Local Coverage Determination (LCD): Transthoracic Echocardiography (TTE) (L33768)

Contractor Information

Contractor Name
First Coast Service Options, Inc.

LCD Information

Document Information

LCD ID
L33768

Original ICD-9 LCD ID
L28997

Original Effective Date
For services performed on or after 10/01/2015

Revision Effective Date
N/A

Revision Ending Date
N/A

Retirement Date
N/A

Notice Period Start Date
N/A

Notice Period End Date
N/A

AMA CPT / ADA CDT / AHA NUBC
Copyright Statement
CPT only copyright 2002-2014 American Medical Association. All Rights Reserved. CPT is a registered trademark of the American Medical Association. Applicable FARS/DFARS Apply to Government Use. Fee schedules, relative value units, conversion factors and/or related components are not assigned by the AMA, are not part of CPT, and the AMA is not recommending their use. The AMA does not directly or indirectly practice medicine or dispense medical services. The AMA assumes no liability for data contained or not contained herein.
The Code on Dental Procedures and Nomenclature (Code) is published in Current Dental Terminology (CDT). Copyright © American Dental Association. All rights reserved. CDT and CDT-2010 are trademarks of the American Dental Association.

UB-04 Manual. OFFICIAL UB-04 DATA SPECIFICATIONS MANUAL, 2014, is copyrighted by American Hospital Association (“AHA”), Chicago, Illinois. No portion of OFFICIAL UB-04 MANUAL may be reproduced, sorted in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior express, written consent of AHA.” Health Forum reserves the right to change the copyright notice from time to time upon written notice to Company.

CMS National Coverage Policy
Language quoted from CMS National Coverage Determinations (NCDs) and coverage provisions in interpretive manuals are italicized throughout the Local Coverage Determination (LCD). NCDs and coverage provisions in interpretive manuals are not subject to the LCD Review Process (42 CFR 405.860[b] and 42 CFR 426 [Subpart D]). In addition, an administrative law judge may not review an NCD. See §1869(f)(1)(A)(i) of the Social Security Act.

Unless otherwise specified, italicized text represents quotation from one or more of the following CMS sources:

CMS Manual System, Pub. 100-03, Medicare National Determinations Manual, Chapter 1, Section 220.5
CMS Manual System, Pub. 100-04, Medicare Claims Processing Manual, Chapter 4, Section 20.2, Section 30.7.6
CMS Manual System, Pub. 100-04, Medicare Claims Processing Manual, Chapter 12, Section 30.5
CMS Manual System, Pub. 100-04, Medicare Claims Processing Manual Chapter 13, Sections 140-140.3
Program Memorandum, Transmittal AB-02-085 (CR 2194)
Program Memorandum, Transmittal AB-03-091 (CR 2763)
Coverage Guidance
**Coverage Indications, Limitations, and/or Medical Necessity**

Echocardiography is an ultrasonic examination of the heart. It is a widely used noninvasive technology to assess cardiac anatomy and function. A Doppler examination is a valuable adjunct to a complete echocardiographic examination, and allows for the evaluation of the presence and severity of valvular stenosis, valvular regurgitation, and ventricular dysfunction of cardiac output, intracardiac pressures and intracardiac shunts.

This local coverage determination (LCD) addresses the medical necessity and appropriate application of transthoracic echocardiography (TTE). Echocardiography is indicated in the evaluation of derangements of valvular, myocardial and pericardial function. The general applications for coverage can be summarized by the following clinical settings:

1. **Native Valvular Heart Disease**

Detection of mitral stenosis was among the first practical clinical applications of Transthoracic Echocardiography (TTE). TTE is well established as a technique of primary choice for the evaluation of valvular pathology and its effect upon global myocardial function. The relative severity of valvular pathologies can be quantified. Visualization of the valve and valvular apparatus facilitates therapeutic decisions when competing therapeutic options exist. For example, Noninvasive TTE remains the study of choice for monitoring chronic aortic pathology and other valvular lesions when images suitable for serial quantitation can be obtained. In the absence of acute intervention or a change in stable clinical signs and symptoms, TTE in chronic valvular disease is used to document course over time. Generally, it is not medically reasonable and necessary to repeat these examinations more frequently than annually.

2. **Prosthetic Heart Valves (Mechanical and Bio-prostheses)**

TTE assessment soon after prosthetic valve implant is important in establishing a baseline structural and hemodynamic profile unique to the individual and the prosthesis. Size, position, underlying ventricular function and concomitant valve pathologies all impact this unique profile. Subsequent studies are appropriate when clinical signs or symptoms suggest prosthetic valve malfunction, or when the natural history of the implanted prosthesis suggest a high risk of developing prosthetic malfunction. TTE assessment soon after prosthetic valve implant is important in establishing a baseline structural and hemodynamic profile unique to the individual and the prosthesis. Reassessment following convalescence (three to six months) is appropriate. Thereafter, with the absence defined clinical events or obvious change in physical examination findings, an annual stability assessment is considered medically reasonable and necessary.

3. **Endocarditis**

TTE can provide diagnostic information. Larger vegetations may be directly visualized, while valvular anatomy and ventricular function directly assessed. The complications or sequelae of acute infective endocarditis can be detected and monitored over time. Examination frequency in the acute phase of illness is dictated by the individual clinical course. When the acute process has been stabilized, the frequency of serial TTE evaluation will be determined by the residual
pathophysiology and discrete clinical events, analogous to the serial assessment of chronic valvular dysfunction and/or normally functioning prosthetic valves. Thereafter, absent defined clinical events or obvious change in physical examination findings, annual stability assessment is considered medically reasonable and necessary.

