breast	04CM3ZZ	Artery, Open Approach Extirpation of Matter from Right Popliteal
0CBS0ZZ	Excision of Larynx, Open Approach		Artery, Percutaneous Approach
0B110F4	Bypass Trachea to Cutaneous with Tracheostomy Device, Open Approach	04CM4ZZ	Extirpation of Matter from Right Popliteal Artery, Percutaneous Endoscopic Approach
0B110Z4	Bypass Trachea to Cutaneous, Open Approach	04CN0ZZ	Extirpation of Matter from Left Popliteal Artery, Open Approach
0B113F4	Bypass Trachea to Cutaneous with Tracheostomy Device, Percutaneous	04CN3ZZ	Extirpation of Matter from Left Popliteal Artery, Percutaneous Approach
0B113Z4	Approach Bypass Trachea to Cutaneous, Percutaneous Approach	04CN4ZZ	Extirpation of Matter from Left Popliteal Artery, Percutaneous Endoscopic Approach

## Table 6 (continued)Procedure Categories That Are Potentially Planned

AHRQ CCS or ICD-10 code	Description	AHRQ CCS or ICD-10 code	Description
0B5N3ZZ	Destruction of Right Pleura, Percutaneous Approach	04CQ4ZZ	Extirpation of Matter from Left Anterior Tibial Artery, Percutaneous Endoscopic Approach
0B5N4ZZ	Destruction of Right Pleura, Percutaneous Endoscopic Approach	04CR0ZZ	Extirpation of Matter from Right Posterio Tibial Artery, Open Approach
0B5P0ZZ	Destruction of Left Pleura, Open Approach	04CR3ZZ	Extirpation of Matter from Right Posterio
0B5P3ZZ	Destruction of Left Pleura, Percutaneous Approach		Tibial Artery, Percutaneous Approach
0B5P4ZZ	Destruction of Left Pleura, Percutaneous Endoscopic Approach	04CR4ZZ	Extirpation of Matter from Right Posterio Tibial Artery, Percutaneous Endoscopic Approach
0BW10FZ	Revision of Tracheostomy Device in Trachea, Open Approach	04CS0ZZ	Extirpation of Matter from Left Posterior Tibial Artery, Open Approach
0BW13FZ	Revision of Tracheostomy Device in Trachea, Percutaneous Approach	04CS3ZZ	Extirpation of Matter from Left Posterior Tibial Artery, Percutaneous Approach
0BW14FZ	Revision of Tracheostomy Device in Trachea, Percutaneous Endoscopic Approach	04CS4ZZ	Extirpation of Matter from Left Posterior Tibial Artery, Percutaneous Endoscopic Approach
0GTG0ZZ	Resection of Left Thyroid Gland Lobe, Open Approach	04CT0ZZ	Extirpation of Matter from Right Peronea Artery, Open Approach
0GTG4ZZ	Resection of Left Thyroid Gland Lobe, Percutaneous Endoscopic Approach	04CT3ZZ	Extirpation of Matter from Right Peronea Artery, Percutaneous Approach
0GTH0ZZ	Resection of Right Thyroid Gland Lobe, Open Approach	04CT4ZZ	Extirpation of Matter from Right Peronea Artery, Percutaneous Endoscopic Approa
0GTH4ZZ	Resection of Right Thyroid Gland Lobe, Percutaneous Endoscopic Approach	04CU0ZZ	Extirpation of Matter from Left Peroneal Artery, Open Approach
0GTK0ZZ	Resection of Thyroid Gland, Open Approach	04CU3ZZ	Extirpation of Matter from Left Peroneal Artery, Percutaneous Approach
0GTK4ZZ	Resection of Thyroid Gland, Percutaneous Endoscopic Approach	04CU4ZZ	Extirpation of Matter from Left Peroneal Artery, Percutaneous Endoscopic Approa
0WB60ZZ	Excision of Neck, Open Approach	04CV0ZZ	Extirpation of Matter from Right Foot
0WB63ZZ	Excision of Neck, Percutaneous Approach		Artery, Open Approach
0WB64ZZ	Excision of Neck, Percutaneous Endoscopic Approach	04CV3ZZ	Extirpation of Matter from Right Foot Artery, Percutaneous Approach
0WB6XZ2	Excision of Neck, Stoma, External Approach	04CV4ZZ	Extirpation of Matter from Right Foot Artery, Percutaneous Endoscopic Approa
0WB6XZZ	Excision of Neck, External Approach	04CW0ZZ	Extirpation of Matter from Left Foot
0WQ6XZ2	Repair Neck, Stoma, External Approach		Artery, Open Approach
04CP3ZZ	Extirpation of Matter from Right Anterior Tibial Artery, Percutaneous Approach	04CW3ZZ	Extirpation of Matter from Left Foot Artery, Percutaneous Approach
04CP4ZZ	Extirpation of Matter from Right Anterior Tibial Artery, Percutaneous Endoscopic	04CW4ZZ	Extirpation of Matter from Left Foot Artery, Percutaneous Endoscopic Approa
	Approach	04CY0ZZ	Extirpation of Matter from Lower Artery, Open Approach
04CQ0ZZ	Extirpation of Matter from Left Anterior Tibial Artery, Open Approach	04CY3ZZ	Extirpation of Matter from Lower Artery, Percutaneous Approach
04CQ3ZZ	Extirpation of Matter from Left Anterior Tibial Artery, Percutaneous Approach		recutaneous Approach

### Table 6 (continued)Procedure Categories That Are Potentially Planned

AHRQ CCS or ICD-10 code	Description	AHRQ CCS or ICD-10 code	Description
04CY4ZZ	Extirpation of Matter from Lower Artery, Percutaneous Endoscopic Approach	0TC43ZZ	Extirpation of Matter from Left Kidney Pelvis, Perc Approach
0T9030Z	Drainage of Right Kidney with Drainage Device, Percutaneous Approach	0TC44ZZ	Extirpate of Matter from L Kidney Pelvis, Perc Endo Approach
0T9040Z	Drainage of Right Kidney with Drainage Device, Percutaneous Endoscopic	0TF33ZZ	Fragmentation in Right Kidney Pelvis, Percutaneous Approach
0T9130Z	Approach Drainage of Left Kidney with Drainage	0TF34ZZ	Fragmentation in Right Kidney Pelvis, Percutaneous Endoscopic Approach
0T9140Z	Device, Percutaneous Approach Drainage of Left Kidney with Drainage	0TF43ZZ	Fragmentation in Left Kidney Pelvis, Percutaneous Approach
	Device, Percutaneous Endoscopic Approach	0TF44ZZ	Fragmentation in Left Kidney Pelvis, Percutaneous Endoscopic Approach
0TC03ZZ	Extirpation of Matter from Right Kidney, Percutaneous Approach	GZB0ZZZ	Electroconvulsive Therapy, Unilateral- Single Seizure
0TC04ZZ	Extirpation of Matter from Right Kidney, Percutaneous Endoscopic Approach	GZB1ZZZ	Electroconvulsive Therapy, Unilateral- Multiple Seizure
0TC13ZZ	Extirpation of Matter from Left Kidney, Percutaneous Approach	GZB2ZZZ	Electroconvulsive Therapy, Bilateral-Single Seizure
0TC14ZZ	Extirpation of Matter from Left Kidney, Percutaneous Endoscopic Approach	GZB3ZZZ	Electroconvulsive Therapy, Bilateral- Multiple Seizure
0TC33ZZ	Extirpation of Matter from R Kidney Pelvis, Perc Approach	GZB4ZZZ	Other Electroconvulsive Therapy
0TC34ZZ	Extirpate of Matter from R Kidney Pelvis, Perc Endo Approach		

## Table 6 (continued)Procedure Categories That Are Potentially Planned

Table 7Acute Diagnosis Categories

AHRQ CCS or ICD-10 code	Description	AHRQ CCS or ICD-10 code	Description
1	Tuberculosis	76	Meningitis (except that caused by
2	Septicemia (except in labor)		tuberculosis or sexually transmitted disease)
3	Bacterial infection; unspecified site	77	Encephalitis (except that caused by tuberculosis or sexually transmitted disease)
4	Mycoses	78	Other CNS infection and poliomyelitis
5	HIV infection	82	Paralysis
7	Viral infection		2
8	Other infections; including parasitic	83	Epilepsy; convulsions
9		84	Headache; including migraine
9	Sexually transmitted infections (not HIV or hepatitis)	85	Coma; stupor; and brain damage
54	Gout and other crystal arthropathies	87	Retinal detachments; defects; vascular occlusion; and retinopathy
55	Fluid and electrolyte disorders	89	Blindness and vision defects
60	Acute posthemorrhagic anemia		Dimuness and vision delects
61	Sickle cell anemia		(continued
63	Diseases of white blood cells		(continued

AHRQ CCS or ICD-10 code	Description	AHRQ CCS or ICD-10 code	Description
90	Inflammation; infection of eye (except that	140	Gastritis and duodenitis
	caused by tuberculosis or sexually transmitted disease)	142	Appendicitis and other appendiceal conditions
91	Other eye disorders	145	Intestinal obstruction without hernia
92	Otitis media and related conditions	146	Diverticulosis and diverticulitis
93	Conditions associated with dizziness or vertigo	148	Peritonitis and intestinal abscess
99	Hypertension with complications and	153	Gastrointestinal hemorrhage
	secondary hypertension	154	Noninfectious gastroenteritis
100	Acute myocardial infarction	157	Acute and unspecified renal failure
102	Nonspecific chest pain	165	Inflammatory conditions of male genital organs
104	Other and ill-defined heart disease	159	Urinary tract infections
107 109	Cardiac arrest and ventricular fibrillation Acute cerebrovascular disease	168	Inflammatory diseases of female pelvic organs
112	Transient cerebral ischemia	172	Ovarian cyst
116	Aortic and peripheral arterial embolism or thrombosis	197	Skin and subcutaneous tissue infections
118	Phlebitis; thrombophlebitis and	198	Other inflammatory condition of skin
	thromboembolism	225	Joint disorders and dislocations; trauma- related
120	Hemorrhoids	226	Fracture of neck of femur (hip)
122	Pneumonia (except that caused by tuberculosis or sexually transmitted disease)	227	Spinal cord injury
123	Influenza	228	Skull and face fractures
124	Acute and chronic tonsillitis	229	Fracture of upper limb
125	Acute bronchitis	230	Fracture of lower limb
126	Other upper respiratory infections	232	Sprains and strains
127	Chronic obstructive pulmonary disease and	233	Intracranial injury
	bronchiectasis	234	Crushing injury or internal injury
128	Asthma	235	Open wounds of head; neck; and trunk
129	Aspiration pneumonitis; food/vomitus	237	Complication of device; implant or graft
130	Pleurisy; pneumothorax; pulmonary collapse	238	Complications of surgical procedures or medical care
131	Respiratory failure; insufficiency; arrest (adult)	239	Superficial injury; contusion
135	Intestinal infection	240	Burns
137	Diseases of mouth; excluding dental	241	Poisoning by psychotropic agents
139	Gastroduodenal ulcer (except hemorrhage)	242	Poisoning by other medications and drug
		243	Poisoning by nonmedicinal substances

AHRQ CCS or ICD-10 code	Description	AHRQ CCS or ICD-10 code	Description
244	Other injuries and conditions due to	B3322	Viral myocarditis
	external causes	B376	Candidal endocarditis
245	Syncope	B394 I32	Histoplasmosis capsulati, unspecified
246	Fever of unknown origin		Pericarditis in diseases classified elsewhere
247	Lymphadenitis	B394 I39	Histoplasmosis capsulati, unspecified
249	Shock		Endocarditis and heart valve disorders in diseases classified elsewhere
250	Nausea and vomiting	B395 I32	Histoplasmosis duboisii Pericarditis in
251	Abdominal pain	2070 102	diseases classified elsewhere
252	Malaise and fatigue	B395 I39	Histoplasmosis duboisii Endocarditis and
253	Allergic reactions		heart valve disorders in diseases classified elsewhere
259	Residual codes; unclassified	<b>D</b> 200 <b>122</b>	
650	Adjustment disorders	B399 I32	Histoplasmosis, unspecified Pericarditis in diseases classified elsewhere
651	Anxiety disorders	I39 B399	Endocarditis and heart valve disorders in
652	Attention-deficit conduct and disruptive behavior disorders	10, 20,,,	diseases classified elsewhere Histoplasmosis, unspecified
653	Delirium dementia and amnestic and other	B5881	Toxoplasma myocarditis
	cognitive disorders	I010	Acute rheumatic pericarditis
656	Impulse control disorders NEC	I011	Acute rheumatic endocarditis
658	Personality disorders	I012	Acute rheumatic myocarditis
660	Alcohol-related disorders	I018	Other acute rheumatic heart disease
661	Substance-related disorders	I019	Acute rheumatic heart disease, unspecified
662	Suicide and intentional self-inflicted injury	1020	Rheumatic chorea with heart involvement
663	Screening and history of mental health and substance abuse codes	1090	Rheumatic myocarditis
670	Miscellaneous disorders	I099	Rheumatic heart disease, unspecified
		I0989	Other specified rheumatic heart diseases
Myocarditis; Ca	Codes Within Dx CCS 97: Peri-; Endo-; and rdiomyopathy	I32	Pericarditis in diseases classified elsewhere
A3681	Diphtheritic cardiomyopathy	M3212	Pericarditis in systemic lupus erythematosus
A3950	Meningococcal carditis, unspecified	I301	Infective pericarditis
A3953	Meningococcal pericarditis	1309	Acute pericarditis, unspecified
A3951	Meningococcal endocarditis	1300	Acute nonspecific idiopathic pericarditis
A3952	Meningococcal myocarditis	1308	Other forms of acute pericarditis
B3320	Viral carditis, unspecified	I330	Acute and subacute infective endocarditis
B3323	Viral pericarditis	1550	(continued)
B3321	Viral endocarditis		

AHRQ CCS or ICD-10 code	Description	AHRQ CCS or ICD-10 code	Description
I39	Endocarditis and heart valve disorders in	I4581	Long QT syndrome
	diseases classified elsewhere	I459	Conduction disorder, unspecified
I339	Acute and subacute endocarditis, unspecified	Acute ICD-10	O Codes Within Dx CCS 106: Dysrhythmia
I41	Myocarditis in diseases classified elsewhere	I479	Paroxysmal tachycardia, unspecified
I41 I409	Acute myocarditis, unspecified	R000	Tachycardia, unspecified
I40) I401	Isolated myocarditis	I498	Other specified cardiac arrhythmias
I401 I400	Infective myocarditis	R001	Bradycardia, unspecified
I400 I408	Other acute myocarditis	I499	Cardiac arrhythmia, unspecified
I408 I312	Hemopericardium, not elsewhere classified	I493	Ventricular premature depolarization
I312 I310	Chronic adhesive pericarditis	I4949	Other premature depolarization
I310 I311	Chronic constrictive pericarditis	Acute ICD-10 Codes Within Dx CCS 108: Congestive Failure; Nonhypertensive	
I314	Cardiac tamponade	I0981	Rheumatic heart failure
I514	Myocarditis, unspecified	10981 1509	
Acute ICD-10 C	Codes Within Dx CCS 105: Conduction	15022	Heart failure, unspecified
Disorders		15022 15032	Chronic systolic (congestive) heart failure Chronic diastolic (congestive) heart failure
I442	Atrioventricular block, complete	15032 15042	Chronic combined systolic/diastolic hrt
I4430	Unspecified atrioventricular block	13042	failure
I440	Atrioventricular block, first degree	I501	Left ventricular failure
I441	Atrioventricular block, second degree	15020	Unspecified systolic (congestive) heart
I4469	Other fascicular block		failure
I444	Left anterior fascicular block	I5021	Acute systolic (congestive) heart failure
I445	Left posterior fascicular block	15023	Acute on chronic systolic (congestive) hear
I4460	Unspecified fascicular block		failure
I447	Left bundle-branch block, unspecified	15030	Unspecified diastolic (congestive) heart failure
I450	Right fascicular block	15031	Acute diastolic (congestive) heart failure
I4510	Unspecified right bundle-branch block	15031	Acute on chronic diastolic (congestive)
I4519	Other right bundle-branch block	15055	heart failure
I4430	Unspecified atrioventricular block I4439 Other atrioventricular block	I5040	Unsp combined systolic and diastolic (congestive) hrt fail
I454	Nonspecific intraventricular block	I5041	Acute combined systolic (congestive) and
I452	Bifascicular block		diastolic (congestive) heart failure
I453	Trifascicular block	15043	Acute on chronic combined systolic
I455	Other specified heart block	(congestive) failure	(congestive) and diastolic (congestive) hear failure
I456	Pre-excitation syndrome		(continued)

AHRQ CCS or ICD-10 code	Description	AHRQ CCS or ICD-10 code	Description
Acute ICD-10 C Disease	Codes Within Dx CCS 149: Biliary Tract	K8030	Calculus of bile duct w cholangitis, unsp, w/o obstruction
K8000	Calculus of gallbladder w acute cholecyst w/o obstruction	K8031	Calculus of bile duct w cholangitis, unsp, with obstruction
K8012	Calculus of GB w acute and chronic cholecyst w/o obstruction	K8032	Calculus of bile duct with acute cholangitis w/o obstruction
K8001	Calculus of gallbladder w acute cholecystitis w obstruction	K8033	Calculus of bile duct w acute cholangitis with obstruction
K8013	Calculus of GB w acute and chronic cholecyst w obstruction	K8034	Calculus of bile duct w chronic cholangitis w/o obstruction
K8042	Calculus of bile duct w acute cholecystitis w/o obstruction	K8035	Calculus of bile duct w chronic cholangitis with obstruction
K8046	Calculus of bile duct w acute and chronic cholecyst w/o obst	K8036	Calculus of bile duct w acute and chr cholangitis w/o obst
K8043	Calculus of bile duct w acute cholecystitis with obstruction	K8037	Calculus of bile duct w acute and chronic cholangitis w obst
K8047	Calculus of bile duct w acute and chronic cholecyst w obst	K830	Cholangitis
K8062	Calculus of GB and bile duct w acute	Acute ICD-10 C Disorders	Codes Within Dx CCS 152: Pancreatic
	cholecyst w/o obst	K859	Acute pancreatitis, unspecified
K8063	Calculus of GB and bile duct w acute	B252	Cytomegaloviral pancreatitis
K8066	cholecyst w obstruction Calculus of GB and bile duct w ac and chr	K850	Idiopathic acute pancreatitis
K0000	cholecyst w/o obst	K851	Biliary acute pancreatitis
K8067	Calculus of GB and bile duct w ac and chr cholecyst w obst	K852	Alcohol induced acute pancreatitis
		K853	Drug induced acute pancreatitis
K810	Acute cholecystitis	K858	Other acute pancreatitis
K812	Acute cholecystitis with chronic cholecystitis		

### QUALITY MEASURE 4: ANNUAL DOCUMENTATION OF PATIENT PREFERENCES

### **Data Source**

Practice-reported data in the Independence at Home (IAH) Reporting System

### **Measure Description**

Percent of beneficiaries enrolled in IAH with patient preferences documented in the medical record for a demonstration year.

### Rationale

High-quality, patient-centered care requires understanding patient preferences, coordinating care according to the expressed preferences, and effectively communicating patient preferences across settings and among the patient, family members, and multidisciplinary care team members. Documentation of patient preferences within the medical record is a critical tool to ensure that patient wishes are communicated and acted on across care settings and providers.

The objective of this measure is to capture the number of IAH patients with whom IAH practices have discussed preferences and for whom they have documented these preferences in the medical record at least once each demonstration year. Practices must document patient preferences at least 80% of the time for Quality Measure 4 to meet the threshold for use in their incentive payment calculations.

### Denominator

• Denominator Statement

Total number of beneficiaries enrolled in each IAH practice, weighted by months of enrollment.

### Numerator

• Numerator Statement

Total number of beneficiaries in each IAH practice with documented patient preferences, weighted by months of enrollment.

### Stratification or Risk Adjustment

None

### **Calculation Algorithm**

Calculation of this quality measure includes the following steps:

1. Identify beneficiaries enrolled in IAH for each practice.

- 2. Search the IAH Reporting System for a date of documented patient preferences.
- 3. Calculate a weight for each beneficiary based on their months of enrollment. If a beneficiary is not enrolled in IAH for each day of a month then they will not be considered enrolled for that month in this weight calculation.
- 4. For each beneficiary, calculate a weighted value for documented patient preferences to account for the number of months a beneficiary was enrolled.
- 5. For each IAH practice, sum the weighted value for documented patient preferences and divide by the total number of beneficiaries enrolled in the IAH practice, weighted by months of enrollment.

### QUALITY MEASURE 5: HOSPITAL ADMISSIONS FOR AMBULATORY CARE SENSITIVE CONDITIONS

### **Data Source**

Medicare claims data.

### **Measure Description**

Risk-adjusted hospital admissions for three ambulatory care sensitive conditions: diabetes, congestive heart failure (CHF), and chronic obstructive pulmonary disease (COPD) for beneficiaries diagnosed with diabetes, CHF, or COPD. The measure is constructed as the ratio of the observed to risk-adjusted predicted number of hospital admissions for diabetes, CHF, or COPD for people with a diagnosis of diabetes, CHF, or COPD.

### Rationale

Hospital admission for ambulatory care sensitive conditions is a Prevention Quality Indicator. According to the Agency for Healthcare Research and Quality (AHRQ), ambulatory care sensitive conditions are conditions that can often be controlled in an outpatient setting. Evidence suggests that admissions for these conditions can be avoided through high quality outpatient care, or that the condition may be less severe if treated early and appropriately.

The objective of this quality measure is to assess whether practices perform at least as well as, or better than, other providers in their geographic area with respect to hospital admissions for these ambulatory sensitive conditions: diabetes, CHF, and COPD. Practices must perform at least as well as predicted based on analysis of IAH eligible beneficiaries in the same geographic area to meet the performance threshold.

### Denominator

### **Denominator Statement**

Expected (risk-adjusted) number of beneficiaries with at least one admission to acute care hospitals for diabetes, CHF, or COPD for beneficiaries identified as having diabetes, CHF, or COPD. Expected admissions are calculated by running predictive models controlling for patient characteristics. Details of the models are described below.

### **Denominator Details**

Hospital admissions include stays at short-stay acute care hospitals, critical access hospitals, and inpatient psychiatric hospitals. Beneficiaries are identified as having diabetes, CHF, or COPD using the Chronic Conditions Warehouse (CCW) chronic condition flags. Hospital admissions must occur in a month in which the beneficiary is IAH enrolled for the Demonstration.

Hospital admissions for diabetes, CHF, and COPD are identified using the ICD-10 codes. Tables 8–15 contain all ICD-10 codes used to identify claims for diabetes, CHF, and COPD. To identify diabetes admissions, a claim must have an ICD-10 code for one of the codes listed in Table 8 in the first diagnosis position. Alternatively, a claim must have an ICD-10 diagnosis code for one of the codes in Table 9 in any diagnosis position and also have one of the procedure codes in Table 10 in any position and also not have one of the diagnosis codes in Table 11 in any position. To identify claims for CHF, a claim must have an ICD-10 code for one of the codes listed in Table 12 listed in the first diagnosis position and must not have one of the procedure codes listed in Table 13 in any position. To identify claims for COPD, a claim must have an ICD-10 code for one of the codes listed in Table 13 in any position. To identify claims for COPD, a claim must have an ICD-10 code for one of the codes listed in Table 14 listed in the first diagnosis position and must not have one of the diagnosis codes listed in Table 15 in any position.

### **Denominator Exceptions and Exclusions**

Transfers from a hospital (different facility), and transfers from a skilled nursing facility (SNF), long-term care hospital (LTCH), or inpatient rehabilitation facility (IRF) are excluded from the denominator. These hospital stays are identified using the source of admission variable (SRC\_ADMS) on the inpatient claims.

### Numerator

### **Numerator Statement**

Observed number of beneficiaries with at least one admission to acute care hospital for diabetes, CHF, or COPD for IAH enrolled beneficiaries identified as having diabetes, CHF, or COPD.

### **Numerator Details**

The denominator details, exceptions, and exclusions noted above are also applied to the numerator.

### Stratification or Risk Adjustment

A Medicare 50% file was used to develop predictive models for this measure. Separate predictive models were run for each practice. Beneficiaries included in each model (Comparison Benes) were beneficiaries meeting the Independence at Home (IAH) Demonstration eligibility criteria residing in the same geographic area as beneficiaries enrolled by the IAH practice. The geographic area was determined by looking at the first three digits of zip codes for enrolled IAH beneficiaries. Beneficiaries included in the predictive models did not receive home visits, in order to reflect an "unmanaged" population. Beneficiaries enrolled in other CMS shared shavings programs were also excluded from the predictive models.

Demonstration eligibility criteria included the following:

- No HMO enrollment.
- Community residence.
- Enrollment in Medicare Part A and Part B.

- At least one acute hospitalization or observation stay in the year prior to the predictive model year.
- At least one post-acute care claim in the year prior to the predictive model year, where post-acute care includes home health agency (HHA), skilled nursing facility (SNF), inpatient rehabilitation facility (IRF), or long-term care hospital (LTCH).
- At least two chronic conditions identified using the CCW flags in the year prior to the predictive model year.
- At least two impairments in activities of daily living (ADLs) in the year prior to the predictive model year based on at least one OASIS, MDS, or IRF-PAI assessment. Note that if at least one assessment was not identified, but a beneficiary had an LTCH claim, then the beneficiary was considered to be impaired in at least two ADLs.

Logit models were run predicting the presence of at least one hospital admission for diabetes, CHF, or COPD controlling for age, gender, ESRD status, Medicaid enrollment, community hierarchical condition category (HCC) risk score, presence of diabetes, presence of CHF, or presence of COPD, and months of eligibility.

### **Calculation Algorithm**

Calculation of this quality measure includes the following steps:

- 1. Identify beneficiaries enrolled in IAH for each practice (IAH Benes).
- 2. Identify IAH eligible beneficiaries residing in same 3-digit zip code defined geographic areas as beneficiaries enrolled in each IAH practice, but not receiving home visits, from the 50% Medicare files (Comparison Benes).
- 3. Calculate the number of hospital admissions for each beneficiary for diabetes, CHF, or COPD during eligible months after applying exclusion criteria for both IAH Benes and for Comparison Benes.
- 4. Run logit model on Comparison Benes by practice area to predict the presence of at least one hospital admission for diabetes, CHF, or COPD.
- 5. Use the practice specific coefficients generated from logit models to calculate a predicted log odds of at least one hospital admission for diabetes, CHF, or COPD for each IAH Beneficiary with these conditions.
- 6. Calculate the predicted odds from the predicted log odds for each IAH Beneficiary with the relevant conditions (diabetes, CHF, or COPD).
- 7. Calculate the predicted probability from the predicted odds for each IAH Beneficiary with the relevant conditions (diabetes, CHF, or COPD).

- 8. Sum predicted probabilities by practice for Beneficiaries with the relevant conditions (diabetes, CHF, or COPD).
- 9. Compare the sum of observed events (1= presence of at least one admission; 0 = zero admissions) to the sum of the predicted probabilities (expected) for each practice. If the ratio of the sum of the actual events to the sum of the predicted probabilities is less than or equal to one, then the practice performs as well as or better than predicted and therefore meets the quality measure. If the ratio is greater than one, then the practice performs worse than predicted and therefore does not meet the measure.

### QUALITY MEASURE 6: EMERGENCY DEPARTMENT VISITS FOR AMBULATORY CARE SENSITIVE CONDITIONS

### **Data Source**

Medicare claims data.

#### **Measure Description**

Risk-adjusted emergency department visits for any of three ambulatory care sensitive conditions: diabetes, congestive heart failure (CHF), and chronic obstructive pulmonary disease (COPD). The measure is constructed as a ratio of the observed to a risk-adjusted predicted number of IAH enrolled beneficiaries diagnosed with diabetes, CHF, or COPD with at least one emergency department visit for diabetes, CHF, or COPD.

#### Rationale

According to the Agency for Healthcare Research and Quality (AHRQ), ambulatory care sensitive conditions are conditions that can often be controlled outside the hospital setting. Evidence suggests that emergency department visits for these conditions can be avoided through high-quality outpatient care, or that the condition may be less severe if treated early and appropriately.

The objective of this quality measure is to assess whether practices are able to reduce use of emergency departments for diabetes, CHF, and COPD. Practices must perform at least as well as predicted based on analysis of IAH eligible beneficiaries in the same geographic area to meet the performance threshold.

### Denominator

#### **Denominator Statement**

Expected (risk-adjusted) number of beneficiaries with at least one emergency department visit for diabetes, CHF, or COPD for beneficiaries identified as having diabetes, CHF, or COPD. Expected emergency department visits are calculated by running predictive models controlling for patient characteristics. Details of the models are described below.

#### **Denominator Details**

Emergency department visits are identified using revenue center codes in the outpatient Medicare claims file. Beneficiaries are identified as having diabetes, CHF, or COPD using the Chronic Conditions Warehouse (CCW) chronic condition flags. Emergency department visits must occur in a month in which the beneficiary is enrolled in the Demonstration.

