Starting October 1, 2015, CMS will update their existing medical necessity limitations on tests and procedures to correspond to ICD-10 codes. This limitations guide provides you with the latest changes.

This guide is not an all-inclusive list of National Coverage Documents (NCD) and Local Coverage Documents (LCD). You can search by LCD or NCD or keyword and region on the CMS website at: https://www.cms.gov/medicare-coverage-database/overview-and-quick-search.aspx?clickon=search.

CMS will deny payment if the correct diagnosis codes are not entered on the order form, and your patient's test or procedure will not be covered. We compiled this information in one location to make it easier for you to find the proper codes for medically necessary diagnoses.

It is the responsibility of the provider to code to the highest level specified in the ICD-10-CM. The correct use of an ICD-10-CM code listed below does not assure coverage of a service. The service must be reasonable and necessary in the specific case and must meet the criteria specified in this determination.

We will continue to update this list as new CMS limitations are announced. You can always find the most current list at:

www.munsonhealthcare.org/medicalnecessity.

If you have any questions, please contact Kari Smith, Office Coordinator, at (231) 935-2296, or Karen Popa, Director, Patient Access Services, at (231) 935-7493.



(L34637) Transthoracic Echocardiography (TTE)

2D Echo Doppler (93306) 3D Echo (93306) Echo (93306) Echo Dobutamine (93351) Stress Echo (93351)

CPT Code	Description
93303	Transthoracic echocardiography for congenital cardiac anomalies; complete
93304	Transthoracic echocardiography for congenital cardiac anomalies; follow-up or limited study
93306	Echocardiography, transthoracic, real-time with image documentation (2d), includes m-mode recording, when performed, complete, with spectral doppler echocardiography, and with color flow doppler echocardiography (2D Echo Doppler) (3D Echo) (Echo)
93307	Echocardiography, transthoracic, real-time with image documentation (2d), includes m-mode recording, when performed, complete, without spectral or color doppler echocardiography
93308	Echocardiography, transthoracic, real-time with image documentation (2d), includes m-mode recording, when performed, follow-up or limited study
93320	Doppler echocardiography, pulsed wave and/or continuous wave with spectral display (list separately in addition to codes for echocardiographic imaging); complete
93321	Doppler echocardiography, pulsed wave and/or continuous wave with spectral display (list separately in addition to codes for echocardiographic imaging); follow-up or limited study (list separately in addition to codes for echocardiographic imaging)
93325	Doppler echocardiography color flow velocity mapping (list separately in addition to codes for echocardiography)
93350	Echocardiography, transthoracic, real-time with image documentation (2d), includes m-mode recording, when performed, during rest and cardiovascular stress test using treadmill, bicycle exercise and/or pharmacologically induced stress, with interpretation and report;
93351	Echocardiography, transthoracic, real-time with image documentation (2d), includes m-mode recording, when performed, during rest and cardiovascular stress test using treadmill, bicycle exercise and/or pharmacologically induced stress, with interpretation and report; including performance of continuous electrocardiographic monitoring, with supervision by a physician or other qualified health care professional (Echo Dobutamine) (Stress Echo)
93352	Use of echocardiographic contrast agent during stress echocardiography (list separately in addition to code for primary procedure)
C8921	Transthoracic echocardiography with contrast, or without contrast followed by with contrast, for congenital cardiac anomalies; complete
C8922	Transthoracic echocardiography with contrast, or without contrast followed by with contrast, for congenital cardiac anomalies; follow-up or limited study
C8923	Transthoracic echocardiography with contrast, or without contrast followed by with contrast, real-time with image documentation (2d), includes m-mode recording, when performed, complete, without spectral or color doppler echocardiography
C8924	Transthoracic echocardiography with contrast, or without contrast followed by with contrast, real-time with image documentation (2d), includes m-mode recording, when performed, follow-up or limited study
C8928	Transthoracic echocardiography with contrast, or without contrast followed by with contrast, real-time with image documentation (2d), includes m-mode recording, when performed, during rest and cardiovascular stress test using treadmill, bicycle exercise and/or pharmacologically induced stress, with interpretation and report
C8929	Transthoracic echocardiography with contrast, or without contrast followed by with contrast, real-time with image documentation (2d), includes m-mode recording, when performed, complete, with spectral doppler echocardiography, and with color flow doppler echocardiography
C8930	Transthoracic echocardiography, with contrast, or without contrast followed by with contrast, real-time with image documentation (2d), includes m-mode recording, when performed, during



rest and cardiovascular stress test using treadmill, bicycle exercise and/or pharmacologically induced stress, with interpretation and report; including performance of continuous electrocardiographic monitoring, with physician supervision

Group 2 Paragraph: HCPCS Contrast Agent Codes

Group 2 Codes:

Code	Description
A9700	Supply of injectable contrast material for use in echocardiography, per study
Q9955	Injection, perflexane lipid microspheres, per ml
Q9956	Injection, octafluoropropane microspheres, per ml
Q9957	Injection, perflutren lipid microspheres, per ml

ICD-10 Codes That Support Medical Necessity and Covered by Medicare Program:

Group 1 Paragraph: Note: ICD-10 codes must be coded to the highest level of specificity.

For use with CPT codes 93303, 93304, 93306, 93307, 93308, 93320, 93321, 93325, 93350, 93351

Group 1 Codes:

Code	Description
A02.1	Salmonella sepsis
A18.84	Tuberculosis of heart
A22.7	Anthrax sepsis
A26.7	Erysipelothrix sepsis
A32.7	Listerial sepsis
A40.0	Sepsis due to streptococcus, group A
A40.1	Sepsis due to streptococcus, group B
A40.3	Sepsis due to Streptococcus pneumoniae
A40.8	Other streptococcal sepsis
A41.01	Sepsis due to Methicillin susceptible Staphylococcus aureus
A41.02	Sepsis due to Methicillin resistant Staphylococcus aureus
A41.1	Sepsis due to other specified staphylococcus
A41.3	Sepsis due to Hemophilus influenzae
A41.4	Sepsis due to anaerobes
A41.51	Sepsis due to Escherichia coli [E. coli]
A41.52	Sepsis due to Pseudomonas
A41.53	Sepsis due to Serratia
A41.59	Other Gram-negative sepsis



A41.81	Sepsis due to Enterococcus
A41.89	Other specified sepsis
A42.7	Actinomycotic sepsis
A52.01	Syphilitic aneurysm of aorta
A52.02	Syphilitic aortitis
A52.03	Syphilitic endocarditis
A52.04	Syphilitic cerebral arteritis
A52.05	Other cerebrovascular syphilis
A52.06	Other syphilitic heart involvement
A52.09	Other cardiovascular syphilis
A54.83	Gonococcal heart infection
A54.86	Gonococcal sepsis
A69.21	Meningitis due to Lyme disease
A69.22	Other neurologic disorders in Lyme disease
A69.23	Arthritis due to Lyme disease
A69.29	Other conditions associated with Lyme disease
B20	Human immunodeficiency virus [HIV] disease
B33.21	Viral endocarditis
B33.22	Viral myocarditis
B33.23	Viral pericarditis
B37.6	Candidal endocarditis
B37.7	Candidal sepsis
B44.81	Allergic bronchopulmonary aspergillosis
B57.0	Acute Chagas' disease with heart involvement
B57.2	Chagas' disease (chronic) with heart involvement
B58.81	Toxoplasma myocarditis
C38.0	Malignant neoplasm of heart
C45.2	Mesothelioma of pericardium
C79.89	Secondary malignant neoplasm of other specified sites
C96.5	Multifocal and unisystemic Langerhans-cell histiocytosis
C96.6	Unifocal Langerhans-cell histiocytosis
D15.1	Benign neoplasm of heart
D48.7	Neoplasm of uncertain behavior of other specified sites
D57.00	Hb-SS disease with crisis, unspecified



