



Colorado Medicaid Policy Statement

IMAGING SERVICES

ECHOCARDIOGRAMS

Brief Coverage Statement

Echocardiography is the application of ultrasounds in the diagnosis, evaluation and management of cardiovascular disease. High-frequency sound waves are used to see all four chambers of the beating heart as well as the heart valves, the great blood vessels, and surrounding structures. Information provided by echocardiography includes assessment of the pumping function of the heart, valve structure and movement, and abnormal blood flow or fluid accumulations. Colorado Medicaid covers echocardiography when medically necessary as described in this policy.

*This policy is not intended to address coverage for inpatient hospital stays, hospital observation or emergency department care.

Routine screening or surveys are not allowed, nor are “rule-out” examinations unless a specific differential problem exists.

Eligible Providers

Rendering Providers

Cardiologists

Physicians certified by the American Society of Echocardiography.

Prescribing Providers:

Physician

Osteopathic and Allopathic Physician

Nurse Practitioner

Physician Assistant

All of the above providers must be enrolled with Colorado Medicaid.

Eligible Places of Service

Office

Clinic

Federally Qualified Health Center

Rural Health Center

Hospital- Outpatient Department

Ambulatory Surgery Center

Eligible Recipients

All Medicaid-enrolled clients. Clients enrolled in the Primary Care Physician Program (PCPP) must obtain a referral to a specialist for services to be reimbursed.

Issue Date:

Review Date:

Covered Services

Colorado Medicaid will reimburse participating providers for no more than one echocardiographic examination per client and two test readings (excluding clients age 20 and under) in a 12-month period.

The following lists are not all-inclusive. Unless stated otherwise, the following tests have a limit of one per year.

Transthoracic Echocardiography (TTE)

Medicaid covers TTE for

- a. Assessment of cardiac chambers
- b. Evaluation of left ventricular hypertrophy
- c. Evaluation of stenotic or insufficient valves
- d. Evaluation of suspected bacterial endocarditis
- e. Evaluation of suspected pulmonary hypertension
- f. Evaluation prior to cardiac resynchronization therapy
- g. Evaluation of left and right ventricular systolic function and left ventricular segmental function
- h. Identification of atrial or ventricular masses or thrombi
- i. Identification of pericardial disorders
- j. Identification and assessment of congenital heart defects
- k. Guidance of percutaneous interventions directly affecting the heart

Transesophageal Echocardiography (TEE)

TEE may be useful for any of the indications for which TTE would be used when TTE is uninformative due to technical limitations.

Medicaid covers TEE for

- a. Evaluation of bacterial endocarditis
- b. Identification of left atrial pathology
- c. Evaluation of mitral valvular prosthesis
- d. Evaluation of the aortic arch and descending thoracic aorta for dissection, thrombi, or friable plaques
- e. Identification and assessment of congenital heart defects
- f. Assessment of cardiac anatomy and function before and after cardiac surgery
- g. Guidance of percutaneous interventions directly affecting the heart
- h. Evaluation of cardiac sources for emboli

Doppler or Color Doppler Echocardiography

Medicaid covers Doppler or color Doppler echocardiography for

- a. Evaluation of septal defects

Issue Date:

Review Date:

- b. Evaluation of the severity of valve stenosis or regurgitation
- c. Evaluation of site of left-to-right or right-to-left shunts
- d. Assessment of diseases of the aorta
- e. Evaluation of prosthetic valves
- f. Assessment of congenital heart defects

Stress Echocardiograms

Medicaid covers cardiovascular stress testing

- a. In the screening for coronary atherosclerosis and myocardial ischemia
- b. In the follow-up of post–myocardial infarction (MI), post–percutaneous transluminal coronary angioplasty (PTCA), or post–coronary artery bypass graft (CABG) to assess functional improvement during cardiac rehabilitation
- c. In the follow-up of patients with palliated or unpalliated congenital heart disease
- d. In the follow-up of pediatric and adult patients with dilated cardiomyopathy, regardless of etiology
- e. In the follow-up of pediatric and adult patients with hypertrophic cardiomyopathy
- f. In the pre-operative assessment of patients considered for valve replacement; or
- g. In the follow-up of patients after valve replacement

Fetal Surveillance

Fetal echocardiography is covered as a diagnostic tool for a fetus at risk for congenital heart disease.

Fetal Risk Factors

- a. Extracardiac abnormality
- b. Chromosomal abnormality
- c. Fetal cardiac arrhythmia
- d. Non-immune hydrops
- e. Question of cardiac anomaly on prior sonogram
- f. Intrauterine growth retardation
- g. Family history of congenital heart disease (parent or sibling)

Maternal Risk Factors

- a. Family history of congenital heart disease (parent or sibling, or prior child)
- b. Teratogenic exposure (e.g. alcohol, amphetamines, anticonvulsives, lithium)
- c. Maternal disorders (e.g diabetes mellitus, collagen vascular disease, maternal infection, phenylketonuria.)
- d. Inherited familial syndromes
- e. Suspected genetic abnormality due to abnormal maternal serum screening or maternal age greater than 35.

Fetal echocardiography is allowed twice per pregnancy.

Note: The intent of the above limitations is not to prevent or interfere with medically necessary repetition but to prevent medically unnecessary duplication.