Emergency department visits for diabetes, CHF, and COPD are identified using the ICD-10 codes. Tables 8–15 contain all ICD-10 codes used to identify claims for diabetes, CHF, and COPD. To identify diabetes admissions, a claim must have an ICD-10 code for one of the codes listed in Table 8 in the first diagnosis position. Alternatively, a claim must have an ICD-10

diagnosis code for one of the codes in Table 9 in any diagnosis position and also have one of the procedure codes in Table 10 in any position and also not have one of the diagnosis codes in Table 11 in any position. To identify claims for CHF, a claim must have an ICD-10 code for one of the codes listed in Table 12 listed in the first diagnosis position and must not have one of the procedure codes listed in Table 13 in any position. To identify claims for COPD, a claim must have an ICD-10 code for one of the codes listed in Table 13 in Table 14 listed in the first diagnosis position and must not have one of the diagnosis codes listed in Table 14 listed in the first diagnosis position and must not have one of the diagnosis codes listed in Table 15 in any position.

### **Denominator Exceptions and Exclusions**

None.

### Numerator

### **Numerator Statement**

Observed number of beneficiaries with at least one emergency department visit for diabetes, CHF, or COPD for beneficiaries identified as having diabetes, CHF, or COPD.

### **Numerator Details**

The denominator details noted above are also applied to the numerator.

### Stratification or Risk Adjustment

A Medicare 50% file was used to develop predictive models for this measure. Separate predictive models were run for each practice. Beneficiaries included in each model (Comparison Benes) were beneficiaries meeting the Independence at Home (IAH) Demonstration eligibility criteria and residing in the same geographic area as beneficiaries enrolled by the IAH practice. The geographic area was determined by looking at the first three digits of zip codes for enrolled IAH beneficiaries. Beneficiaries included in the predictive models did not receive home visits, in order to reflect an "unmanaged" population. Beneficiaries enrolled in other CMS shared shavings programs were also excluded from the predictive models.

Demonstration eligibility criteria included the following:

- No HMO enrollment.
- Community residence.
- Enrollment in Medicare Part A and Part B.
- At least one acute hospitalization or observation stay in the year prior to the predictive model year.
- At least one post-acute care claim in the year prior to the predictive model year where post-acute care includes home health agency (HHA), skilled nursing facility (SNF), inpatient rehabilitation facility (IRF), or long-term care hospital (LTCH).

- At least two chronic conditions identified using the CCW flags in the year prior to the predictive model year.
- At least two impairments in activities of daily living (ADLs) in the year prior to the predictive model year based on at least one OASIS, MDS, or IRF-PAI assessment. Note that if at least one assessment was not identified, but a beneficiary had an LTCH claim, then the beneficiary was considered to be impaired in at least two ADLs.

Logit models were run predicting the presence of at least one emergency department visit for diabetes, CHF, or COPD controlling for age, gender, ESRD status, Medicaid enrollment, community hierarchical condition category (HCC) risk score, presence of diabetes, presence of CHF, or presence of COPD, and months of eligibility.

### **Calculation Algorithm**

Calculation of this quality measure includes the following steps:

- 1. Identify beneficiaries enrolled in IAH for each practice (IAH Benes).
- 2. Identify IAH eligible beneficiaries residing in same 3-digit zip code defined geographic areas as beneficiaries enrolled in each IAH practice, but not receiving home visits, from the 50% Medicare files (Comparison Benes).
- 3. Calculate the number of emergency department visits for each beneficiary for diabetes, CHF, or COPD during eligible months after applying exclusion criteria for both IAH Benes and for Comparison Benes.
- 4. Run logit model on Comparison Benes by practice area to predict the presence of at least one emergency department visit for diabetes, CHF, or COPD.
- 5. Use the practice-specific coefficients generated from logit models to calculate the predicted log odds of at least one emergency department visit for diabetes, CHF, or COPD for each IAH Beneficiary with these conditions.
- 6. Calculate the predicted odds from the predicted log odds for each IAH Beneficiary with the relevant conditions (diabetes, CHF, or COPD).
- 7. Calculate the predicted probability from the predicted odds for each IAH Beneficiary with the relevant conditions (diabetes, CHF, or COPD).
- 8. Sum predicted probabilities by practice for IAH Beneficiary with the relevant conditions (diabetes, CHF, or COPD).
- 9. Compare the sum of observed events (1= presence of at least one emergency department visit; 0 = zero emergency department visits) to the sum of the predicted probabilities (expected) for each practice. If the ratio of the sum of the actual events to the sum of the predicted probabilities is less than or equal to one, then the practice performs better than or as well as predicted and therefore meets the quality measure. If the ratio is greater than one, then the practice performs worse than predicted and therefore does not meet the measure.

ICD-10	Label	ICD-10	Label
E1010	Type 1 diabetes mellitus with ketoacidosis without coma	E103212	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with
E1100	Type 2 diabetes mellitus with hyperosmolarity without nonketotichyperglycemic- hyperosmolar coma (NKHHC)	E113212	macular edema, left eye Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with
E1011	Type 1 diabetes mellitus with ketoacidosis with coma	E103213	macular edema, left eye Type 1 diabetes mellitus with mild
E1101	Type 2 diabetes mellitus with hyperosmolarity with coma		nonproliferative diabetic retinopathy with macular edema, bilateral
E10641	Type 1 diabetes mellitus with hypoglycemia with coma	E113213	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral
E11641	Type 2 diabetes mellitus with hypoglycemia with coma	E103219	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with
E1021	Type 1 diabetes mellitus with diabetic nephropathy		macular edema, unspecified eye
E1121	Type 2 diabetes mellitus with diabetic nephropathy	E113219	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye
E1022	Type 1 diabetes mellitus with diabetic chronic kidney disease	E10329	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without
E1122	Type 2 diabetes mellitus with diabetic chronic kidney disease	E11329	macular edema Type 2 diabetes mellitus with mild
E1029	Type 1 diabetes mellitus with other diabetic kidney complication		nonproliferative diabetic retinopathy without macular edema
E1129	Type 2 diabetes mellitus with other diabetic kidney complication	E103291	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye
E10311	Type 1 diabetes mellitus with unspecified diabetic retinopathy with macular edema	E113291	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without
E11311	Type 2 diabetes mellitus with unspecified diabetic retinopathy with macular edema		macular edema, right eye
E10319	Type 1 diabetes mellitus with unspecified diabetic retinopathy without macular edema	E103292	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye
E11319	Type 2 diabetes mellitus with unspecified diabetic retinopathy without macular edema	E113292	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without
E10321	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema	E103293	macular edema, left eye Type 1 diabetes mellitus with mild
E11321	Type 2 diabetes mellitus with mild		nonproliferative diabetic retinopathy without macular edema, bilateral
E102211	nonproliferative diabetic retinopathy with macular edema Type 1 diabetes mellitus with mild	E113293	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without
E103211	nonproliferative diabetic retinopathy with macular edema, right eye	E103299	macular edema, bilateral Type 1 diabetes mellitus with mild
E113211	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye		nonproliferative diabetic retinopathy without macular edema, unspecified eye

### Table 8 ICD-10 Diagnosis Codes for Diabetes

ICD-10	Label	ICD-10	Label
E113299	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	E113392	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye
E10331	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	E103393	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral
E11331	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	E113393	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral
E103311	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	E103399	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye
E113311	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	E113399	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye
E103312	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	E10341	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema
E113312	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	E11341	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema
E103313	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	E103411	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye
E113313	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	E113411	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye
E103319	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	E103412	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye
E113319	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	E113412	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye
E10339	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	E103413	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral
E11339	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	E113413	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral
E103391	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	E103419	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye
E113391	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	E113419	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye
E103392	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	E10349	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema

Table 8 (continued)		
<b>ICD-10 Diagnosis Codes for Diabetes</b>		

ICD-10	Label	ICD-10	Label
E11349	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	E103519	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye
E103491	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	E113519	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye
E113491	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	E103521	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye
E103492	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	E113521	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye
E113492	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	E103522	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye
E103493	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	E113522	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye
E113493	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	E103523	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral
E103499	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	E113523	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral
E113499	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	E103529	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified
E10351	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema	E113529	eye Type 2 diabetes mellitus with proliferative
E11351	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema		diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye
E103511	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye	E103531	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye
E113511	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye	E113531	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye
E103512	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	E103532	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye
E113512	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	E113532	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye
E103513	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral	E103533	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral
E113513	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral		continued)

ICD-10	Label	ICD-10	Label
E113533	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal	E113552	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, left eye
E103539	detachment not involving the macula, bilateral Type 1 diabetes mellitus with proliferative	E103553	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral
	diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	E113553	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral
E113539	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula,	E103559	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye
E103541	unspecified eye Type 1 diabetes mellitus with proliferative	E113559	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye
	diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	E10359	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema
E113541	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction	E11359	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema
E103542	retinal detachment and rhegmatogenous retinal detachment, right eye Type 1 diabetes mellitus with proliferative	E103591	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye
E105342	diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	E113591	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye
E113542	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal	E103592	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye
E103543	detachment, left eye Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction	E113592	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye
E113543	retinal detachment and rhegmatogenous retinal detachment, bilateral Type 2 diabetes mellitus with proliferative	E103593	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema,
L113343	diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	E113593	bilateral Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral
E103549	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	E103599	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye
E113549	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal	E113599	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye
	detachment, unspecified eye	E1036	Type 1 diabetes mellitus with diabetic cataract
E103551	Type 1 diabetes mellitus with stable	E1136	Type 2 diabetes mellitus with diabetic cataract
E113551	proliferative diabetic retinopathy, right eye Type 2 diabetes mellitus with stable	E1037X1	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye
E103552	proliferative diabetic retinopathy, right eye Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, left eye	E1137X1	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye

ICD-10	Label	ICD-10	Label
E1037X2	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, left eye	E1052	Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene
E1137X2	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, left eye	E1152	Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene
E1037X3	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral	E1059	Type 1 diabetes mellitus with other circulatory complications
E1137X3	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral	E1159	Type 2 diabetes mellitus with other circulatory complications
E1037X9	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment,	E10610	Type 1 diabetes mellitus with diabetic neuropathic arthropathy
E1137X9	unspecified eye Type 2 diabetes mellitus with diabetic macular	E11610	Type 2 diabetes mellitus with diabetic neuropathic arthropathy
	edema, resolved following treatment, unspecified eye	E10618	Type 1 diabetes mellitus with other diabetic arthropathy
E1039	Type 1 diabetes mellitus with other diabetic ophthalmic complication	E11618	Type 2 diabetes mellitus with other diabetic arthropathy
E1139	Type 2 diabetes mellitus with other diabetic ophthalmic complication	E10620	Type 1 diabetes mellitus with diabetic dermatitis
E1040	Type 1 diabetes mellitus with diabetic neuropathy, unspecified	E11620	Type 2 diabetes mellitus with diabetic dermatitis
E1140	Type 2 diabetes mellitus with diabetic neuropathy, unspecified	E10621	Type 1 diabetes mellitus with foot ulcer
E1041	Type 1 diabetes mellitus with diabetic	E11621	Type 2 diabetes mellitus with foot ulcer
L1041	mononeuropathy	E10622	Type 1 diabetes mellitus with other skin ulcer
E1141	Type 2 diabetes mellitus with diabetic	E11622	Type 2 diabetes mellitus with other skin ulcer
	mononeuropathy	E10628	Type 1 diabetes mellitus with other skin
E1042	Type 1 diabetes mellitus with diabetic		complications
	polyneuropathy	E11628	Type 2 diabetes mellitus with other skin complications
E1142	Type 2 diabetes mellitus with diabetic polyneuropathy	E10630	Type 1 diabetes mellitus with periodontal disease
E1043	Type 1 diabetes mellitus with diabetic autonomic (poly)neuropathy	E11630	Type 2 diabetes mellitus with periodontal
E1143	Type 2 diabetes mellitus with diabetic	LII050	disease
	autonomic (poly)neuropathy	E10638	Type 1 diabetes mellitus with other oral
E1044	Type 1 diabetes mellitus with diabetic		complications
	amyotrophy	E11638	Type 2 diabetes mellitus with other oral complications
E1144	Type 2 diabetes mellitus with diabetic amyotrophy	E1069	•
E1049	Type 1 diabetes mellitus with other diabetic	E1009	Type 1 diabetes mellitus with other specified complication
LICIO	neurological complication	E1169	Type 2 diabetes mellitus with other specified
E1149	Type 2 diabetes mellitus with other diabetic	-	complication
E1051	neurological complication	E108	Type 1 diabetes mellitus with unspecified complications
E1051	Type 1 diabetes mellitus with diabetic peripheral angiopathy without gangrene	E118	Type 2 diabetes mellitus with unspecified
E1151	Type 2 diabetes mellitus with diabetic peripheral angiopathy without gangrene		complications
			(continued)

ICD-10	Label	ICD-10	Label
ICD-10	Laber	ICD-10	Laber
E10649	Type 1 diabetes mellitus with hypoglycemia	E1065	Type 1 diabetes mellitus with hyperglycemia
	without coma	E1165	Type 2 diabetes mellitus with hyperglycemia
E11649	Type 2 diabetes mellitus with hypoglycemia without coma		

### Table 8 (continued)ICD 10 Diagnosis Codes for Diabetes

## Table 9ICD-10 Diagnosis Codes for Other Diabetes

ICD-10	Label	ICD-10	Label
E1010	Type 1 diabetes mellitus with ketoacidosis without coma	E113549	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous
E113532	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	E10321	retinal detachment, unspecified eye Type 1 diabetes mellitus with mild
E1011	Type 1 diabetes mellitus with ketoacidosis with coma	E10521	nonproliferative diabetic retinopathy with macular edema
E113533	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal	E113551	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, right eye
	detachment not involving the macula, bilateral	E103211	Type 1 diabetes mellitus with mild
E1021	Type 1 diabetes mellitus with diabetic nephropathy		nonproliferative diabetic retinopathy with macular edema, right eye
E113539	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal	E113552	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, left eye
	detachment not involving the macula, unspecified eye	E103212	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with
E1022	Type 1 diabetes mellitus with diabetic chronic kidney disease	E113553	macular edema, left eye Type 2 diabetes mellitus with stable
E113541	Type 2 diabetes mellitus with proliferative	2115555	proliferative diabetic retinopathy, bilateral
	diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	E103213	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral
E1029	Type 1 diabetes mellitus with other diabetic kidney complication	E113559	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified
E113542	Type 2 diabetes mellitus with proliferative	E103219	eye
	diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	E105219	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye
E10311	Type 1 diabetes mellitus with unspecified diabetic retinopathy with macular edema	E11359	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema
E113543	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous	E10329	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema
E10319	retinal detachment, bilateral Type 1 diabetes mellitus with unspecified diabetic retinopathy without macular edema	E113591	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye

ICD-10	Label	ICD-10	Label
E103291	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	E10339	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema
E113592	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema,	E1140	Type 2 diabetes mellitus with diabetic neuropathy, unspecified
E103292	left eye Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without	E103391	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye
E113593	macular edema, left eye Type 2 diabetes mellitus with proliferative	E1141	Type 2 diabetes mellitus with diabetic mononeuropathy
	diabetic retinopathy without macular edema, bilateral	E103392	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without
E103293	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	E1142	macular edema, left eye Type 2 diabetes mellitus with diabetic polyneuropathy
E113599	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	E103393	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral
E103299	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	E1143	Type 2 diabetes mellitus with diabetic autonomic (poly)neuropathy
E1136	Type 2 diabetes mellitus with diabetic cataract	E103399	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without
E10331	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	E1144	macular edema, unspecified eye Type 2 diabetes mellitus with diabetic amyotrophy
E1137X1	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye	E10341	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with
E103311	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	E1149	macular edema Type 2 diabetes mellitus with other diabetic neurological complication
E1137X2	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, left eye	E103411	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with
E103312	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	E1151	macular edema, right eye Type 2 diabetes mellitus with diabetic peripheral angiopathy without gangrene
E1137X3	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral	E103412	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with
E103313	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	E1152	macular edema, left eye Type 2 diabetes mellitus with diabetic
E1137X9	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	E103413	peripheral angiopathy with gangrene Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral
E103319	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	E1159	Type 2 diabetes mellitus with other circulatory complications
E1139	Type 2 diabetes mellitus with other diabetic ophthalmic complication	E103419	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye

ICD-10	Label	ICD-10	Label
E11610	Type 2 diabetes mellitus with diabetic neuropathic arthropathy	E103521	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye
E10349	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	E1169	Type 2 diabetes mellitus with other specified complication
E11618	Type 2 diabetes mellitus with other diabetic arthropathy	E103522	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye
E103491	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	E118	Type 2 diabetes mellitus with unspecified complications
E11620	Type 2 diabetes mellitus with diabetic dermatitis	E103523	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal datachment involving the menule hiltered
E103492	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	E119	detachment involving the macula, bilateral Type 2 diabetes mellitus without complications
E11621	Type 2 diabetes mellitus with foot ulcer	E103529	Type 1 diabetes mellitus with proliferative
E103493	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral		diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye
E11622	Type 2 diabetes mellitus with other skin ulcer	E1300	Other specified diabetes mellitus with
E103499	Type 1 diabetes mellitus with severe		hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)
	nonproliferative diabetic retinopathy without macular edema, unspecified eye	E103531	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal
E11628	Type 2 diabetes mellitus with other skin complications		detachment not involving the macula, right eye
E10351	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema	E1301	Other specified diabetes mellitus with hyperosmolarity with coma
E11630 E103511	Type 2 diabetes mellitus with periodontal disease Type 1 diabetes mellitus with proliferative	E103532	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye
2103311	diabetic retinopathy with macular edema, right eye	E1310	Other specified diabetes mellitus with ketoacidosis without coma
E11638	Type 2 diabetes mellitus with other oral complications	E103533	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal
E103512	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	E1311	detachment not involving the macula, bilateral Other specified diabetes mellitus with ketoacidosis with coma
E11641	Type 2 diabetes mellitus with hypoglycemia with coma	E103539	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal
E103513	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema,		detachment not involving the macula, unspecified eye
E11649	bilateral Type 2 diabetes mellitus with hypoglycemia without coma	E1321	Other specified diabetes mellitus with diabetic nephropathy
E103519	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	E103541	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye
E1165	Type 2 diabetes mellitus with hyperglycemia		(continued)

ICD-10	Label	ICD-10	Label
E1322	Other specified diabetes mellitus with diabetic chronic kidney disease	E103591	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye
E103542	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	E13329	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema
E1329	Other specified diabetes mellitus with other diabetic kidney complication	E103592	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema,
E103543	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	E133291	left eye Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye
E13311	Other specified diabetes mellitus with unspecified diabetic retinopathy with macular edema	E103593	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral
E103549	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal	E133292	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye
E13319	detachment, unspecified eye Other specified diabetes mellitus with unspecified diabetic retinopathy without	E103599	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye
E103551	macular edema Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, right eye	E133293	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral
E13321	Other specified diabetes mellitus with mild	E1036	Type 1 diabetes mellitus with diabetic cataract
	nonproliferative diabetic retinopathy with macular edema	E133299	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without
E103552	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, left eye	E1037X1	macular edema, unspecified eye Type 1 diabetes mellitus with diabetic macular
E133211	Other specified diabetes mellitus with mild	2100/111	edema, resolved following treatment, right eye
E102552	nonproliferative diabetic retinopathy with macular edema, right eye	E13331	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema
E103553	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	E1037X2	Type 1 diabetes mellitus with diabetic macular
E133212	Other specified diabetes mellitus with mild		edema, resolved following treatment, left eye
F102550	nonproliferative diabetic retinopathy with macular edema, left eye	E133311	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy
E103559	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	E1037X3	with macular edema, right eye Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral
E133213	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral	E133312	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye
E10359	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema	E1037X9	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment,
E133219	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye		unspecified eye (continued)

ICD-10	Label	ICD-10	Label
E133313	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy	E1059	Type 1 diabetes mellitus with other circulatory complications
E1039	with macular edema, bilateral Type 1 diabetes mellitus with other diabetic ophthalmic complication	E133413	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral
E133319	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy	E10610	Type 1 diabetes mellitus with diabetic neuropathic arthropathy
E1040	with macular edema, unspecified eye Type 1 diabetes mellitus with diabetic neuropathy, unspecified	E133419	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye
E13339	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy	E10618	Type 1 diabetes mellitus with other diabetic arthropathy
E1041	without macular edema Type 1 diabetes mellitus with diabetic mononeuropathy	E13349	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema
E133391	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy	E10620	Type 1 diabetes mellitus with diabetic dermatitis
E1042	without macular edema, right eye Type 1 diabetes mellitus with diabetic polyneuropathy	E133491	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye
E133392	Other specified diabetes mellitus with	E10621	Type 1 diabetes mellitus with foot ulcer
E1043	moderate nonproliferative diabetic retinopathy without macular edema, left eye Type 1 diabetes mellitus with diabetic	E133492	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye
E1045	autonomic (poly)neuropathy	E10622	Type 1 diabetes mellitus with other skin ulcer
E133393	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	E133493	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral
E1044	Type 1 diabetes mellitus with diabetic amyotrophy	E10628	Type 1 diabetes mellitus with other skin complications
E133399	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	E133499	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye
E1049	Type 1 diabetes mellitus with other diabetic neurological complication	E10630	Type 1 diabetes mellitus with periodontal disease
E13341	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	E13351	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema
E1051	Type 1 diabetes mellitus with diabetic peripheral angiopathy without gangrene	E10638	Type 1 diabetes mellitus with other oral complications
E133411	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	E133511	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye
E1052	Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene	E10641	Type 1 diabetes mellitus with hypoglycemia with coma
E133412	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye		(continued)

ICD-10	Label	ICD-10	Label
E133512	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular	E1122	Type 2 diabetes mellitus with diabetic chronic kidney disease
E10649	edema, left eye Type 1 diabetes mellitus with hypoglycemia without coma	E133533	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula,
E133513	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral	E113291	bilateral Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without
E1065	Type 1 diabetes mellitus with hyperglycemia	<b>T</b> ( <b>2 2 3</b>	macular edema, right eye
E133519	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	E13359	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema
E1069	Type 1 diabetes mellitus with other specified complication	E113292	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye
E133521	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	E133591	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye
E108	Type 1 diabetes mellitus with unspecified complications	E113293	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral
E133522	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	E133592	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye
E109	Type 1 diabetes mellitus without complications	E113299	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye
E133523	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	E133593	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral
E1100	Type 2 diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic- hyperosmolar coma (NKHHC)	E11331	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema
E133529	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula,	E133599	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye
E1101	unspecified eye Type 2 diabetes mellitus with hyperosmolarity with coma	E113311	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye
E133531	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction	E1336	Other specified diabetes mellitus with diabetic cataract
	retinal detachment not involving the macula, right eye	E113312	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye
E1121	Type 2 diabetes mellitus with diabetic nephropathy	E1337X1	Other specified diabetes mellitus with diabetic
E133532			macular edema, resolved following treatment, right eye
			(continued)

ICD-10	Label	ICD-10	Label
E113313	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	E113412	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye
E1337X2	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment,	E1349	Other specified diabetes mellitus with other diabetic neurological complication
E113319	left eye Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with	E113413	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral
E1337X3	macular edema, unspecified eye Other specified diabetes mellitus with diabetic	E1351	Other specified diabetes mellitus with diabetic peripheral angiopathy without gangrene
	macular edema, resolved following treatment, bilateral	E113419	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with
E11339	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without	E1050	macular edema, unspecified eye
	macular edema	E1352	Other specified diabetes mellitus with diabetic peripheral angiopathy with gangrene
E1337X9	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	E11349	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema
E113391	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without	E1359	Other specified diabetes mellitus with other circulatory complications
E1339	macular edema, right eye Other specified diabetes mellitus with other diabetic ophthalmic complication	E113491	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye
E113392	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	E13610	Other specified diabetes mellitus with diabetic neuropathic arthropathy
E1340	Other specified diabetes mellitus with diabetic neuropathy, unspecified	E113492	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye
E113393	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	E13618	Other specified diabetes mellitus with other diabetic arthropathy
E1341	Other specified diabetes mellitus with diabetic mononeuropathy	E113493	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral
E113399	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	E13620	Other specified diabetes mellitus with diabetic dermatitis
E1342	Other specified diabetes mellitus with diabetic polyneuropathy	E113499	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye
E11341	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	E13621	Other specified diabetes mellitus with foot ulcer
E1343	Other specified diabetes mellitus with diabetic autonomic (poly)neuropathy	E11351	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema
E113411	Type 2 diabetes mellitus with severe	E13622	Other specified diabetes mellitus with other skin ulcer
E1344	nonproliferative diabetic retinopathy with macular edema, right eye Other specified diabetes mellitus with diabetic	E113511	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right
L1344	amyotrophy		eye

ICD-10	Label	ICD-10	Label
E13628	Other specified diabetes mellitus with other skin complications	E113522	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal
E113512	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	E1365	detachment involving the macula, left eye Other specified diabetes mellitus with hyperglycemia
E13630	Other specified diabetes mellitus with periodontal disease	E113523	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral
E113513	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral	E1369	Other specified diabetes mellitus with other specified complication
E13638	Other specified diabetes mellitus with other oral complications	E113529	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal
E113519	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema,		detachment involving the macula, unspecified eye
	unspecified eye	E138	Other specified diabetes mellitus with unspecified complications
E13641	Other specified diabetes mellitus with hypoglycemia with coma	E113531	Type 2 diabetes mellitus with proliferative
E113521	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye		diabetic retinopathy with traction retinal detachment not involving the macula, right eye
E13649	Other specified diabetes mellitus with hypoglycemia without coma	E139	Other specified diabetes mellitus without complications

Table 10
<b>ICD-10 Procedure Codes for Amputation</b>

ICD-10	Label	ICD-10	Label
0Y620ZZ	Detachment at Right Hindquarter, Open Approach	0Y6M0Z9	Detachment at Right Foot, Partial 1st Ray, Open Approach
0Y6M0Z5	Detachment at Right Foot, Complete 2nd Ray, Open Approach	0Y6C0Z1	Detachment at Right Upper Leg, High, Open Approach
0Y630ZZ	Detachment at Left Hindquarter, Open Approach	0Y6M0ZB	Detachment at Right Foot, Partial 2nd Ray, Open Approach
0Y6M0Z6	Detachment at Right Foot, Complete 3rd Ray, Open Approach	0Y6C0Z2	Detachment at Right Upper Leg, Mid, Open Approach
0Y640ZZ	Detachment at Bilateral Hindquarter, Open Approach	0Y6M0ZC	Detachment at Right Foot, Partial 3rd Ray, Open Approach
0Y6M0Z7	Detachment at Right Foot, Complete 4th Ray, Open Approach	0Y6C0Z3	Detachment at Right Upper Leg, Low, Open Approach
0Y670ZZ	Detachment at Right Femoral Region, Open Approach	0Y6M0ZD	Detachment at Right Foot, Partial 4th Ray, Open Approach
0Y6M0Z8	Detachment at Right Foot, Complete 5th Ray, Open Approach	0Y6D0Z1	Detachment at Left Upper Leg, High, Open Approach
0Y680ZZ	Detachment at Left Femoral Region, Open Approach		(continued)

ICD-10	Label	ICD-10	Label
0Y6M0ZF	Detachment at Right Foot, Partial 5th Ray, Open Approach	0Y6N0Z8	Detachment at Left Foot, Complete 5th Ray, Open Approach
0Y6D0Z2	Detachment at Left Upper Leg, Mid, Open Approach	0Y6H0Z3	Detachment at Right Lower Leg, Low, Open Approach
0Y6N0Z0	Detachment at Left Foot, Complete, Open Approach	0Y6N0Z9	Detachment at Left Foot, Partial 1st Ray, Open Approach
0Y6D0Z3	Detachment at Left Upper Leg, Low, Open Approach	0Y6J0Z1	Detachment at Left Lower Leg, High, Open Approach
0Y6N0Z4	Detachment at Left Foot, Complete 1st Ray, Open Approach	0Y6N0ZB	Detachment at Left Foot, Partial 2nd Ray, Open Approach
0Y6F0ZZ	Detachment at Right Knee Region, Open Approach	0Y6J0Z2	Detachment at Left Lower Leg, Mid, Open Approach
0Y6N0Z5	Detachment at Left Foot, Complete 2nd Ray, Open Approach	0Y6N0ZC	Detachment at Left Foot, Partial 3rd Ray, Open Approach
0Y6G0ZZ	Detachment at Left Knee Region, Open Approach	0Y6J0Z3	Detachment at Left Lower Leg, Low, Open Approach
0Y6N0Z6	Detachment at Left Foot, Complete 3rd Ray, Open Approach	0Y6N0ZD	Detachment at Left Foot, Partial 4th Ray, Open Approach
0Y6H0Z1	Detachment at Right Lower Leg, High, Open Approach	0Y6M0Z0	Detachment at Right Foot, Complete, Open Approach
0Y6N0Z7	Detachment at Left Foot, Complete 4th Ray, Open Approach	0Y6N0ZF	Detachment at Left Foot, Partial 5th Ray, Open Approach
0Y6H0Z2	Detachment at Right Lower Leg, Mid, Open Approach	0Y6M0Z4	Detachment at Right Foot, Complete 1st Ray, Open Approach