D57.01	Hb-SS disease with acute chest syndrome
D57.02	Hb-SS disease with splenic sequestration
D57.1	Sickle-cell disease without crisis
D81.3	Adenosine deaminase [ADA] deficiency
D81.5	Purine nucleoside phosphorylase [PNP] deficiency
D81.810	Biotinidase deficiency
D84.1	Defects in the complement system
D86.0	Sarcoidosis of lung
D86.1	Sarcoidosis of lymph nodes
D86.2	Sarcoidosis of lung with sarcoidosis of lymph nodes
D86.3	Sarcoidosis of skin
D86.81	Sarcoid meningitis
D86.82	Multiple cranial nerve palsies in sarcoidosis
D86.83	Sarcoid iridocyclitis
D86.84	Sarcoid pyelonephritis
D86.85	Sarcoid myocarditis
D86.86	Sarcoid arthropathy
D86.87	Sarcoid myositis
D86.89	Sarcoidosis of other sites
E51.11	Dry beriberi
E51.12	Wet beriberi
E71.310	Long chain/very long chain acyl CoA dehydrogenase deficiency
E71.311	Medium chain acyl CoA dehydrogenase deficiency
E71.312	Short chain acyl CoA dehydrogenase deficiency
E71.313	Glutaric aciduria type II
E71.314	Muscle carnitine palmitoyltransferase deficiency
E71.318	Other disorders of fatty-acid oxidation
E71.32	Disorders of ketone metabolism
E71.39	Other disorders of fatty-acid metabolism
E71.41	Primary carnitine deficiency
E71.42	Carnitine deficiency due to inborn errors of metabolism
E71.43	latrogenic carnitine deficiency
E71.440	Ruvalcaba-Myhre-Smith syndrome
E71.448	Other secondary carnitine deficiency



E71.510 Zellweger syndrome E71.511 Neonatal adrenoleukodystrophy E71.518 Other disorders of peroxisome biogenesis E71.520 Childhood cerebral X-linked adrenoleukodystrophy E71.521 Adolescent X-linked adrenoleukodystrophy E71.522 Adrenomyeloneuropathy E71.528 Other X-linked adrenoleukodystrophy E71.53 Other group 2 peroxisomal disorders E71.540 Rhizomelic chondrodysplasia punctata E71.541 Zellweger-like syndrome E71.542 Other group 3 peroxisomal disorders E71.543 Other peroxisomal disorders E71.544 Other peroxisomal disorders E74.01 von Gierke disease E74.02 Pompe disease E74.03 Cori disease E74.04 McArdle disease E74.09 Other glycogen storage disease E76.01 Hurler's syndrome E76.02 Hurler-Scheie syndrome E76.03 Scheie's syndrome E76.1 Mucopolysaccharidosis, type II E76.210 Morquio A mucopolysaccharidoses E76.211 Morquio B mucopolysaccharidoses E76.22 Sanfilippo mucopolysaccharidoses
E71.518 Other disorders of peroxisome biogenesis E71.520 Childhood cerebral X-linked adrenoleukodystrophy E71.521 Adolescent X-linked adrenoleukodystrophy E71.522 Adrenomyeloneuropathy E71.528 Other X-linked adrenoleukodystrophy E71.53 Other group 2 peroxisomal disorders E71.540 Rhizomelic chondrodysplasia punctata E71.541 Zellweger-like syndrome E71.542 Other group 3 peroxisomal disorders E71.548 Other peroxisomal disorders E74.01 von Gierke disease E74.01 von Gierke disease E74.02 Pompe disease E74.03 Cori disease E74.04 McArdle disease E74.09 Other glycogen storage disease E76.01 Hurler's syndrome E76.02 Hurler-Scheie syndrome E76.03 Scheie's syndrome E76.1 Mucopolysaccharidosis, type II E76.210 Morquio B mucopolysaccharidoses
E71.520 Childhood cerebral X-linked adrenoleukodystrophy E71.521 Adolescent X-linked adrenoleukodystrophy E71.522 Adrenomyeloneuropathy E71.528 Other X-linked adrenoleukodystrophy E71.53 Other group 2 peroxisomal disorders E71.540 Rhizomelic chondrodysplasia punctata E71.541 Zellweger-like syndrome E71.542 Other group 3 peroxisomal disorders E71.548 Other peroxisomal disorders E74.01 von Gierke disease E74.01 von Gierke disease E74.02 Pompe disease E74.03 Cori disease E74.04 McArdle disease E74.09 Other glycogen storage disease E76.01 Hurler's syndrome E76.02 Hurler-Scheie syndrome E76.03 Scheie's syndrome E76.01 Mucopolysaccharidosis, type II E76.210 Morquio B mucopolysaccharidoses
E71.521 Adolescent X-linked adrenoleukodystrophy E71.522 Adrenomyeloneuropathy E71.528 Other X-linked adrenoleukodystrophy E71.53 Other group 2 peroxisomal disorders E71.540 Rhizomelic chondrodysplasia punctata E71.541 Zellweger-like syndrome E71.542 Other group 3 peroxisomal disorders E71.548 Other peroxisomal disorders E74.01 von Gierke disease E74.02 Pompe disease E74.03 Cori disease E74.04 McArdle disease E74.09 Other glycogen storage disease E76.01 Hurler's syndrome E76.02 Hurler-Scheie syndrome E76.03 Scheie's syndrome E76.03 Scheie's syndrome E76.10 Mucopolysaccharidosis, type II E76.210 Morquio A mucopolysaccharidoses E76.211 Morquio B mucopolysaccharidoses
E71.522 Adrenomyeloneuropathy E71.528 Other X-linked adrenoleukodystrophy E71.53 Other group 2 peroxisomal disorders E71.540 Rhizomelic chondrodysplasia punctata E71.541 Zellweger-like syndrome E71.542 Other group 3 peroxisomal disorders E71.548 Other peroxisomal disorders E74.01 von Gierke disease E74.02 Pompe disease E74.03 Cori disease E74.04 McArdle disease E74.09 Other glycogen storage disease E76.01 Hurler's syndrome E76.02 Hurler-Scheie syndrome E76.03 Scheie's syndrome E76.1 Mucopolysaccharidosis, type II E76.210 Morquio A mucopolysaccharidoses E76.211 Morquio B mucopolysaccharidoses
E71.528 Other X-linked adrenoleukodystrophy E71.53 Other group 2 peroxisomal disorders E71.540 Rhizomelic chondrodysplasia punctata E71.541 Zellweger-like syndrome E71.542 Other group 3 peroxisomal disorders E71.548 Other peroxisomal disorders E74.01 von Gierke disease E74.02 Pompe disease E74.03 Cori disease E74.04 McArdle disease E74.09 Other glycogen storage disease E76.01 Hurler's syndrome E76.02 Hurler-Scheie syndrome E76.03 Scheie's syndrome E76.1 Mucopolysaccharidosis, type II E76.210 Morquio A mucopolysaccharidoses E76.211 Morquio B mucopolysaccharidoses
E71.540 Rhizomelic chondrodysplasia punctata E71.541 Zellweger-like syndrome E71.542 Other group 3 peroxisomal disorders E71.548 Other peroxisomal disorders E74.01 von Gierke disease E74.02 Pompe disease E74.03 Cori disease E74.04 McArdle disease E74.09 Other glycogen storage disease E74.09 Under glycogen storage disease E76.01 Hurler's syndrome E76.02 Hurler-Scheie syndrome E76.03 Scheie's syndrome E76.1 Mucopolysaccharidosis, type II E76.210 Morquio A mucopolysaccharidoses E76.211 Morquio B mucopolysaccharidoses
E71.541 Zellweger-like syndrome E71.542 Other group 3 peroxisomal disorders E71.548 Other peroxisomal disorders E74.01 von Gierke disease E74.02 Pompe disease E74.03 Cori disease E74.04 McArdle disease E74.09 Other glycogen storage disease E76.01 Hurler's syndrome E76.02 Hurler-Scheie syndrome E76.03 Scheie's syndrome E76.1 Mucopolysaccharidosis, type II E76.210 Morquio A mucopolysaccharidoses E76.211 Morquio B mucopolysaccharidoses
E71.541 Zellweger-like syndrome E71.542 Other group 3 peroxisomal disorders E71.548 Other peroxisomal disorders E74.01 von Gierke disease E74.02 Pompe disease E74.03 Cori disease E74.04 McArdle disease E74.09 Other glycogen storage disease E76.01 Hurler's syndrome E76.02 Hurler-Scheie syndrome E76.03 Scheie's syndrome E76.1 Mucopolysaccharidosis, type II E76.210 Morquio A mucopolysaccharidoses E76.211 Morquio B mucopolysaccharidoses
E71.542 Other group 3 peroxisomal disorders E71.548 Other peroxisomal disorders E74.01 von Gierke disease E74.02 Pompe disease E74.03 Cori disease E74.04 McArdle disease E74.09 Other glycogen storage disease E76.01 Hurler's syndrome E76.02 Hurler-Scheie syndrome E76.03 Scheie's syndrome E76.1 Mucopolysaccharidosis, type II E76.210 Morquio A mucopolysaccharidoses E76.211 Morquio B mucopolysaccharidoses
E74.01 von Gierke disease E74.02 Pompe disease E74.03 Cori disease E74.04 McArdle disease E74.09 Other glycogen storage disease E76.01 Hurler's syndrome E76.02 Hurler-Scheie syndrome E76.03 Scheie's syndrome E76.1 Mucopolysaccharidosis, type II E76.210 Morquio A mucopolysaccharidoses E76.211 Morquio B mucopolysaccharidoses
E74.02 Pompe disease E74.03 Cori disease E74.04 McArdle disease E74.09 Other glycogen storage disease E76.01 Hurler's syndrome E76.02 Hurler-Scheie syndrome E76.03 Scheie's syndrome E76.1 Mucopolysaccharidosis, type II E76.210 Morquio A mucopolysaccharidoses E76.211 Morquio B mucopolysaccharidoses
E74.03 Cori disease E74.04 McArdle disease E74.09 Other glycogen storage disease E76.01 Hurler's syndrome E76.02 Hurler-Scheie syndrome E76.03 Scheie's syndrome E76.1 Mucopolysaccharidosis, type II E76.210 Morquio A mucopolysaccharidoses E76.211 Morquio B mucopolysaccharidoses
E74.04 McArdle disease E74.09 Other glycogen storage disease E76.01 Hurler's syndrome E76.02 Hurler-Scheie syndrome E76.03 Scheie's syndrome E76.1 Mucopolysaccharidosis, type II E76.210 Morquio A mucopolysaccharidoses E76.211 Morquio B mucopolysaccharidoses
E74.09 Other glycogen storage disease E76.01 Hurler's syndrome E76.02 Hurler-Scheie syndrome E76.03 Scheie's syndrome E76.1 Mucopolysaccharidosis, type II E76.210 Morquio A mucopolysaccharidoses E76.211 Morquio B mucopolysaccharidoses
E76.01 Hurler's syndrome E76.02 Hurler-Scheie syndrome E76.03 Scheie's syndrome E76.1 Mucopolysaccharidosis, type II E76.210 Morquio A mucopolysaccharidoses E76.211 Morquio B mucopolysaccharidoses
E76.02 Hurler-Scheie syndrome E76.03 Scheie's syndrome E76.1 Mucopolysaccharidosis, type II E76.210 Morquio A mucopolysaccharidoses E76.211 Morquio B mucopolysaccharidoses
E76.03 Scheie's syndrome E76.1 Mucopolysaccharidosis, type II E76.210 Morquio A mucopolysaccharidoses E76.211 Morquio B mucopolysaccharidoses
E76.1 Mucopolysaccharidosis, type II E76.210 Morquio A mucopolysaccharidoses E76.211 Morquio B mucopolysaccharidoses
E76.210 Morquio A mucopolysaccharidoses E76.211 Morquio B mucopolysaccharidoses
E76.211 Morquio B mucopolysaccharidoses
E76.22 Sanfilippo mucopolysaccharidoses
E76.29 Other mucopolysaccharidoses
E76.8 Other disorders of glucosaminoglycan metabolism
E79.1 Lesch-Nyhan syndrome
E79.2 Myoadenylate deaminase deficiency
E79.8 Other disorders of purine and pyrimidine metabolism
E80.0 Hereditary erythropoietic porphyria
E80.1 Porphyria cutanea tarda
E80.21 Acute intermittent (hepatic) porphyria
E80.29 Other porphyria
E80.3 Defects of catalase and peroxidase



