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HEALTHCARE MANAGEMENT

Transthoracic Echocardiogram (TTE) (Echo 2D) Guidelines

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Definitions

is an ultrasound of the heart. It is a type of medical imaging of the heart, using standard ultrasound or Doppler ultrasound. The visual image formed using this technique is called an echocardiogram.

TTE may be required in patients with symptoms such as

- chest pain
- shortness of breath
- Palpitations
- Oedema
- Murmurs
- Congenital heart disease
- With other relative symptoms of the patient.

To evaluate the structure and function of the heart and assess the blood flow through the heart and the blood vessels

CPT code:

CPT code 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 describes a complete transthoracic echo with Doppler and color flow.

Coding accuracy: CPT code 93306 should be used only when performing a complete transthoracic echocardiogram. If additional echocardiographic imaging is performed or if a limited study is performed, a different CPT code should be used.

A-93307 : Echocardiography, transthoracic, real-time with image documentation (2D), includes M-mode recording, when performed, complete, without spectral or color Doppler echocardiography.

B-93308 : Echocardiography, transthoracic, real-time with image documentation (2D), includes M-mode recording, when performed, follow-up or limited study

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Transthoracic Echocardiogram (TTE) (Echo 2D)

There are two functions for the Echo study:

A. Hemodynamic:

- Assess Blood flow across the valves.
- Assessments of systole & diastole function of heart.

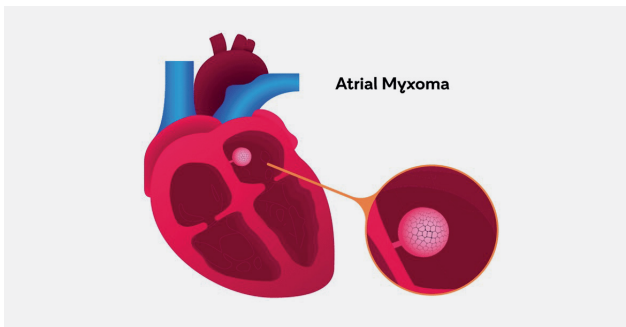
B. Structural study:

- Ventricular hypertrophy.
- VSD and /or ASD.
- Rupture muscle.
- Pericardial effusion.

Approval for TTE if the following conditions are met as per the symptoms mentioned:

1. Atrial Mass

During excision of left atrial mass: Which is an IP service.



2. Evaluation of angina:

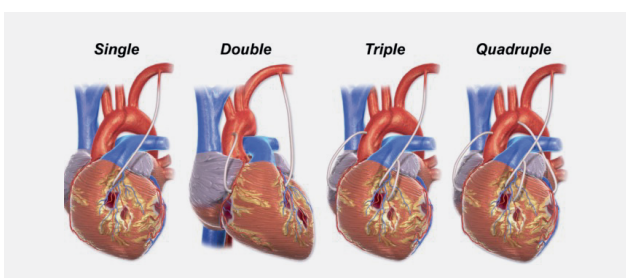
- Chest pain and discomfort may feel like Burning, Fullness, Pressure and Squeezing.
- Pain may also be felt in the left arm, neck, jaw, shoulder or back.
- Dizziness
- Fatigue
- Nausea
- Shortness of breath
- Sweating

3. Evaluation of aortic diseases:

- If AAA bursts most likely it's an IP case.
- All aortic aneurysms cases need ECHO.
- Aortic artery anomalies.

4. Evaluation of aortocoronary bypass grafts:

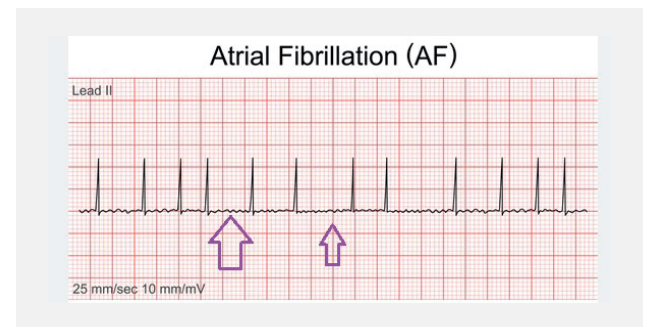
- Which is IP Case and can be requested as part of OP follow up request.
- Patients must have a history of CABG in file or medical report.



5. Evaluation of atrial fibrillation/flutter:

- Shortness of breath
- Tiredness (fatigue)
- Chest pain
- Fluttering heartbeats (palpitations)
- Light-headedness
- Fainting
- Swelling in your feet and legs (fluid retention) if you have heart failure.
- ECG with evidence of AF in study to approve /in medical report.

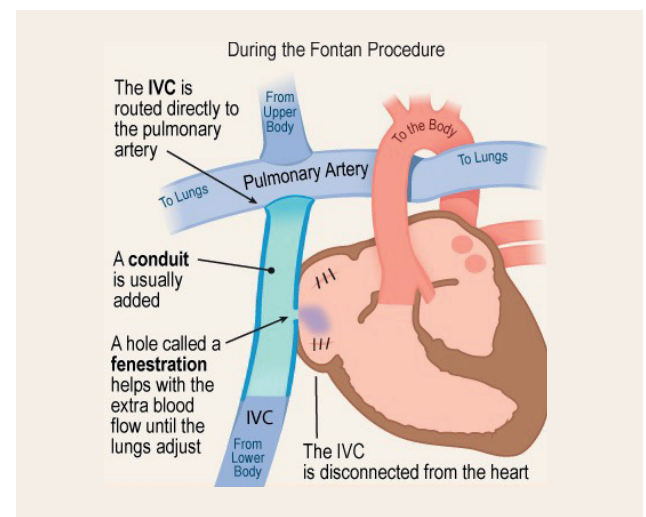
Atrial flutter and/or fibrillation:



6-Evaluation of cardiac function after the Fontan procedure:

(or other congenital cardiac condition)

- Following an IP request.
- History of congenital heart disease.
- History of correction procedure.
- Relevant medical history.
- Can be OP follow up after procedure for assessment of procedure outcome.