## Table 10 (continued)ICD-10 Procedure Codes for Amputation

Table 11ICD-10 Diagnosis Codes for Diabetes Exclusion Criteria

ICD-10	Label	ICD-10	Label
S78011A	Complete traumatic amputation at right hip joint, initial encounter	S98021A	Partial traumatic amputation of right foot at ankle level, initial encounter
S98011A	Complete traumatic amputation of right foot at ankle level, initial encounter	S78022A	Partial traumatic amputation at left hip joint, initial encounter
S78012A	Complete traumatic amputation at left hip joint, initial encounter	S98022A	Partial traumatic amputation of left foot at ankle level, initial encounter
S98012A	Complete traumatic amputation of left foot at ankle level, initial encounter	S78029A	Partial traumatic amputation at unspecified hip joint, initial encounter
S78019A	Complete traumatic amputation at unspecified hip joint, initial encounter	S98029A	Partial traumatic amputation of unspecified foot at ankle level, initial encounter
S98019A	Complete traumatic amputation of unspecified foot at ankle level, initial encounter	S78111A	Complete traumatic amputation at level between right hip and knee, initial encounter
S78021A	Partial traumatic amputation at right hip joint, initial encounter	S98111A	Complete traumatic amputation of right great toe, initial encounter

ICD-10	Label	ICD-10	Label
S78112A	Complete traumatic amputation at level between left hip and knee, initial encounter	S98211A	Complete traumatic amputation of two or more right lesser toes, initial encounter
S98112A	Complete traumatic amputation of left great toe, initial encounter	S88012A	Complete traumatic amputation at knee level, left lower leg, initial encounter
S78119A	Complete traumatic amputation at level between unspecified hip and knee, initial	S98212A	Complete traumatic amputation of two or more left lesser toes, initial encounter
S98119A	encounter Complete traumatic amputation of unspecified	S88019A	Complete traumatic amputation at knee level, unspecified lower leg, initial encounter
S78121A	great toe, initial encounter Partial traumatic amputation at level between	S98219A	Complete traumatic amputation of two or more unspecified lesser toes, initial encounter
S98121A	right hip and knee, initial encounter Partial traumatic amputation of right great toe,	S88021A	Partial traumatic amputation at knee level, right lower leg, initial encounter
	initial encounter	S98221A	Partial traumatic amputation of two or more
S78122A	Partial traumatic amputation at level between left hip and knee, initial encounter	S88022A	right lesser toes, initial encounter Partial traumatic amputation at knee level, left
S98122A	Partial traumatic amputation of left great toe, initial encounter	S98222A	lower leg, initial encounter Partial traumatic amputation of two or more left
S78129A	Partial traumatic amputation at level between unspecified hip and knee, initial encounter	S88029A	lesser toes, initial encounter Partial traumatic amputation at knee level,
S98129A	Partial traumatic amputation of unspecified great toe, initial encounter	S98229A	unspecified lower leg, initial encounter Partial traumatic amputation of two or more
S78911A	Complete traumatic amputation of right hip and thigh, level unspecified, initial encounter	S88111A	unspecified lesser toes, initial encounter Complete traumatic amputation at level
S98131A	Complete traumatic amputation of one right lesser toe, initial encounter	300111A	between knee and ankle, right lower leg, initial encounter
S78912A	Complete traumatic amputation of left hip and thigh, level unspecified, initial encounter	S98311A	Complete traumatic amputation of right midfoot, initial encounter
S98132A	Complete traumatic amputation of one left lesser toe, initial encounter	S88112A	Complete traumatic amputation at level between knee and ankle, left lower leg, initial
S78919A	Complete traumatic amputation of unspecified hip and thigh, level unspecified, initial encounter	S98312A	encounter Complete traumatic amputation of left midfoot, initial encounter
S98139A	Complete traumatic amputation of one unspecified lesser toe, initial encounter	S88119A	Complete traumatic amputation at level between knee and ankle, unspecified lower leg,
S78921A	-	S98319A	initial encounter Complete traumatic amputation of unspecified
S98141A	Partial traumatic amputation of one right lesser toe, initial encounter	S88121A	midfoot, initial encounter Partial traumatic amputation at level between
S78922A	Partial traumatic amputation of left hip and thigh, level unspecified, initial encounter	500121A	knee and ankle, right lower leg, initial encounter
S98142A	Partial traumatic amputation of one left lesser toe, initial encounter	S98321A	Partial traumatic amputation of right midfoot, initial encounter
S78929A	Partial traumatic amputation of unspecified hip and thigh, level unspecified, initial encounter	S88122A	Partial traumatic amputation at level between knee and ankle, left lower leg, initial encounter
S98149A	Partial traumatic amputation of one unspecified lesser toe, initial encounter	S98322A	Partial traumatic amputation of left midfoot, initial encounter
S88011A	Complete traumatic amputation at knee level, right lower leg, initial encounter		(continued)

# Table 11 (continued)ICD-10 Diagnosis Codes for Diabetes Exclusion Criteria

Table 11 (continued)
ICD-10 Diagnosis Codes for Diabetes Exclusion Criteria

ICD-10	Label	ICD-10	Label
S88129A	Partial traumatic amputation at level between knee and ankle, unspecified lower leg, initial	S98919A	Complete traumatic amputation of unspecified foot, level unspecified, initial encounter
S98329A	encounter Partial traumatic amputation of unspecified	S88921A	Partial traumatic amputation of right lower leg, level unspecified, initial encounter
S88911A	midfoot, initial encounter	S98921A	Partial traumatic amputation of right foot, level unspecified, initial encounter
300911A	Complete traumatic amputation of right lower leg, level unspecified, initial encounter	S88922A	Partial traumatic amputation of left lower leg,
S98911A	Complete traumatic amputation of right foot, level unspecified, initial encounter	S98922A	level unspecified, initial encounter Partial traumatic amputation of left foot, level
S88912A	Complete traumatic amputation of left lower	57672211	unspecified, initial encounter
S98912A	leg, level unspecified, initial encounter Complete traumatic amputation of left foot,	S88929A	Partial traumatic amputation of unspecified lower leg, level unspecified, initial encounter
0000104	level unspecified, initial encounter Complete traumatic amputation of unspecified lower leg, level unspecified, initial encounter	S98929A	Partial traumatic amputation of unspecified
			foot, level unspecified, initial encounter

Table 12
ICD-10 Diagnosis Codes for CHF

ICD-10	Label	ICD-10	Label
I0981	Rheumatic heart failure	I5040	Unspecified combined systolic (congestive)
15030	Unspecified diastolic (congestive) heart failure	15020	and diastolic (congestive) heart failure Unspecified systolic (congestive) heart
I110	Hypertensive heart disease with heart failure	15020	failure
I5031	Acute diastolic (congestive) heart failure	I5041	Acute combined systolic (congestive) and diastolic (congestive) heart failure
I130	Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	I5021	Acute systolic (congestive) heart failure
		I5042	Chronic combined systolic (congestive) and diastolic (congestive) heart failure
15032	Chronic diastolic (congestive) heart failure	15022	Chronic systolic (congestive) heart failure
I132	Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal	I5043	Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure
15033	disease Acute on chronic diastolic (congestive) heart	15023	Acute on chronic systolic (congestive) heart failure
	failure	1509	Heart failure, unspecified
I501	Left ventricular failure		· •

ICD-10	Label	ICD-10	Label
0210083	Bypass Coronary Artery, One Artery from Coronary Artery with Zooplastic Tissue,	027H4ZZ	Dilation of Pulmonary Valve, Percutaneous Endoscopic Approach
0210088	Open Approach Bypass Coronary Artery, One Artery from	027J04Z	Dilation of Tricuspid Valve with Drug- eluting Intraluminal Device, Open Approach
	Right Internal Mammary with Zooplastic Tissue, Open Approach	027J0DZ	Dilation of Tricuspid Valve with Intraluminal Device, Open Approach
0210089	Bypass Coronary Artery, One Artery from Left Internal Mammary with Zooplastic	027J0ZZ	Dilation of Tricuspid Valve, Open Approach
0210093	Tissue, Open Approach Bypass Coronary Artery, One Artery from	027J34Z	Dilation of Tricuspid Valve with Drug- eluting Intraluminal Device, Percutaneous Approach
	Coronary Artery with Autologous Venous Tissue, Open Approach	027J3DZ	Dilation of Tricuspid Valve with Intraluminal Device, Percutaneous Approach
0210098	Bypass Coronary Artery, One Artery from Right Internal Mammary with Autologous Venous Tissue, Open Approach	027J3ZZ	Dilation of Tricuspid Valve, Percutaneous Approach
0210099	Bypass Coronary Artery, One Artery from Left Internal Mammary with Autologous Venous Tissue, Open Approach	027J44Z	Dilation of Tricuspid Valve with Drug- eluting Intraluminal Device, Percutaneous Endoscopic Approach
021008C	Bypass Coronary Artery, One Artery from Thoracic Artery with Zooplastic Tissue,	027J4DZ	Dilation of Tricuspid Valve with Intraluminal Device, Percutaneous Endoscopic Approach
021008F	Open Approach Bypass Coronary Artery, One Artery from	027J4ZZ	Dilation of Tricuspid Valve, Percutaneous Endoscopic Approach
	Abdominal Artery with Zooplastic Tissue, Open Approach	027K04Z	Dilation of Right Ventricle with Drug-eluting Intraluminal Device, Open Approach
021008W	Bypass Coronary Artery, One Artery from Aorta with Zooplastic Tissue, Open Approach	027K0DZ	Dilation of Right Ventricle with Intraluminal Device, Open Approach
021009C	Bypass Coronary Artery, One Artery from	027K0ZZ	Dilation of Right Ventricle, Open Approach
	Thoracic Artery with Autologous Venous Tissue, Open Approach	027K44Z	Dilation of Right Ventricle with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach
021009F	Bypass Coronary Artery, One Artery from Abdominal Artery with Autologous Venous Tissue, Open Approach	027K4DZ	Dilation of Right Ventricle with Intraluminal Device, Percutaneous Endoscopic Approach
021009W	Bypass Coronary Artery, One Artery from Aorta with Autologous Venous Tissue, Open	027K4ZZ	Dilation of Right Ventricle, Percutaneous Endoscopic Approach
02100A3	Approach Bypass Coronary Artery, One Artery from	027R04T	Dilation of Ductus Arteriosus with Drug- eluting Intraluminal Device, Open Approach
0010010	Coronary Artery with Autologous Arterial Tissue, Open Approach	02100AW	Bypass Coronary Artery, One Artery from Aorta with Autologous Arterial Tissue, Open
02100A8	Bypass Coronary Artery, One Artery from Right Internal Mammary with Autologous Arterial Tissue, Open Approach	0210344	Approach Bypass Coronary Artery, One Artery from
02100A9	Bypass Coronary Artery, One Artery from Left Internal Mammary with Autologous	0210012	Coronary Vein with Drug-eluting Intraluminal Device, Percutaneous Approach
02100AC	Arterial Tissue, Open Approach Bypass Coronary Artery, One Artery from	02100J3	Bypass Coronary Artery, One Artery from Coronary Artery with Synthetic Substitute, Open Approach
021004E	Thoracic Artery with Autologous Arterial Tissue, Open Approach	02100J8	Bypass Coronary Artery, One Artery from Right Internal Mammary with Synthetic
02100AF	Bypass Coronary Artery, One Artery from Abdominal Artery with Autologous Arterial Tissue, Open Approach		Substitute, Open Approach (continued)

Table 13 ICD-10 Procedure Codes for CHF Exclusion Criteria

ICD-10	Label	ICD-10	Label
02100J9	Bypass Coronary Artery, One Artery from Left Internal Mammary with Synthetic Substitute, Open Approach	027R44T	Dilation of Ductus Arteriosus with Drug- eluting Intraluminal Device, Percutaneous Endoscopic Approach
02100JC	Bypass Coronary Artery, One Artery from Thoracic Artery with Synthetic Substitute, Open Approach	027R4DT	Dilation of Ductus Arteriosus with Intraluminal Device, Percutaneous Endoscopic Approach
02100JF	Bypass Coronary Artery, One Artery from Abdominal Artery with Synthetic Substitute,	027R4ZT	Dilation of Ductus Arteriosus, Percutaneous Endoscopic Approach
02100JW	Open Approach Bypass Coronary Artery, One Artery from	02890ZZ	Division of Chordae Tendineae, Open Approach
	Aorta with Synthetic Substitute, Open Approach	02893ZZ	Division of Chordae Tendineae, Percutaneous Approach
02100K3	Bypass Coronary Artery, One Artery from Coronary Artery with Nonautologous Tissue Substitute, Open Approach	02894ZZ	Division of Chordae Tendineae, Percutaneous Endoscopic Approach
02100K8	Bypass Coronary Artery, One Artery from Right Internal Mammary with	028D0ZZ	Division of Papillary Muscle, Open Approach
	Nonautologous Tissue Substitute, Open Approach	028D3ZZ	Division of Papillary Muscle, Percutaneous Approach
02100K9	Bypass Coronary Artery, One Artery from Left Internal Mammary with Nonautologous	028D4ZZ	Division of Papillary Muscle, Percutaneous Endoscopic Approach
	Tissue Substitute, Open Approach	02B40ZZ	Excision of Coronary Vein, Open Approach
02100KC	Bypass Coronary Artery, One Artery from Thoracic Artery with Nonautologous Tissue Substitute, Open Approach	02B43ZZ	Excision of Coronary Vein, Percutaneous Approach
02100KF	Bypass Coronary Artery, One Artery from	02B44ZZ	Excision of Coronary Vein, Percutaneous Endoscopic Approach
	Abdominal Artery with Nonautologous Tissue Substitute, Open Approach	02B50ZZ	Excision of Atrial Septum, Open Approach
02100KW	Bypass Coronary Artery, One Artery from Aorta with Nonautologous Tissue Substitute,	02B53ZZ	Excision of Atrial Septum, Percutaneous Approach
	Open Approach	02B54ZZ	Excision of Atrial Septum, Percutaneous Endoscopic Approach
02100Z3	Bypass Coronary Artery, One Artery from Coronary Artery, Open Approach	02B60ZZ	Excision of Right Atrium, Open Approach
02100Z8	Bypass Coronary Artery, One Artery from Right Internal Mammary, Open Approach	02B63ZZ	Excision of Right Atrium, Percutaneous Approach
02100Z9	Bypass Coronary Artery, One Artery from Left Internal Mammary, Open Approach	02B64ZZ	Excision of Right Atrium, Percutaneous Endoscopic Approach
02100ZC	Bypass Coronary Artery, One Artery from Thoracic Artery, Open Approach	0210444	Bypass Coronary Artery, One Artery from Coronary Vein with Drug-eluting
02100ZF	Bypass Coronary Artery, One Artery from Abdominal Artery, Open Approach		Intraluminal Device, Percutaneous Endoscopic Approach
02103D4	Bypass Coronary Artery, One Artery from Coronary Vein with Intraluminal Device, Percutaneous Approach	0210483	Bypass Coronary Artery, One Artery from Coronary Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach
027R0DT	Dilation of Ductus Arteriosus with Intraluminal Device, Open Approach	0210488	Bypass Coronary Artery, One Artery from Right Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach
027R0ZT	Dilation of Ductus Arteriosus, Open Approach		(continued)

ICD-10	Label	ICD-10	Label
0210489	Bypass Coronary Artery, One Artery from Left Internal Mammary with Zooplastic	02B73ZK	Excision of Left Atrial Appendage, Percutaneous Approach
0210493	Tissue, Percutaneous Endoscopic Approach Bypass Coronary Artery, One Artery from	02B73ZZ	Excision of Left Atrium, Percutaneous Approach
	Coronary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02B74ZK	Excision of Left Atrial Appendage, Percutaneous Endoscopic Approach
0210498	Bypass Coronary Artery, One Artery from Right Internal Mammary with Autologous	02B74ZZ	Excision of Left Atrium, Percutaneous Endoscopic Approach
0010400	Venous Tissue, Percutaneous Endoscopic Approach	02B80ZZ	Excision of Conduction Mechanism, Open Approach
0210499	Bypass Coronary Artery, One Artery from Left Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic	02B83ZZ	Excision of Conduction Mechanism, Percutaneous Approach
021048C	Approach Bypass Coronary Artery, One Artery from	02B84ZZ	Excision of Conduction Mechanism, Percutaneous Endoscopic Approach
	Thoracic Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	02B90ZZ	Excision of Chordae Tendineae, Open Approach
021048F	Bypass Coronary Artery, One Artery from Abdominal Artery with Zooplastic Tissue,	02B93ZZ	Excision of Chordae Tendineae, Percutaneous Approach
021048W	Percutaneous Endoscopic Approach Bypass Coronary Artery, One Artery from	02B94ZZ	Excision of Chordae Tendineae, Percutaneous Endoscopic Approach
	Aorta with Zooplastic Tissue, Percutaneous Endoscopic Approach	02BD0ZZ	Excision of Papillary Muscle, Open Approach
021049C	Bypass Coronary Artery, One Artery from Thoracic Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02BD3ZZ	Excision of Papillary Muscle, Percutaneous Approach
021049F	Bypass Coronary Artery, One Artery from Abdominal Artery with Autologous Venous	02BD4ZZ	Excision of Papillary Muscle, Percutaneous Endoscopic Approach
	Tissue, Percutaneous Endoscopic Approach	02BF0ZZ	Excision of Aortic Valve, Open Approach
021049W	Bypass Coronary Artery, One Artery from Aorta with Autologous Venous Tissue,	02BF3ZZ	Excision of Aortic Valve, Percutaneous Approach
02104A3	Percutaneous Endoscopic Approach Bypass Coronary Artery, One Artery from Coronary Artery with Autologous Arterial	02104AF	Bypass Coronary Artery, One Artery from Abdominal Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach
02104A8	Tissue, Percutaneous Endoscopic Approach Bypass Coronary Artery, One Artery from Right Internal Mammary with Autologous	02104AW	Bypass Coronary Artery, One Artery from Aorta with Autologous Arterial Tissue, Percutaneous Endoscopic Approach
	Arterial Tissue, Percutaneous Endoscopic Approach	02104D4	Bypass Coronary Artery, One Artery from Coronary Vein with Intraluminal Device,
02104A9	Bypass Coronary Artery, One Artery from Left Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02104J3	Percutaneous Endoscopic Approach Bypass Coronary Artery, One Artery from Coronary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach
02104AC	Bypass Coronary Artery, One Artery from Thoracic Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02104J8	Bypass Coronary Artery, One Artery from Right Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic
02B70ZK	Excision of Left Atrial Appendage, Open Approach		Approach
02B70ZZ	Excision of Left Atrium, Open Approach		(continued)

ICD-10	Label	ICD-10	Label
02104J9	Bypass Coronary Artery, One Artery from Left Internal Mammary with Synthetic	02BH0ZZ	Excision of Pulmonary Valve, Open Approach
	Substitute, Percutaneous Endoscopic Approach	02BH3ZZ	Excision of Pulmonary Valve, Percutaneous Approach
02104JC	Bypass Coronary Artery, One Artery from Thoracic Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02BH4ZZ	Excision of Pulmonary Valve, Percutaneous Endoscopic Approach
02104JF		02BJ0ZZ	Excision of Tricuspid Valve, Open Approach
02104JF	Bypass Coronary Artery, One Artery from Abdominal Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02BJ3ZZ	Excision of Tricuspid Valve, Percutaneous Approach
02104JW	Bypass Coronary Artery, One Artery from Aorta with Synthetic Substitute,	02BJ4ZZ	Excision of Tricuspid Valve, Percutaneous Endoscopic Approach
	Percutaneous Endoscopic Approach	02BK0ZZ	Excision of Right Ventricle, Open Approach
02104K3	Bypass Coronary Artery, One Artery from Coronary Artery with Nonautologous Tissue	02BK3ZZ	Excision of Right Ventricle, Percutaneous Approach
	Substitute, Percutaneous Endoscopic Approach	02BK4ZZ	Excision of Right Ventricle, Percutaneous Endoscopic Approach
02104K8	Bypass Coronary Artery, One Artery from Right Internal Mammary with	02BL0ZZ	Excision of Left Ventricle, Open Approach
	Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02BL3ZZ	Excision of Left Ventricle, Percutaneous Approach
02104K9	Bypass Coronary Artery, One Artery from Left Internal Mammary with Nonautologous	02BL4ZZ	Excision of Left Ventricle, Percutaneous Endoscopic Approach
	Tissue Substitute, Percutaneous Endoscopic Approach	02BM0ZZ	Excision of Ventricular Septum, Open Approach
02104KC	Bypass Coronary Artery, One Artery from Thoracic Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02104Z9	Bypass Coronary Artery, One Artery from Left Internal Mammary, Percutaneous Endoscopic Approach
02104KF	Approach Bypass Coronary Artery, One Artery from Abdominal Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic	0211083	Bypass Coronary Artery, Two Arteries from Coronary Artery with Zooplastic Tissue, Open Approach
02104KW	Approach Bypass Coronary Artery, One Artery from	0211088	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Zooplastic Tissue, Open Approach
	Aorta with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	0211089	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Zooplastic
02104Z3	Bypass Coronary Artery, One Artery from		Tissue, Open Approach
02104Z8	Coronary Artery, Percutaneous Endoscopic Approach Bypass Coronary Artery, One Artery from	0211093	Bypass Coronary Artery, Three Sites from Coronary Artery with Autologous Venous
0210420	Right Internal Mammary, Percutaneous Endoscopic Approach	0211098	Tissue, Open Approach Bypass Coronary Artery, Three Sites from
02BF4ZZ	Excision of Aortic Valve, Percutaneous Endoscopic Approach	0011000	Right Internal Mammary with Autologous Venous Tissue, Open Approach
02BG0ZZ	Excision of Mitral Valve, Open Approach	0211099	Bypass Coronary Artery, Three Sites from Left Internal Mammary with Autologous
02BG3ZZ	Excision of Mitral Valve, Percutaneous Approach		Venous Tissue, Open Approach
02BG4ZZ	Excision of Mitral Valve, Percutaneous Endoscopic Approach		(continued)

ICD-10	Label	ICD-10	Label
02104ZC	Bypass Coronary Artery, One Artery from Thoracic Artery, Percutaneous Endoscopic Approach	02C03Z6	Extirpation of Matter from Coronary Artery, One Artery, Bifurcation, Percutaneous Approach
02104ZF	Bypass Coronary Artery, One Artery from Abdominal Artery, Percutaneous Endoscopic	02C03ZZ	Extirpation of Matter from Coronary Artery. One Artery, Percutaneous Approach
021108C	Approach Bypass Coronary Artery, Two Arteries from Thoracic Artery with Zooplastic Tissue, Open Approach	02C04Z6 02C04ZZ	Extirpation of Matter from Coronary Artery. One Artery, Bifurcation, Percutaneous Endoscopic Approach
021108F	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Zooplastic Tissue,	02C04ZZ	Extirpation of Matter from Coronary Artery. One Artery, Percutaneous Endoscopic Approach
021108W	Open Approach Bypass Coronary Artery, Two Arteries from	02C10Z6	Extirpation of Matter from Coronary Artery, Two Arteries, Bifurcation, Open Approach
	Aorta with Zooplastic Tissue, Open Approach	02C10ZZ	Extirpation of Matter from Coronary Artery, Two Arteries, Open Approach
021109C	Bypass Coronary Artery, Three Sites from Thoracic Artery with Autologous Venous Tissue, Open Approach	02C13Z6	Extirpation of Matter from Coronary Artery. Two Arteries, Bifurcation, Percutaneous Approach
021109F	Bypass Coronary Artery, Three Sites from Abdominal Artery with Autologous Venous Tissue, Open Approach	02C13ZZ	Extirpation of Matter from Coronary Artery Two Arteries, Percutaneous Approach
021109W	Bypass Coronary Artery, Three Sites from Aorta with Autologous Venous Tissue, Open Approach	02C14Z6	Extirpation of Matter from Coronary Artery Two Arteries, Bifurcation, Percutaneous Endoscopic Approach
02110A3	Bypass Coronary Artery, Three Sites from Coronary Artery with Autologous Arterial Tissue, Open Approach	02C14ZZ	Extirpation of Matter from Coronary Artery. Two Arteries, Percutaneous Endoscopic Approach
02110A8	Bypass Coronary Artery, Three Sites from Right Internal Mammary with Autologous	02C20Z6	Extirpation of Matter from Coronary Artery Three Arteries, Bifurcation, Open Approach
02110A9	Arterial Tissue, Open Approach Bypass Coronary Artery, Three Sites from	02110AC	Bypass Coronary Artery, Three Sites from Thoracic Artery with Autologous Arterial
02110A9	Left Internal Mammary with Autologous Arterial Tissue, Open Approach	02110AF	Tissue, Open Approach Bypass Coronary Artery, Three Sites from
02BM3ZZ	Excision of Ventricular Septum, Percutaneous Approach		Abdominal Artery with Autologous Arterial Tissue, Open Approach
02BM4ZZ	Excision of Ventricular Septum, Percutaneous Endoscopic Approach	02110AW	Bypass Coronary Artery, Three Sites from Aorta with Autologous Arterial Tissue, Ope Approach
02BN0ZZ	Excision of Pericardium, Open Approach	02110J3	Bypass Coronary Artery, Three Sites from
02BN3ZZ	Excision of Pericardium, Percutaneous Approach		Coronary Artery with Synthetic Substitute, Open Approach
02BN4ZZ	Excision of Pericardium, Percutaneous Endoscopic Approach	02110J8	Bypass Coronary Artery, Three Sites from Right Internal Mammary with Synthetic
02C00Z6	Extirpation of Matter from Coronary Artery, One Artery, Bifurcation, Open Approach	02110J9	Substitute, Open Approach Bypass Coronary Artery, Three Sites from
02C00ZZ	Extirpation of Matter from Coronary Artery, One Artery, Open Approach		Left Internal Mammary with Synthetic Substitute, Open Approach

ICD-10	Label	ICD-10	Label
02110JC	Bypass Coronary Artery, Three Sites from Thoracic Artery with Synthetic Substitute, Open Approach	02C30Z6	Extirpation of Matter from Coronary Artery, Four or More Arteries, Bifurcation, Open Approach
02110JF	Bypass Coronary Artery, Three Sites from Abdominal Artery with Synthetic Substitute,	02C30ZZ	Extirpation of Matter from Coronary Artery, Four or More Arteries, Open Approach
02110JW	Open Approach Bypass Coronary Artery, Three Sites from Aorta with Synthetic Substitute, Open	02C33Z6	Extirpation of Matter from Coronary Artery, Four or More Arteries, Bifurcation, Percutaneous Approach
02110K3	Approach Bypass Coronary Artery, Three Sites from Coronary Artery with Nonautologous Tissue	02C33ZZ	Extirpation of Matter from Coronary Artery, Four or More Arteries, Percutaneous Approach
02110K8	Substitute, Open Approach Bypass Coronary Artery, Three Sites from Right Internal Mammary with	02C34Z6	Extirpation of Matter from Coronary Artery, Four or More Arteries, Bifurcation, Percutaneous Endoscopic Approach
0211020	Nonautologous Tissue Substitute, Open Approach	02C34ZZ	Extirpation of Matter from Coronary Artery, Four or More Arteries, Percutaneous
02110K9	Bypass Coronary Artery, Three Sites from Left Internal Mammary with Nonautologous Tissue Substitute, Open Approach	02C40ZZ	Endoscopic Approach Extirpation of Matter from Coronary Vein, Open Approach
02110KC	Bypass Coronary Artery, Three Sites from Thoracic Artery with Nonautologous Tissue Substitute, Open Approach	02C43ZZ	Extirpation of Matter from Coronary Vein, Percutaneous Approach
02110KF	Bypass Coronary Artery, Three Sites from Abdominal Artery with Nonautologous	02C44ZZ	Extirpation of Matter from Coronary Vein, Percutaneous Endoscopic Approach
	Tissue Substitute, Open Approach	02C50ZZ	Extirpation of Matter from Atrial Septum, Open Approach
02110KW	Bypass Coronary Artery, Three Sites from Aorta with Nonautologous Tissue Substitute, Open Approach	02C53ZZ	Extirpation of Matter from Atrial Septum, Percutaneous Approach
02110Z3	Bypass Coronary Artery, Three Sites from Coronary Artery, Open Approach	02C54ZZ	Extirpation of Matter from Atrial Septum, Percutaneous Endoscopic Approach
02110Z8	Bypass Coronary Artery, Three Sites from Right Internal Mammary, Open Approach	02C60ZZ	Extirpation of Matter from Right Atrium, Open Approach
02110Z9	Bypass Coronary Artery, Three Sites from Left Internal Mammary, Open Approach	02C64ZZ	Extirpation of Matter from Right Atrium, Percutaneous Endoscopic Approach
02110ZC	Bypass Coronary Artery, Three Sites from Thoracic Artery, Open Approach	02110ZF	Bypass Coronary Artery, Three Sites from Abdominal Artery, Open Approach
02C20ZZ	Extirpation of Matter from Coronary Artery, Three Arteries, Open Approach	0211344	Bypass Coronary Artery, Three Sites from Coronary Vein with Drug-eluting Intraluminal Device, Percutaneous Approach
02C23Z6	Extirpation of Matter from Coronary Artery, Three Arteries, Bifurcation, Percutaneous Approach	0211444	Bypass Coronary Artery, Three Sites from Coronary Vein with Drug-eluting Intraluminal Device, Percutaneous
02C23ZZ	Extirpation of Matter from Coronary Artery, Three Arteries, Percutaneous Approach	0011402	Endoscopic Approach
02C24Z6	Extirpation of Matter from Coronary Artery, Three Arteries, Bifurcation, Percutaneous Endoscopic Approach	0211483	Bypass Coronary Artery, Two Arteries from Coronary Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach
02C24ZZ	Extirpation of Matter from Coronary Artery, Three Arteries, Percutaneous Endoscopic Approach	0211488	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach

ICD-10	Label	ICD-10	Label
0211489	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach	02C94ZZ	Extirpation of Matter from Chordae Tendineae, Percutaneous Endoscopic Approach
0211493	Bypass Coronary Artery, Two Arteries from Coronary Artery with Autologous Venous	02CD0ZZ	Extirpation of Matter from Papillary Muscle, Open Approach
0211498	Tissue, Percutaneous Endoscopic Approach Bypass Coronary Artery, Two Arteries from	02CD3ZZ	Extirpation of Matter from Papillary Muscle, Percutaneous Approach
	Right Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02CD4ZZ	Extirpation of Matter from Papillary Muscle, Percutaneous Endoscopic Approach
0211499	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Autologous	02CF0ZZ	Extirpation of Matter from Aortic Valve, Open Approach
	Venous Tissue, Percutaneous Endoscopic Approach	02CF3ZZ	Extirpation of Matter from Aortic Valve, Percutaneous Approach
02113D4	Bypass Coronary Artery, Three Sites from Coronary Vein with Intraluminal Device,	02CF4ZZ	Extirpation of Matter from Aortic Valve, Percutaneous Endoscopic Approach
021148C	Percutaneous Approach Bypass Coronary Artery, Two Arteries from	02CG0ZZ	Extirpation of Matter from Mitral Valve, Open Approach
	Thoracic Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	02CG3ZZ	Extirpation of Matter from Mitral Valve, Percutaneous Approach
021148F	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	02CG4ZZ	Extirpation of Matter from Mitral Valve, Percutaneous Endoscopic Approach
021148W	Bypass Coronary Artery, Two Arteries from Aorta with Zooplastic Tissue, Percutaneous	02CH0ZZ	Extirpation of Matter from Pulmonary Valve, Open Approach
021140C	Endoscopic Approach	02CH3ZZ	Extirpation of Matter from Pulmonary Valve, Percutaneous Approach
021149C	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02114A8	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Autologous
021149F	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Autologous Venous		Arterial Tissue, Percutaneous Endoscopic Approach
021149W	Tissue, Percutaneous Endoscopic Approach Bypass Coronary Artery, Two Arteries from Aorta with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02114A9	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach
02114A3	Bypass Coronary Artery, Two Arteries from Coronary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02114AC	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach
02C70ZZ	Extirpation of Matter from Left Atrium, Open Approach	02114AF	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Autologous Arterial
02C74ZZ	Extirpation of Matter from Left Atrium, Percutaneous Endoscopic Approach	02114AW	Tissue, Percutaneous Endoscopic Approach Bypass Coronary Artery, Two Arteries from
02C80ZZ	Extirpation of Matter from Conduction Mechanism, Open Approach		Aorta with Autologous Arterial Tissue, Percutaneous Endoscopic Approach
02C84ZZ	Extirpation of Matter from Conduction Mechanism, Percutaneous Endoscopic Approach	02114D4	Bypass Coronary Artery, Two Arteries from Coronary Vein with Intraluminal Device, Percutaneous Endoscopic Approach
02C90ZZ	Extirpation of Matter from Chordae Tendineae, Open Approach		(continued)

ICD-10	Label	ICD-10	Label
02114J3	Bypass Coronary Artery, Two Arteries from Coronary Artery with Synthetic Substitute,	02CK4ZZ	Extirpation of Matter from Right Ventricle, Percutaneous Endoscopic Approach
02114J8	Percutaneous Endoscopic Approach Bypass Coronary Artery, Two Arteries from	02CL0ZZ	Extirpation of Matter from Left Ventricle, Open Approach
	Right Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	02CL4ZZ	Extirpation of Matter from Left Ventricle, Percutaneous Endoscopic Approach
02114J9	Bypass Coronary Artery, Two Arteries from	02CM0ZZ	Extirpation of Matter from Ventricular Septum, Open Approach
	Left Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	02CM3ZZ	Extirpation of Matter from Ventricular Septum, Percutaneous Approach
02114JC	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Synthetic Substitute,	02CM4ZZ	Extirpation of Matter from Ventricular Septum, Percutaneous Endoscopic Approach
02114JF	Percutaneous Endoscopic Approach Bypass Coronary Artery, Two Arteries from	02CN0ZZ	Extirpation of Matter from Pericardium, Open Approach
	Abdominal Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02H400Z	Insertion of Pressure Sensor Monitoring Device into Coronary Vein, Open Approach
02114JW	Bypass Coronary Artery, Two Arteries from Aorta with Synthetic Substitute,	02H402Z	Insertion of Monitoring Device into Coronary Vein, Open Approach
02114K3	Percutaneous Endoscopic Approach 14K3 Bypass Coronary Artery, Two Arteries from Coronary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02H403Z	Insertion of Infusion Device into Coronary Vein, Open Approach
		02H40DZ	Insertion of Intraluminal Device into Coronary Vein, Open Approach
02114K8	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02114KF	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
02114K9	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic	0212083	Bypass Coronary Artery, Three Arteries from Coronary Artery with Zooplastic Tissue, Open Approach
	Approach	0212088	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Zooplastic
02114KC	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	0212089	Tissue, Open Approach Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Zooplastic
02CH4ZZ	Extirpation of Matter from Pulmonary Valve, Percutaneous Endoscopic Approach	0212093	Tissue, Open Approach Bypass Coronary Artery, Three Arteries from
02CJ0ZZ	Extirpation of Matter from Tricuspid Valve, Open Approach		Coronary Artery with Autologous Venous Tissue, Open Approach
02CJ3ZZ	Extirpation of Matter from Tricuspid Valve, Percutaneous Approach	0212098	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Autologous Venous Tissue, Open Approach
02CJ4ZZ	Extirpation of Matter from Tricuspid Valve, Percutaneous Endoscopic Approach	0212099	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Autologous
02CK0ZZ	Extirpation of Matter from Right Ventricle, Open Approach		Venous Tissue, Open Approach
			(continued

ICD-10	Label	ICD-10	Label
02114KW	Bypass Coronary Artery, Two Arteries from Aorta with Nonautologous Tissue Substitute,	02H43DZ	Insertion of Intraluminal Device into Coronary Vein, Percutaneous Approach
02114Z3	Percutaneous Endoscopic Approach Bypass Coronary Artery, Two Arteries from	02H43JZ	Insertion of Pacemaker Lead into Coronary Vein, Percutaneous Approach
	Coronary Artery, Percutaneous Endoscopic Approach	02H43KZ	Insertion of Defibrillator Lead into Coronary Vein, Percutaneous Approach
02114Z8	Bypass Coronary Artery, Two Arteries from Right Internal Mammary, Percutaneous Endoscopic Approach	02H43MZ	Insertion of Cardiac Lead into Coronary Vein, Percutaneous Approach
02114Z9	Bypass Coronary Artery, Two Arteries from Left Internal Mammary, Percutaneous	02H43NZ	Insertion of Intracardiac Pacemaker into Coronary Vein, Percutaneous Approach
0211470	Endoscopic Approach	02H440Z	Insertion of Pressure Sensor Monitoring Device into Coronary Vein, Percutaneous
02114ZC	Bypass Coronary Artery, Two Arteries from Thoracic Artery, Percutaneous Endoscopic Approach	02H442Z	Endoscopic Approach Insertion of Monitoring Device into
02114ZF	Bypass Coronary Artery, Two Arteries from Abdominal Artery, Percutaneous Endoscopic		Coronary Vein, Percutaneous Endoscopic Approach
021208C	Approach Bypass Coronary Artery, Three Arteries from	02H443Z	Insertion of Infusion Device into Coronary Vein, Percutaneous Endoscopic Approach
021208C	Thoracic Artery with Zooplastic Tissue, Open Approach	02H44DZ	Insertion of Intraluminal Device into Coronary Vein, Percutaneous Endoscopic Approach
021208F	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Zooplastic Tissue, Open Approach	02H44JZ	Insertion of Pacemaker Lead into Coronary Vein, Percutaneous Endoscopic Approach
021208W	Bypass Coronary Artery, Three Arteries from Aorta with Zooplastic Tissue, Open	02H44KZ	Insertion of Defibrillator Lead into Coronary Vein, Percutaneous Endoscopic Approach
021209C	Approach Bypass Coronary Artery, Three Arteries from Thoracic Artery with Autologous Venous	021209W	Bypass Coronary Artery, Three Arteries from Aorta with Autologous Venous Tissue, Open Approach
021209F	Tissue, Open Approach Bypass Coronary Artery, Three Arteries from Abdominal Artery with Autologous Venous	02120A3	Bypass Coronary Artery, Three Arteries from Coronary Artery with Autologous Arterial Tissue, Open Approach
02H40JZ	Tissue, Open Approach Insertion of Pacemaker Lead into Coronary	02120A8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Autologous Arterial Tissue, Open Approach
02H40KZ	Vein, Open Approach Insertion of Defibrillator Lead into Coronary Vein, Open Approach	02120A9	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Autologous
02H40MZ	Insertion of Cardiac Lead into Coronary Vein, Open Approach	02120AC	Arterial Tissue, Open Approach Bypass Coronary Artery, Three Arteries from
02H40NZ	Insertion of Intracardiac Pacemaker into Coronary Vein, Open Approach		Thoracic Artery with Autologous Arterial Tissue, Open Approach
02H430Z	Insertion of Pressure Sensor Monitoring Device into Coronary Vein, Percutaneous Approach	02120AF	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Autologous Arterial Tissue, Open Approach
02H432Z	Insertion of Monitoring Device into Coronary Vein, Percutaneous Approach	02120AW	Bypass Coronary Artery, Three Arteries from Aorta with Autologous Arterial Tissue, Open Approach
02H433Z	Insertion of Infusion Device into Coronary Vein, Percutaneous Approach		(continued

ICD-10	Label	ICD-10	Label
02120J3	Bypass Coronary Artery, Three Arteries from Coronary Artery with Synthetic Substitute, Open Approach	02H630Z	Insertion of Pressure Sensor Monitoring Device into Right Atrium, Percutaneous Approach
02120J8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Synthetic	02H63JZ	Insertion of Pacemaker Lead into Right Atrium, Percutaneous Approach
02120J9	Substitute, Open Approach Bypass Coronary Artery, Three Arteries from	02H63KZ	Insertion of Defibrillator Lead into Right Atrium, Percutaneous Approach
	Left Internal Mammary with Synthetic Substitute, Open Approach	02H63MZ	Insertion of Cardiac Lead into Right Atrium, Percutaneous Approach
02120JC	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Synthetic Substitute, Open Approach	02H640Z	Insertion of Pressure Sensor Monitoring Device into Right Atrium, Percutaneous Endoscopic Approach
02120JF	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Synthetic Substitute, Open Approach	02H64JZ	Insertion of Pacemaker Lead into Right Atrium, Percutaneous Endoscopic Approach
02120JW	Bypass Coronary Artery, Three Arteries from Aorta with Synthetic Substitute, Open	02H64KZ	Insertion of Defibrillator Lead into Right Atrium, Percutaneous Endoscopic Approach
02120122	Approach	02H64MZ	Insertion of Cardiac Lead into Right Atrium, Percutaneous Endoscopic Approach
02120K3	Bypass Coronary Artery, Three Arteries from Coronary Artery with Nonautologous Tissue Substitute, Open Approach	02H64NZ	Insertion of Intracardiac Pacemaker into Right Atrium, Percutaneous Endoscopic Approach
02120K8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Nonautologous Tissue Substitute, Open	02H700Z	Insertion of Pressure Sensor Monitoring Device into Left Atrium, Open Approach
02120K9	Approach Bypass Coronary Artery, Three Arteries from	02H70JZ	Insertion of Pacemaker Lead into Left Atrium, Open Approach
	Left Internal Mammary with Nonautologous Tissue Substitute, Open Approach	02120KW	Bypass Coronary Artery, Three Arteries from Aorta with Nonautologous Tissue Substitute,
02120KC	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Nonautologous Tissue Substitute, Open Approach	0212344	Open Approach Bypass Coronary Artery, Three Arteries from Coronary Vein with Drug-eluting
02120KF	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Nonautologous Tissue Substitute, Open Approach	0212444	Intraluminal Device, Percutaneous Approach Bypass Coronary Artery, Three Arteries from Coronary Vein with Drug-eluting
02H44MZ	Insertion of Cardiac Lead into Coronary Vein, Percutaneous Endoscopic Approach		Intraluminal Device, Percutaneous Endoscopic Approach
02H44NZ	Insertion of Intracardiac Pacemaker into Coronary Vein, Percutaneous Endoscopic Approach	0212483	Bypass Coronary Artery, Three Arteries from Coronary Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach
02H600Z	Insertion of Pressure Sensor Monitoring Device into Right Atrium, Open Approach	0212488	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Zooplastic
02H60JZ	Insertion of Pacemaker Lead into Right Atrium, Open Approach	0212489	Tissue, Percutaneous Endoscopic Approach Bypass Coronary Artery, Three Arteries from
02H60KZ	Insertion of Defibrillator Lead into Right Atrium, Open Approach		Left Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach
02H60MZ	Insertion of Cardiac Lead into Right Atrium, Open Approach	0212493	Bypass Coronary Artery, Three Arteries from Coronary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach
02H60NZ	Insertion of Intracardiac Pacemaker into Right Atrium, Open Approach		(continued)

ICD-10	Label	ICD-10	Label
0212498	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02H74JZ	Insertion of Pacemaker Lead into Left Atrium, Percutaneous Endoscopic Approach
		02H74KZ	Insertion of Defibrillator Lead into Left Atrium, Percutaneous Endoscopic Approach
0212499	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic	02H74MZ	Insertion of Cardiac Lead into Left Atrium, Percutaneous Endoscopic Approach
02120Z3	Approach	02H74NZ	Insertion of Intracardiac Pacemaker into Left Atrium, Percutaneous Endoscopic Approach
	Bypass Coronary Artery, Three Arteries from Coronary Artery, Open Approach	02HA0QZ	Insertion of Implantable Heart Assist System into Heart, Open Approach
02120Z8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary, Open Approach	02HA0RS	Insertion of Biventricular External Heart Assist System into Heart, Open Approach
02120Z9	Bypass Coronary Artery, Three Arteries from Left Internal Mammary, Open Approach	02HA0RZ	Insertion of External Heart Assist System into Heart, Open Approach
02120ZC	Bypass Coronary Artery, Three Arteries from Thoracic Artery, Open Approach	02HA3QZ	Insertion of Implantable Heart Assist System into Heart, Percutaneous Approach
02120ZF	Bypass Coronary Artery, Three Arteries from Abdominal Artery, Open Approach	02HA3RS	Insertion of Biventricular External Heart
02123D4	Bypass Coronary Artery, Three Arteries from Coronary Vein with Intraluminal Device,		Assist System into Heart, Percutaneous Approach
0212496	Percutaneous Approach	02HA3RZ	Insertion of External Heart Assist System into Heart, Percutaneous Approach
021248C	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	021249C	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach
021248F	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	021249F	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Autologous Venous
021248W	Bypass Coronary Artery, Three Arteries from Aorta with Zooplastic Tissue, Percutaneous Endoscopic Approach	021249W	Tissue, Percutaneous Endoscopic Approach Bypass Coronary Artery, Three Arteries from Aorta with Autologous Venous Tissue, Percutaneous Endoscopic Approach
02H70KZ	Insertion of Defibrillator Lead into Left Atrium, Open Approach	02124A3	Bypass Coronary Artery, Three Arteries from
02H70MZ	Insertion of Cardiac Lead into Left Atrium, Open Approach		Coronary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach
02H70NZ	Insertion of Intracardiac Pacemaker into Left Atrium, Open Approach	02124A8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic
02H730Z	Insertion of Pressure Sensor Monitoring Device into Left Atrium, Percutaneous Approach	02124A9	Approach Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Autologous
02H73JZ	Insertion of Pacemaker Lead into Left Atrium, Percutaneous Approach		Arterial Tissue, Percutaneous Endoscopic Approach
02H73KZ	Insertion of Defibrillator Lead into Left Atrium, Percutaneous Approach	02124AC	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Autologous Arterial
02H73MZ	Insertion of Cardiac Lead into Left Atrium, Percutaneous Approach	02124AF	Tissue, Percutaneous Endoscopic Approach Bypass Coronary Artery, Three Arteries from
02H740Z	Insertion of Pressure Sensor Monitoring Device into Left Atrium, Percutaneous Endoscopic Approach		Abdominal Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach (continued)

ICD-10	Label	ICD-10	Label
02124AW	Bypass Coronary Artery, Three Arteries from Aorta with Autologous Arterial Tissue,	02HK0MZ	Insertion of Cardiac Lead into Right Ventricle, Open Approach
02124D4	Percutaneous Endoscopic Approach Bypass Coronary Artery, Three Arteries from	02HK0NZ	Insertion of Intracardiac Pacemaker into Right Ventricle, Open Approach
	Coronary Vein with Intraluminal Device, Percutaneous Endoscopic Approach	02HK30Z	Insertion of Pressure Sensor Monitoring Device into Right Ventricle, Percutaneous
02124J3	Bypass Coronary Artery, Three Arteries from Coronary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02HK32Z	Approach Insertion of Monitoring Device into Right Ventricle, Percutaneous Approach
02124J8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Synthetic	02HK3JZ	Insertion of Pacemaker Lead into Right Ventricle, Percutaneous Approach
0010410	Substitute, Percutaneous Endoscopic Approach	02HK3KZ	Insertion of Defibrillator Lead into Right Ventricle, Percutaneous Approach
02124J9	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic	02HK3MZ	Insertion of Cardiac Lead into Right Ventricle, Percutaneous Approach
02124JC	Approach Bypass Coronary Artery, Three Arteries from Thoracic Artery with Synthetic Substitute,	02HK40Z	Insertion of Pressure Sensor Monitoring Device into Right Ventricle, Percutaneous Endoscopic Approach
02124JF	Percutaneous Endoscopic Approach Bypass Coronary Artery, Three Arteries from	02HK42Z	Insertion of Monitoring Device into Right Ventricle, Percutaneous Endoscopic
	Abdominal Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02HK4JZ	Approach Insertion of Pacemaker Lead into Right
02124JW	Bypass Coronary Artery, Three Arteries from Aorta with Synthetic Substitute,		Ventricle, Percutaneous Endoscopic Approach
02124K3	Percutaneous Endoscopic Approach Bypass Coronary Artery, Three Arteries from Coronary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic	02124K8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
02HA4QZ	Approach Insertion of Implantable Heart Assist System	0213083	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Zooplastic Tissue, Open Approach
02HA4RS	into Heart, Percutaneous Endoscopic Approach Insertion of Biventricular External Heart	0213088	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with
	Assist System into Heart, Percutaneous Endoscopic Approach	0213089	Zooplastic Tissue, Open Approach Bypass Coronary Artery, Four or More
02HA4RZ	Insertion of External Heart Assist System into Heart, Percutaneous Endoscopic		Arteries from Left Internal Mammary with Zooplastic Tissue, Open Approach
02HK00Z	Approach Insertion of Pressure Sensor Monitoring Device into Right Ventricle, Open Approach	0213093	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Autologous Venous Tissue, Open Approach
02HK02Z	Insertion of Monitoring Device into Right Ventricle, Open Approach	02124K9	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Nonautologous
02HK0JZ	Insertion of Pacemaker Lead into Right Ventricle, Open Approach		Tissue Substitute, Percutaneous Endoscopic Approach
02HK0KZ	Insertion of Defibrillator Lead into Right Ventricle, Open Approach		(continued)

ICD-10	Label	ICD-10	Label
02124KC	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02HL0KZ	Insertion of Defibrillator Lead into Left Ventricle, Open Approach
		02HL0MZ	Insertion of Cardiac Lead into Left Ventricle, Open Approach
02124KF 02124KW	Abdominal Artery with NonautologousTissue Substitute, Percutaneous EndoscopicApproachBypass Coronary Artery, Three Arteries fromAorta with Nonautologous Tissue Substitute,	02HL0NZ	Insertion of Intracardiac Pacemaker into Left Ventricle, Open Approach
		02HL30Z	Insertion of Pressure Sensor Monitoring Device into Left Ventricle, Percutaneous
		02HL3JZ	Approach Insertion of Pacemaker Lead into Left Ventricle, Percutaneous Approach
02124Z3	Bypass Coronary Artery, Three Arteries from Coronary Artery, Percutaneous Endoscopic Approach	02HL3KZ	Insertion of Defibrillator Lead into Left Ventricle, Percutaneous Approach
02124Z8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary, Percutaneous	02HL3MZ	Insertion of Cardiac Lead into Left Ventricle, Percutaneous Approach
02124Z9	Endoscopic Approach Bypass Coronary Artery, Three Arteries from Left Internal Mammary, Percutaneous	02HL40Z	Insertion of Pressure Sensor Monitoring Device into Left Ventricle, Percutaneous Endoscopic Approach
02124ZC	Endoscopic Approach Bypass Coronary Artery, Three Arteries from	02HL4JZ	Insertion of Pacemaker Lead into Left Ventricle, Percutaneous Endoscopic
0010475	Thoracic Artery, Percutaneous Endoscopic Approach	02HL4KZ	Approach Insertion of Defibrillator Lead into Left Ventricle, Percutaneous Endoscopic
02124ZF	Bypass Coronary Artery, Three Arteries from Abdominal Artery, Percutaneous Endoscopic Approach	02HL4MZ	Approach Insertion of Cardiac Lead into Left Ventricle.
021308C	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with	02HL4NZ	Percutaneous Endoscopic Approach Insertion of Intracardiac Pacemaker into Left
021308F	Zooplastic Tissue, Open Approach Bypass Coronary Artery, Four or More		Ventricle, Percutaneous Endoscopic Approach
	Arteries from Abdominal Artery with Zooplastic Tissue, Open Approach	0213098	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with
021308W	Bypass Coronary Artery, Four or More Arteries from Aorta with Zooplastic Tissue, Open Approach	0213099	Autologous Venous Tissue, Open Approach Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with
02HK4KZ	Insertion of Defibrillator Lead into Right Ventricle, Percutaneous Endoscopic	021309C	Autologous Venous Tissue, Open Approach Bypass Coronary Artery, Four or More
02HK4MZ	Approach Insertion of Cardiac Lead into Right		Arteries from Thoracic Artery with Autologous Venous Tissue, Open Approach
	Ventricle, Percutaneous Endoscopic Approach	021309F	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with
02HK4NZ	Insertion of Intracardiac Pacemaker into Right Ventricle, Percutaneous Endoscopic Approach	021309W	Autologous Venous Tissue, Open Approach Bypass Coronary Artery, Four or More Arteries from Aorta with Autologous Venous
02HL00Z	Insertion of Pressure Sensor Monitoring Device into Left Ventricle, Open Approach	02130A3	Tissue, Open Approach Bypass Coronary Artery, Four or More
02HL0JZ	Insertion of Pacemaker Lead into Left Ventricle, Open Approach	02130A3	Arteries from Coronary Artery with Autologous Arterial Tissue, Open Approach

#### ICD-10 ICD-10 Label Label 02130A8 Bypass Coronary Artery, Four or More 02HN4JZ Insertion of Pacemaker Lead into Arteries from Right Internal Mammary with Pericardium, Percutaneous Endoscopic Autologous Arterial Tissue, Open Approach Approach 02130A9 Bypass Coronary Artery, Four or More 02HN4KZ Insertion of Defibrillator Lead into Arteries from Left Internal Mammary with Pericardium, Percutaneous Endoscopic Autologous Arterial Tissue, Open Approach Approach 02130AC Bypass Coronary Artery, Four or More 02HN4MZ Insertion of Cardiac Lead into Pericardium, Arteries from Thoracic Artery with Percutaneous Endoscopic Approach Autologous Arterial Tissue, Open Approach Insertion of Pressure Sensor Monitoring 02HS00Z Bypass Coronary Artery, Four or More Device into Right Pulmonary Vein, Open 02130AF Arteries from Abdominal Artery with Approach Autologous Arterial Tissue, Open Approach 02HS30Z Insertion of Pressure Sensor Monitoring Bypass Coronary Artery, Four or More 02130AW Device into Right Pulmonary Vein, Arteries from Aorta with Autologous Arterial Percutaneous Approach Tissue, Open Approach 02HS40Z Insertion of Pressure Sensor Monitoring 02130J3 Bypass Coronary Artery, Four or More Device into Right Pulmonary Vein, Arteries from Coronary Artery with Percutaneous Endoscopic Approach Synthetic Substitute, Open Approach 02HT00Z Insertion of Pressure Sensor Monitoring Bypass Coronary Artery, Four or More 02130J8 Device into Left Pulmonary Vein, Open Arteries from Right Internal Mammary with Approach Synthetic Substitute, Open Approach 02HT30Z Insertion of Pressure Sensor Monitoring Bypass Coronary Artery, Four or More Device into Left Pulmonary Vein, 02130J9 Arteries from Left Internal Mammary with Percutaneous Approach Synthetic Substitute, Open Approach Insertion of Pressure Sensor Monitoring 02HT40Z 02130JC Bypass Coronary Artery, Four or More Device into Left Pulmonary Vein, Arteries from Thoracic Artery with Synthetic Percutaneous Endoscopic Approach Substitute, Open Approach Insertion of Pressure Sensor Monitoring 02HV00Z 02130JF Bypass Coronary Artery, Four or More Device into Superior Vena Cava, Open Arteries from Abdominal Artery with Approach Synthetic Substitute, Open Approach Insertion of Pressure Sensor Monitoring 02HV30Z 02130JW Bypass Coronary Artery, Four or More Device into Superior Vena Cava, Arteries from Aorta with Synthetic Percutaneous Approach Substitute, Open Approach 02HV40Z Insertion of Pressure Sensor Monitoring Bypass Coronary Artery, Four or More 02130K3 Device into Superior Vena Cava, Arteries from Coronary Artery with Percutaneous Endoscopic Approach Nonautologous Tissue Substitute, Open 02130K8 Bypass Coronary Artery, Four or More Approach Arteries from Right Internal Mammary with Insertion of Pacemaker Lead into 02HN0JZ Nonautologous Tissue Substitute, Open Pericardium, Open Approach Approach 02HN0KZ Insertion of Defibrillator Lead into 0213344 Bypass Coronary Artery, Four or More Pericardium, Open Approach Arteries from Coronary Vein with Drugeluting Intraluminal Device, Percutaneous Insertion of Cardiac Lead into Pericardium, 02HN0MZ Approach Open Approach 0213444 Bypass Coronary Artery, Four or More 02HN3JZ Insertion of Pacemaker Lead into Arteries from Coronary Vein with Drug-Pericardium, Percutaneous Approach eluting Intraluminal Device, Percutaneous 02HN3KZ Insertion of Defibrillator Lead into Endoscopic Approach Pericardium, Percutaneous Approach

### Table 13 (continued) **ICD-10 Procedure Codes for CHF Exclusion Criteria**

(continued)

Insertion of Cardiac Lead into Pericardium,

Percutaneous Approach

02HN3MZ

ICD-10	Label	ICD-10	Label
0213483	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	021348F	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach
0213488	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach	02HX02Z	Insertion of Monitoring Device into Thoracic Aorta, Ascending/Arch, Open Approach
		02HX0DZ	Insertion of Intraluminal Device into Thoracic Aorta, Ascending/Arch, Open
0213489	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach	02HX42Z	Approach Insertion of Monitoring Device into Thoracic Aorta, Ascending/Arch, Percutaneous Endoscopic Approach
02130K9	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Nonautologous Tissue Substitute, Open Approach	02HX4DZ	Insertion of Intraluminal Device into Thoracic Aorta, Ascending/Arch, Percutaneous Endoscopic Approach
02130KC	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Nonautologous Tissue Substitute, Open Approach	02L70CK	Occlusion of Left Atrial Appendage with Extraluminal Device, Open Approach
		02L70DK	Occlusion of Left Atrial Appendage with Intraluminal Device, Open Approach
02130KF	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Nonautologous Tissue Substitute, Open Approach	02L70ZK	Occlusion of Left Atrial Appendage, Open Approach
		02L73CK	Occlusion of Left Atrial Appendage with Extraluminal Device, Percutaneous Approach
02130KW	Bypass Coronary Artery, Four or More Arteries from Aorta with Nonautologous Tissue Substitute, Open Approach	02L73DK	Approach Occlusion of Left Atrial Appendage with Intraluminal Device, Percutaneous Approach
02130Z3	Bypass Coronary Artery, Four or More Arteries from Coronary Artery, Open	02L73ZK	Occlusion of Left Atrial Appendage, Percutaneous Approach
02130Z8	Approach Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary,	02L74CK	Occlusion of Left Atrial Appendage with Extraluminal Device, Percutaneous Endoscopic Approach
02130Z9	Open Approach Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary, Open	02L74DK	Occlusion of Left Atrial Appendage with Intraluminal Device, Percutaneous Endoscopic Approach
02130ZC	Approach Bypass Coronary Artery, Four or More	02L74ZK	Occlusion of Left Atrial Appendage, Percutaneous Endoscopic Approach
02150ZC	Arteries from Thoracic Artery, Open Approach	02LR0ZT	Occlusion of Ductus Arteriosus, Open Approach
02130ZF	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery, Open	02LS0ZZ	Occlusion of Right Pulmonary Vein, Open Approach
02133D4	Approach Bypass Coronary Artery, Four or More Arteries from Coronary Vein with Intraluminal Device, Percutaneous Approach	02LT0ZZ	Occlusion of Left Pulmonary Vein, Open Approach
		02N50ZZ	Release Atrial Septum, Open Approach
021348C	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with	02N53ZZ	Release Atrial Septum, Percutaneous Approach
	Zooplastic Tissue, Percutaneous Endoscopic Approach	021348W	Bypass Coronary Artery, Four or More Arteries from Aorta with Zooplastic Tissue, Percutaneous Endoscopic Approach

