Cohere Medical Policy - Transesophageal Echocardiography (TEE)

Clinical Policy for Medical Necessity Review

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Important Notices

Notices & Disclaimers:

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Policy Information:

Specialty Area: Cardiovascular Disease
Policy Name: Cohere Medical Policy - Transesophageal Echocardiography (TEE)
Type: [**X**] Adult (18+ yo) | [**X**] Pediatric (0-17 yo)

Table of Contents

Medical Necessity Criteria

Service: Transesophageal Echocardiography (TEE)

Cohere Health takes an evidence-based approach to reviewing imaging and procedure requests, meaning that sufficient clinical information must be provided at the time of submission to determine medical necessity. Documentation must include a recent and detailed history, physical examination related to the onset or change in symptoms, relevant lab results, prior imaging, and details of previous treatments. Advanced imaging or procedures should be requested after a recent clinical evaluation by the treating provider, which may include referral to a specialist.

- When a specific clinical indication is not explicitly addressed in the Cohere Health medical policy, medical necessity will be determined based on established clinical best practices, as supported by evidence-based literature, peer-reviewed sources, professional society guidelines, and state or national recommendations, unless otherwise directed by the health plan.
- Requests submitted without clinical documentation, or those that do not align with the provided clinical information—such as mismatched procedure, laterality, body part, or CPT code—may be denied for lack of medical necessity due to insufficient or inconsistent clinical information.
- When there are multiple diagnostic or therapeutic procedures requested simultaneously or within the past three months, each will be reviewed independently. Clinical documentation must clearly justify all of the following:
  - The medical necessity of each individual request
  - Why prior imaging or procedures were inconclusive or why additional/follow-up studies are needed
  - How the results will impact patient management or treatment decisions
- Requests involving adjacent or contiguous body parts may be considered not medically necessary if the documentation demonstrates that the patient's primary symptoms can be adequately assessed with a single study or procedure.

Description

Transeophageal echocardiography (TEE) is a procedure in which a small probe attached to a thin tube is inserted into a sedated patient's throat and esophagus.[1] Sound waves are then emitted by the probe, generating live, moving images of the heart and providing information on the health and functioning of heart structures, including the myocardium, valves, pericardium, coronary arteries, and great vessels.

TEE is often used when transthoracic echocardiography (TTE) is not feasible or insufficient, for example, in patients with atrial fibrillation, suspected thrombus, or unclear valve disease. TEE is more expensive, more invasive, and takes longer to perform than TTE, but is more sensitive, especially for patent foramen ovale and left atrial appendage. TEE can also identify the cause of stroke by detecting potential intrathoracic sources of embolism. Superior visualization of the left atrial appendage provided by TEE can assess the safety of outpatient elective and acute inpatient cardioversions.[2] TEE is also valuable for evaluating other heart structures, including better imaging of mitral valve function and the atrial septum, both of which can have clinical significance for a patient with atrial fibrillation.

In valvular disease patients, TEE may be used when TTE results are inconclusive or discordant with history and physical exam.[2] TEE is particularly useful in patients with mitral regurgitation to assess mitral leaflet anatomy when considering the feasibility of mitral leaflet repair or the MitraClip procedure. TEE is also useful in assessing the presence of infective endocarditis or left atrial thrombus. TEE is an integral part of minimally invasive valve interventions, including TAVR and MitraCLip procedures.

Medical Necessity Criteria

Indications

Transesophageal echocardiography (TEE) is considered appropriate if **ANY** of the following is **TRUE**:

- The patient has paroxysmal or persistent atrial flutter/fibrillation presenting for planned cardioversion[3]; **OR**
- As a follow-up procedure if **ALL** of the following are **TRUE**:
  - Initial imaging yielded an intracardiac thrombus or evidence of left atrial stasis; **AND**
  - The patient has had a minimum of 6 weeks of therapeutic anticoagulant therapy[4]; **OR**
- The patient has a CHA_2DS_2-VASc score greater than or equal to 2 (high-risk for thromboembolism) before catheter ablation if an intracardiac echocardiogram is not planned during the ablation; **OR**
- As an imaging modality to visualize atrial anatomy during or up to 45 days after catheter or surgical procedures for left atrial appendage occlusion/obliteration; **OR**
- Guidance for **ANY** of the following[6]:
  - Placement of an occlusion device (e.g., septal defect, Fontan, intra-atrial baffle fenestration); **OR**
  - Blade or balloon septostomy; **OR**
  - Creation/stenting of intraventricular communication; **OR**
  - During percutaneous valve interventions; **OR**
  - During radiofrequency ablation procedures; **OR**
  - Placement of catheter-based cardiac assist device; **OR**
- The patient is presenting with atrial flutter with any history of left atrial appendage thrombus, regardless of anticoagulation status; **OR**
- To evaluate known or suspected valvular heart disease when TTE provides insufficient or discordant information; **OR**
- Specific cardiac imaging is needed before mitral valve intervention; **OR**
- Specific cardiac imaging is needed before TAVR intervention; **OR**
- To re-evaluate suspected prosthetic valve dysfunction when it would help guide therapy; **OR**
- Within three days of a mitral valve repair, to exclude the presence of intracardiac mass, thrombus, or vegetation; **OR**