4. Ventricular Function and Cardiomyopathies

Changes in myocardial thickness (hypertrophy and thinning), chamber volume and morphology as well as derived parameters of contractility can be quantified and charted over time by TTE. Cardiac responses to volume perturbations, chronic pressure excess and therapeutic interventions can be monitored. Recognition of the relative contributions of myocardial and valvular functional perturbations to a clinical presentation is facilitated. TTE aids the recognition of myopathies and their classification into hypertrophic, dilated and restrictive types. There is increasing data to support the prognostic value of diastolic function parameters in patients with systolic dysfunction. Absent clinically documented, discrete (abrupt change in signs and symptoms) episodes of deterioration, it is not generally medically necessary to augment clinical assessments with TTE measurements at more-frequent-than-annual examinations.

5. Acute Myocardial Infarction and Coronary Insufficiency

TTE can detect ischemic and infarcted myocardium. Regional motion, systolic thickening perturbations and mural thinning can be quantified and global functional adaptation assessed. The relative contributions of right ventricular ischemia and/or infarction can be evaluated. Complications of acute infarction (mural thrombi, papillary muscle dysfunction and rupture, septal defects, true or false aneurysm and myocardial rupture) can be diagnosed and their contribution to the overall clinical status placed in perspective. Following an initial TTE in the setting of acute infarction, utilization frequency will typically be dictated by the acute clinical course. The role for TTE in the emergency room assessment of individuals who present with chest pain is in evolution. This application may be used as part of a detailed clinical evaluation, especially as a triage for patients with chest pain syndrome. If absent clinical deterioration or unclear examination findings, repeat assessment typically includes an evaluation at discharge. Convalescent evaluation at approximately six months and annually thereafter generally provides adequate supplemental data for a clinical evaluation. The medical record should document the medical necessity of more frequent TTE assessment.

6. Hypertensive Cardiovascular Disease

Left ventricular hypertrophy correlates with prognosis in hypertensive cardiovascular disease. Certain antihypertensive medications have been reported to stabilize and possibly contribute to the regression of left ventricular hypertrophy and the insidiously progressive development of left ventricular dysfunction and dilatation. In young individuals and in individuals with borderline hypertension, the decision to commit to long-term antihypertensive therapy may be determined by the presence of left ventricular hypertrophy and/or left ventricular mass calculation. TTE (CPT code 93308) may assist the decision to treat and the formulation of a treatment program. Baseline TTE (CPT code 93308) and periodic assessment (no more frequently than annually) would be medically reasonable and necessary.
7. Cardiac Transplant and Rejection Monitoring

TTE is an integral part of the cardiac donor selection and donor recipient matching process. Evaluations focus on analysis of ventricular function and the integrity of valvular performance. TTE is also incorporated into the management of allograft recipients. Myocardial thickness, refractile properties, contractile patterns and indices, restrictive hemodynamics and the late development of pericardial fluid may alert to a rejection episode. None of these findings has achieved diagnostic sensitivity or specificity. TTE is performed weekly for the first four to eight weeks following transplant with subsequent decreasing frequency. In the absence of an acute rejection episode, approximately three TTE examinations are typically performed yearly in chronic transplant recipients.

8. Exposure to Cardiotoxic Agents (Chemotherapeutic and External)

Measures of myocardial contractility, thinning and dilatation are important in the titration of therapeutic agents with known myocardial toxicity. When echocardiography is used to monitor cardiac toxicity of chemotherapeutic agents, an initial complete TTE may be performed prior to first administration of the agent. Also, bimonthly TTE during therapy and follow up TTE at six months following therapy are generally considered medically appropriate. Following accidental exposure to known myocardial toxic agents, absent of an abrupt change in clinical signs and/or symptoms, annual assessment would be considered medically reasonable and necessary.

9. Pericardial Disease

Detection and quantitation of the amount of pericardial effusion were among the first and remain an important application of TTE. Pericardial fluid accumulations of as little as twenty (20) milliliters have been reliably diagnosed by TTE. Cardiac motion and blood flow patterns demonstrated by TTE characterize the hemodynamic consequences of pericardial fluid accumulation. A collage of TTE findings have been found to be reliable indices of cardiac tamponade. TTE can be a valuable adjunct during the removal of pericardial fluid and creation of pericardial windows. The acute clinical status will dictate examination frequency. TTE and Doppler techniques are quite helpful in identifying pericardial constriction and differentiating it from restrictive myocardial disease. Absent acute pathophysiology, serial assessment of chronic stable pericardial effusion by TTE is not usually considered medically reasonable and necessary. TTE is less reliable in the detection of chronic pericardial constriction. Current echocardiographic findings in constrictive pericarditis lack the necessary specificity and sensitivity to be reliable diagnostic aids.

10. Congenital Heart Disease

In children and young adults, TTE provides accurate anatomic definition of most congenital heart diseases. Coupled with Doppler hemodynamic measurements, TTE usually provides accurate diagnosis and noninvasive serial assessment. A technically adequate TTE can obviate the need for preoperative catheterization in select individuals. When the disease process and therapy are stable, serial assessment by TTE requires contemporaneous medical necessity.
documentation if the frequency exceeds an annual evaluation.