ICD-10	Label	ICD-10	Label	
0213493	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02134J3	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	
0213498	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02134J8	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	
0213499	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02N54ZZ	Release Atrial Septum, Percutaneous Endoscopic Approach	
		02N90ZZ	Release Chordae Tendineae, Open Approach	
021349C	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02N93ZZ	Release Chordae Tendineae, Percutaneous Approach	
		02N94ZZ	Release Chordae Tendineae, Percutaneous Endoscopic Approach	
021349F	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Autologous Venous Tissue, Percutaneous	02ND0ZZ	Release Papillary Muscle, Open Approach	
		02ND3ZZ	Release Papillary Muscle, Percutaneous Approach	
021349W	Endoscopic Approach Bypass Coronary Artery, Four or More Arteries from Aorta with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02ND4ZZ	Release Papillary Muscle, Percutaneous Endoscopic Approach	
		02NF0ZZ	Release Aortic Valve, Open Approach	
02134A3	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02NF3ZZ	Release Aortic Valve, Percutaneous Approach	
		02NF4ZZ	Release Aortic Valve, Percutaneous Endoscopic Approach	
02134A8	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02NG0ZZ	Release Mitral Valve, Open Approach	
		02NG3ZZ	Release Mitral Valve, Percutaneous Approach	
02134A9	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02NG4ZZ	Release Mitral Valve, Percutaneous Endoscopic Approach	
		02NH0ZZ	Release Pulmonary Valve, Open Approach	
		02NH3ZZ	Release Pulmonary Valve, Percutaneous Approach	
02134AC	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Autologous Arterial Tissue, Percutaneous	02NH4ZZ	Release Pulmonary Valve, Percutaneous Endoscopic Approach	
02134AF	Endoscopic Approach Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Autologous Arterial Tissue, Percutaneous	02134J9	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	
02134AW	Endoscopic Approach Bypass Coronary Artery, Four or More Arteries from Aorta with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02134JC	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	
02134D4	Bypass Coronary Artery, Four or More Arteries from Coronary Vein with Intraluminal Device, Percutaneous Endoscopic Approach	02134JF	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	

ICD-10	Label	ICD-10	Label
Arteries from Aorta w	Bypass Coronary Artery, Four or More Arteries from Aorta with Synthetic	02NJ3ZZ	Release Tricuspid Valve, Percutaneous Approach
	Substitute, Percutaneous Endoscopic	02NJ4ZZ	Release Tricuspid Valve, Percutaneous Endoscopic Approach
02134K3	Bypass Coronary Artery, Four or More	02NK0ZZ	Release Right Ventricle, Open Approach
	Arteries from Coronary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02NK3ZZ	Release Right Ventricle, Percutaneous Approach
02134K8	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with	02NK4ZZ	Release Right Ventricle, Percutaneous Endoscopic Approach
	Nonautologous Tissue Substitute,	02NL0ZZ	Release Left Ventricle, Open Approach
02134K9	Percutaneous Endoscopic Approach Bypass Coronary Artery, Four or More	02NL3ZZ	Release Left Ventricle, Percutaneous Approach
	Arteries from Left Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02NL4ZZ	Release Left Ventricle, Percutaneous Endoscopic Approach
02134KC	Bypass Coronary Artery, Four or More	02NM0ZZ	Release Ventricular Septum, Open Approach
5215 IIIC	Arteries from Thoracic Artery with Nonautologous Tissue Substitute,	02NM3ZZ	Release Ventricular Septum, Percutaneous Approach
02134KF	Percutaneous Endoscopic Approach Bypass Coronary Artery, Four or More	02NM4ZZ	Release Ventricular Septum, Percutaneous Endoscopic Approach
	Arteries from Abdominal Artery with Nonautologous Tissue Substitute,	02PA0MZ	Removal of Cardiac Lead from Heart, Open Approach
02134KW	Percutaneous Endoscopic Approach Bypass Coronary Artery, Four or More	02PA0NZ	Removal of Intracardiac Pacemaker from Heart, Open Approach
	Arteries from Aorta with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02PA0QZ	Removal of Implantable Heart Assist Systen from Heart, Open Approach
02134Z3	Bypass Coronary Artery, Four or More Arteries from Coronary Artery, Percutaneous	02PA0RZ	Removal of External Heart Assist System from Heart, Open Approach
02134Z8	Endoscopic Approach Bypass Coronary Artery, Four or More	02PA3MZ	Removal of Cardiac Lead from Heart, Percutaneous Approach
	Arteries from Right Internal Mammary, Percutaneous Endoscopic Approach	021608R	Bypass Right Atrium to Left Pulmonary Artery with Zooplastic Tissue, Open
02134Z9	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary, Percutaneous Endoscopic Approach	021609P	Approach Bypass Right Atrium to Pulmonary Trunk with Autologous Venous Tissue, Open
02134ZC	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery, Percutaneous	021609Q	Approach Bypass Right Atrium to Right Pulmonary
02134ZF	Endoscopic Approach Bypass Coronary Artery, Four or More		Artery with Autologous Venous Tissue, Open Approach
JZ 1 J <b>4 Z</b> 1	Arteries from Abdominal Artery, Percutaneous Endoscopic Approach	021609R	Bypass Right Atrium to Left Pulmonary Artery with Autologous Venous Tissue,
)21608P	Bypass Right Atrium to Pulmonary Trunk with Zooplastic Tissue, Open Approach	02160AP	Open Approach Bypass Right Atrium to Pulmonary Trunk
021608Q	Bypass Right Atrium to Right Pulmonary Artery with Zooplastic Tissue, Open		with Autologous Arterial Tissue, Open Approach
	Approach		(continue
02NJ0ZZ	Release Tricuspid Valve, Open Approach		

ICD-10	Label	ICD-10	Label
02160AQ	Bypass Right Atrium to Right Pulmonary Artery with Autologous Arterial Tissue,	02PA4NZ	Removal of Intracardiac Pacemaker from Heart, Percutaneous Endoscopic Approach
02160AR	Open Approach Bypass Right Atrium to Left Pulmonary Artery with Autologous Arterial Tissue,	02PA4QZ	Removal of Implantable Heart Assist System from Heart, Percutaneous Endoscopic Approach
02160JP	Open Approach Bypass Right Atrium to Pulmonary Trunk with Synthetic Substitute, Open Approach	02PA4RZ	Removal of External Heart Assist System from Heart, Percutaneous Endoscopic Approach
02160JQ	Bypass Right Atrium to Right Pulmonary Artery with Synthetic Substitute, Open	02PAXMZ	Removal of Cardiac Lead from Heart, External Approach
02160JR	Approach Bypass Right Atrium to Left Pulmonary	02Q00ZZ	Repair Coronary Artery, One Artery, Open Approach
	Artery with Synthetic Substitute, Open Approach	02Q03ZZ	Repair Coronary Artery, One Artery, Percutaneous Approach
02160KP	Bypass Right Atrium to Pulmonary Trunk with Nonautologous Tissue Substitute, Open	02Q04ZZ	Repair Coronary Artery, One Artery, Percutaneous Endoscopic Approach
02160KQ	Approach Bypass Right Atrium to Right Pulmonary	02Q10ZZ	Repair Coronary Artery, Two Arteries, Open Approach
02160120	Artery with Nonautologous Tissue Substitute, Open Approach	02Q13ZZ	Repair Coronary Artery, Two Arteries, Percutaneous Approach
02160KR	Bypass Right Atrium to Left Pulmonary Artery with Nonautologous Tissue Substitute, Open Approach	02Q14ZZ	Repair Coronary Artery, Two Arteries, Percutaneous Endoscopic Approach
02160Z7	Bypass Right Atrium to Left Atrium, Open Approach	02Q20ZZ	Repair Coronary Artery, Three Arteries, Open Approach
02160ZP	Bypass Right Atrium to Pulmonary Trunk, Open Approach	02Q23ZZ	Repair Coronary Artery, Three Arteries, Percutaneous Approach
02160ZQ	Bypass Right Atrium to Right Pulmonary Artery, Open Approach	02Q24ZZ	Repair Coronary Artery, Three Arteries, Percutaneous Endoscopic Approach
02160ZR	Bypass Right Atrium to Left Pulmonary Artery, Open Approach	02Q30ZZ	Repair Coronary Artery, Four or More Arteries, Open Approach
021648P	Bypass Right Atrium to Pulmonary Trunk with Zooplastic Tissue, Percutaneous	02Q33ZZ	Repair Coronary Artery, Four or More Arteries, Percutaneous Approach
021648Q	Endoscopic Approach Bypass Right Atrium to Right Pulmonary	02Q34ZZ	Repair Coronary Artery, Four or More Arteries, Percutaneous Endoscopic Approach
	Artery with Zooplastic Tissue, Percutaneous	02Q40ZZ	Repair Coronary Vein, Open Approach
021648R	Endoscopic Approach Bypass Right Atrium to Left Pulmonary	02Q43ZZ	Repair Coronary Vein, Percutaneous Approach
0216400	Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	021649Q	Bypass Right Atrium to Right Pulmonary Artery with Autologous Venous Tissue,
021649P	Bypass Right Atrium to Pulmonary Trunk with Autologous Venous Tissue, Percutaneous Endoscopic Approach	021649R	Percutaneous Endoscopic Approach Bypass Right Atrium to Left Pulmonary
02PA3QZ	Removal of Implantable Heart Assist System from Heart, Percutaneous Approach	0014455	Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach
02PA3RZ	Removal of External Heart Assist System from Heart, Percutaneous Approach	02164AP	Bypass Right Atrium to Pulmonary Trunk with Autologous Arterial Tissue, Percutaneous Endoscopic Approach
02PA4MZ	Removal of Cardiac Lead from Heart, Percutaneous Endoscopic Approach		(continued)

ICD-10	Label	ICD-10	Label
02164AQ	Bypass Right Atrium to Right Pulmonary Artery with Autologous Arterial Tissue,	02Q44ZZ	Repair Coronary Vein, Percutaneous Endoscopic Approach
	Percutaneous Endoscopic Approach	02Q50ZZ	Repair Atrial Septum, Open Approach
02164AR	Bypass Right Atrium to Left Pulmonary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02Q53ZZ	Repair Atrial Septum, Percutaneous Approach
02164JP	Bypass Right Atrium to Pulmonary Trunk with Synthetic Substitute, Percutaneous	02Q54ZZ	Repair Atrial Septum, Percutaneous Endoscopic Approach
	Endoscopic Approach	02Q70ZZ	Repair Left Atrium, Open Approach
02164JQ	Bypass Right Atrium to Right Pulmonary	02Q73ZZ	Repair Left Atrium, Percutaneous Approach
	Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02Q74ZZ	Repair Left Atrium, Percutaneous Endoscopic Approach
02164JR	Bypass Right Atrium to Left Pulmonary	02Q90ZZ	Repair Chordae Tendineae, Open Approach
	Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02Q93ZZ	Repair Chordae Tendineae, Percutaneous Approach
02164KP	Bypass Right Atrium to Pulmonary Trunk with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02Q94ZZ	Repair Chordae Tendineae, Percutaneous Endoscopic Approach
02164KQ	Bypass Right Atrium to Right Pulmonary	02QA0ZZ	Repair Heart, Open Approach
0210.112	Artery with Nonautologous Tissue	02QA3ZZ	Repair Heart, Percutaneous Approach
	Substitute, Percutaneous Endoscopic Approach	02QA4ZZ	Repair Heart, Percutaneous Endoscopic Approach
02164KR	Bypass Right Atrium to Left Pulmonary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic	02QB0ZZ	Repair Right Heart, Open Approach
		02QB3ZZ	Repair Right Heart, Percutaneous Approach
02164Z7	Approach Bypass Right Atrium to Left Atrium,	02QB4ZZ	Repair Right Heart, Percutaneous Endoscopic Approach
	Percutaneous Endoscopic Approach	02QC0ZZ	Repair Left Heart, Open Approach
02164ZP	Bypass Right Atrium to Pulmonary Trunk,	02QC3ZZ	Repair Left Heart, Percutaneous Approach
02164ZQ	Percutaneous Endoscopic Approach Bypass Right Atrium to Right Pulmonary	02QC4ZZ	Repair Left Heart, Percutaneous Endoscopic Approach
	Artery, Percutaneous Endoscopic Approach	02QD0ZZ	Repair Papillary Muscle, Open Approach
02164ZR	Bypass Right Atrium to Left Pulmonary Artery, Percutaneous Endoscopic Approach	021709R	Bypass Left Atrium to Left Pulmonary Artery with Autologous Venous Tissue,
021708P	Bypass Left Atrium to Pulmonary Trunk with Zooplastic Tissue, Open Approach	021709S	Open Approach Bypass Left Atrium to Right Pulmonary Vein
021708Q	Bypass Left Atrium to Right Pulmonary Artery with Zooplastic Tissue, Open		with Autologous Venous Tissue, Open Approach
021708R	Approach Bypass Left Atrium to Left Pulmonary Artery with Zooplastic Tissue, Open	021709T	Bypass Left Atrium to Left Pulmonary Vein with Autologous Venous Tissue, Open Approach
021709P	Approach Bypass Left Atrium to Pulmonary Trunk with Autologous Venous Tissue, Open	021709U	Bypass Left Atrium to Pulmonary Vein Confluence with Autologous Venous Tissue, Open Approach
021709Q	Approach Bypass Left Atrium to Right Pulmonary Artery with Autologous Venous Tissue, Open Approach	02170AP	Bypass Left Atrium to Pulmonary Trunk with Autologous Arterial Tissue, Open Approach (continued)

ICD-10	Label	ICD-10	Label
02170AQ	Bypass Left Atrium to Right Pulmonary	02QF3ZZ	Repair Aortic Valve, Percutaneous Approach
	Artery with Autologous Arterial Tissue, Open Approach	02QF4ZJ	Repair Aortic Valve created from Truncal Valve, Percutaneous Endoscopic Approach
02170AR	Bypass Left Atrium to Left Pulmonary Artery with Autologous Arterial Tissue,	02QF4ZZ	Repair Aortic Valve, Percutaneous Endoscopic Approach
02170AS	Open Approach Bypass Left Atrium to Right Pulmonary Vein with Autologous Arterial Tissue, Open	02QG0ZE	Repair Mitral Valve created from Left Atrioventricular Valve, Open Approach
	with Autologous Arterial Tissue, Open Approach	02QG0ZZ	Repair Mitral Valve, Open Approach
02170AT	Bypass Left Atrium to Left Pulmonary Vein with Autologous Arterial Tissue, Open Approach	02QG3ZE	Repair Mitral Valve created from Left Atrioventricular Valve, Percutaneous Approach
02170AU	Bypass Left Atrium to Pulmonary Vein	02QG3ZZ	Repair Mitral Valve, Percutaneous Approach
	Confluence with Autologous Arterial Tissue, Open Approach	02QG4ZE	Repair Mitral Valve created from Left Atrioventricular Valve, Percutaneous Endoscopic Approach
02170JP	Bypass Left Atrium to Pulmonary Trunk with Synthetic Substitute, Open Approach	02QG4ZZ	Repair Mitral Valve, Percutaneous
02170JQ	Bypass Left Atrium to Right Pulmonary Artery with Synthetic Substitute, Open	0001077	Endoscopic Approach
	Approach	02QH0ZZ	Repair Pulmonary Valve, Open Approach
02170JR	Bypass Left Atrium to Left Pulmonary	02QH3ZZ	Repair Pulmonary Valve, Percutaneous Approach
	Artery with Synthetic Substitute, Open Approach	02QH4ZZ	Repair Pulmonary Valve, Percutaneous Endoscopic Approach
02170JS	Bypass Left Atrium to Right Pulmonary Vein with Synthetic Substitute, Open Approach	02QJ0ZG	Repair Tricuspid Valve created from Right Atrioventricular Valve, Open Approach
02170JT	Bypass Left Atrium to Left Pulmonary Vein with Synthetic Substitute, Open Approach	02QJ0ZZ	Repair Tricuspid Valve, Open Approach
02170JU	Bypass Left Atrium to Pulmonary Vein Confluence with Synthetic Substitute, Open Approach	02170KS	Bypass Left Atrium to Right Pulmonary Vein with Nonautologous Tissue Substitute, Open Approach
02170KP	Bypass Left Atrium to Pulmonary Trunk with Nonautologous Tissue Substitute, Open Approach	02170KT	Bypass Left Atrium to Left Pulmonary Vein with Nonautologous Tissue Substitute, Open Approach
02170KQ	Bypass Left Atrium to Right Pulmonary Artery with Nonautologous Tissue Substitute, Open Approach	02170KU	Bypass Left Atrium to Pulmonary Vein Confluence with Nonautologous Tissue Substitute, Open Approach
02170KR	Bypass Left Atrium to Left Pulmonary Artery with Nonautologous Tissue	02170ZP	Bypass Left Atrium to Pulmonary Trunk, Open Approach
0200277	Substitute, Open Approach	02170ZQ	Bypass Left Atrium to Right Pulmonary Artery, Open Approach
02QD3ZZ	Repair Papillary Muscle, Percutaneous Approach	02170ZR	Bypass Left Atrium to Left Pulmonary Artery, Open Approach
02QD4ZZ	Repair Papillary Muscle, Percutaneous Endoscopic Approach	02170ZS	Bypass Left Atrium to Right Pulmonary Vein, Open Approach
02QF0ZJ	Repair Aortic Valve created from Truncal Valve, Open Approach	02170ZT	Bypass Left Atrium to Left Pulmonary Vein, Open Approach
02QF0ZZ	Repair Aortic Valve, Open Approach		(continued)
02QF3ZJ	Repair Aortic Valve created from Truncal Valve, Percutaneous Approach		(continuou,

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ICD-10	Label	ICD-10	Label
02170ZU	Bypass Left Atrium to Pulmonary Vein Confluence, Open Approach	02QM4ZZ	Repair Ventricular Septum, Percutaneous Endoscopic Approach
021748P	Bypass Left Atrium to Pulmonary Trunk with Zooplastic Tissue, Percutaneous Endoscopic Approach	02R907Z	Replacement of Chordae Tendineae with Autologous Tissue Substitute, Open Approach
021748Q	Bypass Left Atrium to Right Pulmonary Artery with Zooplastic Tissue, Percutaneous	02R908Z	Replacement of Chordae Tendineae with Zooplastic Tissue, Open Approach
021748R	Endoscopic Approach Bypass Left Atrium to Left Pulmonary	02R90JZ	Replacement of Chordae Tendineae with Synthetic Substitute, Open Approach
021746K	Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	02R90KZ	Replacement of Chordae Tendineae with Nonautologous Tissue Substitute, Open
021749P	Bypass Left Atrium to Pulmonary Trunk with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02R947Z	Approach Replacement of Chordae Tendineae with Autologous Tissue Substitute, Percutaneous
021749Q	Bypass Left Atrium to Right Pulmonary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02R948Z	Endoscopic Approach Replacement of Chordae Tendineae with Zooplastic Tissue, Percutaneous Endoscopic
021749R	Bypass Left Atrium to Left Pulmonary		Approach
	Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02R94JZ	Replacement of Chordae Tendineae with Synthetic Substitute, Percutaneous Endoscopic Approach
021749S	Bypass Left Atrium to Right Pulmonary Vein with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02R94KZ	Replacement of Chordae Tendineae with Nonautologous Tissue Substitute,
021749T	Bypass Left Atrium to Left Pulmonary Vein with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02RD07Z	Percutaneous Endoscopic Approach Replacement of Papillary Muscle with Autologous Tissue Substitute, Open
021749U	Bypass Left Atrium to Pulmonary Vein Confluence with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02RD08Z	Approach Replacement of Papillary Muscle with Zooplastic Tissue, Open Approach
02174AP	Bypass Left Atrium to Pulmonary Trunk with Autologous Arterial Tissue,	02RD0JZ	Replacement of Papillary Muscle with Synthetic Substitute, Open Approach
02174AQ	Percutaneous Endoscopic Approach Bypass Left Atrium to Right Pulmonary Artery with Autologous Arterial Tissue,	02RD0KZ	Replacement of Papillary Muscle with Nonautologous Tissue Substitute, Open Approach
	Percutaneous Endoscopic Approach	02RD47Z	Replacement of Papillary Muscle with
02QJ3ZG	Repair Tricuspid Valve created from Right Atrioventricular Valve, Percutaneous	001744.0	Autologous Tissue Substitute, Percutaneous Endoscopic Approach
02QJ3ZZ	Approach Repair Tricuspid Valve, Percutaneous Approach	02174AR	Bypass Left Atrium to Left Pulmonary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach
02QJ4ZG	Repair Tricuspid Valve created from Right Atrioventricular Valve, Percutaneous Endoscopic Approach	02174AS	Bypass Left Atrium to Right Pulmonary Vein with Autologous Arterial Tissue, Percutaneous Endoscopic Approach
02QJ4ZZ	Repair Tricuspid Valve, Percutaneous Endoscopic Approach	02174AT	Bypass Left Atrium to Left Pulmonary Vein with Autologous Arterial Tissue, Percutaneous Endoscopic Approach
02QM0ZZ	Repair Ventricular Septum, Open Approach	02174AU	Bypass Left Atrium to Pulmonary Vein
02QM3ZZ	Repair Ventricular Septum, Percutaneous Approach		Confluence with Autologous Arterial Tissue, Percutaneous Endoscopic Approach (continued)

ICD-10	Label	ICD-10	Label
02174JP	Bypass Left Atrium to Pulmonary Trunk with Synthetic Substitute, Percutaneous Endoscopic Approach	02RD4KZ	Replacement of Papillary Muscle with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
02174JQ	Bypass Left Atrium to Right Pulmonary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02RF07Z	Replacement of Aortic Valve with Autologous Tissue Substitute, Open Approach
02174JR	Bypass Left Atrium to Left Pulmonary Artery with Synthetic Substitute,	02RF08Z	Replacement of Aortic Valve with Zooplastic Tissue, Open Approach
02174JS	Percutaneous Endoscopic Approach Bypass Left Atrium to Right Pulmonary Vein	02RF0JZ	Replacement of Aortic Valve with Synthetic Substitute, Open Approach
	with Synthetic Substitute, Percutaneous Endoscopic Approach	02RF0KZ	Replacement of Aortic Valve with Nonautologous Tissue Substitute, Open
02174JT	Bypass Left Atrium to Left Pulmonary Vein with Synthetic Substitute, Percutaneous Endoscopic Approach	02RF37H	Approach Replacement of Aortic Valve with Autologous Tissue Substitute, Transapical,
02174JU	Bypass Left Atrium to Pulmonary Vein Confluence with Synthetic Substitute, Percutaneous Endoscopic Approach	02RF37Z	Percutaneous Approach Replacement of Aortic Valve with Autologous Tissue Substitute, Percutaneous
02174KP	Bypass Left Atrium to Pulmonary Trunk with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02RF38H	Approach Replacement of Aortic Valve with Zooplastic Tissue, Transapical, Percutaneous Approach
02174KQ	Bypass Left Atrium to Right Pulmonary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic	02RF38Z	Replacement of Aortic Valve with Zooplastic Tissue, Percutaneous Approach
02174KR	Approach Bypass Left Atrium to Left Pulmonary	02RF3JH	Replacement of Aortic Valve with Synthetic Substitute, Transapical, Percutaneous
	Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02RF3JZ	Approach Replacement of Aortic Valve with Synthetic Substitute, Percutaneous Approach
02174KS	Bypass Left Atrium to Right Pulmonary Vein with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02RF3KH	Replacement of Aortic Valve with Nonautologous Tissue Substitute, Transapical, Percutaneous Approach
02174KT	Bypass Left Atrium to Left Pulmonary Vein with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02RF3KZ	Replacement of Aortic Valve with Nonautologous Tissue Substitute, Percutaneous Approach
02174KU	Bypass Left Atrium to Pulmonary Vein Confluence with Nonautologous Tissue Substitute, Percutaneous Endoscopic	02RF47Z	Replacement of Aortic Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
02174ZP	Approach Bypass Left Atrium to Pulmonary Trunk,	02RF48Z	Replacement of Aortic Valve with Zooplastic Tissue, Percutaneous Endoscopic Approach
	Percutaneous Endoscopic Approach	02RF4JZ	Replacement of Aortic Valve with Synthetic Substitute, Percutaneous Endoscopic
02174ZQ	Bypass Left Atrium to Right Pulmonary Artery, Percutaneous Endoscopic Approach	0217	Approach
02RD48Z	Replacement of Papillary Muscle with Zooplastic Tissue, Percutaneous Endoscopic	02174ZR	Bypass Left Atrium to Left Pulmonary Artery, Percutaneous Endoscopic Approach
02RD4JZ	Approach Replacement of Papillary Muscle with	02174ZS	Bypass Left Atrium to Right Pulmonary Vein, Percutaneous Endoscopic Approach
	Synthetic Substitute, Percutaneous Endoscopic Approach	02174ZT	Bypass Left Atrium to Left Pulmonary Vein, Percutaneous Endoscopic Approach

ICD-10	Label	ICD-10	Label
02174ZU	Bypass Left Atrium to Pulmonary Vein Confluence, Percutaneous Endoscopic Approach	02RG07Z	Replacement of Mitral Valve with Autologous Tissue Substitute, Open Approach
021K08P	Bypass Right Ventricle to Pulmonary Trunk with Zooplastic Tissue, Open Approach	02RG08Z	Replacement of Mitral Valve with Zooplastic Tissue, Open Approach
021K08Q	Bypass Right Ventricle to Right Pulmonary Artery with Zooplastic Tissue, Open	02RG0JZ	Replacement of Mitral Valve with Synthetic Substitute, Open Approach
021K08R	Approach Bypass Right Ventricle to Left Pulmonary Artery with Zooplastic Tissue, Open	02RG0KZ	Replacement of Mitral Valve with Nonautologous Tissue Substitute, Open Approach
021K09P	Approach Bypass Right Ventricle to Pulmonary Trunk with Autologous Venous Tissue, Open	02RG37H	Replacement of Mitral Valve with Autologous Tissue Substitute, Transapical, Percutaneous Approach
021K09Q	Approach Bypass Right Ventricle to Right Pulmonary Artery with Autologous Venous Tissue,	02RG37Z	Replacement of Mitral Valve with Autologous Tissue Substitute, Percutaneous Approach
021K09R	Open Approach Bypass Right Ventricle to Left Pulmonary	02RG38H	Replacement of Mitral Valve with Zooplastic Tissue, Transapical, Percutaneous Approach
	Artery with Autologous Venous Tissue, Open Approach	02RG38Z	Replacement of Mitral Valve with Zooplastic Tissue, Percutaneous Approach
021K0AP	Bypass Right Ventricle to Pulmonary Trunk with Autologous Arterial Tissue, Open Approach	02RG3JH	Replacement of Mitral Valve with Synthetic Substitute, Transapical, Percutaneous Approach
021K0AQ	Bypass Right Ventricle to Right Pulmonary Artery with Autologous Arterial Tissue, Open Approach	02RG3JZ	Replacement of Mitral Valve with Synthetic Substitute, Percutaneous Approach
021K0AR	Bypass Right Ventricle to Left Pulmonary Artery with Autologous Arterial Tissue, Open Approach	02RG3KH	Replacement of Mitral Valve with Nonautologous Tissue Substitute, Transapical, Percutaneous Approach
021K0JP	Bypass Right Ventricle to Pulmonary Trunk with Synthetic Substitute, Open Approach	02RG3KZ	Replacement of Mitral Valve with Nonautologous Tissue Substitute, Percutaneous Approach
021K0JQ	Bypass Right Ventricle to Right Pulmonary Artery with Synthetic Substitute, Open Approach	02RG47Z	Replacement of Mitral Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
021K0JR	Bypass Right Ventricle to Left Pulmonary Artery with Synthetic Substitute, Open Approach	02RG48Z	Replacement of Mitral Valve with Zooplastic Tissue, Percutaneous Endoscopic Approach
021K0KP	Approach Bypass Right Ventricle to Pulmonary Trunk with Nonautologous Tissue Substitute, Open Approach	02RG4JZ	Replacement of Mitral Valve with Synthetic Substitute, Percutaneous Endoscopic Approach
021K0KQ	Bypass Right Ventricle to Right Pulmonary Artery with Nonautologous Tissue Substitute, Open Approach	02RG4KZ	Replacement of Mitral Valve with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
021K0KR	Bypass Right Ventricle to Left Pulmonary Artery with Nonautologous Tissue	02RH07Z	Replacement of Pulmonary Valve with Autologous Tissue Substitute, Open Approach
02RF4KZ	Substitute, Open Approach Replacement of Aortic Valve with Nonautologous Tissue Substitute,	02RH08Z	Replacement of Pulmonary Valve with Zooplastic Tissue, Open Approach
	Percutaneous Endoscopic Approach		(continued