E80.4	Gilbert syndrome
E80.5	Crigler-Najjar syndrome
E80.6	Other disorders of bilirubin metabolism
E83.10	Disorder of iron metabolism, unspecified
E83.110	Hereditary hemochromatosis
E83.111	Hemochromatosis due to repeated red blood cell transfusions
E83.118	Other hemochromatosis
E83.19	Other disorders of iron metabolism
E84.0	Cystic fibrosis with pulmonary manifestations
E84.11	Meconium ileus in cystic fibrosis
E84.19	Cystic fibrosis with other intestinal manifestations
E84.8	Cystic fibrosis with other manifestations
E85.0	Non-neuropathic heredofamilial amyloidosis
E85.1	Neuropathic heredofamilial amyloidosis
E85.3	Secondary systemic amyloidosis
E85.4	Organ-limited amyloidosis
E85.8	Other amyloidosis
E86.0	Dehydration
E86.1	Hypovolemia
E87.71	Transfusion associated circulatory overload
E87.79	Other fluid overload
E88.3	Tumor lysis syndrome
E88.41	MELAS syndrome
E88.42	MERRF syndrome
E88.49	Other mitochondrial metabolism disorders
E88.81	Metabolic syndrome
E88.89	Other specified metabolic disorders
G11.1	Early-onset cerebellar ataxia
G45.0	Vertebro-basilar artery syndrome
G45.1	Carotid artery syndrome (hemispheric)
G45.2	Multiple and bilateral precerebral artery syndromes
G45.3	Amaurosis fugax
G45.8	Other transient cerebral ischemic attacks and related syndromes
G46.0	Middle cerebral artery syndrome



G46.1	A materials acreal automy as unducined
	Anterior cerebral artery syndrome
G46.2	Posterior cerebral artery syndrome
G71.0	Muscular dystrophy
G71.11	Myotonic muscular dystrophy
G71.12	Myotonia congenita
G71.13	Myotonic chondrodystrophy
G71.14	Drug induced myotonia
G71.19	Other specified myotonic disorders
G71.2	Congenital myopathies
G72.0	Drug-induced myopathy
G72.1	Alcoholic myopathy
G72.2	Myopathy due to other toxic agents
H34.01	Transient retinal artery occlusion, right eye
H34.02	Transient retinal artery occlusion, left eye
H34.03	Transient retinal artery occlusion, bilateral
H34.11	Central retinal artery occlusion, right eye
H34.12	Central retinal artery occlusion, left eye
H34.13	Central retinal artery occlusion, bilateral
H34.211	Partial retinal artery occlusion, right eye
H34.212	Partial retinal artery occlusion, left eye
H34.213	Partial retinal artery occlusion, bilateral
H34.231	Retinal artery branch occlusion, right eye
H34.232	Retinal artery branch occlusion, left eye
H34.233	Retinal artery branch occlusion, bilateral
H49.811	Kearns-Sayre syndrome, right eye
H49.812	Kearns-Sayre syndrome, left eye
H49.813	Kearns-Sayre syndrome, bilateral
100	Rheumatic fever without heart involvement
101.0	Acute rheumatic pericarditis
IO1.1	Acute rheumatic endocarditis
101.2	Acute rheumatic myocarditis
101.8	Other acute rheumatic heart disease
102.0	Rheumatic chorea with heart involvement
102.9	Rheumatic chorea without heart involvement



105.0	Rheumatic mitral stenosis
105.1	Rheumatic mitral insufficiency
105.2	Rheumatic mitral stenosis with insufficiency
105.8	Other rheumatic mitral valve diseases
106.0	Rheumatic aortic stenosis
106.1	Rheumatic aortic insufficiency
106.2	Rheumatic aortic stenosis with insufficiency
106.8	Other rheumatic aortic valve diseases
107.0	Rheumatic tricuspid stenosis
107.1	Rheumatic tricuspid insufficiency
107.2	Rheumatic tricuspid stenosis and insufficiency
107.8	Other rheumatic tricuspid valve diseases
108.0	Rheumatic disorders of both mitral and aortic valves
108.1	Rheumatic disorders of both mitral and tricuspid valves
108.2	Rheumatic disorders of both aortic and tricuspid valves
108.3	Combined rheumatic disorders of mitral, aortic and tricuspid valves
108.8	Other rheumatic multiple valve diseases
109.0	Rheumatic myocarditis
109.1	Rheumatic diseases of endocardium, valve unspecified
109.2	Chronic rheumatic pericarditis
109.81	Rheumatic heart failure
109.89	Other specified rheumatic heart diseases
110	Essential (primary) hypertension
I11.O	Hypertensive heart disease with heart failure
l11.9	Hypertensive heart disease without heart failure
113.0	Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4
113.10	chronic kidney disease, or unspecified chronic kidney disease Hypertensive heart and chronic kidney disease without heart failure, with stage 1 through stage
l13.11	4 chronic kidney disease, or unspecified chronic kidney disease Hypertensive heart and chronic kidney disease without heart failure, with stage 5 chronic kidney
	disease, or end stage renal disease
113.2	Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease
I15.0	Renovascular hypertension
115.1	Hypertension secondary to other renal disorders
l15.2	Hypertension secondary to endocrine disorders
I15.8	Other secondary hypertension