11. Cardiac Tumors and Masses

Infiltrative and ventricular tumors and masses can be visualized, their extent quantified and their hemodynamic consequences assessed by TTE. Right atrial space occupying masses are usually well visualized by TTE. Transesophageal echocardiography (TEE) provides a more detailed view of the left atrium and is more sensitive in quantifying mass characteristics (solid, cystic, etc.) extensions and attachments. These acute pathologies are not typically followed serially.

12. Critically Ill and Trauma Patients

There is a role for echocardiography in the management of critically ill patients and trauma victims. The cause of a persistent fever may be elucidated. The diagnosis of suspected aortic or central pulmonary pathology, cardiac contusion, or a pericardial effusion may be confirmed. Perturbations of volume status may be more completely defined and management strategies modified.

13. Suspected Cardiac Thrombi and Embolic Sources

TTE is particularly sensitive in the detection of ventricular thrombi and potentially embolic material. Limited visualization of atrial appendages and the more peripheral and superior portions of the atria render TTE less sensitive than TEE in the detection of atrial thrombus and potentially embolic material. In individuals with cardiac pathology associated with a high incidence of thromboemboli (valvular heart disease, arrhythmias such as atrial fibrillation, cardiomyopathies and ventricular dysfunction), TTE usually provides adequate supplemental therapeutic decisional data. In those instances where the precise diagnosis and localization of potentially embolic material is of paramount therapeutic importance and the information so obtained will potentially and substantively alter therapy, or the risk of anticoagulants is inordinately high, consideration should be given to TEE. Absent the definition of a serial assessment for regression of potentially embolic material, repeat examinations are not generally medically required to direct clinical decisions.

14. Contrast echocardiography

Contrast echocardiography is indicated when a conventional study has failed to provide adequate and critically needed information on left ventricular function. A contrast agent is considered medically necessary when it is used to improve the delineation of the left ventricular endocardial borders in a patient whose non-contrast study is inadequate or suboptimal, and for whom the LV function information is essential to the management of the patient.

15. Diseases of Aorta

TTE can be of great value in demonstrating aneurismal enlargement of the ascending and descending portions of the thoracic aorta, in detecting aortic dissection, and in evaluating the size of the aorta in patients with aortic valve diseases or certain conditions associated with aortic
pathology (i.e., Marfan’s syndrome or connective tissue disorders). Aortic coarctations can also be demonstrated when clinical features suggest this entity.

**Limitations**

Echocardiographic studies that are not reasonable and necessary to obtain clinically significant diagnostic or monitoring information are not indicated. The carrier will utilize the American College of Cardiology/American Heart Association (ACC/AHA) Practice Guidelines (Class III) indications as a reference for such determinations.

Limited Capability Ultrasound Scanners

Some cardiac ultrasound machines have become increasingly compact and portable. Certain “hand carried” scanners are “full featured” and permit a skilled examiner to image and record permanent records of all of the tomographic images and Doppler data (both color and spectral) needed to perform a complete transthoracic echocardiographic examination that may be quite comparable, in diagnostic value, to that obtained with a larger, “state of the art” instrument. In order to qualify as a valid echocardiographic service, the study must be done for an accepted clinical indication by a properly trained examiner and must include a permanent record of the findings, data sufficient to support the conclusions and an appropriate interpretation and written report. Such a study would meet the standards required for a complete echocardiographic examination, regardless of the size of the instrument used to perform the study.

Some small scanners have more limited capabilities and lack either the permanent recording capabilities or some of the functional capabilities needed to perform a complete examination. Such a study may be quite useful as an extension of the physical examination. However, an examination that does not meet the standards required for a complete diagnostic echocardiographic examination – whether performed with a “conventional” scanner or a limited capability ultrasound scanner – will not be recognized as a valid echocardiographic service and will be non-covered.

**Training Requirements:**

While it is not the Carrier’s intention or jurisdiction to credential providers, a satisfactory level of competence is expected from providers who submit claims for services rendered. It is well known that substandard studies often lead to preventable repetition of studies and overutilization of services.

The acceptable levels of competence are outlined as follows:

For the technical portion, an acceptable level of competence is fulfilled when the image acquisition is obtained under any one of the following conditions:

a. The service is performed by a physician; or
b. The service is performed by a technician who is credentialed as either a Registered Diagnostic Cardiac Sonographer (RDCS) through the American Registry of Diagnostic Medical
Sonographers or as a Registered Cardiac Sonographer (RCS) through the Cardiovascular Credentialing International; or
c. The service is performed at a laboratory (e.g. office, IDTF), credentialed by the Intersocietal Commission for the Accreditation of Echocardiography Laboratories (ICAEL).

For the professional portion, an acceptable level of competence is fulfilled when the interpretation is performed by a physician meeting any one of the following requirements:

a. The physician is board certified in Cardiovascular Diseases; or
b. The physician has Level II training in transthoracic echocardiography, as defined by the American College of Cardiology/American Heart Association/American College of Physicians Task Force on Clinical Competence in Echocardiography, or the equivalent of Level II training as set forth in that document; or
c. The physician provides the interpretation in conjunction with a study that is performed at a laboratory that is accredited by the Intersocietal Commission for the Accreditation of Echocardiography Laboratories and that is subject to such laboratory’s quality assurance policies and procedures; or
d. The physician has staff privileges to interpret echocardiograms at a hospital that participates in the Medicare program.