ICD-10	Label	ICD-10	Label
021K0Z5	Bypass Right Ventricle to Coronary Circulation, Open Approach	021K4JP	Bypass Right Ventricle to Pulmonary Trunk with Synthetic Substitute, Percutaneous
021K0Z8	Bypass Right Ventricle to Right Internal Mammary, Open Approach	02RH0JZ	Endoscopic Approach Replacement of Pulmonary Valve with
021K0Z9	Bypass Right Ventricle to Left Internal Mammary, Open Approach	02RH0KZ	Synthetic Substitute, Open Approach Replacement of Pulmonary Valve with
021K0ZC	Bypass Right Ventricle to Thoracic Artery, Open Approach		Nonautologous Tissue Substitute, Open Approach
021K0ZF	Bypass Right Ventricle to Abdominal Artery, Open Approach	02RH37H	Replacement of Pulmonary Valve with Autologous Tissue Substitute, Transapical, Percutaneous Approach
021K0ZP	Bypass Right Ventricle to Pulmonary Trunk, Open Approach	02RH37Z	Replacement of Pulmonary Valve with Autologous Tissue Substitute, Percutaneous
021K0ZQ	Bypass Right Ventricle to Right Pulmonary Artery, Open Approach		Approach
021K0ZR	Bypass Right Ventricle to Left Pulmonary Artery, Open Approach	02RH38H	Replacement of Pulmonary Valve with Zooplastic Tissue, Transapical, Percutaneous Approach
021K0ZW	Bypass Right Ventricle to Aorta, Open Approach	02RH38Z	Replacement of Pulmonary Valve with Zooplastic Tissue, Percutaneous Approach
021K48P	Bypass Right Ventricle to Pulmonary Trunk with Zooplastic Tissue, Percutaneous Endoscopic Approach	02RH3JH	Replacement of Pulmonary Valve with Synthetic Substitute, Transapical, Percutaneous Approach
021K48Q	Bypass Right Ventricle to Right Pulmonary Artery with Zooplastic Tissue, Percutaneous	02RH3JZ	Replacement of Pulmonary Valve with Synthetic Substitute, Percutaneous Approach
021K48R	Endoscopic Approach Bypass Right Ventricle to Left Pulmonary Artery with Zooplastic Tissue, Percutaneous	02RH3KH	Replacement of Pulmonary Valve with Nonautologous Tissue Substitute, Transapical, Percutaneous Approach
021K49P	Endoscopic Approach Bypass Right Ventricle to Pulmonary Trunk with Autologous Venous Tissue,	02RH3KZ	Replacement of Pulmonary Valve with Nonautologous Tissue Substitute, Percutaneous Approach
021K49Q	Percutaneous Endoscopic Approach Bypass Right Ventricle to Right Pulmonary Artery with Autologous Venous Tissue,	02RH47Z	Replacement of Pulmonary Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
021K49R	Percutaneous Endoscopic Approach Bypass Right Ventricle to Left Pulmonary Artery with Autologous Venous Tissue,	02RH48Z	Replacement of Pulmonary Valve with Zooplastic Tissue, Percutaneous Endoscopic Approach
021K4AP	Percutaneous Endoscopic Approach Bypass Right Ventricle to Pulmonary Trunk with Autologous Arterial Tissue,	02RH4JZ	Replacement of Pulmonary Valve with Synthetic Substitute, Percutaneous Endoscopic Approach
021K4AQ	Percutaneous Endoscopic Approach Bypass Right Ventricle to Right Pulmonary Artery with Autologous Arterial Tissue,	02RH4KZ	Replacement of Pulmonary Valve with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
021K4AR	Percutaneous Endoscopic Approach Bypass Right Ventricle to Left Pulmonary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02RJ07Z	Replacement of Tricuspid Valve with Autologous Tissue Substitute, Open Approach (continued)

ICD-10	Label	ICD-10	Label
02RJ08Z	Replacement of Tricuspid Valve with Zooplastic Tissue, Open Approach	021L08P	Bypass Left Ventricle to Pulmonary Trunk with Zooplastic Tissue, Open Approach
02RJ0JZ	Replacement of Tricuspid Valve with Synthetic Substitute, Open Approach	021L08Q	Bypass Left Ventricle to Right Pulmonary Artery with Zooplastic Tissue, Open
02RJ0KZ	Replacement of Tricuspid Valve with Nonautologous Tissue Substitute, Open Approach	021L08R	Approach Bypass Left Ventricle to Left Pulmonary Artery with Zooplastic Tissue, Open
02RJ47Z	Replacement of Tricuspid Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	021L09P	Approach Bypass Left Ventricle to Pulmonary Trunk with Autologous Venous Tissue, Open
021K4JQ	Bypass Right Ventricle to Right Pulmonary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	021L09Q	Approach Bypass Left Ventricle to Right Pulmonary Artery with Autologous Venous Tissue,
021K4JR	Bypass Right Ventricle to Left Pulmonary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	02RJ48Z	Open Approach Replacement of Tricuspid Valve with Zooplastic Tissue, Percutaneous Endoscopic
021K4KP	Bypass Right Ventricle to Pulmonary Trunk with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02RJ4JZ	Approach Replacement of Tricuspid Valve with Synthetic Substitute, Percutaneous
021K4KQ	Bypass Right Ventricle to Right Pulmonary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02RJ4KZ	Endoscopic Approach Replacement of Tricuspid Valve with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
021K4KR	Bypass Right Ventricle to Left Pulmonary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic	02RK07Z	Replacement of Right Ventricle with Autologous Tissue Substitute, Open Approach
021K4Z5	Approach Bypass Right Ventricle to Coronary	02RK0JZ	Replacement of Right Ventricle with Synthetic Substitute, Open Approach
001111170	Circulation, Percutaneous Endoscopic Approach	02RK0KZ	Replacement of Right Ventricle with Nonautologous Tissue Substitute, Open
021K4Z8	Bypass Right Ventricle to Right Internal Mammary, Percutaneous Endoscopic Approach	02RK47Z	Approach Replacement of Right Ventricle with Autologous Tissue Substitute, Percutaneous
021K4Z9	Bypass Right Ventricle to Left Internal Mammary, Percutaneous Endoscopic Approach	02RK4KZ	Endoscopic Approach Replacement of Right Ventricle with Nonautologous Tissue Substitute,
021K4ZC	Bypass Right Ventricle to Thoracic Artery, Percutaneous Endoscopic Approach	0201.077	Percutaneous Endoscopic Approach
021K4ZF	Bypass Right Ventricle to Abdominal Artery, Percutaneous Endoscopic Approach	02RL07Z	Replacement of Left Ventricle with Autologous Tissue Substitute, Open Approach
021K4ZP	Bypass Right Ventricle to Pulmonary Trunk, Percutaneous Endoscopic Approach	02RL0JZ	Replacement of Left Ventricle with Synthetic Substitute, Open Approach
021K4ZQ	Bypass Right Ventricle to Right Pulmonary Artery, Percutaneous Endoscopic Approach	02RL0KZ	Replacement of Left Ventricle with Nonautologous Tissue Substitute, Open
021K4ZR	Bypass Right Ventricle to Left Pulmonary Artery, Percutaneous Endoscopic Approach	02RL47Z	Approach Replacement of Left Ventricle with
021K4ZW	Bypass Right Ventricle to Aorta, Percutaneous Endoscopic Approach		Autologous Tissue Substitute, Percutaneous Endoscopic Approach (continued)

ICD-10	Label	ICD-10	Label
02RL4KZ	Replacement of Left Ventricle with Nonautologous Tissue Substitute,	021L0Z5	Bypass Left Ventricle to Coronary Circulation, Open Approach
02RM07Z	Percutaneous Endoscopic Approach Replacement of Ventricular Septum with	021L0Z8	Bypass Left Ventricle to Right Internal Mammary, Open Approach
	Autologous Tissue Substitute, Open Approach	021L0Z9	Bypass Left Ventricle to Left Internal Mammary, Open Approach
02RM0JZ	Replacement of Ventricular Septum with Synthetic Substitute, Open Approach	021L0ZC	Bypass Left Ventricle to Thoracic Artery, Open Approach
02RM0KZ	Replacement of Ventricular Septum with Nonautologous Tissue Substitute, Open Approach	021L0ZF	Bypass Left Ventricle to Abdominal Artery, Open Approach
02RM47Z	Replacement of Ventricular Septum with Autologous Tissue Substitute, Percutaneous	021L0ZP	Bypass Left Ventricle to Pulmonary Trunk, Open Approach
0201417	Endoscopic Approach	021L0ZQ	Bypass Left Ventricle to Right Pulmonary Artery, Open Approach
02RM4JZ	Replacement of Ventricular Septum with Synthetic Substitute, Percutaneous Endoscopic Approach	021L0ZR	Bypass Left Ventricle to Left Pulmonary Artery, Open Approach
02RM4KZ	Replacement of Ventricular Septum with Nonautologous Tissue Substitute,	021L0ZW	Bypass Left Ventricle to Aorta, Open Approach
021L09R	Percutaneous Endoscopic Approach Bypass Left Ventricle to Left Pulmonary Artery with Autologous Venous Tissue,	021L48P	Bypass Left Ventricle to Pulmonary Trunk with Zooplastic Tissue, Percutaneous Endoscopic Approach
021L0AP	Open Approach Bypass Left Ventricle to Pulmonary Trunk with Autologous Arterial Tissue, Open	021L48Q	Bypass Left Ventricle to Right Pulmonary Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach
021L0AQ	Approach Bypass Left Ventricle to Right Pulmonary Artery with Autologous Arterial Tissue,	021L48R	Bypass Left Ventricle to Left Pulmonary Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach
021L0AR	Open Approach Bypass Left Ventricle to Left Pulmonary	02RP0JZ	Replacement of Pulmonary Trunk with Synthetic Substitute, Open Approach
02120111	Artery with Autologous Arterial Tissue, Open Approach	02RQ07Z	Replacement of Right Pulmonary Artery with Autologous Tissue Substitute, Open
021L0JP	Bypass Left Ventricle to Pulmonary Trunk with Synthetic Substitute, Open Approach	02RQ0JZ	Approach Replacement of Right Pulmonary Artery with
021L0JQ	Bypass Left Ventricle to Right Pulmonary Artery with Synthetic Substitute, Open Approach	02RR07Z	Synthetic Substitute, Open Approach Replacement of Left Pulmonary Artery with Autologous Tissue Substitute, Open
021L0JR	Bypass Left Ventricle to Left Pulmonary Artery with Synthetic Substitute, Open Approach	02RR0JZ	Approach Replacement of Left Pulmonary Artery with Synthetic Substitute, Open Approach
021L0KP	Bypass Left Ventricle to Pulmonary Trunk with Nonautologous Tissue Substitute, Open	02SP0ZZ	Reposition Pulmonary Trunk, Open Approach
0211.080	Approach	02SW0ZZ	Reposition Thoracic Aorta, Open Approach
021L0KQ	Bypass Left Ventricle to Right Pulmonary Artery with Nonautologous Tissue Substitute, Open Approach	02SX0ZZ	Reposition Thoracic Aorta, Ascending/Arch, Open Approach
021L0KR	Bypass Left Ventricle to Left Pulmonary Artery with Nonautologous Tissue Substitute, Open Approach	02T50ZZ	Resection of Atrial Septum, Open Approach (continued)

ICD-10	Label	ICD-10	Label
02T53ZZ	Resection of Atrial Septum, Percutaneous Approach	021L4JQ	Bypass Left Ventricle to Right Pulmonary Artery with Synthetic Substitute,
02T54ZZ	Resection of Atrial Septum, Percutaneous Endoscopic Approach	021L4JR	Percutaneous Endoscopic Approach Bypass Left Ventricle to Left Pulmonary
02T80ZZ	Resection of Conduction Mechanism, Open Approach		Artery with Synthetic Substitute, Percutaneous Endoscopic Approach
02T83ZZ	Resection of Conduction Mechanism, Percutaneous Approach	021L4KP	Bypass Left Ventricle to Pulmonary Trunk with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
02T84ZZ	Resection of Conduction Mechanism, Percutaneous Endoscopic Approach	021L4KQ	Bypass Left Ventricle to Right Pulmonary Artery with Nonautologous Tissue
02T90ZZ	Resection of Chordae Tendineae, Open Approach		Substitute, Percutaneous Endoscopic Approach
02T93ZZ	Resection of Chordae Tendineae, Percutaneous Approach	021L4KR	Bypass Left Ventricle to Left Pulmonary Artery with Nonautologous Tissue
02T94ZZ	Resection of Chordae Tendineae, Percutaneous Endoscopic Approach		Substitute, Percutaneous Endoscopic Approach
02TD0ZZ	Resection of Papillary Muscle, Open Approach	021L4Z5	Bypass Left Ventricle to Coronary Circulation, Percutaneous Endoscopic
02TD3ZZ	Resection of Papillary Muscle, Percutaneous Approach	021L4Z8	Approach Bypass Left Ventricle to Right Internal
02TD4ZZ	Resection of Papillary Muscle, Percutaneous Endoscopic Approach		Mammary, Percutaneous Endoscopic Approach
02TH0ZZ	Resection of Pulmonary Valve, Open Approach	021L4Z9	Bypass Left Ventricle to Left Internal Mammary, Percutaneous Endoscopic Approach
02TH3ZZ	Resection of Pulmonary Valve, Percutaneous Approach	021L4ZC	Bypass Left Ventricle to Thoracic Artery, Percutaneous Endoscopic Approach
021L49P	Bypass Left Ventricle to Pulmonary Trunk with Autologous Venous Tissue, Percutaneous Endoscopic Approach	021L4ZF	Bypass Left Ventricle to Abdominal Artery, Percutaneous Endoscopic Approach
021L49Q	Bypass Left Ventricle to Right Pulmonary Artery with Autologous Venous Tissue,	021L4ZP	Bypass Left Ventricle to Pulmonary Trunk, Percutaneous Endoscopic Approach
0211 400	Percutaneous Endoscopic Approach	021L4ZQ	Bypass Left Ventricle to Right Pulmonary Artery, Percutaneous Endoscopic Approach
021L49R	Bypass Left Ventricle to Left Pulmonary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	02TH4ZZ	Resection of Pulmonary Valve, Percutaneous Endoscopic Approach
021L4AP	Bypass Left Ventricle to Pulmonary Trunk with Autologous Arterial Tissue,	02TM0ZZ	Resection of Ventricular Septum, Open Approach
021L4AQ	Percutaneous Endoscopic Approach Bypass Left Ventricle to Right Pulmonary	02TM3ZZ	Resection of Ventricular Septum, Percutaneous Approach
	Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02TM4ZZ	Resection of Ventricular Septum, Percutaneous Endoscopic Approach
021L4AR	Bypass Left Ventricle to Left Pulmonary	02TN0ZZ	Resection of Pericardium, Open Approach
	Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	02TN3ZZ	Resection of Pericardium, Percutaneous Approach
021L4JP	Bypass Left Ventricle to Pulmonary Trunk with Synthetic Substitute, Percutaneous Endoscopic Approach	02TN4ZZ	Resection of Pericardium, Percutaneous Endoscopic Approach (continued)

ICD-10	Label	ICD-10	Label
02U507Z	Supplement Atrial Septum with Autologous Tissue Substitute, Open Approach	024G082	Creation of Mitral Valve from Common Atrioventricular Valve using Zooplastic
02U508Z	Supplement Atrial Septum with Zooplastic Tissue, Open Approach	024G0J2	Tissue, Open Approach Creation of Mitral Valve from Common
02U50JZ	Supplement Atrial Septum with Synthetic Substitute, Open Approach		Atrioventricular Valve using Synthetic Substitute, Open Approach
02U50KZ	Supplement Atrial Septum with Nonautologous Tissue Substitute, Open Approach	024G0K2	Creation of Mitral Valve from Common Atrioventricular Valve using Nonautologous Tissue Substitute, Open Approach
02U537Z	Supplement Atrial Septum with Autologous Tissue Substitute, Percutaneous Approach	024J072	Creation of Tricuspid Valve from Common Atrioventricular Valve using Autologous Tissue Substitute, Open Approach
02U538Z	Supplement Atrial Septum with Zooplastic Tissue, Percutaneous Approach	024J082	Creation of Tricuspid Valve from Common Atrioventricular Valve using Zooplastic
02U53JZ	Supplement Atrial Septum with Synthetic Substitute, Percutaneous Approach	024J0J2	Tissue, Open Approach Creation of Tricuspid Valve from Common
02U53KZ	Supplement Atrial Septum with Nonautologous Tissue Substitute,	024J0J2	Atrioventricular Valve using Synthetic Substitute, Open Approach
02U547Z	Percutaneous Approach Supplement Atrial Septum with Autologous Tissue Substitute, Percutaneous Endoscopic	024J0K2	Creation of Tricuspid Valve from Common Atrioventricular Valve using Nonautologous Tissue Substitute, Open Approach
00115407	Approach	02540ZZ	Destruction of Coronary Vein, Open
02U548Z	Supplement Atrial Septum with Zooplastic Tissue, Percutaneous Endoscopic Approach	02543ZZ	Approach Destruction of Coronary Vein, Percutaneous
02U54JZ	Supplement Atrial Septum with Synthetic Substitute, Percutaneous Endoscopic Approach	02544ZZ	Approach Destruction of Coronary Vein, Percutaneous Endoscopic Approach
02U54KZ	Supplement Atrial Septum with Nonautologous Tissue Substitute,	02550ZZ	Destruction of Atrial Septum, Open Approach
021L4ZR	Percutaneous Endoscopic Approach Bypass Left Ventricle to Left Pulmonary	02553ZZ	Destruction of Atrial Septum, Percutaneous Approach
021L4ZW	Artery, Percutaneous Endoscopic Approach Bypass Left Ventricle to Aorta, Percutaneous	02554ZZ	Destruction of Atrial Septum, Percutaneous Endoscopic Approach
024F07J	Endoscopic Approach Creation of Aortic Valve from Truncal Valve	02U607Z	Supplement Right Atrium with Autologous Tissue Substitute, Open Approach
	using Autologous Tissue Substitute, Open Approach	02U608Z	Supplement Right Atrium with Zooplastic Tissue, Open Approach
024F08J	Creation of Aortic Valve from Truncal Valve using Zooplastic Tissue, Open Approach	02U60KZ	Supplement Right Atrium with Nonautologous Tissue Substitute, Open
024F0JJ	Creation of Aortic Valve from Truncal Valve using Synthetic Substitute, Open Approach	02U707Z	Approach Supplement Left Atrium with Autologous
024F0KJ	Creation of Aortic Valve from Truncal Valve		Tissue Substitute, Open Approach
	using Nonautologous Tissue Substitute, Open Approach	02U708Z	Supplement Left Atrium with Zooplastic Tissue, Open Approach
024G072	Creation of Mitral Valve from Common Atrioventricular Valve using Autologous	02U70JZ	Supplement Left Atrium with Synthetic Substitute, Open Approach
	Tissue Substitute, Open Approach	02U70KZ	Supplement Left Atrium with Nonautologous Tissue Substitute, Open Approach

ICD-10	Label	ICD-10	Label
02U737Z	Supplement Left Atrium with Autologous Tissue Substitute, Percutaneous Approach	02574ZZ	Destruction of Left Atrium, Percutaneous Endoscopic Approach
02U738Z	Supplement Left Atrium with Zooplastic Tissue, Percutaneous Approach	02580ZZ	Destruction of Conduction Mechanism, Open Approach
02U73KZ	Supplement Left Atrium with Nonautologous Tissue Substitute, Percutaneous Approach	02583ZZ	Destruction of Conduction Mechanism, Percutaneous Approach
02U747Z	Supplement Left Atrium with Autologous Tissue Substitute, Percutaneous Endoscopic	02584ZZ	Destruction of Conduction Mechanism, Percutaneous Endoscopic Approach
02U748Z	Approach Supplement Left Atrium with Zooplastic	02590ZZ	Destruction of Chordae Tendineae, Open Approach
02U74KZ	Tissue, Percutaneous Endoscopic Approach Supplement Left Atrium with Nonautologous	02593ZZ	Destruction of Chordae Tendineae, Percutaneous Approach
	Tissue Substitute, Percutaneous Endoscopic Approach	02594ZZ	Destruction of Chordae Tendineae, Percutaneous Endoscopic Approach
02U907Z	Supplement Chordae Tendineae with Autologous Tissue Substitute, Open	025D0ZZ	Destruction of Papillary Muscle, Open Approach
02U908Z	Approach Supplement Chordae Tendineae with	025D3ZZ	Destruction of Papillary Muscle, Percutaneous Approach
02U90JZ	Zooplastic Tissue, Open Approach Supplement Chordae Tendineae with	025D4ZZ	Destruction of Papillary Muscle, Percutaneous Endoscopic Approach
02U90KZ	Synthetic Substitute, Open Approach	025F0ZZ	Destruction of Aortic Valve, Open Approach
02090KZ	Supplement Chordae Tendineae with Nonautologous Tissue Substitute, Open Approach	025F3ZZ	Destruction of Aortic Valve, Percutaneous Approach
02U937Z	Supplement Chordae Tendineae with Autologous Tissue Substitute, Percutaneous	025F4ZZ	Destruction of Aortic Valve, Percutaneous Endoscopic Approach
02U938Z	Approach Supplement Chordae Tendineae with Zooplastic Tissue, Percutaneous Approach	02U93KZ	Supplement Chordae Tendineae with Nonautologous Tissue Substitute, Percutaneous Approach
02U93JZ	Supplement Chordae Tendineae with Synthetic Substitute, Percutaneous Approach	02U947Z	Supplement Chordae Tendineae with Autologous Tissue Substitute, Percutaneous
02560ZZ	Destruction of Right Atrium, Open Approach	00110407	Endoscopic Approach
02563ZZ	Destruction of Right Atrium, Percutaneous Approach	02U948Z	Supplement Chordae Tendineae with Zooplastic Tissue, Percutaneous Endoscopic Approach
02564ZZ	Destruction of Right Atrium, Percutaneous Endoscopic Approach	02U94JZ	Supplement Chordae Tendineae with Synthetic Substitute, Percutaneous
02570ZK	Destruction of Left Atrial Appendage, Open Approach	02U94KZ	Endoscopic Approach Supplement Chordae Tendineae with
02570ZZ	Destruction of Left Atrium, Open Approach		Nonautologous Tissue Substitute,
02573ZK	Destruction of Left Atrial Appendage, Percutaneous Approach	02UA0JZ	Percutaneous Endoscopic Approach Supplement Heart with Synthetic Substitute,
02573ZZ	Destruction of Left Atrium, Percutaneous Approach	02UA3JZ	Open Approach Supplement Heart with Synthetic Substitute,
02574ZK	Destruction of Left Atrial Appendage, Percutaneous Endoscopic Approach	02UA4JZ	Percutaneous Approach Supplement Heart with Synthetic Substitute, Percutaneous Endoscopic Approach

ICD-10	Label	ICD-10	Label
02UD07Z	Supplement Papillary Muscle with Autologous Tissue Substitute, Open	025J3ZZ	Destruction of Tricuspid Valve, Percutaneous Approach
02UD08Z	Approach Supplement Papillary Muscle with	025J4ZZ	Destruction of Tricuspid Valve, Percutaneous Endoscopic Approach
02UD0JZ	Zooplastic Tissue, Open Approach Supplement Papillary Muscle with Synthetic	025K0ZZ	Destruction of Right Ventricle, Open Approach
02UD0KZ	Substitute, Open Approach Supplement Papillary Muscle with	025K3ZZ	Destruction of Right Ventricle, Percutaneous Approach
02020111	Nonautologous Tissue Substitute, Open Approach	025K4ZZ	Destruction of Right Ventricle, Percutaneous Endoscopic Approach
02UD37Z	Supplement Papillary Muscle with Autologous Tissue Substitute, Percutaneous Approach	025L0ZZ	Destruction of Left Ventricle, Open Approach
02UD38Z	Supplement Papillary Muscle with Zooplastic Tissue, Percutaneous Approach	025L3ZZ	Destruction of Left Ventricle, Percutaneous Approach
02UD3JZ	Supplement Papillary Muscle with Synthetic Substitute, Percutaneous Approach	025L4ZZ	Destruction of Left Ventricle, Percutaneous Endoscopic Approach
02UD3KZ	Supplement Papillary Muscle with Nonautologous Tissue Substitute,	025M0ZZ	Destruction of Ventricular Septum, Open Approach
02UD47Z	Percutaneous Approach Supplement Papillary Muscle with	025M3ZZ	Destruction of Ventricular Septum, Percutaneous Approach
020D4/Z	Autologous Tissue Substitute, Percutaneous Endoscopic Approach	025M4ZZ	Destruction of Ventricular Septum, Percutaneous Endoscopic Approach
02UD48Z	upplement Papillary Muscle with	025N0ZZ	Destruction of Pericardium, Open Approach
	Zooplastic Tissue, Percutaneous Endoscopic Approach	025N3ZZ	Destruction of Pericardium, Percutaneous Approach
02UD4JZ	Supplement Papillary Muscle with Synthetic Substitute, Percutaneous Endoscopic Approach	02UF07Z	Supplement Aortic Valve with Autologous Tissue Substitute, Open Approach
02UD4KZ	Supplement Papillary Muscle with Nonautologous Tissue Substitute,	02UF08J	Supplement Aortic Valve created from Truncal Valve with Zooplastic Tissue, Open Approach
02UF07J	Percutaneous Endoscopic Approach Supplement Aortic Valve created from	02UF08Z	Supplement Aortic Valve with Zooplastic Tissue, Open Approach
	Truncal Valve with Autologous Tissue Substitute, Open Approach	02UF0JJ	Supplement Aortic Valve created from Truncal Valve with Synthetic Substitute,
025G0ZZ	Destruction of Mitral Valve, Open Approach		Open Approach
025G3ZZ	Destruction of Mitral Valve, Percutaneous Approach	02UF0JZ	Supplement Aortic Valve with Synthetic Substitute, Open Approach
025G4ZZ	Destruction of Mitral Valve, Percutaneous Endoscopic Approach	02UF0KJ	Supplement Aortic Valve created from Truncal Valve with Nonautologous Tissue
025H0ZZ	Destruction of Pulmonary Valve, Open Approach	02UF0KZ	Substitute, Open Approach Supplement Aortic Valve with
025H3ZZ	Destruction of Pulmonary Valve, Percutaneous Approach		Nonautologous Tissue Substitute, Open Approach
025H4ZZ	Destruction of Pulmonary Valve, Percutaneous Endoscopic Approach	02UF37J	Supplement Aortic Valve created from Truncal Valve with Autologous Tissue
025J0ZZ	Destruction of Tricuspid Valve, Open Approach		Substitute, Percutaneous Approach (continued)