120.0	Unstable angina
120.1	Angina pectoris with documented spasm
120.8	Other forms of angina pectoris
121.01	ST elevation (STEMI) myocardial infarction involving left main coronary artery
121.02	ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery
121.09	ST elevation (STEMI) myocardial infarction involving other coronary artery of anterior wall
121.11	ST elevation (STEMI) myocardial infarction involving right coronary artery
121.19	ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall
121.21	ST elevation (STEMI) myocardial infarction involving left circumflex coronary artery
121.29	ST elevation (STEMI) myocardial infarction involving other sites
121.3	ST elevation (STEMI) myocardial infarction of unspecified site
121.4	Non-ST elevation (NSTEMI) myocardial infarction
122.0	Subsequent ST elevation (STEMI) myocardial infarction of anterior wall
122.1	Subsequent ST elevation (STEMI) myocardial infarction of inferior wall
122.2	Subsequent non-ST elevation (NSTEMI) myocardial infarction
22.8	Subsequent ST elevation (STEMI) myocardial infarction of other sites
123.0	Hemopericardium as current complication following acute myocardial infarction
123.1	Atrial septal defect as current complication following acute myocardial infarction
123.2	Ventricular septal defect as current complication following acute myocardial infarction
123.3	Rupture of cardiac wall without hemopericardium as current complication following acute myocardial infarction
123.4	Rupture of chordae tendineae as current complication following acute myocardial infarction
123.5	Rupture of papillary muscle as current complication following acute myocardial infarction
123.6	Thrombosis of atrium, auricular appendage, and ventricle as current complications following acute myocardial infarction
123.7	Postinfarction angina
123.8	Other current complications following acute myocardial infarction
124.0	Acute coronary thrombosis not resulting in myocardial infarction
124.1	Dressler's syndrome
124.8	Other forms of acute ischemic heart disease
125.10	Atherosclerotic heart disease of native coronary artery without angina pectoris
125.110	Atherosclerotic heart disease of native coronary artery with unstable angina pectoris
125.111	Atherosclerotic heart disease of native coronary artery with angina pectoris with documented spasm
125.118	Atherosclerotic heart disease of native coronary artery with other forms of angina pectoris
125.119	Atherosclerotic heart disease of native coronary artery with unspecified angina pectoris



125.2	Old myocardial infarction
125.3	Aneurysm of heart
125.41	Coronary artery aneurysm
125.42	Coronary artery dissection
125.5	Ischemic cardiomyopathy
125.6	Silent myocardial ischemia
125.710	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unstable angina pectoris
125.711	Atherosclerosis of autologous vein coronary artery bypass graft(s) with angina pectoris with documented spasm
125.718	Atherosclerosis of autologous vein coronary artery bypass graft(s) with other forms of angina pectoris
125.719	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unspecified angina pectoris
125.720	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unstable angina pectoris
125.721	Atherosclerosis of autologous artery coronary artery bypass graft(s) with angina pectoris with documented spasm
125.728	Atherosclerosis of autologous artery coronary artery bypass graft(s) with other forms of angina pectoris
125.729	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unspecified angina pectoris
125.730	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unstable angina pectoris
125.731	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with angina pectoris with documented spasm
125.738	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with other forms of angina pectoris
125.750	Atherosclerosis of native coronary artery of transplanted heart with unstable angina
125.751	Atherosclerosis of native coronary artery of transplanted heart with angina pectoris with documented spasm
125.758	Atherosclerosis of native coronary artery of transplanted heart with other forms of angina pectoris
125.759	Atherosclerosis of native coronary artery of transplanted heart with unspecified angina pectoris
125.760	Atherosclerosis of bypass graft of coronary artery of transplanted heart with unstable angina
125.761	Atherosclerosis of bypass graft of coronary artery of transplanted heart with angina pectoris with documented spasm
125.768	Atherosclerosis of bypass graft of coronary artery of transplanted heart with other forms of angina pectoris
125.790	Atherosclerosis of other coronary artery bypass graft(s) with unstable angina pectoris
125.791	Atherosclerosis of other coronary artery bypass graft(s) with angina pectoris with documented spasm
125.798	Atherosclerosis of other coronary artery bypass graft(s) with other forms of angina pectoris
125.810	Atherosclerosis of coronary artery bypass graft(s) without angina pectoris
125.811	Atherosclerosis of native coronary artery of transplanted heart without angina pectoris



125.812	Atherosclerosis of bypass graft of coronary artery of transplanted heart without angina pectoris
125.82	Chronic total occlusion of coronary artery
125.83	Coronary atherosclerosis due to lipid rich plaque
125.84	Coronary atherosclerosis due to calcified coronary lesion
125.89	Other forms of chronic ischemic heart disease
126.01	Septic pulmonary embolism with acute cor pulmonale
126.02	Saddle embolus of pulmonary artery with acute cor pulmonale
126.09	Other pulmonary embolism with acute cor pulmonale
126.90	Septic pulmonary embolism without acute cor pulmonale
126.92	Saddle embolus of pulmonary artery without acute cor pulmonale
126.99	Other pulmonary embolism without acute cor pulmonale
127.0	Primary pulmonary hypertension
127.1	Kyphoscoliotic heart disease
127.2	Other secondary pulmonary hypertension
127.81	Cor pulmonale (chronic)
127.82	Chronic pulmonary embolism
127.89	Other specified pulmonary heart diseases
127.9	Pulmonary heart disease, unspecified
128.0	Arteriovenous fistula of pulmonary vessels
128.1	Aneurysm of pulmonary artery
128.8	Other diseases of pulmonary vessels
130.0	Acute nonspecific idiopathic pericarditis
130.1	Infective pericarditis
130.8	Other forms of acute pericarditis
131.0	Chronic adhesive pericarditis
131.1	Chronic constrictive pericarditis
131.2	Hemopericardium, not elsewhere classified
131.3	Pericardial effusion (noninflammatory)
131.4	Cardiac tamponade
131.8	Other specified diseases of pericardium
132	Pericarditis in diseases classified elsewhere
133.0	Acute and subacute infective endocarditis
134.0	Nonrheumatic mitral (valve) insufficiency
134.1	Nonrheumatic mitral (valve) prolapse



134.2	Nonrheumatic mitral (valve) stenosis
134.8	Other nonrheumatic mitral valve disorders
135.0	Nonrheumatic aortic (valve) stenosis
135.1	Nonrheumatic aortic (valve) insufficiency
135.2	Nonrheumatic aortic (valve) stenosis with insufficiency
135.8	Other nonrheumatic aortic valve disorders
136.0	Nonrheumatic tricuspid (valve) stenosis
136.1	Nonrheumatic tricuspid (valve) insufficiency
136.2	Nonrheumatic tricuspid (valve) stenosis with insufficiency
136.8	Other nonrheumatic tricuspid valve disorders
137.0	Nonrheumatic pulmonary valve stenosis
137.1	Nonrheumatic pulmonary valve insufficiency
137.2	Nonrheumatic pulmonary valve stenosis with insufficiency
137.8	Other nonrheumatic pulmonary valve disorders
139	Endocarditis and heart valve disorders in diseases classified elsewhere
140.0	Infective myocarditis
140.1	Isolated myocarditis
140.8	Other acute myocarditis
141	Myocarditis in diseases classified elsewhere
142.0	Dilated cardiomyopathy
142.1	Obstructive hypertrophic cardiomyopathy
142.2	Other hypertrophic cardiomyopathy
142.3	Endomyocardial (eosinophilic) disease
142.4	Endocardial fibroelastosis
142.5	Other restrictive cardiomyopathy
142.6	Alcoholic cardiomyopathy
142.7	Cardiomyopathy due to drug and external agent
142.8	Other cardiomyopathies
143	Cardiomyopathy in diseases classified elsewhere
144.0	Atrioventricular block, first degree
144.1	Atrioventricular block, second degree
144.2	Atrioventricular block, complete
144.4	Left anterior fascicular block
144.5	Left posterior fascicular block