The submission of claims for echocardiography will be considered an attestation that both the technical and professional components of the service were provided within the context of the above stated credentials. However, a grace period of two years will be allowed for providers to acquire the necessary training.

All echocardiography services require a referring or an ordering physician.

However, if the facility has a documented process for grand-fathering experienced technicians who have performed the services referenced in this LCD (a process addressing years of service and experience with number of supervised cases), this documentation should be available upon request; otherwise the provider must have documentation available upon request which indicates that the technician meets the credentialing requirements as stated above or is in the process of obtaining this credentialing.

**Coding Information**

Bill Type Codes:

Contractors may specify Bill Types to help providers identify those Bill Types typically used to report this service. Absence of a Bill Type does not guarantee that the policy does not apply to that Bill Type. Complete absence of all Bill Types indicates that coverage is not influenced by Bill Type and the policy should be assumed to apply equally to all claims.
Hospital Inpatient (Medicare Part B only)
Hospital Outpatient
Hospital - Laboratory Services Provided to Non-patients
Skilled Nursing - Inpatient (Including Medicare Part A)
Skilled Nursing - Inpatient (Medicare Part B only)
Skilled Nursing - Outpatient
Critical Access Hospital

Revenue Codes:

Contractors may specify Revenue Codes to help providers identify those Revenue Codes typically used to report this service. In most instances Revenue Codes are purely advisory; unless specified in the policy services reported under other Revenue Codes are equally subject to this coverage determination. Complete absence of all Revenue Codes indicates that coverage is not influenced by Revenue Code and the policy should be assumed to apply equally to all Revenue Codes.

Cardiology - General Classification
Cardiology - Echocardiology

CPT/HCPCS Codes

**Group 1 Paragraph:** N/A

**Group 1 Codes:**

93303 TRANSTHORACIC ECHOCARDIOGRAPHY FOR CONGENITAL CARDIAC ANOMALIES; COMPLETE
93304 TRANSTHORACIC ECHOCARDIOGRAPHY FOR CONGENITAL CARDIAC ANOMALIES; FOLLOW-UP OR LIMITED STUDY 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 ECHOCARDIOGRAPHY, TRANSTHORACIC, REAL-TIME WITH IMAGE DOCUMENTATION (2D), INCLUDES M-MODE RECORDING, WHEN PERFORMED, COMPLETE, WITHOUT SPECTRAL OR COLOR DOPPLER ECHOCARDIOGRAPHY ECHOCARDIOGRAPHY, TRANSTHORACIC, REAL-TIME WITH IMAGE DOCUMENTATION (2D), INCLUDES M-MODE RECORDING, WHEN PERFORMED, FOLLOW-UP OR LIMITED STUDY DOPPLER ECHOCARDIOGRAPHY, PULSED WAVE AND/OR CONTINUOUS WAVE WITH SPECTRAL DISPLAY (LIST SEPARATELY IN ADDITION TO CODES FOR ECHOCARDIOGRAPHIC IMAGING); COMPLETE
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)

DOPPLER ECHOCARDIOGRAPHY COLOR FLOW VELOCITY MAPPING (LIST SEPARATELY IN ADDITION TO CODES FOR ECHOCARDIOGRAPHY)

TRANSTHORACIC ECHOCARDIOGRAPHY WITH CONTRAST, OR WITHOUT CONTRAST FOLLOWED BY WITH CONTRAST, FOR CONGENITAL CARDIAC ANOMALIES; COMPLETE

TRANSTHORACIC ECHOCARDIOGRAPHY WITH CONTRAST, OR WITHOUT CONTRAST FOLLOWED BY WITH CONTRAST, FOR CONGENITAL CARDIAC ANOMALIES; FOLLOW-UP OR LIMITED STUDY

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

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

ICD-10 Codes that Support Medical Necessity

**Group 1 Paragraph:** For Procedure codes 93306, 93307, 93308 (with or without Doppler), C8923 and C8924

**Group 1 Codes:**

<table>
<thead>
<tr>
<th>ICD-10 Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A18.84</td>
<td>Tuberculosis of heart</td>
</tr>
<tr>
<td>A40.0 - A41.9</td>
<td>Sepsis due to streptococcus, group A - Sepsis, unspecified organism</td>
</tr>
<tr>
<td>A42.7</td>
<td>Actinomycotic sepsis</td>
</tr>
<tr>
<td>A52.01</td>
<td>Syphilitic aneurysm of aorta</td>
</tr>
<tr>
<td>A52.02</td>
<td>Syphilitic aortitis</td>
</tr>
<tr>
<td>A52.03</td>
<td>Syphilitic endocarditis</td>
</tr>
<tr>
<td>A52.06</td>
<td>Other syphilitic heart involvement</td>
</tr>
<tr>
<td>A54.83</td>
<td>Gonococcal heart infection</td>
</tr>
</tbody>
</table>
A69.20 - A69.29
Lyme disease, unspecified - Other conditions associated with Lyme disease

B33.21 - B33.23
Viral endocarditis - Viral pericarditis

B37.6  Candidal endocarditis
B39.4  Histoplasmosis capsulati, unspecified
B39.5  Histoplasmosis duboisi
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
D15.1  Benign neoplasm of heart

D86.0 - D86.9
Sarcoidosis of lung - Sarcoidosis, unspecified

E03.5  Myxedema coma

E08.51 - E08.52
Diabetes mellitus due to underlying condition with diabetic peripheral angiopathy without gangrene - Diabetes mellitus due to underlying condition with diabetic peripheral angiopathy with gangrene