ICD-10	Label	ICD-10	Label
02UF37Z	Supplement Aortic Valve with Autologous Tissue Substitute, Percutaneous Approach	02700E6	Dilation of Coronary Artery, One Artery, Bifurcation, with Two Intraluminal Devices, Open Approach
02UF38J	Supplement Aortic Valve created from Truncal Valve with Zooplastic Tissue, Percutaneous Approach	027004Z	Dilation of Coronary Artery, One Artery with Drug-eluting Intraluminal Device,
02UF38Z	Supplement Aortic Valve with Zooplastic Tissue, Percutaneous Approach	027005Z	Percutaneous Approach Dilation of Coronary Artery, One Artery with
02UF3JJ	Supplement Aortic Valve created from Truncal Valve with Synthetic Substitute,		Two Drug-eluting Intraluminal Devices, Open Approach
02UF3JZ	Percutaneous Approach Supplement Aortic Valve with Synthetic	027006Z	Dilation of Coronary Artery, One Artery with Three Drug-eluting Intraluminal Devices, Open Approach
02UF3KJ	Substitute, Percutaneous Approach Supplement Aortic Valve created from Truncal Valve with Nonautologous Tissue	027007Z	Dilation of Coronary Artery, One Artery with Four or More Drug-eluting Intraluminal Devices, Open Approach
02UF3KZ	Substitute, Percutaneous Approach Supplement Aortic Valve with Nonautologous Tissue Substitute, Percutaneous Approach	02700D6	Dilation of Coronary Artery, One Artery, Bifurcation, with Intraluminal Device, Percutaneous Approach
02UF47J	Supplement Aortic Valve created from	02700DZ	Dilation of Coronary Artery, One Artery with Intraluminal Device, Percutaneous Approach
	Truncal Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	02700EZ	Dilation of Coronary Artery, One Artery with Two Intraluminal Devices, Open Approach
02UF47Z	Supplement Aortic Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	02700F6	Dilation of Coronary Artery, One Artery, Bifurcation, with Three Intraluminal Devices, Open Approach
02UF48J	Supplement Aortic Valve created from Truncal Valve with Zooplastic Tissue,	02700FZ	Dilation of Coronary Artery, One Artery with Three Intraluminal Devices, Open Approach
02UF48Z	Percutaneous Endoscopic Approach Supplement Aortic Valve with Zooplastic	02700G6	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Intraluminal
02UF4JJ	Tissue, Percutaneous Endoscopic Approach Supplement Aortic Valve created from	02700GZ	Devices, Open Approach Dilation of Coronary Artery, One Artery with
0201433	Truncal Valve with Synthetic Substitute, Percutaneous Endoscopic Approach		Four or More Intraluminal Devices, Open Approach
025N4ZZ	Destruction of Pericardium, Percutaneous Endoscopic Approach	02700T6	Dilation of Coronary Artery, One Artery, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Approach
0270046	Dilation of Coronary Artery, One Artery, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Approach	02UF4JZ	Supplement Aortic Valve with Synthetic Substitute, Percutaneous Endoscopic Approach
0270056	Dilation of Coronary Artery, One Artery, Bifurcation, with Two Drug-eluting Intraluminal Devices, Open Approach	02UF4KJ	Supplement Aortic Valve created from Truncal Valve with Nonautologous Tissue Substitute, Percutaneous Endoscopic
0270066	Dilation of Coronary Artery, One Artery, Bifurcation, with Three Drug-eluting Intraluminal Devices, Open Approach	02UF4KZ	Approach Supplement Aortic Valve with Nonautologous Tissue Substitute,
0270076	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Drug-eluting		Percutaneous Endoscopic Approach
	Intraluminal Devices, Open Approach	02UG07E	Supplement Mitral Valve created from Left Atrioventricular Valve with Autologous Tissue Substitute, Open Approach

#### ICD-10 ICD-10 Label Label 0270366 Dilation of Coronary Artery, One Artery, 02UG07Z Supplement Mitral Valve with Autologous Tissue Substitute, Open Approach Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Supplement Mitral Valve created from Left 02UG08E Approach Atrioventricular Valve with Zooplastic Dilation of Coronary Artery, One Artery, Tissue, Open Approach 0270376 Bifurcation, with Four or More Drug-eluting 02UG08Z Supplement Mitral Valve with Zooplastic Intraluminal Devices, Percutaneous Tissue, Open Approach Approach 02UG0JE Supplement Mitral Valve created from Left 02703E6 Dilation of Coronary Artery, One Artery, Atrioventricular Valve with Synthetic Bifurcation, with Two Intraluminal Devices, Substitute, Open Approach Percutaneous Approach 02UG0JZ Supplement Mitral Valve with Synthetic Dilation of Coronary Artery, One Artery, 02700Z6 Substitute, Open Approach Bifurcation, Percutaneous Approach Supplement Mitral Valve created from Left 02UG0KE 02700ZZ Dilation of Coronary Artery. One Artery. Atrioventricular Valve with Nonautologous Percutaneous Approach Tissue Substitute, Open Approach 027034Z Dilation of Coronary Artery, One Artery with 02UG0KZ Supplement Mitral Valve with Drug-eluting Intraluminal Device, Nonautologous Tissue Substitute, Open Percutaneous Endoscopic Approach Approach 027035Z Dilation of Coronary Artery, One Artery with 02UG37E Supplement Mitral Valve created from Left Two Drug-eluting Intraluminal Devices, Atrioventricular Valve with Autologous Percutaneous Approach Tissue Substitute, Percutaneous Approach 027036Z Dilation of Coronary Artery, One Artery with 02UG37Z Supplement Mitral Valve with Autologous Three Drug-eluting Intraluminal Devices, Tissue Substitute, Percutaneous Approach Percutaneous Approach Supplement Mitral Valve created from Left 02UG38E 027037Z Dilation of Coronary Artery, One Artery with Atrioventricular Valve with Zooplastic Four or More Drug-eluting Intraluminal Tissue, Percutaneous Approach Devices, Percutaneous Approach 02UG38Z Supplement Mitral Valve with Zooplastic 02703D6 Dilation of Coronary Artery, One Artery, Tissue, Percutaneous Approach Bifurcation, with Intraluminal Device, Percutaneous Endoscopic Approach 02UG3JE Supplement Mitral Valve created from Left Atrioventricular Valve with Synthetic 02703DZ Dilation of Coronary Artery, One Artery with Substitute, Percutaneous Approach Intraluminal Device, Percutaneous Endoscopic Approach 02UG3JZ Supplement Mitral Valve with Synthetic Dilation of Coronary Artery, One Artery with Substitute, Percutaneous Approach 02703EZ Two Intraluminal Devices, Percutaneous 02UG3KE Supplement Mitral Valve created from Left Approach Atrioventricular Valve with Nonautologous Tissue Substitute, Percutaneous Approach 02703F6 Dilation of Coronary Artery, One Artery, Bifurcation, with Three Intraluminal 02700TZ Dilation of Coronary Artery, One Artery with Devices, Percutaneous Approach Radioactive Intraluminal Device, Percutaneous Approach 02703FZ Dilation of Coronary Artery, One Artery with Three Intraluminal Devices, Percutaneous 0270346 Dilation of Coronary Artery, One Artery, Approach Bifurcation, with Drug-eluting Intraluminal 02UG3KZ Supplement Mitral Valve with Device, Percutaneous Endoscopic Approach Nonautologous Tissue Substitute, Dilation of Coronary Artery, One Artery, 0270356 Percutaneous Approach Bifurcation, with Two Drug-eluting Supplement Mitral Valve created from Left 02UG47E Intraluminal Devices, Percutaneous Atrioventricular Valve with Autologous Approach Tissue Substitute, Percutaneous Endoscopic Approach

#### Table 13 (continued)ICD-10 Procedure Codes for CHF Exclusion Criteria

ICD 10			
ICD-10	Label	ICD-10	Label
02UG47Z	Supplement Mitral Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	0270456	Dilation of Coronary Artery, One Artery, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach
02UG48E	Supplement Mitral Valve created from Left Atrioventricular Valve with Zooplastic Tissue, Percutaneous Endoscopic Approach	0270466	Dilation of Coronary Artery, One Artery, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous
02UG48Z	Supplement Mitral Valve with Zooplastic Tissue, Percutaneous Endoscopic Approach		Endoscopic Approach
02UG4JE	Supplement Mitral Valve created from Left Atrioventricular Valve with Synthetic Substitute, Percutaneous Endoscopic Approach	0270476	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach
02UG4JZ	Supplement Mitral Valve with Synthetic Substitute, Percutaneous Endoscopic Approach	02704E6	Dilation of Coronary Artery, One Artery, Bifurcation, with Two Intraluminal Devices, Percutaneous Endoscopic Approach
02UG4KE	Supplement Mitral Valve created from Left Atrioventricular Valve with Nonautologous Tissue Substitute, Percutaneous Endoscopic	02703GZ	Dilation of Coronary Artery, One Artery with Four or More Intraluminal Devices, Percutaneous Approach
02UG4KZ	Approach Supplement Mitral Valve with	02703T6	Dilation of Coronary Artery, One Artery, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach
	Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02703TZ	Dilation of Coronary Artery, One Artery with Radioactive Intraluminal Device,
02UH07Z	Supplement Pulmonary Valve with Autologous Tissue Substitute, Open Approach	02703Z6	Percutaneous Endoscopic Approach Dilation of Coronary Artery, One Artery,
02UH08Z	Supplement Pulmonary Valve with Zooplastic Tissue, Open Approach		Bifurcation, Percutaneous Endoscopic Approach
02UH0JZ	Supplement Pulmonary Valve with Synthetic	02703ZZ	Dilation of Coronary Artery, One Artery, Percutaneous Endoscopic Approach
02UH0KZ	Substitute, Open Approach Supplement Pulmonary Valve with Nonautologous Tissue Substitute, Open	027044Z	Dilation of Coronary Artery, Two Arteries with Drug-eluting Intraluminal Device, Open Approach
02UH37Z	Approach Supplement Pulmonary Valve with Autologous Tissue Substitute, Percutaneous	027045Z	Dilation of Coronary Artery, One Artery with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach
02UH38Z	Approach Supplement Pulmonary Valve with Zooplastic Tissue, Percutaneous Approach	027046Z	Dilation of Coronary Artery, One Artery with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach
02UH3JZ	Supplement Pulmonary Valve with Synthetic Substitute, Percutaneous Approach	027047Z	Dilation of Coronary Artery, One Artery with Four or More Drug-eluting Intraluminal
02UH3KZ	Supplement Pulmonary Valve with Nonautologous Tissue Substitute, Percutaneous Approach	02704D6	Devices, Percutaneous Endoscopic Approach Dilation of Coronary Artery, Two Arteries, Bifurcation, with Intraluminal Device, Open
02703G6	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Approach	02704DZ	Approach Dilation of Coronary Artery, Two Arteries with Intraluminal Device, Open Approach
0270446	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Open Approach	02704EZ	Dilation of Coronary Artery, One Artery with Two Intraluminal Devices, Percutaneous Endoscopic Approach

ICD-10	Label	ICD-10	Label
02UH47Z	Supplement Pulmonary Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	02UJ3JG	Supplement Tricuspid Valve created from Right Atrioventricular Valve with Synthetic Substitute, Percutaneous Approach
02UH48Z	Supplement Pulmonary Valve with Zooplastic Tissue, Percutaneous Endoscopic	02UJ3JZ	Supplement Tricuspid Valve with Synthetic Substitute, Percutaneous Approach
02UH4JZ	Approach Supplement Pulmonary Valve with Synthetic Substitute, Percutaneous Endoscopic	02704F6	Dilation of Coronary Artery, One Artery, Bifurcation, with Three Intraluminal Devices, Percutaneous Endoscopic Approach
02UH4KZ	Approach Supplement Pulmonary Valve with Nonautologous Tissue Substitute,	"0271046"	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Approach
02UJ07G	Percutaneous Endoscopic Approach Supplement Tricuspid Valve created from Right Atrioventricular Valve with	"0271056"	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Open Approach
02UJ07Z	Autologous Tissue Substitute, Open Approach Supplement Tricuspid Valve with	"0271066"	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Open Approach
	Autologous Tissue Substitute, Open Approach	"0271076"	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Drug-eluting
02UJ08G	Supplement Tricuspid Valve created from Right Atrioventricular Valve with Zooplastic Tissue, Open Approach	02704FZ	Intraluminal Devices, Open Approach Dilation of Coronary Artery, One Artery with Three Intraluminal Devices, Percutaneous
02UJ08Z	Supplement Tricuspid Valve with Zooplastic Tissue, Open Approach	0270400	Endoscopic Approach
02UJ0JG	Supplement Tricuspid Valve created from Right Atrioventricular Valve with Synthetic	02704G6	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach
02UJ0JZ	Substitute, Open Approach Supplement Tricuspid Valve with Synthetic Substitute, Open Approach	02704GZ	Dilation of Coronary Artery, One Artery with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach
02UJ0KG	Supplement Tricuspid Valve created from Right Atrioventricular Valve with Nonautologous Tissue Substitute, Open	02704T6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Radioactive Intraluminal Device, Open Approach
02UJ0KZ	Approach Supplement Tricuspid Valve with	02704TZ	Dilation of Coronary Artery, Two Arteries with Radioactive Intraluminal Device, Open Approach
	Nonautologous Tissue Substitute, Open Approach	02704Z6	Dilation of Coronary Artery, Two Arteries,
02UJ37G	Supplement Tricuspid Valve created from Right Atrioventricular Valve with Autologous Tissue Substitute, Percutaneous	02704ZZ	Bifurcation, Open Approach Dilation of Coronary Artery, Two Arteries, Open Approach
02UJ37Z	Approach Supplement Tricuspid Valve with Autologous Tissue Substitute, Percutaneous	027104Z	Dilation of Coronary Artery, Two Arteries with Drug-eluting Intraluminal Device, Percutaneous Approach
02UJ38G	Approach Supplement Tricuspid Valve created from Right Atrioventricular Valve with Zooplastic	027105Z	Dilation of Coronary Artery, Two Arteries with Two Drug-eluting Intraluminal Devices, Open Approach
02UJ38Z	Tissue, Percutaneous Approach Supplement Tricuspid Valve with Zooplastic Tissue, Percutaneous Approach	027106Z	Dilation of Coronary Artery, Two Arteries with Three Drug-eluting Intraluminal Devices, Open Approach
			(continued)

ICD-10	Label	ICD-10	Label
027107Z	Dilation of Coronary Artery, Two Arteries with Four or More Drug-eluting Intraluminal Devices, Open Approach	02UL3KZ	Supplement Left Ventricle with Nonautologous Tissue Substitute, Percutaneous Approach
02UJ3KG	Supplement Tricuspid Valve created from Right Atrioventricular Valve with Nonautologous Tissue Substitute,	02UL4KZ	Supplement Left Ventricle with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
02UJ3KZ	Percutaneous Approach Supplement Tricuspid Valve with Nonautologous Tissue Substitute,	02710D6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Intraluminal Device, Percutaneous Approach
02UJ47G	Percutaneous Approach Supplement Tricuspid Valve created from Right Atrioventricular Valve with	0271346	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach
00111477	Autologous Tissue Substitute, Percutaneous Endoscopic Approach	0271356	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Two Drug-eluting
02UJ47Z	Supplement Tricuspid Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	0271366	Intraluminal Devices, Percutaneous Approach Dilation of Coronary Artery, Two Arteries,
02UJ48G	Supplement Tricuspid Valve created from Right Atrioventricular Valve with Zooplastic Tissue, Percutaneous Endoscopic Approach	0271300	Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Approach
02UJ48Z	Supplement Tricuspid Valve with Zooplastic Tissue, Percutaneous Endoscopic Approach	0271376	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Drug-eluting
02UJ4JG	Supplement Tricuspid Valve created from Right Atrioventricular Valve with Synthetic Substitute, Percutaneous Endoscopic	02710E6	Intraluminal Devices, Percutaneous Approach Dilation of Coronary Artery, Two Arteries,
02UJ4JZ	Approach Supplement Tricuspid Valve with Synthetic		Bifurcation, with Two Intraluminal Devices Open Approach
	Substitute, Percutaneous Endoscopic Approach	02710DZ	Dilation of Coronary Artery, Two Arteries with Intraluminal Device, Percutaneous Approach
02UJ4KG	Supplement Tricuspid Valve created from Right Atrioventricular Valve with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02710EZ	Dilation of Coronary Artery, Two Arteries with Two Intraluminal Devices, Open Approach
02UJ4KZ	Supplement Tricuspid Valve with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02710F6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Three Intraluminal Devices, Open Approach
)2UK0KZ	Supplement Right Ventricle with Nonautologous Tissue Substitute, Open Approach	02710FZ	Dilation of Coronary Artery, Two Arteries with Three Intraluminal Devices, Open Approach
02UK3KZ	Supplement Right Ventricle with Nonautologous Tissue Substitute, Percutaneous Approach	02710G6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Intraluminal Devices, Open Approach
)2UK4KZ	Supplement Right Ventricle with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	02710GZ	Dilation of Coronary Artery, Two Arteries with Four or More Intraluminal Devices, Open Approach
)2UL0KZ	Supplement Left Ventricle with Nonautologous Tissue Substitute, Open Approach	02710T6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Approach

#### ICD-10 ICD-10 Label Label 02W50JZ Revision of Synthetic Substitute in Atrial 02710TZ Dilation of Coronary Artery, Two Arteries with Radioactive Intraluminal Device, Septum, Open Approach Percutaneous Approach 02W54JZ Revision of Synthetic Substitute in Atrial 02710Z6 Dilation of Coronary Artery, Two Arteries, Septum, Percutaneous Endoscopic Approach Bifurcation, Percutaneous Approach Revision of Synthetic Substitute in Heart, 02WA0JZ Open Approach 02710ZZ Dilation of Coronary Artery, Two Arteries, Percutaneous Approach Revision of Cardiac Lead in Heart, Open 02WA0MZ Approach 027134Z Dilation of Coronary Artery, Two Arteries with Drug-eluting Intraluminal Device, 02WA0NZ Revision of Intracardiac Pacemaker in Heart, Percutaneous Endoscopic Approach Open Approach 027135Z Dilation of Coronary Artery, Two Arteries 02WA0QZ Revision of Implantable Heart Assist System with Two Drug-eluting Intraluminal Devices, in Heart, Open Approach Percutaneous Approach 02WA0RZ Revision of External Heart Assist System in 027136Z Dilation of Coronary Artery, Two Arteries Heart, Open Approach with Three Drug-eluting Intraluminal Dilation of Coronary Artery, Two Arteries 027137Z Devices, Percutaneous Approach with Four or More Drug-eluting Intraluminal Supplement Ventricular Septum with 02UM07Z Devices, Percutaneous Approach Autologous Tissue Substitute, Open 0271446 Dilation of Coronary Artery, Three Arteries, Approach Bifurcation, with Drug-eluting Intraluminal Device, Open Approach 02UM0JZ Supplement Ventricular Septum with Synthetic Substitute, Open Approach 0271456 Dilation of Coronary Artery, Two Arteries, Bifurcation, with Two Drug-eluting 02UM0KZ Supplement Ventricular Septum with Nonautologous Tissue Substitute, Open Intraluminal Devices, Percutaneous Endoscopic Approach Approach 0271466 Dilation of Coronary Artery, Two Arteries, 02UM37Z Supplement Ventricular Septum with Bifurcation, with Three Drug-eluting Autologous Tissue Substitute, Percutaneous Intraluminal Devices, Percutaneous Approach Endoscopic Approach Supplement Ventricular Septum with 02UM38Z 02713E6 Dilation of Coronary Artery, Two Arteries, Zooplastic Tissue, Percutaneous Approach Bifurcation, with Two Intraluminal Devices, 02UM3JZ Supplement Ventricular Septum with Percutaneous Approach Synthetic Substitute, Percutaneous Approach 02713D6 Dilation of Coronary Artery, Two Arteries, Supplement Ventricular Septum with 02UM3KZ Bifurcation, with Intraluminal Device, Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach Percutaneous Approach 02713DZ Dilation of Coronary Artery, Two Arteries 02UM47Z Supplement Ventricular Septum with with Intraluminal Device, Percutaneous Autologous Tissue Substitute, Percutaneous Endoscopic Approach Endoscopic Approach 02713EZ Dilation of Coronary Artery, Two Arteries Supplement Ventricular Septum with 02UM48Z with Two Intraluminal Devices, Zooplastic Tissue, Percutaneous Endoscopic Percutaneous Approach Approach Dilation of Coronary Artery, Two Arteries, 02713F6 02UM4JZ Supplement Ventricular Septum with Bifurcation, with Three Intraluminal Synthetic Substitute, Percutaneous Devices, Percutaneous Approach Endoscopic Approach 02713FZ Dilation of Coronary Artery, Two Arteries 02UM4KZ Supplement Ventricular Septum with with Three Intraluminal Devices, Nonautologous Tissue Substitute, Percutaneous Approach Percutaneous Endoscopic Approach 02713G6 Dilation of Coronary Artery, Two Arteries, 02VR0ZT Restriction of Ductus Arteriosus, Open Bifurcation, with Four or More Intraluminal Approach Devices, Percutaneous Approach

#### Table 13 (continued)ICD-10 Procedure Codes for CHF Exclusion Criteria

ICD 10	I ok -1	ICD 10	T -1 -1
ICD-10	Label	ICD-10	Label
02713GZ	Dilation of Coronary Artery, Two Arteries with Four or More Intraluminal Devices,	02WF4JZ	Revision of Synthetic Substitute in Aortic Valve, Percutaneous Endoscopic Approach
02713T6	Percutaneous Approach Dilation of Coronary Artery, Two Arteries, Bifurcation, with Radioactive Intraluminal	02WF4KZ	Revision of Nonautologous Tissue Substitute in Aortic Valve, Percutaneous Endoscopic Approach
02713TZ	Device, Percutaneous Endoscopic Approach Dilation of Coronary Artery, Two Arteries	02WG07Z	Revision of Autologous Tissue Substitute in Mitral Valve, Open Approach
	with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	02WG08Z	Revision of Zooplastic Tissue in Mitral Valve, Open Approach
02713Z6	Dilation of Coronary Artery, Two Arteries, Bifurcation, Percutaneous Endoscopic Approach	02WG0JZ	Revision of Synthetic Substitute in Mitral Valve, Open Approach
02713ZZ	Dilation of Coronary Artery, Two Arteries, Percutaneous Endoscopic Approach	027146Z	Dilation of Coronary Artery, Two Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach
027144Z	Dilation of Coronary Artery, Three Arteries with Drug-eluting Intraluminal Device, Open Approach	0271476	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous
027145Z	Dilation of Coronary Artery, Two Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	0272046	Endoscopic Approach Dilation of Coronary Artery, Three Arteries, Bifurcation, with Drug-eluting Intraluminal
02WA3MZ	Revision of Cardiac Lead in Heart, Percutaneous Approach	0272056	Device, Percutaneous Approach
02WA3QZ	Revision of Implantable Heart Assist System in Heart, Percutaneous Approach	0272030	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Open Approach
02WA3RZ	Revision of External Heart Assist System in Heart, Percutaneous Approach	02714E6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Endoscopic Approach
02WA4MZ	Revision of Cardiac Lead in Heart, Percutaneous Endoscopic Approach	027147Z	Dilation of Coronary Artery, Two Arteries
02WA4NZ	Revision of Intracardiac Pacemaker in Heart, Percutaneous Endoscopic Approach		with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach
02WA4QZ	Revision of Implantable Heart Assist System in Heart, Percutaneous Endoscopic Approach	02714D6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Intraluminal Device, Open Approach
02WA4RZ	Revision of External Heart Assist System in Heart, Percutaneous Endoscopic Approach	02714DZ	Dilation of Coronary Artery, Three Arteries with Intraluminal Device, Open Approach
02WF07Z	Revision of Autologous Tissue Substitute in Aortic Valve, Open Approach	02714EZ	Dilation of Coronary Artery, Two Arteries with Two Intraluminal Devices,
02WF08Z	Revision of Zooplastic Tissue in Aortic Valve, Open Approach	02714EC	Percutaneous Endoscopic Approach
02WF0JZ	Revision of Synthetic Substitute in Aortic Valve, Open Approach	02714F6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Endoscopic Approach
02WF0KZ	Revision of Nonautologous Tissue Substitute in Aortic Valve, Open Approach	02714FZ	Dilation of Coronary Artery, Two Arteries with Three Intraluminal Devices,
02WF47Z	Revision of Autologous Tissue Substitute in Aortic Valve, Percutaneous Endoscopic Approach	02714G6	Percutaneous Endoscopic Approach Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Intraluminal
02WF48Z	Revision of Zooplastic Tissue in Aortic Valve, Percutaneous Endoscopic Approach		Devices, Percutaneous Endoscopic Approach (continued)

ICD-10	Label	ICD-10	Label
02714GZ	Dilation of Coronary Artery, Two Arteries with Four or More Intraluminal Devices,	02WJ07Z	Revision of Autologous Tissue Substitute in Tricuspid Valve, Open Approach
02714T6	Percutaneous Endoscopic Approach Dilation of Coronary Artery, Three Arteries,	02WJ08Z	Revision of Zooplastic Tissue in Tricuspid Valve, Open Approach
	Bifurcation, with Radioactive Intraluminal Device, Open Approach	02WJ0JZ	Revision of Synthetic Substitute in Tricuspid Valve, Open Approach
02714TZ	Dilation of Coronary Artery, Three Arteries with Radioactive Intraluminal Device, Open Approach	02WJ0KZ	Revision of Nonautologous Tissue Substitute in Tricuspid Valve, Open Approach
02714Z6	Dilation of Coronary Artery, Three Arteries, Bifurcation, Open Approach	02WJ47Z	Revision of Autologous Tissue Substitute in Tricuspid Valve, Percutaneous Endoscopic Approach
02714ZZ	Dilation of Coronary Artery, Three Arteries, Open Approach	027205Z	Dilation of Coronary Artery, Three Arteries with Two Drug-eluting Intraluminal Devices,
027204Z	Dilation of Coronary Artery, Three Arteries with Drug-eluting Intraluminal Device,		Open Approach
02WG0KZ	Percutaneous Approach Revision of Nonautologous Tissue Substitute	0272066	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Open Approach
02 II COILE	in Mitral Valve, Open Approach	0272076	Dilation of Coronary Artery, Three Arteries,
02WG47Z	Revision of Autologous Tissue Substitute in Mitral Valve, Percutaneous Endoscopic		Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Open Approach
02WG48Z	Approach Revision of Zooplastic Tissue in Mitral Valve, Percutaneous Endoscopic Approach	02720E6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Intraluminal Devices, Open Approach
02WG4JZ	Revision of Synthetic Substitute in Mitral Valve, Percutaneous Endoscopic Approach	027206Z	Dilation of Coronary Artery, Three Arteries with Three Drug-eluting Intraluminal
02WG4KZ	Revision of Nonautologous Tissue Substitute in Mitral Valve, Percutaneous Endoscopic Approach	027207Z	Devices, Open Approach Dilation of Coronary Artery, Three Arteries with Four or More Drug-eluting Intraluminal
02WH07Z	Revision of Autologous Tissue Substitute in Pulmonary Valve, Open Approach	02720D6	Devices, Open Approach Dilation of Coronary Artery, Three Arteries,
02WH08Z	Revision of Zooplastic Tissue in Pulmonary Valve, Open Approach	0272000	Bifurcation, with Intraluminal Device, Percutaneous Approach
02WH0JZ	Revision of Synthetic Substitute in Pulmonary Valve, Open Approach	02720DZ	Dilation of Coronary Artery, Three Arteries with Intraluminal Device, Percutaneous Approach
02WH0KZ	Revision of Nonautologous Tissue Substitute in Pulmonary Valve, Open Approach	02720EZ	Dilation of Coronary Artery, Three Arteries with Two Intraluminal Devices, Open
02WH47Z	Revision of Autologous Tissue Substitute in Pulmonary Valve, Percutaneous Endoscopic		Approach
	Approach	02720F6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Intraluminal
02WH48Z	Revision of Zooplastic Tissue in Pulmonary Valve, Percutaneous Endoscopic Approach		Devices, Open Approach
02WH4JZ	Revision of Synthetic Substitute in Pulmonary Valve, Percutaneous Endoscopic	02720FZ	Dilation of Coronary Artery, Three Arteries with Three Intraluminal Devices, Open Approach
02WH4KZ	Approach Revision of Nonautologous Tissue Substitute in Pulmonary Valve, Percutaneous Endoscopic Approach	02720G6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Intraluminal Devices, Open Approach (continued

ICD-10	Label	ICD-10	Label
02720GZ	Dilation of Coronary Artery, Three Arteries with Four or More Intraluminal Devices, Open Approach	0JH608Z	Insertion of Defibrillator Generator into Chest Subcutaneous Tissue and Fascia, Open Approach
02720T6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Approach	0JH609Z	Insertion of Cardiac Resynchronization Defibrillator Pulse Generator into Chest Subcutaneous Tissue and Fascia, Open
02720TZ	Dilation of Coronary Artery, Three Arteries with Radioactive Intraluminal Device, Percutaneous Approach	0JH60AZ	Approach Insertion of Contractility Modulation Device into Chest Subcutaneous Tissue and Fascia,
02720Z6	Dilation of Coronary Artery, Three Arteries, Bifurcation, Percutaneous Approach	0JH60PZ	Open Approach Insertion of Cardiac Rhythm Related Device
02720ZZ	Dilation of Coronary Artery, Three Arteries, Percutaneous Approach		into Chest Subcutaneous Tissue and Fascia, Open Approach
02WJ48Z	Revision of Zooplastic Tissue in Tricuspid Valve, Percutaneous Endoscopic Approach	0272346	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach
02WJ4JZ	Revision of Synthetic Substitute in Tricuspid Valve, Percutaneous Endoscopic Approach	0272356	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Drug-eluting
02WJ4KZ	Revision of Nonautologous Tissue Substitute in Tricuspid Valve, Percutaneous Endoscopic Approach		Intraluminal Devices, Percutaneous Approach
02WM0JZ	Revision of Synthetic Substitute in Ventricular Septum, Open Approach	0272366	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous
02WM4JZ	Revision of Synthetic Substitute in Ventricular Septum, Percutaneous Endoscopic Approach	0272376	Approach Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Drug-eluting
02YA0Z0	Transplantation of Heart, Allogeneic, Open Approach		Intraluminal Devices, Percutaneous Approach
02YA0Z1	Transplantation of Heart, Syngeneic, Open Approach	02723E6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Approach
02YA0Z2	Transplantation of Heart, Zooplastic, Open Approach	027234Z	Dilation of Coronary Artery, Three Arteries with Drug-eluting Intraluminal Device,
0JH600Z	Insertion of Hemodynamic Monitoring Device into Chest Subcutaneous Tissue and Fascia, Open Approach	027235Z	Percutaneous Endoscopic Approach Dilation of Coronary Artery, Three Arteries with Two Drug-eluting Intraluminal Devices,
0JH604Z	Insertion of Pacemaker, Single Chamber into Chest Subcutaneous Tissue and Fascia, Open	027236Z	Percutaneous Approach Dilation of Coronary Artery, Three Arteries
0JH605Z	Approach Insertion of Pacemaker, Single Chamber		with Three Drug-eluting Intraluminal Devices, Percutaneous Approach
	Rate Responsive into Chest Subcutaneous Tissue and Fascia, Open Approach	027237Z	Dilation of Coronary Artery, Three Arteries with Four or More Drug-eluting Intraluminal
0JH606Z	Insertion of Pacemaker, Dual Chamber into Chest Subcutaneous Tissue and Fascia, Open Approach	02723D6	Devices, Percutaneous Approach Dilation of Coronary Artery, Three Arteries, Bifurgation, with Introluminal Daviso
0JH607Z	Approach Insertion of Cardiac Resynchronization Pacemaker Pulse Generator into Chest Subcutaneous Tissue and Fascia, Open Approach	02723DZ	Bifurcation, with Intraluminal Device, Percutaneous Endoscopic Approach
			Dilation of Coronary Artery, Three Arteries with Intraluminal Device, Percutaneous Endoscopic Approach