145.0	Right fascicular block
145.2	Bifascicular block
145.3	Trifascicular block
145.5	Other specified heart block
145.6	Pre-excitation syndrome
145.81	Long QT syndrome
145.89	Other specified conduction disorders
146.2	Cardiac arrest due to underlying cardiac condition
146.9	Cardiac arrest, cause unspecified
147.0	Re-entry ventricular arrhythmia
147.1	Supraventricular tachycardia
147.2	Ventricular tachycardia
148.0	Paroxysmal atrial fibrillation
148.1	Persistent atrial fibrillation
148.2	Chronic atrial fibrillation
148.3	Typical atrial flutter
148.4	Atypical atrial flutter
149.01	Ventricular fibrillation
149.02	Ventricular flutter
149.1	Atrial premature depolarization
149.2	Junctional premature depolarization
149.3	Ventricular premature depolarization
149.5	Sick sinus syndrome
149.8	Other specified cardiac arrhythmias
150.1	Left ventricular failure
150.21	Acute systolic (congestive) heart failure
150.22	Chronic systolic (congestive) heart failure
150.23	Acute on chronic systolic (congestive) heart failure
150.31	Acute diastolic (congestive) heart failure
150.32	Chronic diastolic (congestive) heart failure
150.33	Acute on chronic diastolic (congestive) heart failure
150.41	Acute combined systolic (congestive) and diastolic (congestive) heart failure
150.42	Chronic combined systolic (congestive) and diastolic (congestive) heart failure
150.43	Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure



151.0	Cardiac septal defect, acquired
151.1	Rupture of chordae tendineae, not elsewhere classified
I51.2	Rupture of papillary muscle, not elsewhere classified
151.3	Intracardiac thrombosis, not elsewhere classified
151.4	Myocarditis, unspecified
151.5	Myocardial degeneration
151.7	Cardiomegaly
151.81	Takotsubo syndrome
163.311	Cerebral infarction due to thrombosis of right middle cerebral artery
163.312	Cerebral infarction due to thrombosis of left middle cerebral artery
163.321	Cerebral infarction due to thrombosis of right anterior cerebral artery
163.322	Cerebral infarction due to thrombosis of left anterior cerebral artery
163.331	Cerebral infarction due to thrombosis of right posterior cerebral artery
163.332	Cerebral infarction due to thrombosis of left posterior cerebral artery
163.341	Cerebral infarction due to thrombosis of right cerebellar artery
163.342	Cerebral infarction due to thrombosis of left cerebellar artery
163.39	Cerebral infarction due to thrombosis of other cerebral artery
163.411	Cerebral infarction due to embolism of right middle cerebral artery
163.412	Cerebral infarction due to embolism of left middle cerebral artery
163.421	Cerebral infarction due to embolism of right anterior cerebral artery
163.422	Cerebral infarction due to embolism of left anterior cerebral artery
163.431	Cerebral infarction due to embolism of right posterior cerebral artery
163.432	Cerebral infarction due to embolism of left posterior cerebral artery
163.441	Cerebral infarction due to embolism of right cerebellar artery
163.442	Cerebral infarction due to embolism of left cerebellar artery
163.49	Cerebral infarction due to embolism of other cerebral artery
163.511	Cerebral infarction due to unspecified occlusion or stenosis of right middle cerebral artery
163.512	Cerebral infarction due to unspecified occlusion or stenosis of left middle cerebral artery
163.521	Cerebral infarction due to unspecified occlusion or stenosis of right anterior cerebral artery
163.522	Cerebral infarction due to unspecified occlusion or stenosis of left anterior cerebral artery
163.531	Cerebral infarction due to unspecified occlusion or stenosis of right posterior cerebral artery
163.532	Cerebral infarction due to unspecified occlusion or stenosis of left posterior cerebral artery
163.541	Cerebral infarction due to unspecified occlusion or stenosis of right cerebellar artery
163.542	Cerebral infarction due to unspecified occlusion or stenosis of left cerebellar artery



163.6	Cerebral infarction due to cerebral venous thrombosis, nonpyogenic
163.8	Other cerebral infarction
166.01	Occlusion and stenosis of right middle cerebral artery
166.02	Occlusion and stenosis of left middle cerebral artery
166.03	Occlusion and stenosis of bilateral middle cerebral arteries
166.11	Occlusion and stenosis of right anterior cerebral artery
166.12	Occlusion and stenosis of left anterior cerebral artery
166.13	Occlusion and stenosis of bilateral anterior cerebral arteries
166.21	Occlusion and stenosis of right posterior cerebral artery
166.22	Occlusion and stenosis of left posterior cerebral artery
166.23	Occlusion and stenosis of bilateral posterior cerebral arteries
166.3	Occlusion and stenosis of cerebellar arteries
166.8	Occlusion and stenosis of other cerebral arteries
167.841	Reversible cerebrovascular vasoconstriction syndrome
167.848	Other cerebrovascular vasospasm and vasoconstriction
167.89	Other cerebrovascular disease
170.0	Atherosclerosis of aorta
170.201	Unspecified atherosclerosis of native arteries of extremities, right leg
170.202	Unspecified atherosclerosis of native arteries of extremities, left leg
170.203	Unspecified atherosclerosis of native arteries of extremities, bilateral legs
170.92	Chronic total occlusion of artery of the extremities
171.01	Dissection of thoracic aorta
171.02	Dissection of abdominal aorta
171.03	Dissection of thoracoabdominal aorta
171.1	Thoracic aortic aneurysm, ruptured
171.2	Thoracic aortic aneurysm, without rupture
171.3	Abdominal aortic aneurysm, ruptured
171.4	Abdominal aortic aneurysm, without rupture
171.5	Thoracoabdominal aortic aneurysm, ruptured
171.6	Thoracoabdominal aortic aneurysm, without rupture
171.8	Aortic aneurysm of unspecified site, ruptured
171.9	Aortic aneurysm of unspecified site, without rupture
174.01	Saddle embolus of abdominal aorta
174.09	Other arterial embolism and thrombosis of abdominal aorta



174.11	Embolism and thrombosis of thoracic aorta
174.19	Embolism and thrombosis of other parts of aorta
174.2	Embolism and thrombosis of arteries of the upper extremities
174.3	Embolism and thrombosis of arteries of the lower extremities
174.5	Embolism and thrombosis of iliac artery
179.0	Aneurysm of aorta in diseases classified elsewhere
187.1	Compression of vein
195.0	Idiopathic hypotension
195.1	Orthostatic hypotension
195.2	Hypotension due to drugs
195.3	Hypotension of hemodialysis
195.81	Postprocedural hypotension
197.0	Postcardiotomy syndrome
197.110	Postprocedural cardiac insufficiency following cardiac surgery
197.111	Postprocedural cardiac insufficiency following other surgery
197.120	Postprocedural cardiac arrest following cardiac surgery
197.121	Postprocedural cardiac arrest following other surgery
197.130	Postprocedural heart failure following cardiac surgery
197.131	Postprocedural heart failure following other surgery
197.190	Other postprocedural cardiac functional disturbances following cardiac surgery
197.191	Other postprocedural cardiac functional disturbances following other surgery
197.710	Intraoperative cardiac arrest during cardiac surgery
197.711	Intraoperative cardiac arrest during other surgery
197.790	Other intraoperative cardiac functional disturbances during cardiac surgery
197.791	Other intraoperative cardiac functional disturbances during other surgery
197.88	Other intraoperative complications of the circulatory system, not elsewhere classified
197.89	Other postprocedural complications and disorders of the circulatory system, not elsewhere classified
J80	Acute respiratory distress syndrome
J81.0	Acute pulmonary edema
J95.1	Acute pulmonary insufficiency following thoracic surgery
J95.2	Acute pulmonary insufficiency following nonthoracic surgery
J95.3	Chronic pulmonary insufficiency following surgery
J95.821	Acute postprocedural respiratory failure
J95.822	Acute and chronic postprocedural respiratory failure