E09.51 - E09.52
Drug or chemical induced diabetes mellitus with diabetic peripheral angiopathy without gangrene - Drug or chemical induced diabetes mellitus with diabetic peripheral angiopathy with gangrene

E10.51 - E10.52
Type 1 diabetes mellitus with diabetic peripheral angiopathy without gangrene - Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene

E11.51 - E11.52
Type 2 diabetes mellitus with diabetic peripheral angiopathy without gangrene - Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene

E13.51 - E13.52
Other specified diabetes mellitus with diabetic peripheral angiopathy without gangrene - Other specified diabetes mellitus with diabetic peripheral angiopathy with gangrene

E83.10 - E83.19
Disorder of iron metabolism, unspecified - Other disorders of iron metabolism

E85.1 - E86.9
Neuropathic heredofamilial amyloidosis - Volume depletion, unspecified

G06.0  Intracranial abscess and granuloma
G06.1  Intraspinal abscess and granuloma

G45.0 - G45.3
Vertebro-basilar artery syndrome - Amaurosis fugax

G45.8  Other transient cerebral ischemic attacks and related syndromes
G45.9  Transient cerebral ischemic attack, unspecified

G46.0 - G46.2
Middle cerebral artery syndrome - Posterior cerebral artery syndrome

G47.30  Sleep apnea, unspecified
H34.00 - Transient retinal artery occlusion, unspecified eye - Transient retinal artery occlusion, bilateral
H34.03 -
I01.0 - I01.9 - Acute rheumatic pericarditis - Acute rheumatic heart disease, unspecified
I02.0 - Rheumatic chorea with heart involvement
I05.0 - I09.9 - Rheumatic mitral stenosis - Rheumatic heart disease, unspecified
I10 - Essential (primary) hypertension
I11.0 - I11.9 - Hypertensive heart disease with heart failure - Hypertensive heart disease without heart failure - Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease - 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
I20.0 - Unstable angina
I20.1 - I24.9 - Angina pectoris with documented spasm - Acute ischemic heart disease, unspecified
I25.10 - Atherosclerotic heart disease of native coronary artery without angina pectoris
I25.110 - Atherosclerotic heart disease of native coronary artery with unstable angina pectoris - Atherosclerotic heart disease of native coronary artery with unspecified angina pectoris
I25.2 - I25.812 - Old myocardial infarction - Atherosclerosis of bypass graft of coronary artery of transplanted heart without angina pectoris
I25.84 - I27.9 - Coronary atherosclerosis due to calcified coronary lesion - Pulmonary heart disease, unspecified
I30.0 - I43 - Acute nonspecific idiopathic pericarditis - Cardiomyopathy in diseases classified elsewhere
I44.1 - Atrioventricular block, second degree
I44.2 - Atrioventricular block, complete
I44.7 - Left bundle-branch block, unspecified
I45.6 - Pre-excitation syndrome
I45.81 - Long QT syndrome
I45.9 - Conduction disorder, unspecified
I46.2 - I51.7 - Cardiac arrest due to underlying cardiac condition - Cardiomegaly
I51.9 - Heart disease, unspecified
I52 - Other heart disorders in diseases classified elsewhere
I63.30 - I63.9 - Cerebral infarction due to thrombosis of unspecified cerebral artery - Cerebral infarction, unspecified
I66.01 - I66.9 - Occlusion and stenosis of right middle cerebral artery - Occlusion and stenosis of unspecified cerebral artery
I67.0 - Dissection of cerebral arteries, nonruptured
I67.841 - Reversible cerebrovascular vasoconstriction syndrome - Other cerebrovascular vasoconstriction
I67.848 -
I67.89 - Other cerebrovascular disease
I70.0 Atherosclerosis of aorta
I71.00 - I73.1 Dissection of unspecified site of aorta - Thromboangiitis obliterans [Buerger's disease]
I73.81 - I73.9 Erythromelalgia - Peripheral vascular disease, unspecified
I74.01 - I75.89 Saddle embolus of abdominal aorta - Atheroembolism of other site
I77.71 - I77.79 Dissection of carotid artery - Dissection of other artery
I79.0 - I79.8 Aneurysm of aorta in diseases classified elsewhere - Other disorders of arteries, arterioles and capillaries in diseases classified elsewhere
I95.1 - I95.9 Orthostatic hypotension - Hypotension, unspecified
I97.0 - I97.191 Postcardiotomy syndrome - Other postprocedural cardiac functional disturbances following other surgery
I97.710 - I97.791 Intraoperative cardiac arrest during cardiac surgery - Other intraoperative cardiac functional disturbances during other surgery
I97.88 - I97.89 Other intraoperative complications of the circulatory system, not elsewhere classified - Other postprocedural complications and disorders of the circulatory system, not elsewhere classified
J80 Acute respiratory distress syndrome
J81.0 Acute pulmonary edema
K68.11 Postprocedural retroperitoneal abscess
M30.3 Mucocutaneous lymph node syndrome [Kawasaki]
M31.4 Aortic arch syndrome [Takayasu]
M32.0 - M32.9 Drug-induced systemic lupus erythematosus - Systemic lupus erythematosus, unspecified
P22.8 Other respiratory distress of newborn
P22.9 Respiratory distress of newborn, unspecified
P28.3 Primary sleep apnea of newborn
P28.4 Other apnea of newborn
P28.89 Other specified respiratory conditions of newborn
P29.0 Neonatal cardiac failure
P29.11 - P29.12 Neonatal tachycardia - Neonatal bradycardia
P29.2 Neonatal hypertension
P29.4 Transient myocardial ischemia in newborn
P29.89 - P29.9 Other cardiovascular disorders originating in the perinatal period - Cardiovascular disorder originating in the perinatal period, unspecified
P84 Other problems with newborn
P94.1 - P94.9 Congenital hypertonia - Disorder of muscle tone of newborn, unspecified
P96.0 Congenital renal failure
P96.3 - P96.5 Wide cranial sutures of newborn - Complication to newborn due to (fetal) intrauterine procedure
P96.89 Other specified conditions originating in the perinatal period
Q20.0 - Q25.2  Common arterial trunk - Atresia of aorta
- Q28.9  Congenital malformation of circulatory system, unspecified
Q87.40 - Q87.43  Marfan's syndrome, unspecified - Marfan's syndrome with skeletal manifestation
Q89.3  Situs inversus
R00.1 - R01.2  Bradycardia, unspecified - Other cardiac sounds
- R06.00  Dyspnea, unspecified
R06.02 - R06.09 - R06.2 - R06.3  Shortness of breath - Other forms of dyspnea  Wheezing - Periodic breathing
- R06.81 - R06.89 -  Apnea, not elsewhere classified - Other abnormalities of breathing
R07.2  Precordial pain
R07.82 - R07.9 -  Intercostal pain - Chest pain, unspecified
R23.0  Cyanosis
R40.20 - R40.2124 -  Unspecified coma - Coma scale, eyes open, to pain, 24 hours or more after hospital admission
R40.2210 - R40.2224 -  Coma scale, best verbal response, none, unspecified time - Coma scale, best verbal response, incomprehensible words, 24 hours or more after hospital admission
R40.2310 - R40.2324 -  Coma scale, best motor response, none, unspecified time - Coma scale, best motor response, extension, 24 hours or more after hospital admission
R40.2340 - R40.2344 -  Coma scale, best motor response, flexion withdrawal, unspecified time - Coma scale, best motor response, flexion withdrawal, 24 hours or more after hospital admission
R40.4  Transient alteration of awareness
R47.01  Aphasia
R50.2 - R50.82 -  Drug induced fever - Postprocedural fever
R50.9  Fever, unspecified
R55  Syncope and collapse
R57.0 - R57.9  Cardiogenic shock - Shock, unspecified
R60.0 - R60.9  Localized edema - Edema, unspecified
- R65.21  Severe sepsis with septic shock
R78.81  Bacteremia
R94.31  Abnormal electrocardiogram [ECG] [EKG]
S21.309A - S21.309S - Unspecified open wound of unspecified front wall of thorax with penetration into thoracic cavity, initial encounter - Unspecified open wound of unspecified front wall of thorax with penetration into thoracic cavity, sequela