Transthoracic Echocardiogram (TTE) (Echo 2D)

7-Evaluation of cardiac tamponade (ER):

- Chest pain or discomfort
- Shortness of breath or difficulty breathing
- Rapid or weak pulse
- Fatigue or weakness
- Dizziness or light-headedness
- Nausea or vomiting
- Feeling of anxiety or restlessness
- Fainting or loss of consciousness
- Congested neck veins.
- History of trauma, MVC, blow to chest.
- History of suggestive disease, SLE, kawazaki, rupture MI.

8-Evaluation of congestive heart failure: (and/or cardiomyopathy)

Shortness of breath: This is one of the most common symptoms of CHF. The person may feel breathless even with minimal physical activity or while lying down. (NYHA classification)

- Fatigue.
- Swelling.
- Rapid or irregular heartbeat.
- Chest pain.
- Reduced ability to exercise.
- Coughing.
- proBNP high in labs.
- Medication history.

9-Evaluation of dyspnea:

- Feeling breathless.
- Rapid breathing.
- Shallow breathing.
- Tightness in chest.
- Wheezing.
- Coughing.
- Fatigue.
- Anxiety.

10- Evaluation of heart murmur (To evaluate valvular disease and conditions of valves):

- Murmur is an abnormal sound heard during a heartbeat with symptoms:
- Abnormal heart sounds.
- Chest pain.
- Shortness of breath.
- Fatigue.
- Dizziness or fainting.
- Swelling.

11-Evaluation of pericardial effusion:

- condition in which there is an accumulation of fluid in the pericardium, Symptoms:
- Chest pain.
- Shortness of breath.
- Swelling.
- Fatigue.
- Palpitations.
- Low blood pressure

12- Monitoring of individuals receiving cardiotoxic chemotherapy:

- **Anthracyclines:** Examples include doxorubicin (Adriamycin), daunorubicin (Cerubidine), and epirubicin (Ellence).
- **Trastuzumab (Herceptin):** This medication is used to treat breast cancer.
- **Fluorouracil (5-FU):** This medication is used to treat a variety of cancers, including breast, colon, and stomach cancer.
- **Tyrosine kinase inhibitors:** Examples include imatinib (Gleevec), dasatinib (Sprycel), and nilotinib (Tasigna).
- **Platinum-based drugs:** Examples include cisplatin and carboplatin, which are used to treat a variety of cancers, including lung, ovarian, and testicular cancer.

13-Status post an episode of ventricular tachycardia:

- Palpitations.
- Chest discomfort or pain.
- Shortness of breath.
- Dizziness or light-headedness.
- Loss of consciousness. Syncope.
- ECG of Heart Rate less than <45 beat per minute.
- The condition is emergency and mandate IP admission in most cases

14-Ventricular tachycardia ECG:



15-Evaluation of post valvular repair, prosthetic valve , or biologic valves.

Transthoracic Echocardiogram (TTE) (Echo 2D)

16- assessment of pulmonary hypertension :

Case of COPD , idiopathic pulmonary hypertension

17-ECG findings that can be an indication for Echo 2D:

Abnormalities in the QRS complex duration: Prolonged QRS duration may suggest conduction system abnormalities or ventricular hypertrophy, which could be further evaluated with an echocardiogram.

ST-segment and T-wave abnormalities: Significant ST-segment elevation or depression, T-wave inversions, or other ST-T wave changes may indicate myocardial ischemia, infarction, or other cardiac pathology that can be assessed using an echocardiogram.

Arrhythmias: ECG findings suggestive of arrhythmias such as atrial fibrillation, atrial flutter, ventricular tachycardia, or other abnormal heart rhythms may warrant further evaluation with an echocardiogram to assess the structural and functional aspects of the heart.

Bundle branch blocks (BBBs): Presence of left bundle branch block (LBBB) or right bundle branch block (RBBB) on ECG may indicate underlying structural heart disease, and an echocardiogram can help assess the cause and impact on heart function.

ST-segment elevation in specific leads: Elevation of the ST segment in specific leads may indicate myocardial infarction (heart attack) in those corresponding regions. An echocardiogram can provide additional information about the extent and impact of the infarction on heart function.

Abnormal Q waves: Presence of abnormal Q waves may suggest a prior myocardial infarction or other cardiac pathology, which can be evaluated further with an echocardiogram.

Pre-excitation syndromes: ECG findings suggestive of pre-excitation syndromes like Wolff-Parkinson-White (WPW) syndrome may require an echocardiogram to assess the underlying cardiac anatomy and function.

Denial:

A-Echocardiography to be rejected if request is for screening and member is not covered for screening services under policy.

B-Rejection of re-do :

- annual surveillance not covered by policy.
- for stable and asymptomatic patients, where no pathology is detected.

C-repeated echo for minor finding on routine study.

- 1- As part of pre-operative workup if not documented cardiac conditions or symptoms.
- 2- if policy terms and conditions not covering congenital of pre-existing conditions.

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