 J95.84	Transfusion-related acute lung injury (TRALI)
J96.01	Acute respiratory failure with hypoxia
J96.02	Acute respiratory failure with hypercapnia
J96.21	Acute and chronic respiratory failure with hypoxia
J96.22	Acute and chronic respiratory failure with hypercapnia
K68.11	Postprocedural retroperitoneal abscess
M02.211	Postimmunization arthropathy, right shoulder
M02.212	Postimmunization arthropathy, left shoulder
M02.221	Postimmunization arthropathy, right elbow
M02.222	Postimmunization arthropathy, left elbow
M02.231	Postimmunization arthropathy, right wrist
M02.232	Postimmunization arthropathy, left wrist
M02.232	Postimmunization arthropathy, left wrist Postimmunization arthropathy, right hand
M02.241	
	Postimmunization arthropathy, left hand
M02.251	Postimmunization arthropathy, right hip
M02.252	Postimmunization arthropathy, left hip
M02.261	Postimmunization arthropathy, right knee
M02.262	Postimmunization arthropathy, left knee
M02.271	Postimmunization arthropathy, right ankle and foot
M02.272	Postimmunization arthropathy, left ankle and foot
M02.28	Postimmunization arthropathy, vertebrae
M02.29	Postimmunization arthropathy, multiple sites
M30.0	Polyarteritis nodosa
M30.2	Juvenile polyarteritis
M30.3	Mucocutaneous lymph node syndrome [Kawasaki]
M30.8	Other conditions related to polyarteritis nodosa
M31.4	Aortic arch syndrome [Takayasu]
M31.7	Microscopic polyangiitis
M32.0	Drug-induced systemic lupus erythematosus
M32.10	Systemic lupus erythematosus, organ or system involvement unspecified
M32.11	Endocarditis in systemic lupus erythematosus
M32.12	Pericarditis in systemic lupus erythematosus
M32.13	Lung involvement in systemic lupus erythematosus
M32.14	Glomerular disease in systemic lupus erythematosus



M32.15	Tubulo-interstitial nephropathy in systemic lupus erythematosus
M32.19	Other organ or system involvement in systemic lupus erythematosus
M32.8	Other forms of systemic lupus erythematosus
N26.2	Page kidney
N98.0	Infection associated with artificial insemination
O90.89	Other complications of the puerperium, not elsewhere classified
Q20.0	Common arterial trunk
Q20.1	Double outlet right ventricle
Q20.2	Double outlet left ventricle
Q20.3	Discordant ventriculoarterial connection
Q20.4	Double inlet ventricle
Q20.5	Discordant atrioventricular connection
Q20.6	Isomerism of atrial appendages
Q20.8	Other congenital malformations of cardiac chambers and connections
Q21.0	Ventricular septal defect
Q21.1	Atrial septal defect
Q21.2	Atrioventricular septal defect
Q21.3	Tetralogy of Fallot
Q21.4	Aortopulmonary septal defect
Q21.8	Other congenital malformations of cardiac septa
Q22.0	Pulmonary valve atresia
Q22.1	Congenital pulmonary valve stenosis
Q22.2	Congenital pulmonary valve insufficiency
Q22.3	Other congenital malformations of pulmonary valve
Q22.4	Congenital tricuspid stenosis
Q22.5	Ebstein's anomaly
Q22.6	Hypoplastic right heart syndrome
Q22.8	Other congenital malformations of tricuspid valve
Q23.0	Congenital stenosis of aortic valve
Q23.1	Congenital insufficiency of aortic valve
Q23.2	Congenital mitral stenosis
Q23.3	Congenital mitral insufficiency
Q23.4	Hypoplastic left heart syndrome
Q23.8	Other congenital malformations of aortic and mitral valves



Q24.0	Dextrocardia
Q24.1	Levocardia
Q24.2	Cor triatriatum
Q24.3	Pulmonary infundibular stenosis
Q24.4	Congenital subaortic stenosis
Q24.5	Malformation of coronary vessels
Q24.6	Congenital heart block
Q24.8	Other specified congenital malformations of heart
Q25.0	Patent ductus arteriosus
Q25.1	Coarctation of aorta
Q25.2	Atresia of aorta
Q25.3	Supravalvular aortic stenosis
Q25.4	Other congenital malformations of aorta
Q25.5	Atresia of pulmonary artery
Q25.6	Stenosis of pulmonary artery
Q25.71	Coarctation of pulmonary artery
Q25.72	Congenital pulmonary arteriovenous malformation
Q25.79	Other congenital malformations of pulmonary artery
Q25.8	Other congenital malformations of other great arteries
Q26.0	Congenital stenosis of vena cava
Q26.1	Persistent left superior vena cava
Q26.2	Total anomalous pulmonary venous connection
Q26.3	Partial anomalous pulmonary venous connection
Q26.8	Other congenital malformations of great veins
Q26.9	Congenital malformation of great vein, unspecified
Q87.410	Marfan's syndrome with aortic dilation
Q87.418	Marfan's syndrome with other cardiovascular manifestations
Q87.42	Marfan's syndrome with ocular manifestations
Q87.43	Marfan's syndrome with skeletal manifestation
Q89.3	Situs inversus
Q90.0	Trisomy 21, nonmosaicism (meiotic nondisjunction)
Q90.1	Trisomy 21, mosaicism (mitotic nondisjunction)
Q90.2	Trisomy 21, translocation
Q91.0	Trisomy 18, nonmosaicism (meiotic nondisjunction)



Q91.1	Trisomy 18, mosaicism (mitotic nondisjunction)
Q91.2	Trisomy 18, translocation
Q91.4	Trisomy 13, nonmosaicism (meiotic nondisjunction)
Q91.5	Trisomy 13, mosaicism (mitotic nondisjunction)
Q93.3	Deletion of short arm of chromosome 4
Q93.4	Deletion of short arm of chromosome 5
Q93.5	Other deletions of part of a chromosome
Q93.7	Deletions with other complex rearrangements
Q93.81	Velo-cardio-facial syndrome
Q93.88	Other microdeletions
Q93.89	
	Other deletions from the autosomes
Q98.0	Klinefelter syndrome karyotype 47, XXY
Q98.1	Klinefelter syndrome, male with more than two X chromosomes
Q98.3	Other male with 46, XX karyotype
R00.0	Tachycardia, unspecified
R00.1	Bradycardia, unspecified
R00.2	Palpitations
R00.8	Other abnormalities of heart beat
R01.0	Benign and innocent cardiac murmurs
R01.2	Other cardiac sounds
R04.2	Hemoptysis
R04.81	Acute idiopathic pulmonary hemorrhage in infants
R04.89	Hemorrhage from other sites in respiratory passages
R06.01	Orthopnea
R06.02	Shortness of breath
R06.09	Other forms of dyspnea
R06.2	Wheezing
R06.3	Periodic breathing
R06.4	Hyperventilation
R06.81	Apnea, not elsewhere classified
R06.82	Tachypnea, not elsewhere classified
R06.83	Snoring
R06.89	Other abnormalities of breathing
R07.1	Chest pain on breathing



R07.2	Precordial pain
R07.81	Pleurodynia
R07.82	Intercostal pain
R07.89	Other chest pain
R09.89	Other specified symptoms and signs involving the circulatory and respiratory systems
R22.2	Localized swelling, mass and lump, trunk
R23.0	Cyanosis
R42	Dizziness and giddiness
R47.01	Aphasia
R50.2	Drug induced fever
R50.81	Fever presenting with conditions classified elsewhere
R50.82	Postprocedural fever
R50.83	Postvaccination fever
R50.84	Febrile nonhemolytic transfusion reaction
R55	Syncope and collapse
R57.0	Cardiogenic shock
R57.1	Hypovolemic shock
R60.0	Localized edema
R60.1	Generalized edema
R65.10	Systemic inflammatory response syndrome (SIRS) of non-infectious origin without acute organ dysfunction
R65.11	Systemic inflammatory response syndrome (SIRS) of non-infectious origin with acute organ dysfunction
R65.20	Severe sepsis without septic shock
R65.21	Severe sepsis with septic shock
R68.0	Hypothermia, not associated with low environmental temperature
R68.83	Chills (without fever)
R68.89	Other general symptoms and signs
R78.81	Bacteremia
R94.31	Abnormal electrocardiogram [ECG] [EKG]
R94.39	Abnormal result of other cardiovascular function study
T86.21	Heart transplant rejection
T86.22	Heart transplant failure
T86.23	Heart transplant infection
T86.290	Cardiac allograft vasculopathy