S22.5XXA - S22.5XXS - Flail chest, initial encounter for closed fracture - Flail chest, sequela

S25.00XA - S25.09XS - Unspecified injury of thoracic aorta, initial encounter - Other specified injury of thoracic aorta, sequela

S25.20XA - S25.29XS - Unspecified injury of superior vena cava, initial encounter - Other specified injury of superior vena cava, sequela

S25.401A - S25.499S - Unspecified injury of right pulmonary blood vessels, initial encounter - Other specified injury of unspecified pulmonary blood vessels, sequela

S26.01XA - S26.022S - Contusion of heart with hemopericardium, initial encounter - Major laceration of heart with hemopericardium, sequela

S26.11XA - S26.12XS - Contusion of heart without hemopericardium, initial encounter - Laceration of heart without hemopericardium, sequela

S26.90XA - S26.92XS - Unspecified injury of heart, unspecified with or without hemopericardium, initial encounter - Laceration of heart, unspecified with or without hemopericardium, sequela

T45.1X1A - T45.1X4S - Poisoning by antineoplastic and immunosuppressive drugs, accidental (unintentional), initial encounter - Poisoning by antineoplastic and immunosuppressive drugs, undetermined, sequela

T50.905A - T50.905S - Adverse effect of unspecified drugs, medicaments and biological substances, initial encounter - Adverse effect of unspecified drugs, medicaments and biological substances, sequela

T66.XXXA - T66.XXXS - Radiation sickness, unspecified, initial encounter - Radiation sickness, unspecified, sequela

T79.0XXA - T79.1XXS - Air embolism (traumatic), initial encounter - Fat embolism (traumatic), sequela

T79.4XXA - T79.4XXS - Traumatic shock, initial encounter - Traumatic shock, sequela

T80.211A - T80.29XS - Bloodstream infection due to central venous catheter, initial encounter - Infection following other infusion, transfusion and therapeutic injection, sequela

T81.10XA - T81.19XS - Postprocedural shock unspecified, initial encounter - Other postprocedural shock, sequela

T81.4XXA - T81.4XXS - Infection following a procedure, initial encounter - Infection following a procedure, sequela

T82.01XA - T82.817S - Breakdown (mechanical) of heart valve prosthesis, initial encounter - Embolism of cardiac prosthetic devices, implants and grafts, sequela