- The patient has a prior valve replacement or repair and clinical symptoms or signs suggest prosthetic valve dysfunction; **OR**
- Intraprocedural guidance for **ANY** of the following valve interventions:
  - Valve replacement or repair; **OR**
  - Transcatheter pulmonary valve replacement; **OR**
- The patient has known or suspected infectious endocarditis when it is used to guide treatment; **OR**
- The patient has a suspected cardiac mass, tumor, thrombus, or cardiac source of embolus; **OR**
- The patient has Staphylococcus aureus bacteremia with or without a known source; **OR**
- The patient has a mechanical prosthetic valve and signs or symptoms of **ANY** of the following:
  - Prosthetic valve obstruction; **OR**
  - An embolic event; **OR**
- TEE is needed for intraprocedural guidance during surgery; **OR**
- TTE provided insufficient, discordant, or nondiagnostic information; **OR**
- The patient is known or suspected to have **ANY** of the following:
  - Pericardial constriction[5,7]; **OR**
  - Pericardial disease due to mass, malignancy, thrombus, or cardiac embolus[7]; **OR**
  - Cardiac compression by a loculated pericardial hematoma; **OR**
  - Pericardial thickening inadequately defined by a transthoracic echocardiogram (TTE)[8]; **OR**
  - The patient had a recent cardiovascular surgery or intervention and a complication is suspected; **OR**
- Anatomical or functional complications of congenital heart disease are suspected; **OR**
- The patient is pregnant and has a mechanical prosthetic valve; **OR**
- Diminished left ventricular function or dilated cardiomyopathy before a VT ablation to rule out intracardiac thrombus[10]; **OR**
- Repeat imaging (defined as repeat request following recent imaging of the same anatomic region with the same modality), in the absence of established guidelines, for **ANY** of the following:
  - New or worsening symptoms, such that repeat imaging would influence treatment; **OR**
  - One-time clarifying follow-up of a prior indeterminate finding; **OR**

    - In the absence of change in symptoms, there is an established need for monitoring which would influence management; **OR**
    - Re-evaluation of prior TEE findings for interval change; **OR**
- Suspected aortic pathology including dissection/transection (e.g., Marfan syndrome, bicuspid aortic valve, coarcation of the aorta)[6]; **OR**
- Intra-cardiac evaluation for vegetation or suspected abscess[6]; **OR**
- Pericardial effusion or cardiac function evaluation and postoperative monitoring with open sternum or poor acoustic windows[6]; **OR**
- Evaluation of postoperative results and function[6]; **OR**
- Intraoperative monitoring of ventricular volume and function[6]; **OR**
- Monitoring of intra-cardiac/intravascular air and adequecy of cardiac de-airing[6]**; OR**
- Repeat imaging (defined as a repeat request following recent imaging of the same anatomic region with the same or similar modality) will be considered reasonable and necessary if **ALL** of the following are **TRUE**:
    - There are no established guidelines; **AND**
    - **ANY** of the following:
        - There are new or worsening symptoms not addressed in the guidelines, such that repeat imaging would influence treatment; **OR**
        - There is need for a one-time clarifying follow-up of a prior indeterminate finding; **OR**
        - In the absence of change in symptoms, there is an established need for monitoring which would influence management.

Non-Indications

Transesophageal echocardiography (TEE) is not considered appropriate if **ANY** of the following is **TRUE**:

- The patient has undergone advanced imaging of the same body part within 3 months without undergoing treatment or developing new or worsening symptoms[15]; **OR**
- The atrial fibrillation duration is reliably defined and is less than 48 hours in a patient with a CHA_2DS_2-VASc score of less than 2[3]; **OR**
- Another imaging modality (e.g., CT, MRI) is requested simultaneously to evaluate for intracardiac thrombus; **OR**
- The patient has a history of esophageal pathology (e.g., stricture, malignancy, fistula, diverticulum), recent surgery of the esophagus, or active GI bleeding; **OR**

- The patient has suspected atrioesophageal fistula following atrial fibrillation ablation; **OR**
- The patient has a history of undiagnosed dysphagia; **OR**
- Routine TEE for a patient with a prosthetic valve; **OR**
- The purpose is to screen for structural cardiac abnormalities in the absence of an established diagnosis, sign, or symptom; **OR**
- Routine reassessment of global and regional left ventricular function, especially if TTE is technically adequate; **OR**
- The patient has poor airway control.[6]