T86.298	Other complications of heart transplant
T86.31	Heart-lung transplant rejection
T86.32	Heart-lung transplant failure
T86.33	Heart-lung transplant infection
T86.39	Other complications of heart-lung transplant
T86.810	Lung transplant rejection
T86.811	Lung transplant failure
T86.812	Lung transplant infection
T86.818	Other complications of lung transplant
Z01.810	Encounter for preprocedural cardiovascular examination
Z03.89	Encounter for observation for other suspected diseases and conditions ruled out
Z08	Encounter for follow-up examination after completed treatment for malignant neoplasm
Z09	Encounter for follow-up examination after completed treatment for conditions other than malignant neoplasm
Z21	Asymptomatic human immunodeficiency virus [HIV] infection status
Z48.21	Encounter for aftercare following heart transplant
Z48.24	Encounter for aftercare following lung transplant
Z48.280	Encounter for aftercare following heart-lung transplant
Z51.11	Encounter for antineoplastic chemotherapy
Z51.12	Encounter for antineoplastic immunotherapy
Z51.81	Encounter for therapeutic drug level monitoring
Z52.89	Donor of other specified organs or tissues
Z79.3	Long term (current) use of hormonal contraceptives
Z79.891	Long term (current) use of opiate analgesic
Z79.899	Other long term (current) drug therapy
Z94.1	Heart transplant status
Z94.2	Lung transplant status
Z94.3	Heart and lungs transplant status
Z94.5	Skin transplant status
Z95.0	Presence of cardiac pacemaker
Z95.2	Presence of prosthetic heart valve
Z95.3	Presence of xenogenic heart valve
Z95.4	Presence of other heart-valve replacement
Z95.810	Presence of automatic (implantable) cardiac defibrillator
Z95.811	Presence of heart assist device



Z95.818	Presence of other cardiac implants and grafts
Z98.89	Other specified postprocedural states

Group 2 Paragraph: The following codes should be billed with the appropriate 7th digit: A (Initial encounter), D (Subsequent Encounter) or S (Sequela).

Group 2 Codes:

Code	Description
S22.5XXA	Flail chest, initial encounter for closed fracture
S22.5XXB	Flail chest, initial encounter for open fracture
S25.01XA	Minor laceration of thoracic aorta, initial encounter
S25.02XA	Major laceration of thoracic aorta, initial encounter
S25.09XA	Other specified injury of thoracic aorta, initial encounter
S25.21XA	Minor laceration of superior vena cava, initial encounter
S25.22XA	Major laceration of superior vena cava, initial encounter
S25.401A	Unspecified injury of right pulmonary blood vessels, initial encounter
S25.402A	Unspecified injury of left pulmonary blood vessels, initial encounter
S25.411A	Minor laceration of right pulmonary blood vessels, initial encounter
S25.412A	Minor laceration of left pulmonary blood vessels, initial encounter
S25.421A	Major laceration of right pulmonary blood vessels, initial encounter
S25.422A	Major laceration of left pulmonary blood vessels, initial encounter
S25.491A	Other specified injury of right pulmonary blood vessels, initial encounter
S25.492A	Other specified injury of left pulmonary blood vessels, initial encounter
S26.01XA	Contusion of heart with hemopericardium, initial encounter
S26.020A	Mild laceration of heart with hemopericardium, initial encounter
S26.021A	Moderate laceration of heart with hemopericardium, initial encounter
S26.022A	Major laceration of heart with hemopericardium, initial encounter
S26.09XA	Other injury of heart with hemopericardium, initial encounter
S26.11XA	Contusion of heart without hemopericardium, initial encounter
S26.12XA	Laceration of heart without hemopericardium, initial encounter
S26.19XA	Other injury of heart without hemopericardium, initial encounter
S26.91XA	Contusion of heart, unspecified with or without hemopericardium, initial encounter
S26.92XA	Laceration of heart, unspecified with or without hemopericardium, initial encounter
S26.99XA	Other injury of heart, unspecified with or without hemopericardium, initial encounter
T38.0X1A	Poisoning by glucocorticoids and synthetic analogues, accidental (unintentional), initial encounter



T38.0X2A	Poisoning by glucocorticoids and synthetic analogues, intentional self-harm, initial encounter
T38.0X3A	Poisoning by glucocorticoids and synthetic analogues, assault, initial encounter
T38.0X4A	Poisoning by glucocorticoids and synthetic analogues, undetermined, initial encounter
T40.0X1A	Poisoning by opium, accidental (unintentional), initial encounter
T40.0X2A	Poisoning by opium, intentional self-harm, initial encounter
T40.0X3A	Poisoning by opium, assault, initial encounter
T40.0X4A	Poisoning by opium, undetermined, initial encounter
T40.1X1A	Poisoning by heroin, accidental (unintentional), initial encounter
T40.1X2A	Poisoning by heroin, intentional self-harm, initial encounter
T40.1X3A	Poisoning by heroin, assault, initial encounter
T40.1X4A	Poisoning by heroin, undetermined, initial encounter
T40.2X1A	Poisoning by other opioids, accidental (unintentional), initial encounter
T40.2X2A	Poisoning by other opioids, intentional self-harm, initial encounter
Γ40.2X3A	Poisoning by other opioids, assault, initial encounter
Γ40.2X4A	Poisoning by other opioids, undetermined, initial encounter
Γ40.3X1A	Poisoning by methadone, accidental (unintentional), initial encounter
Γ40.3X2A	Poisoning by methadone, intentional self-harm, initial encounter
Г40.3X3A	Poisoning by methadone, assault, initial encounter
T40.3X4A	Poisoning by methadone, undetermined, initial encounter
Γ40.4X1A	Poisoning by other synthetic narcotics, accidental (unintentional), initial encounter
Γ40.4X2A	Poisoning by other synthetic narcotics, intentional self-harm, initial encounter
T40.4X3A	Poisoning by other synthetic narcotics, assault, initial encounter
Γ40.4X4A	Poisoning by other synthetic narcotics, undetermined, initial encounter
T40.601A	Poisoning by unspecified narcotics, accidental (unintentional), initial encounter
T40.602A	Poisoning by unspecified narcotics, intentional self-harm, initial encounter
Г40.603А	Poisoning by unspecified narcotics, assault, initial encounter
T40.604A	Poisoning by unspecified narcotics, undetermined, initial encounter
T45.1X1A	Poisoning by antineoplastic and immunosuppressive drugs, accidental (unintentional), initial encounter
T45.1X2A	Poisoning by antineoplastic and immunosuppressive drugs, intentional self-harm, initial encounter
T45.1X3A	Poisoning by antineoplastic and immunosuppressive drugs, assault, initial encounter
T45.1X4A	Poisoning by antineoplastic and immunosuppressive drugs, undetermined, initial encounter
T46.2X1A	Poisoning by other antidysrhythmic drugs, accidental (unintentional), initial encounter
T46.2X2A	Poisoning by other antidysrhythmic drugs, intentional self-harm, initial encounter



T46.2X3A	Poisoning by other antidysrhythmic drugs, assault, initial encounter
T46.2X4A	Poisoning by other antidysrhythmic drugs, undetermined, initial encounter
T50.0X1A	Poisoning by mineralocorticoids and their antagonists, accidental (unintentional), initial encounter
T50.0X2A	Poisoning by mineralocorticoids and their antagonists, intentional self-harm, initial encounter
T50.0X3A	Poisoning by mineralocorticoids and their antagonists, assault, initial encounter
T50.0X4A	Poisoning by mineralocorticoids and their antagonists, undetermined, initial encounter
T50.905A	Adverse effect of unspecified drugs, medicaments and biological substances, initial encounter
T51.3X1A	Toxic effect of fusel oil, accidental (unintentional), initial encounter
T51.3X2A	Toxic effect of fusel oil, intentional self-harm, initial encounter
T51.3X3A	Toxic effect of fusel oil, assault, initial encounter
T51.3X4A	Toxic effect of fusel oil, undetermined, initial encounter
T52.3X1A	Toxic effect of glycols, accidental (unintentional), initial encounter
T52.3X2A	Toxic effect of glycols, intentional self-harm, initial encounter
T52.3X3A	Toxic effect of glycols, assault, initial encounter
T52.3X4A	Toxic effect of glycols, undetermined, initial encounter
T58.01XA	Toxic effect of carbon monoxide from motor vehicle exhaust, accidental (unintentional), initial encounter
T58.02XA	Toxic effect of carbon monoxide from motor vehicle exhaust, intentional self-harm, initial encounter
T58.03XA	Toxic effect of carbon monoxide from motor vehicle exhaust, assault, initial encounter
T58.04XA	Toxic effect of carbon monoxide from motor vehicle exhaust, undetermined, initial encounter
T58.11XA	Toxic effect of carbon monoxide from utility gas, accidental (unintentional), initial encounter
T58.12XA	Toxic effect of carbon monoxide from utility gas, intentional self-harm, initial encounter
T58.13XA	Toxic effect of carbon monoxide from utility gas, assault, initial encounter
T58.14XA	Toxic effect of carbon monoxide from utility gas, undetermined, initial encounter
T58.2X1A	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, accidental (unintentional), initial encounter
T58.2X2A	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, intentional self-harm, initial encounter
T58.2X3A	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, assault, initial encounter
T58.2X4A	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, undetermined, initial encounter
T58.8X1A	Toxic effect of carbon monoxide from other source, accidental (unintentional), initial encounter
T58.8X2A	Toxic effect of carbon monoxide from other source, intentional self-harm, initial encounter
T58.8X3A	Toxic effect of carbon monoxide from other source, assault, initial encounter
T58.8X4A	Toxic effect of carbon monoxide from other source, undetermined, initial encounter
T66.XXXA	Radiation sickness, unspecified, initial encounter