T82.827A - T82.827S - Fibrosis of cardiac prosthetic devices, implants and grafts, initial encounter - Fibrosis of cardiac prosthetic devices, implants and grafts, sequela

T82.837A - T82.837S - Hemorrhage of cardiac prosthetic devices, implants and grafts, initial encounter - Hemorrhage of cardiac prosthetic devices, implants and grafts, sequela

T82.847A - T82.847S - Pain from cardiac prosthetic devices, implants and grafts, initial encounter - Pain from cardiac prosthetic devices, implants and grafts, sequela
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>T82.857A</td>
<td>Stenosis of cardiac prosthetic devices, implants and grafts, initial encounter</td>
</tr>
<tr>
<td>T82.857S</td>
<td>Stenosis of cardiac prosthetic devices, implants and grafts, sequela</td>
</tr>
<tr>
<td>T82.867A</td>
<td>Thrombosis of cardiac prosthetic devices, implants and grafts, initial encounter</td>
</tr>
<tr>
<td>T82.867S</td>
<td>Thrombosis of cardiac prosthetic devices, implants and grafts, sequela</td>
</tr>
<tr>
<td>T82.897A</td>
<td>Other specified complication of cardiac prosthetic devices, implants and grafts, initial encounter</td>
</tr>
<tr>
<td>T82.897S</td>
<td>Other specified complication of cardiac prosthetic devices, implants and grafts, sequela</td>
</tr>
<tr>
<td>T82.9XXA</td>
<td>Unspecified complication of cardiac and vascular prosthetic device, implant and graft, initial encounter</td>
</tr>
<tr>
<td>T82.9XXS</td>
<td>Unspecified complication of cardiac and vascular prosthetic device, implant and graft, sequela</td>
</tr>
<tr>
<td>T84.50XA</td>
<td>Infection and inflammatory reaction due to unspecified internal joint prosthesis, initial encounter</td>
</tr>
<tr>
<td>T84.59XS</td>
<td>Infection and inflammatory reaction due to other internal joint prosthesis, sequela</td>
</tr>
<tr>
<td>T85.79XA</td>
<td>Infection and inflammatory reaction due to other internal prosthetic devices, implants and grafts, initial encounter</td>
</tr>
<tr>
<td>T85.79XS</td>
<td>Infection and inflammatory reaction due to other internal prosthetic devices, implants and grafts, sequela</td>
</tr>
<tr>
<td>T86.20</td>
<td>Unspecified complication of heart transplant - Other complications of heart-lung transplant</td>
</tr>
<tr>
<td>T86.39</td>
<td>Encounter for other preprocedural examination</td>
</tr>
<tr>
<td>Z01.818</td>
<td>Encounter for follow-up examination after completed treatment for conditions other than malignant neoplasm</td>
</tr>
<tr>
<td>Z09</td>
<td>Encounter for screening for cardiovascular disorders</td>
</tr>
<tr>
<td>Z48.21*</td>
<td>Encounter for aftercare following heart transplant</td>
</tr>
<tr>
<td>Z48.280*</td>
<td>Encounter for aftercare following heart-lung transplant</td>
</tr>
<tr>
<td>Z94.1*</td>
<td>Heart transplant status</td>
</tr>
<tr>
<td>Z94.3*</td>
<td>Heart and lungs transplant status</td>
</tr>
<tr>
<td>Z95.2*</td>
<td>Presence of prosthetic heart valve</td>
</tr>
<tr>
<td>Z95.3*</td>
<td>Presence of xenogenic heart valve</td>
</tr>
<tr>
<td>Z95.4*</td>
<td>Presence of other heart-valve replacement</td>
</tr>
</tbody>
</table>

**Group 1 Medical Necessity ICD-10 Codes Asterisk Explanation:** **Diagnosis codes Z48.21*, Z48.280*, Z94.1*, Z94.3*, Z95.2*, Z95.3*, and Z95.4* should not be billed as the primary diagnosis.**

Showing 1 to 158 of 158 entries in Group 1

ICD-10 Codes that DO NOT Support Medical Necessity

Additional ICD-10 Information

N/A
**General Information**

Associated Information

**Documentation Requirements**

1. Each service requires a formal written report with interpretation. This report should be kept on file with copies of image documentation (paper or tape) for review if requested. The quality of images obtained on any given exam is dependent on the instrumentation, the operator and the patient.
2. At a minimum, a complete study should contain M mode and/or 2D measurements of LV end diastolic diameter, LV end systolic diameter, LV wall thickness, left atrial diameter, aortic valve excursion and a qualitative description of the LV function, whenever possible given any technical limitations in a particular case. Individual echocardiographic laboratories (providers) may choose valid substitutes for these parameters such as LV volumes, ejection fraction and mass measurements.
3. A Doppler interrogation should state the modes used and should give both qualitative and quantitative information where appropriate.
4. Claims for contrast echocardiography services must be supported by documentation that conventional studies were inconclusive and there was a need for the contrast enhancement.
5. Documentation must be available upon request.

**Utilization Guidelines**

It is expected that these services would be performed as indicated by current medical literature and/or standards of practice. When services are performed in excess of established parameters, they may be subject to review for medical necessity.

Sources of Information and Basis for Decision
FCSO reference LCD number(s) – L29029, L29296, L29402

ACC Carrier Advisory Committee


American College of Cardiology/American Heart Association (2003). Guideline update for clinical application of echocardiography. *Circulation* 108:1146-1162. This source was used to support indications/limitations of echocardiography.