Prior Authorization Requirements

Transthoracic echocardiography (TTE) for congenital cardiac anomalies will only be reimbursed without prior authorization when billed for a second time by any participating provider in a 12-month period if the criteria in the Criteria for Repeat Echocardiograms section of this policy are met.

Criteria for Repeat Echocardiograms

Unless stated otherwise, a repeat **full echocardiogram** will be reimbursed when performed within a 12-month period only if the client has or develops one of the following conditions:

1. All TTE exams complete or limited, performed on children by Pediatric Echocardiologists will be reimbursed, due to the rapidly changing cardiac physiology and high incidence of congenital heart disease in this age group.
2. Clients with a clinical diagnosis of severe regurgitant or stenotic lesions.
3. Congenital heart disease in clients age 20 and under with more than one cardiac lesion or abnormality.
4. Following heart or lung transplant, to monitor for rejection.
5. Subacute bacterial endocarditis.
6. Pericardial effusion with tamponade.
7. One of the following cardiac events has occurred within the 12 month period subsequent to the last complete echocardiogram:
 - a. Myocardial infarction
 - b. A coronary artery bypass graft surgery or placement of coronary stent(s), only with development of new symptoms
 - c. Valve replacement or surgery for structural heart disease or interventional procedure
8. In following clients for cardio-vascular diagnoses (including pulmonary hypertension, arterial hypertension, left ventricular hypertrophy, pericardial effusion, thoracic aortic aneurysms, congestive heart failure (CHF)**, mitral regurgitation or other valvular abnormalities other than aortic insufficiency), a complete echocardiogram within a 12 month period will be reimbursed only if there has been a clinically significant change in cardiac symptoms.*

*Cardiac symptoms include shortness of breath, fluid retention, chest pain, and palpitations.

** Symptoms of CHF include increased shortness of breath, new nocturnal dyspnea, new or increased orthopnea, decreased exercise tolerance, fluid retention, rapid weight gain due to fluid retention, new or increased rales, confusion.

Non-Covered Services

Mobile echocardiograms are not the standard of care for evaluating cardiac function and will not be reimbursed.

Issue Date:
Review Date:

Echocardiograms are not covered when the procedure:

- Is performed as part of treatment that is considered experimental, investigation or part of a clinical trial;
- Unnecessarily duplicates another provider's procedure

Billing

Echocardiogram codes payable when billed by a provider once in a 12-month period as long as they are submitted with the appropriate ICD-9 code.

Professional services must be billed by the practitioner. Technical personnel services (Radiologic Technician) are reimbursed in the technical component.

Refer to Provider Billing Manual for additional billing details.

Definitions

Aortic insufficiency- is the leaking of the aortic valve of the heart that causes blood to flow in the reverse direction.

Atherosclerosis- is the condition in which an artery wall thickens as the result of a build-up of fatty materials such as cholesterol.

Atherectomy- is a procedure to remove plaque from arteries.

Bacterial endocarditis- microbial infection of the inner layer of the heart.

Hydrops- characterized by an accumulation of fluid, or edema, in at least two fetal compartments. It is a prenatal form of heart failure, in which the heart is unable to satisfy its demand for a high amount of blood flow.

Mitral regurgitation- is the abnormal leaking of blood through the mitral valve, from the left ventricle into the left atrium of the heart.

Nocturnal dyspnea- It is defined as sudden, severe shortness of breath at night that awakens a person from sleep, often with coughing and wheezing.

Orthopnea- shortness of breath (or dyspnea) which occurs when lying flat, causing the person to have to sleep propped up in bed or sitting in a chair.

Pericardial effusion- abnormal fluid accumulation around the heart.

Percutaneous- pertains to any medical procedure where access to inner organs or other tissue is done via needle-puncture of the skin, rather than by using an "open" approach where inner organs or tissue are exposed.

Rales- are the clicking, rattling, or crackling noises heard on auscultation of (listening to) the lung with a stethoscope.

Subacute bacterial endocarditis- is a bacterial infection that produces growths on the endocardium (the cells lining the inside of the heart).

Stenotic- is an abnormal narrowing in a blood vessel or other tubular organ or structure.

Stent restenosis- the re-narrowing of a coronary artery - occurs within 3 – 6 months in 40 – 50% of patients who have angioplasty.

Tamponade- is an emergency condition in which fluid accumulates in the pericardium.

Thoracic aortic aneurysm- a widening (bulging) of part of the wall of the aorta, the body's largest artery.

Thrombus (pl. thrombi) - or blood clot, is the final product of the blood coagulation process.

Teratogenic- is an agent that can disturb the development of the embryo or fetus.

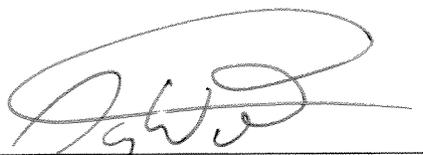
Ventricular hypertrophy- is the enlargement of ventricles (lower chambers) in the heart.

References

Transthoracic Echocardiography for Medicare Plans; United Healthcare- Oxford

Electrocardiography, Echocardiography and Intravascular Ultrasound Clinical Coverage Policy 1R-4, North Carolina Division of Medical Assistance; January 1, 2009.

ACC/AHA/ASE 2003 Guideline Update for the Clinical Application of Echocardiography; Cheitlin *et al.* 2003



Medicaid Director Signature

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Date