Level of Care Criteria

Inpatient or Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
93312	Echocardiography, transesophageal, real-time with image documentation (2D) (with or without M-mode recording); including probe placement, image acquisition, interpretation and report
93313	Echocardiography, transesophageal, real-time with image documentation (2D) (with or without M-mode recording); placement of transesophageal probe only
93314	Echocardiography, transesophageal, real-time with image documentation (2D) (with or without M-mode recording); image acquisition, interpretation and report only
93315	Transesophageal echocardiography for congenital cardiac anomalies; including probe placement, image acquisition, interpretation and report
93316	Transesophageal echocardiography for congenital cardiac anomalies; placement of transesophageal probe only
93317	Transesophageal echocardiography for congenital cardiac anomalies; image acquisition, interpretation and report only

93318	Echocardiography, transesophageal (TEE) for monitoring purposes, including probe placement, real time 2-dimensional image acquisition and interpretation leading to ongoing (continuous) assessment of (dynamically changing) cardiac pumping function and to therapeutic measures on an immediate time basis
93355	Echocardiography, transesophageal (TEE) for guidance of a transcatheter intracardiac or great vessel(s) structural intervention(s) (eg, TAVR, transcatheter pulmonary valve replacement, mitral valve repair, paravalvular regurgitation repair, left atrial appendage occlusion/closure, ventricular septal defect closure) (peri-and intra-procedural), real-time image acquisition and documentation, guidance with quantitative measurements, probe manipulation, interpretation, and report, including diagnostic transesophageal echocardiography and, when performed, administration of ultrasound contrast, Doppler, color flow, and 3D
C8925	Transesophageal echocardiography (tee) with contrast, or without contrast followed by with contrast, real time with image documentation (2d) (with or without m-mode recording); including probe placement, image acquisition, interpretation and report
C8926	Transesophageal echocardiography (tee) with contrast, or without contrast followed by with contrast, for congenital cardiac anomalies; including probe placement, image acquisition, interpretation and report
C8927	Transesophageal echocardiography (tee) with contrast, or without contrast followed by with contrast, for monitoring purposes, including probe placement, real time 2-dimensional image acquisition and interpretation leading to ongoing (continuous) assessment of (dynamically changing) cardiac pumping function and to therapeutic measures on an immediate time basis

Medical Evidence

Mauriello et al. (2024) reviewed the role of echocardiography in the context of cardiac arrest and post-cardiac arrest syndrome.[16] They note that TEE may be appropriate in these contexts when TTE is inconclusive or unfeasible, for example, when a patient has a vascular cannula and thoracic or pericardial drainings, or when a patient cannot be moved from a supine position. The authors note that studies have reported that, in the intensive care setting, up to half of TTEs may be inconclusive, further highlighting the value of TEE in this context.

In 2025 the American Heart Association (AHA) published a scientific statement on considerations of intraoperative transesophageal echocardiography during adult cardiac surgery.[17] They reviewed several studies that have recently shown decreased mortality and improved clinical outcomes when TEE is used in the intraoperative setting. The authors also cite several other professional medical societies, including the American Society of Anesthesiology, the American College of Cardiology Foundation, the American Society of Echocardiography, the Society of Cardiovascular Anesthesiologists, and the Society of Thoracic Surgeons, that all recommend broad use of TEE during and in preparation for surgical procedures.

Joglar and colleagues (2024) developed the 2023 guideline for the diagnosis and management of atrial fibrillation for the American College of Cardiology and the American Heart Association. The authors evaluated studies and recommended TEE to assess for successful closure of the left atrial appendage (LAA), most notably in the presence of thrombus or leakage around the area of closure. Based upon the ACUTE trial (Assessment of Cardioversion Using Transesophageal Echocardiography), precardioversion anticoagulation for at least 3 weeks is recommended.[4]

In the 2017 appropriate use criteria for multimodality imaging in valvular heart disease, Doherty et al. state that TEE is rarely appropriate for initial evaluation of an asymptomatic patient, and in symptomatic patients, may be appropriate in the setting of suspected acute mitral or aortic regurgitation as

well as respiratory failure or hypoxemia of uncertain etiology. TEE is stated to be appropriate for suspected infectious endocarditis of native or prosthetic valves, endocardial leads, positive blood cultures or new murmur. The committee stated that TEE is also appropriate for suspected cardiac mass, tumor, or embolus, in certain cases of mitral and aortic regurgitation, and further evaluation of valvular masses. A number of other evidence-based appropriateness recommendations may be found in the guideline.[5]

References

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Policy Revision History/Information

Original Date: October 10, 2022		
Review History		
Version 2	03/22/2024	Policy criteria reviewed and updated per medical literature.
Version 3	10/31/2024	Edited repeat imaging criteria language.
Version 4	07/31/2025	Annual review Added indication - "The patient is deemed a non-surgical candidate by a surgeon". Added indications noting that TEE is appropriate for guidance during procedures including the placement of an occlusion device and blade or balloon septostomy. Added repeat imaging language to indications. Removed redundant or duplicative indications. Removed relative contraindications from non-indication section. Updated Medical Evidence section to inlcude Mauriello et al. (2024) and Rong et al. (2025)