T71.111A	Asphyxiation due to smothering under pillow, accidental, initial encounter
T71.112A	Asphyxiation due to smothering under pillow, intentional self-harm, initial encounter
T71.113A	Asphyxiation due to smothering under pillow, assault, initial encounter
T71.114A	Asphyxiation due to smothering under pillow, undetermined, initial encounter
T71.121A	Asphyxiation due to plastic bag, accidental, initial encounter
T71.122A	Asphyxiation due to plastic bag, intentional self-harm, initial encounter
T71.123A	Asphyxiation due to plastic bag, assault, initial encounter
T71.124A	Asphyxiation due to plastic bag, undetermined, initial encounter
T71.131A	Asphyxiation due to being trapped in bed linens, accidental, initial encounter
T71.132A	Asphyxiation due to being trapped in bed linens, intentional self-harm, initial encounter
T71.133A	Asphyxiation due to being trapped in bed linens, assault, initial encounter
T71.134A	Asphyxiation due to being trapped in bed linens, undetermined, initial encounter
T71.141A	Asphyxiation due to smothering under another person's body (in bed), accidental, initial encounter
T71.143A	Asphyxiation due to smothering under another person's body (in bed), assault, initial encounter
T71.144A	Asphyxiation due to smothering under another person's body (in bed), undetermined, initial encounter
T71.151A	Asphyxiation due to smothering in furniture, accidental, initial encounter
T71.152A	Asphyxiation due to smothering in furniture, intentional self-harm, initial encounter
T71.153A	Asphyxiation due to smothering in furniture, assault, initial encounter
T71.154A	Asphyxiation due to smothering in furniture, undetermined, initial encounter
T71.161A	Asphyxiation due to hanging, accidental, initial encounter
T71.162A	Asphyxiation due to hanging, intentional self-harm, initial encounter
T71.163A	Asphyxiation due to hanging, assault, initial encounter
T71.164A	Asphyxiation due to hanging, undetermined, initial encounter
T71.191A	Asphyxiation due to mechanical threat to breathing due to other causes, accidental, initial encounter
T71.192A	Asphyxiation due to mechanical threat to breathing due to other causes, intentional self-harm, initial encounter
Г71.193А	Asphyxiation due to mechanical threat to breathing due to other causes, assault, initial encounter
Г71.194А	Asphyxiation due to mechanical threat to breathing due to other causes, undetermined, initial encounter
T71.20XA	Asphyxiation due to systemic oxygen deficiency due to low oxygen content in ambient air due to unspecified cause, initial encounter
T71.21XA	Asphyxiation due to cave-in or falling earth, initial encounter
T71.221A	Asphyxiation due to being trapped in a car trunk, accidental, initial encounter
T71.222A	Asphyxiation due to being trapped in a car trunk, intentional self-harm, initial encounter
T71.223A	Asphyxiation due to being trapped in a car trunk, assault, initial encounter



T71.224A	Asphyxiation due to being trapped in a car trunk, undetermined, initial encounter
T71.231A	Asphyxiation due to being trapped in a (discarded) refrigerator, accidental, initial encounter
T71.232A	Asphyxiation due to being trapped in a (discarded) refrigerator, intentional self-harm, initial encounter
T71.233A	Asphyxiation due to being trapped in a (discarded) refrigerator, assault, initial encounter
T71.234A	Asphyxiation due to being trapped in a (discarded) refrigerator, undetermined, initial encounter
T71.29XA	Asphyxiation due to being trapped in other low oxygen environment, initial encounter
T71.9XXA	Asphyxiation due to unspecified cause, initial encounter
T75.00XA	Unspecified effects of lightning, initial encounter
T75.01XA	Shock due to being struck by lightning, initial encounter
T75.09XA	Other effects of lightning, initial encounter
T75.1XXA	Unspecified effects of drowning and nonfatal submersion, initial encounter
T75.4XXA	Electrocution, initial encounter
T78.3XXA	Angioneurotic edema, initial encounter
T79.0XXA	Air embolism (traumatic), initial encounter
T79.1XXA	Fat embolism (traumatic), initial encounter
T79.4XXA	Traumatic shock, initial encounter
T80.0XXA	Air embolism following infusion, transfusion and therapeutic injection, initial encounter
T80.218A	Other infection due to central venous catheter, initial encounter
T80.29XA	Infection following other infusion, transfusion and therapeutic injection, initial encounter
T80.51XA	Anaphylactic reaction due to administration of blood and blood products, initial encounter
T80.52XA	Anaphylactic reaction due to vaccination, initial encounter
T80.59XA	Anaphylactic reaction due to other serum, initial encounter
T80.61XA	Other serum reaction due to administration of blood and blood products, initial encounter
T80.62XA	Other serum reaction due to vaccination, initial encounter
T80.69XA	Other serum reaction due to other serum, initial encounter
T81.11XA	Postprocedural cardiogenic shock, initial encounter
T81.12XA	Postprocedural septic shock, initial encounter
T81.19XA	Other postprocedural shock, initial encounter
T81.4XXA	Infection following a procedure, initial encounter
T82.01XA	Breakdown (mechanical) of heart valve prosthesis, initial encounter
T82.02XA	Displacement of heart valve prosthesis, initial encounter
T82.03XA	Leakage of heart valve prosthesis, initial encounter
T82.09XA	Other mechanical complication of heart valve prosthesis, initial encounter
T82.110A	Breakdown (mechanical) of cardiac electrode, initial encounter



T82.111A	Breakdown (mechanical) of cardiac pulse generator (battery), initial encounter
T82.118A	Breakdown (mechanical) of other cardiac electronic device, initial encounter
T82.119A	Breakdown (mechanical) of unspecified cardiac electronic device, initial encounter
T82.120A	Displacement of cardiac electrode, initial encounter
T82.121A	Displacement of cardiac pulse generator (battery), initial encounter
T82.128A	Displacement of other cardiac electronic device, initial encounter
T82.190A	Other mechanical complication of cardiac electrode, initial encounter
T82.191A	Other mechanical complication of cardiac pulse generator (battery), initial encounter
T82.198A	Other mechanical complication of other cardiac electronic device, initial encounter
T82.199A	Other mechanical complication of unspecified cardiac device, initial encounter
T82.519A	Breakdown (mechanical) of unspecified cardiac and vascular devices and implants, initial encounter
T82.529A	Displacement of unspecified cardiac and vascular devices and implants, initial encounter
T82.539A	Leakage of unspecified cardiac and vascular devices and implants, initial encounter
T82.599A	Other mechanical complication of unspecified cardiac and vascular devices and implants, initial encounter
T82.6XXA	Infection and inflammatory reaction due to cardiac valve prosthesis, initial encounter
T82.7XXA	Infection and inflammatory reaction due to other cardiac and vascular devices, implants and grafts, initial encounter
T82.817A	Embolism of cardiac prosthetic devices, implants and grafts, initial encounter
T82.827A	Fibrosis of cardiac prosthetic devices, implants and grafts, initial encounter
T82.837A	Hemorrhage of cardiac prosthetic devices, implants and grafts, initial encounter
T82.847A	Pain from cardiac prosthetic devices, implants and grafts, initial encounter
T82.857A	Stenosis of cardiac prosthetic devices, implants and grafts, initial encounter
T82.867A	Thrombosis of cardiac prosthetic devices, implants and grafts, initial encounter
T82.897A	Other specified complication of cardiac prosthetic devices, implants and grafts, initial encounter