ICD-10	Label	ICD-10	Label
02723EZ	Dilation of Coronary Artery, Three Arteries with Two Intraluminal Devices, Percutaneous Approach	0JH805Z	Insertion of Pacemaker, Single Chamber Rate Responsive into Abdomen Subcutaneous Tissue and Fascia, Open Approach
02723F6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Approach	0JH806Z	Approach Insertion of Pacemaker, Dual Chamber into Abdomen Subcutaneous Tissue and Fascia, Open Approach
02723FZ	Dilation of Coronary Artery, Three Arteries with Three Intraluminal Devices, Percutaneous Approach	0JH807Z	Insertion of Cardiac Resynchronization Pacemaker Pulse Generator into Abdomen
02723G6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Approach	0JH808Z	Subcutaneous Tissue and Fascia, Open Approach Insertion of Defibrillator Generator into
02723GZ	Dilation of Coronary Artery, Three Arteries with Four or More Intraluminal Devices,		Abdomen Subcutaneous Tissue and Fascia, Open Approach
0JH630Z	Percutaneous Approach Insertion of Hemodynamic Monitoring Device into Chest Subcutaneous Tissue and Fascia, Percutaneous Approach	0JH809Z	Insertion of Cardiac Resynchronization Defibrillator Pulse Generator into Abdomen Subcutaneous Tissue and Fascia, Open Approach
0JH634Z	Insertion of Pacemaker, Single Chamber into Chest Subcutaneous Tissue and Fascia, Percutaneous Approach	02723T6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach
0JH635Z	Insertion of Pacemaker, Single Chamber Rate Responsive into Chest Subcutaneous Tissue and Fascia, Percutaneous Approach	0272446	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Open Approach
0JH636Z	Insertion of Pacemaker, Dual Chamber into Chest Subcutaneous Tissue and Fascia, Percutaneous Approach	0272456	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach
0JH637Z	Insertion of Cardiac Resynchronization Pacemaker Pulse Generator into Chest Subcutaneous Tissue and Fascia, Percutaneous Approach	0272466	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach
0JH638Z	Insertion of Defibrillator Generator into Chest Subcutaneous Tissue and Fascia, Percutaneous Approach	0272476	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous
0JH639Z	Insertion of Cardiac Resynchronization Defibrillator Pulse Generator into Chest Subcutaneous Tissue and Fascia, Percutaneous Approach	02724E6	Endoscopic Approach Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Endoscopic Approach
0JH63AZ	Insertion of Contractility Modulation Device into Chest Subcutaneous Tissue and Fascia, Percutaneous Approach	02723TZ	Dilation of Coronary Artery, Three Arteries with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach
0JH63PZ	Insertion of Cardiac Rhythm Related Device into Chest Subcutaneous Tissue and Fascia, Percutaneous Approach	02723Z6	Dilation of Coronary Artery, Three Arteries, Bifurcation, Percutaneous Endoscopic
0JH800Z	Insertion of Hemodynamic Monitoring Device into Abdomen Subcutaneous Tissue and Fascia, Open Approach	02723ZZ	Approach Dilation of Coronary Artery, Three Arteries, Percutaneous Endoscopic Approach
0JH804Z	Insertion of Pacemaker, Single Chamber into Abdomen Subcutaneous Tissue and Fascia,		(continued)

Open Approach

ICD-10	Label	ICD-10	Label
027244Z	Dilation of Coronary Artery, Four or More Arteries with Drug-eluting Intraluminal Device, Open Approach	0JH839Z	Insertion of Cardiac Resynchronization Defibrillator Pulse Generator into Abdomen Subcutaneous Tissue and Fascia, Percutaneous Approach
027245Z	Dilation of Coronary Artery, Three Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	0JH83AZ	Insertion of Contractility Modulation Device into Abdomen Subcutaneous Tissue and Fascia, Percutaneous Approach
027246Z	Dilation of Coronary Artery, Three Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	0JH83PZ	Insertion of Cardiac Rhythm Related Device into Abdomen Subcutaneous Tissue and
027247Z	Dilation of Coronary Artery, Three Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	0JPT0PZ	Fascia, Percutaneous Approach Removal of Cardiac Rhythm Related Device from Trunk Subcutaneous Tissue and Fascia,
02724D6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Intraluminal Device, Open Approach	0JPT3PZ	Open Approach Removal of Cardiac Rhythm Related Device from Trunk Subcutaneous Tissue and Fascia,
02724DZ	Dilation of Coronary Artery, Four or More Arteries with Intraluminal Device, Open Approach	0JWT0PZ	Percutaneous Approach Revision of Cardiac Rhythm Related Device in Trunk Subcutaneous Tissue and Fascia,
02724EZ	Dilation of Coronary Artery, Three Arteries with Two Intraluminal Devices, Percutaneous Endoscopic Approach	0JWT3PZ	Open Approach Revision of Cardiac Rhythm Related Device in Trunk Subcutaneous Tissue and Fascia,
02724F6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Endoscopic Approach	0W9D00Z	Percutaneous Approach Drainage of Pericardial Cavity with Drainage Device, Open Approach
0JH80AZ	Insertion of Contractility Modulation Device into Abdomen Subcutaneous Tissue and	0W9D0ZX	Drainage of Pericardial Cavity, Open Approach, Diagnostic
0JH80PZ	Fascia, Open Approach Insertion of Cardiac Rhythm Related Device into Abdomen Subcutaneous Tissue and	02724FZ	Dilation of Coronary Artery, Three Arteries with Three Intraluminal Devices, Percutaneous Endoscopic Approach
0JH830Z	Fascia, Open Approach Insertion of Hemodynamic Monitoring Device into Abdomen Subcutaneous Tissue	0273046	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Approach
0JH834Z	and Fascia, Percutaneous Approach Insertion of Pacemaker, Single Chamber into Abdomen Subcutaneous Tissue and Fascia,	0273056	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Open Approach
0JH835Z	Percutaneous Approach Insertion of Pacemaker, Single Chamber Rate Responsive into Abdomen	0273066	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Three Drug- eluting Intraluminal Devices, Open Approach
	Subcutaneous Tissue and Fascia, Percutaneous Approach	0273076	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More
0JH836Z	Insertion of Pacemaker, Dual Chamber into Abdomen Subcutaneous Tissue and Fascia, Percutaneous Approach	0272054	Drug-eluting Intraluminal Devices, Open Approach
0JH837Z	Insertion of Cardiac Resynchronization Pacemaker Pulse Generator into Abdomen	02730E6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Two Intraluminal Devices, Open Approach
0JH838Z	Subcutaneous Tissue and Fascia, Percutaneous Approach Insertion of Defibrillator Generator into	02724G6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach
5 <b>311</b> 030Z	Abdomen Subcutaneous Tissue and Fascia, Percutaneous Approach		(continued)

ICD-10	Label	ICD-10	Label
02724GZ	Dilation of Coronary Artery, Three Arteries with Four or More Intraluminal Devices,	0WCD3ZZ	Extirpation of Matter from Pericardial Cavity, Percutaneous Approach
02724T6	Percutaneous Endoscopic Approach Dilation of Coronary Artery, Four or More	0WCD4ZZ	Extirpation of Matter from Pericardial Cavity, Percutaneous Endoscopic Approach
	Arteries, Bifurcation, with Radioactive Intraluminal Device, Open Approach	0WFD0ZZ	Fragmentation in Pericardial Cavity, Open Approach
02724TZ	Dilation of Coronary Artery, Four or More Arteries with Radioactive Intraluminal Device, Open Approach	0WFD3ZZ	Fragmentation in Pericardial Cavity, Percutaneous Approach
02724Z6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, Open Approach	0WFD4ZZ	Fragmentation in Pericardial Cavity, Percutaneous Endoscopic Approach
02724ZZ	Dilation of Coronary Artery, Four or More Arteries, Open Approach	0WFDXZZ	Fragmentation in Pericardial Cavity, External Approach
027304Z	Dilation of Coronary Artery, Four or More Arteries with Drug-eluting Intraluminal	0WHD03Z	Insertion of Infusion Device into Pericardial Cavity, Open Approach
0072057	Device, Percutaneous Approach	0WHD0YZ	Insertion of Other Device into Pericardial Cavity, Open Approach
027305Z	Dilation of Coronary Artery, Four or More Arteries with Two Drug-eluting Intraluminal Devices, Open Approach	0WHD33Z	Insertion of Infusion Device into Pericardial Cavity, Percutaneous Approach
027306Z	Dilation of Coronary Artery, Four or More Arteries with Three Drug-eluting	0WHD3YZ	Insertion of Other Device into Pericardial Cavity, Percutaneous Approach
027307Z	Intraluminal Devices, Open Approach Dilation of Coronary Artery, Four or More Arteries with Four or More Drug-eluting	02730EZ	Dilation of Coronary Artery, Four or More Arteries with Two Intraluminal Devices, Open Approach
	Intraluminal Devices, Open Approach	0273346	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Drug-eluting
02730D6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Intraluminal Device, Percutaneous Approach	0070056	Intraluminal Device, Percutaneous Approach
02730DZ	Dilation of Coronary Artery, Four or More Arteries with Intraluminal Device, Percutaneous Approach	0273356	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Approach
0W9D0ZZ	Drainage of Pericardial Cavity, Open Approach	0273366	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Three Drug-
0W9D30Z	Drainage of Pericardial Cavity with Drainage Device, Percutaneous Approach		eluting Intraluminal Devices, Percutaneous Approach
0W9D3ZX	Drainage of Pericardial Cavity, Percutaneous Approach, Diagnostic	0273376	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices,
0W9D3ZZ	Drainage of Pericardial Cavity, Percutaneous Approach	02730F6	Percutaneous Approach
0W9D40Z	Drainage of Pericardial Cavity with Drainage Device, Percutaneous Endoscopic Approach	02730F0	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Three Intraluminal Devices, Open Approach
0W9D4ZX	Drainage of Pericardial Cavity, Percutaneous Endoscopic Approach, Diagnostic	02730FZ	Dilation of Coronary Artery, Four or More Arteries with Three Intraluminal Devices,
0W9D4ZZ	Drainage of Pericardial Cavity, Percutaneous Endoscopic Approach	02730G6	Open Approach Dilation of Coronary Artery, Four or More
0WCD0ZZ	Extirpation of Matter from Pericardial Cavity, Open Approach		Arteries, Bifurcation, with Four or More Intraluminal Devices, Open Approach (continued)

ICD-10	Label	ICD-10	Label
02730GZ	Dilation of Coronary Artery, Four or More Arteries with Four or More Intraluminal	0WPD3YZ	Removal of Other Device from Pericardial Cavity, Percutaneous Approach
02730T6	Devices, Open Approach Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Radioactive	0WPD40Z	Removal of Drainage Device from Pericardial Cavity, Percutaneous Endoscopic Approach
02730TZ	Intraluminal Device, Open Approach Dilation of Coronary Artery, Four or More Arteries with Radioactive Intraluminal	0WPD41Z	Removal of Radioactive Element from Pericardial Cavity, Percutaneous Endoscopic Approach
02730Z6	Device, Open Approach Dilation of Coronary Artery, Four or More	0WPD43Z	Removal of Infusion Device from Pericardial Cavity, Percutaneous Endoscopic Approach
02730ZZ	Arteries, Bifurcation, Open Approach Dilation of Coronary Artery, Four or More	0WPD4YZ	Removal of Other Device from Pericardial Cavity, Percutaneous Endoscopic Approach
027334Z	Arteries, Open Approach Dilation of Coronary Artery, Four or More	0WWD00Z	Revision of Drainage Device in Pericardial Cavity, Open Approach
02/00/12	Arteries with Drug-eluting Intraluminal Device, Percutaneous Approach	0WWD01Z	Revision of Radioactive Element in Pericardial Cavity, Open Approach
027335Z	Dilation of Coronary Artery, Four or More Arteries with Two Drug-eluting Intraluminal	0WWD03Z	Revision of Infusion Device in Pericardial Cavity, Open Approach
027336Z	Devices, Percutaneous Approach Dilation of Coronary Artery, Four or More	0WWD0YZ	Revision of Other Device in Pericardial Cavity, Open Approach
	Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	02733DZ	Dilation of Coronary Artery, Four or More Arteries with Intraluminal Device, Percutaneous Approach
027337Z	Dilation of Coronary Artery, Four or More Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	0273446	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach
02733D6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Intraluminal Device, Percutaneous Approach	0273456	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous
0WHD43Z	Insertion of Infusion Device into Pericardial Cavity, Percutaneous Endoscopic Approach	0050466	Endoscopic Approach
0WHD4YZ	Insertion of Other Device into Pericardial Cavity, Percutaneous Endoscopic Approach	0273466	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Three Drug- eluting Intraluminal Devices, Percutaneous
0WPD00Z	Removal of Drainage Device from Pericardial Cavity, Open Approach	02733E6	Endoscopic Approach Dilation of Coronary Artery, Four or More
0WPD01Z	Removal of Radioactive Element from Pericardial Cavity, Open Approach		Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Approach
0WPD03Z	Removal of Infusion Device from Pericardial Cavity, Open Approach	02733EZ	Dilation of Coronary Artery, Four or More Arteries with Two Intraluminal Devices,
0WPD0YZ	Removal of Other Device from Pericardial Cavity, Open Approach	02733F6	Percutaneous Approach Dilation of Coronary Artery, Four or More
0WPD30Z	Removal of Drainage Device from Pericardial Cavity, Percutaneous Approach		Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Approach
0WPD31Z	Removal of Radioactive Element from Pericardial Cavity, Percutaneous Approach	02733FZ	Dilation of Coronary Artery, Four or More Arteries with Three Intraluminal Devices,
0WPD33Z	Removal of Infusion Device from Pericardial Cavity, Percutaneous Approach		Percutaneous Approach (continued

ICD-10	Label	ICD-10	Label
02733G6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous	30230G3	Transfusion of Allogeneic Unrelated Bone Marrow into Peripheral Vein, Open Approach
02733GZ	Approach Dilation of Coronary Artery, Four or More Arteries with Four or More Intraluminal	30230G4	Transfusion of Allogeneic Unspecified Bone Marrow into Peripheral Vein, Open Approach
02733T6	Devices, Percutaneous Approach Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Radioactive	30230X2	Transfusion of Allogeneic Related Cord Blood Stem Cells into Peripheral Vein, Open Approach
02733TZ	Intraluminal Device, Percutaneous Approach Dilation of Coronary Artery, Four or More Arteries with Radioactive Intraluminal	30230X3	Transfusion of Allogeneic Unrelated Cord Blood Stem Cells into Peripheral Vein, Open Approach
02733Z6	Device, Percutaneous Approach Dilation of Coronary Artery, Four or More Arteries, Bifurcation, Percutaneous Approach	30230X4	Transfusion of Allogeneic Unspecified Cord Blood Stem Cells into Peripheral Vein, Open Approach
02733ZZ	Dilation of Coronary Artery, Four or More Arteries, Percutaneous Approach	30230Y2	Transfusion of Allogeneic Related Hematopoietic Stem Cells into Peripheral Vein, Open Approach
027344Z	Dilation of Coronary Artery, Four or More Arteries with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	30230Y3	Transfusion of Allogeneic Unrelated Hematopoietic Stem Cells into Peripheral
027345Z	Dilation of Coronary Artery, Four or More Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	30230Y4	Vein, Open Approach Transfusion of Allogeneic Unspecified Hematopoietic Stem Cells into Peripheral
027346Z	Dilation of Coronary Artery, Four or More Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	0273476	Vein, Open Approach Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices,
0WWD30Z	Revision of Drainage Device in Pericardial Cavity, Percutaneous Approach	02734E6	Percutaneous Endoscopic Approach Dilation of Coronary Artery, Four or More
0WWD31Z	Revision of Radioactive Element in Pericardial Cavity, Percutaneous Approach		Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Endoscopic Approach
0WWD33Z	Revision of Infusion Device in Pericardial Cavity, Percutaneous Approach	027347Z	Dilation of Coronary Artery, Four or More Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous
0WWD3YZ	Revision of Other Device in Pericardial Cavity, Percutaneous Approach	02734D6	Endoscopic Approach Dilation of Coronary Artery, Four or More
0WWD40Z	Revision of Drainage Device in Pericardial Cavity, Percutaneous Endoscopic Approach		Arteries, Bifurcation, with Intraluminal Device, Percutaneous Endoscopic Approach
0WWD41Z	Revision of Radioactive Element in Pericardial Cavity, Percutaneous Endoscopic Approach	02734DZ	Dilation of Coronary Artery, Four or More Arteries with Intraluminal Device, Percutaneous Endoscopic Approach
0WWD43Z	Revision of Infusion Device in Pericardial Cavity, Percutaneous Endoscopic Approach	02734EZ	Dilation of Coronary Artery, Four or More Arteries with Two Intraluminal Devices,
0WWD4YZ	Revision of Other Device in Pericardial Cavity, Percutaneous Endoscopic Approach	02734F6	Percutaneous Endoscopic Approach Dilation of Coronary Artery, Four or More
30230G2	Transfusion of Allogeneic Related Bone Marrow into Peripheral Vein, Open Approach		Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Endoscopic Approach (continued)

ICD-10	Label	ICD-10	Label
02734FZ	Dilation of Coronary Artery, Four or More Arteries with Three Intraluminal Devices, Percutaneous Endoscopic Approach	30233Y3	Transfusion of Allogeneic Unrelated Hematopoietic Stem Cells into Peripheral Vein, Percutaneous Approach
02734G6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous	30233Y4	Transfusion of Allogeneic Unspecified Hematopoietic Stem Cells into Peripheral Vein, Percutaneous Approach
02734GZ	Endoscopic Approach Dilation of Coronary Artery, Four or More	30240G2	Transfusion of Allogeneic Related Bone Marrow into Central Vein, Open Approach
	Arteries with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	30240G3	Transfusion of Allogeneic Unrelated Bone Marrow into Central Vein, Open Approach
02734T6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous	30240G4 30240X2	Transfusion of Allogeneic Unspecified Bone Marrow into Central Vein, Open Approach Transfusion of Allogeneic Related Cord
02734TZ	Endoscopic Approach Dilation of Coronary Artery, Four or More Arteries with Radioactive Intraluminal	30240A2	Blood Stem Cells into Central Vein, Open Approach
02734Z6	Device, Percutaneous Endoscopic Approach Dilation of Coronary Artery, Four or More	30240X3	Transfusion of Allogeneic Unrelated Cord Blood Stem Cells into Central Vein, Open
0273420	Arteries, Bifurcation, Percutaneous Endoscopic Approach	30240X4	Approach Transfusion of Allogeneic Unspecified Cord
02734ZZ	Dilation of Coronary Artery, Four or More Arteries, Percutaneous Endoscopic Approach		Blood Stem Cells into Central Vein, Open Approach
027F04Z	Dilation of Aortic Valve with Drug-eluting Intraluminal Device, Open Approach	30240Y2	Transfusion of Allogeneic Related Hematopoietic Stem Cells into Central Vein, Open Approach
027F0DZ	Dilation of Aortic Valve with Intraluminal Device, Open Approach	027F0ZZ	Dilation of Aortic Valve, Open Approach
30233G2	Transfusion of Allogeneic Related Bone Marrow into Peripheral Vein, Percutaneous	027F34Z	Dilation of Aortic Valve with Drug-eluting Intraluminal Device, Percutaneous Approach
2022222	Approach	027F3DZ	Dilation of Aortic Valve with Intraluminal Device, Percutaneous Approach
30233G3	Transfusion of Allogeneic Unrelated Bone Marrow into Peripheral Vein, Percutaneous Approach	027F3ZZ	Dilation of Aortic Valve, Percutaneous Approach
30233G4	Transfusion of Allogeneic Unspecified Bone Marrow into Peripheral Vein, Percutaneous Approach	027F44Z	Dilation of Aortic Valve with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach
30233X2	Transfusion of Allogeneic Related Cord Blood Stem Cells into Peripheral Vein,	027F4DZ	Dilation of Aortic Valve with Intraluminal Device, Percutaneous Endoscopic Approach
30233X3	Percutaneous Approach Transfusion of Allogeneic Unrelated Cord	027F4ZZ	Dilation of Aortic Valve, Percutaneous Endoscopic Approach
5525585	Blood Stem Cells into Peripheral Vein, Percutaneous Approach	027G04Z	Dilation of Mitral Valve with Drug-eluting Intraluminal Device, Open Approach
30233X4	Transfusion of Allogeneic Unspecified Cord Blood Stem Cells into Peripheral Vein,	027G0DZ	Dilation of Mitral Valve with Intraluminal Device, Open Approach
2022222	Percutaneous Approach	027G0ZZ	Dilation of Mitral Valve, Open Approach
30233Y2	Transfusion of Allogeneic Related Hematopoietic Stem Cells into Peripheral Vein, Percutaneous Approach	027G34Z	Dilation of Mitral Valve with Drug-eluting Intraluminal Device, Percutaneous Approach

ICD-10	Label	ICD-10	Label
027G3DZ	Dilation of Mitral Valve with Intraluminal Device, Percutaneous Approach	30243Y2	Transfusion of Allogeneic Related Hematopoietic Stem Cells into Central Vein,
027G3ZZ	Dilation of Mitral Valve, Percutaneous Approach	30243Y3	Percutaneous Approach Transfusion of Allogeneic Unrelated Hematopoietic Stem Cells into Central Vein,
027G44Z	Dilation of Mitral Valve with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	30243Y4	Percutaneous Approach Transfusion of Allogeneic Unspecified
027G4DZ	Dilation of Mitral Valve with Intraluminal Device, Percutaneous Endoscopic Approach		Hematopoietic Stem Cells into Central Vein, Percutaneous Approach
027G4ZZ	Dilation of Mitral Valve, Percutaneous Endoscopic Approach	3E07017	Introduction of Other Thrombolytic into Coronary Artery, Open Approach
027H04Z	Dilation of Pulmonary Valve with Drug- eluting Intraluminal Device, Open Approach	3E070PZ	Introduction of Platelet Inhibitor into Coronary Artery, Open Approach
027H0DZ	Dilation of Pulmonary Valve with Intraluminal Device, Open Approach	3E07317	Introduction of Other Thrombolytic into Coronary Artery, Percutaneous Approach
027H0ZZ	Dilation of Pulmonary Valve, Open Approach	3E073PZ	Introduction of Platelet Inhibitor into Coronary Artery, Percutaneous Approach
027H34Z	Dilation of Pulmonary Valve with Drug- eluting Intraluminal Device, Percutaneous	5A02110	Assistance with Cardiac Output using Balloon Pump, Intermittent
00711207	Approach	5A02116	Assistance with Cardiac Output using Other Pump, Intermittent
027H3DZ	Dilation of Pulmonary Valve with Intraluminal Device, Percutaneous Approach	5A02210	Assistance with Cardiac Output using Balloon Pump, Continuous
30240Y3	Transfusion of Allogeneic Unrelated Hematopoietic Stem Cells into Central Vein, Open Approach	5A02216	Assistance with Cardiac Output using Other Pump, Continuous
30240Y4	Transfusion of Allogeneic Unspecified	5A1213Z	Performance of Cardiac Pacing, Intermittent
0021011	Hematopoietic Stem Cells into Central Vein,	5A1223Z	Performance of Cardiac Pacing, Continuous
30243G2	Open Approach Transfusion of Allogeneic Related Bone	027H3ZZ	Dilation of Pulmonary Valve, Percutaneous Approach
5024502	Marrow into Central Vein, Percutaneous Approach	027H44Z	Dilation of Pulmonary Valve with Drug- eluting Intraluminal Device, Percutaneous
30243G3	Transfusion of Allogeneic Unrelated Bone Marrow into Central Vein, Percutaneous Approach	027H4DZ	Endoscopic Approach Dilation of Pulmonary Valve with Intraluminal Device, Percutaneous
30243G4	Transfusion of Allogeneic Unspecified Bone Marrow into Central Vein, Percutaneous Approach	X2RF032	Endoscopic Approach Replacement of Aortic Valve using Zooplastic Tissue, Rapid Deployment
30243X2	Transfusion of Allogeneic Related Cord Blood Stem Cells into Central Vein,		Technique, Open Approach, New Technology Group 2
30243X3	Percutaneous Approach Transfusion of Allogeneic Unrelated Cord Blood Stem Cells into Central Vein, Percutaneous Approach	X2RF332	Replacement of Aortic Valve using Zooplastic Tissue, Rapid Deployment Technique, Percutaneous Approach, New Technology Group 2
30243X4	Transfusion of Allogeneic Unspecified Cord Blood Stem Cells into Central Vein, Percutaneous Approach	X2RF432	Replacement of Aortic Valve using Zooplastic Tissue, Rapid Deployment Technique, Percutaneous Endoscopic Approach, New Technology Group 2

ICD-10	Label	ICD-10	Label
J410	Simple chronic bronchitis	J430	Unilateral pulmonary emphysema
J439	Emphysema, unspecified		[MacLeod's syndrome]
J411	Mucopurulent chronic bronchitis	J470	Bronchiectasis with acute lower respiratory infection
J440	Chronic obstructive pulmonary disease with acute lower respiratory infection	J431	Panlobular emphysema
	1 5	J471	Bronchiectasis with (acute) exacerbation
J418	Mixed simple and mucopurulent chronic bronchitis	J432	Centrilobular emphysema
J441	Chronic obstructive pulmonary disease with	J479	Bronchiectasis, uncomplicated
	(acute) exacerbation	J438	Other emphysema
J42	Unspecified chronic bronchitis		
J449	Chronic obstructive pulmonary disease, unspecified		

# Table 14ICD-10 Diagnosis Codes for COPD

Table 15
ICD-10 Diagnosis Codes for COPD Exclusion Criteria

ICD10	Label	ICD10	Label
E840	Cystic fibrosis with pulmonary	Q312	Laryngeal hypoplasia
	manifestations	Q313	Laryngocele
E8411	Meconium ileus in cystic fibrosis	Q315	Congenital laryngomalacia
E8419	Cystic fibrosis with other intestinal manifestations	Q318	Other congenital malformations of larynx
E848	Cystic fibrosis with other manifestations	Q319	Congenital malformation of larynx, unspecified
E849	Cystic fibrosis, unspecified	Q320	Congenital tracheomalacia
J8483	Surfactant mutations of the lung	Q321	Other congenital malformations of trachea
J84841	Neuroendocrine cell hyperplasia of infancy	Q322	Congenital bronchomalacia
J84842	Pulmonary interstitial glycogenosis	Q323	Congenital stenosis of bronchus
J84843	Alveolar capillary dysplasia with vein	Q324	Other congenital malformations of bronchus
J84848	misalignment	Q330	Congenital cystic lung
	Other interstitial lung diseases of childhood	Q331	Accessory lobe of lung
P270	Wilson-Mikity syndrome	Q332	Sequestration of lung
P271	Bronchopulmonary dysplasia originating in the perinatal period	Q333	Agenesis of lung
P278	Other chronic respiratory diseases originating	Q334	Congenital bronchiectasis
	in the perinatal period	Q335	Ectopic tissue in lung
P279	Unspecified chronic respiratory disease	Q336	Congenital hypoplasia and dysplasia of lung
	originating in the perinatal period	Q338	Other congenital malformations of lung
Q254	Other congenital malformations of aorta	Q339	Congenital malformation of lung, unspecified
Q2545	Double aortic arch	Q340	Anomaly of pleura
Q2547	Right aortic arch	Q341	Congenital cyst of mediastinum
Q2548	Anomalous origin of subclavian artery	<u> </u>	(continued)
Q311	Congenital subglottic stenosis		

ICD10	Label	ICD10	Label
Q348	Other specified congenital malformations of respiratory system	Q393	Congenital stenosis and stricture of esophagus
Q349	Congenital malformation of respiratory	Q394	Esophageal web
	system, unspecified	Q893	Situs inversus
Q390	Atresia of esophagus without fistula	-	
Q391	Atresia of esophagus with tracheo- esophageal fistula		
Q392	Congenital tracheo-esophageal fistula without atresia		

# Table 15 (continued)ICD-10 Diagnosis Codes for COPD Exclusion Criteria