Empire Medical Services LMRP


“Transthoracic Echocardiography (TTE),” Noridian Administrative Services, LLC LCD, (CO) L14929.

“Transthoracic Echocardiography (TTE),” Arkansas BlueCross BlueShield (Pinnacle) LCD, (NM, OK) L9767.

“Transthoracic Echocardiography (TTE),” Highmark Medicare Services LCD (12102),L27536.

Revision History Information

N/A

Associated Documents

Attachments
coding guidelines effec 10/1/14
Related Local Coverage Documents
N/A
Related National Coverage Documents
N/A
Public Version(s)
Updated on 07/01/2014 with effective dates 10/01/2015 - N/A
Updated on 04/02/2014 with effective dates 10/01/2015 - N/A
FIRST COAST SERVICE OPTIONS  
MAC – PART A/B  
CODING GUIDELINES  

LCD Database ID Number

L33768

Contractor Name

First Coast Service Options, Inc.

Contractor Number

09101 - Florida  
09201 – Puerto Rico/Virgin Islands  
09102 - Florida  
09202 – Puerto Rico  
09302 – Virgin Islands

LCD Title

Transthoracic Echocardiography

Coding Guidelines

The utilization of contrast (A9700 Supply of injectable contrast material for use in echocardiography, per study) should not be routine protocol for any laboratory or office. The patients requiring contrast should be carefully selected and the decision to use contrast should be made following a pre-contrast study and an assessment of echocardiographic data that is required.

Studies with or without contrast will be considered a single study, whether performed on the same or sequential days.

Contrast echocardiography is not covered when used to evaluate perfusion.

Purchased service

A physician or group may bill and receive Part B payment, on assignment, for the technical portion of an echocardiography study. The purchasing physician or group may be the same physician or group ordering the test. The supplier performing the technical component must be enrolled in the Medicare program. The purchasing physician or group may not markup the charge from the purchase price, and must accept as full payment for the technical portion, the lowest amount when the Medicare fee schedule, the billing physician’s actual charge and the supplier’s net charge are compared.

Other Comments
Training Requirements:

While it is not the intention or jurisdiction to credential providers, a satisfactory level of competence is expected from providers who submit claims for services rendered. It is well known that substandard studies often lead to preventable repetition of studies and overutilization of services.

The acceptable levels of competence, as defined by the American College of Cardiology/American Heart Association Clinical Competence Statement on Echocardiography (2003), are outlined as follows:

For the technical portion, an acceptable level of competence is fulfilled when the image acquisition is obtained under any one of the following conditions:

a. The service is performed by a physician; or

b. The service is performed by a technician who is credentialed as either a Registered Diagnostic Cardiac Sonographer (RDCS) through the American Registry of Diagnostic Medical Sonographers or as a Registered Cardiac Sonographer (RCS) through the Cardiovascular Credentialing International; or

c. The service is performed at a laboratory (e.g. office, IDTF), credentialed by the Intersocietal Commission for the Accreditation of Echocardiography Laboratories (ICAEL).

For the professional portion, an acceptable level of competence is fulfilled when the interpretation is performed by a physician meeting any one of the following requirements:

a. The physician is board certified in Cardiovascular Diseases; or

b. The physician has Level II training in transthoracic echocardiography, as defined by the American College of Cardiology/American Heart Association/ American College of Physicians Task Force on Clinical Competence in Echocardiography, or the equivalent of Level II training as set forth in that document; or

c. The physician provides the interpretation in conjunction with a study that is performed at a laboratory that is accredited by the Intersocietal Commission for the Accreditation of Echocardiography Laboratories and that is subject to such laboratory’s quality assurance policies and procedures; or

d. The physician has staff privileges to interpret echocardiograms at a hospital that participates in the Medicare program.

All echocardiography services require a referring or an ordering physician.

Limited Capability Ultrasound Scanners

Some cardiac ultrasound machines have become increasingly compact and portable. Certain “hand carried” scanners are “full featured” and permit a skilled examiner to image and record permanent records of all of the tomographic images and Doppler data (Both color and spectral) needed to perform a complete transthoracic echocardiographic examination that may be quite comparable, in diagnostic value, to that obtained with a larger, “state of the art” instrument. In order to qualify as a valid echocardiographic service, the study must be done for an accepted clinical indication by a properly trained examiner and must include a permanent record of the findings, data sufficient to support the conclusions and an appropriate interpretation and written report. Such a study would meet the standards required for a complete echocardiographic examination, regardless of the size of the instrument used to perform the study.

Some small scanners have more limited capabilities and lack either the permanent recording capabilities or some of the functional capabilities needed to perform a complete examination. Such a study may be quite useful as an
extension of the physical examination. However, an examination that does not meet the standards required for a complete diagnostic echocardiographic examination – whether performed with a “conventional” scanner or a limited capability ultrasound scanner – will not be recognized as a valid echocardiographic service and will be non-covered.

Revision History

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/01/2014</td>
<td>This “Coding Guideline” replaces all previous “Coding Guidelines” to comply with ICD-10-CM based on Change Request 8112. The effective date of this “Coding Guideline” is based on date of service.</td>
</tr>
<tr>
<td>02/16/2009 – Florida 03/02/2009 – Puerto Rico/Virgin Islands</td>
<td>Original</td>
</tr>
</tbody>
</table>

Document formatted: 06/11/2013((DA/st)