Transthoracic Echocardiography - Guidelines on Referral - Summary Clinical Guideline

Reference No: CG-T/2014/007

Purpose

To provide guidance for staff requesting echocardiograms on inpatients and outpatients. *ICM should be routinely checked for previous studies before requesting any investigations*. Please see full guidelines for more details

1. **Assessment of LV Function or Heart Failure**

- Suspected heart failure. Repeated echo studies are **not** always needed after a diagnosis is made.
- BNP – High levels - NT pro BNP level above 2000 pg/ml echo within 2 weeks. NTproBNP level between 400 and 2000 pg/ml echo within 6 weeks therefore please request as OP. Be aware that high levels can have causes other than heart failure.
- Reversible left ventricular systolic dysfunction can rarely occur.
- The requirement for In patient echocardiography post MI is at the discretion of the Consultant Cardiologist in charge of the patient.
- Myocardial infarct patients with significant complications will require emergency echocardiography (same day) - i.e. suspected ventricular septal rupture, papillary muscle rupture, pericardial effusion etc.

2. **Assessment of Cardiac Murmur**

This will be the second commonest indication for echocardiography. In patients where the nature of the cardiac murmur is uncertain, or definition of the cause of the murmur will influence management, then an echocardiogram is indicated. Serial assessment of cardiac valvular lesions is **only** required in patients who would be candidates for surgical treatment.

3. **Assessment of Suspected Infective Endocarditis**

Echocardiography is a very useful investigation for patients with a high suspicion of infective endocarditis with associated blood cultures and clinical signs and symptoms (see full guidelines for more details)

4. **Atrial Fibrillation**

Routine O/P unless anticoagulation is contraindicated

5. **Suspected Acute Thoracic Aortic Dissection**

Transthoracic echocardiography is **not** the investigation of choice with suspected aortic dissection and should only be requested if the patient is

suspected of having a specific complication of aortic dissection such as pericardial tamponade or severe aortic regurgitation.

6. **Suspected Pulmonary Embolism**

Should only be requested in shocked patients with suspected pulmonary embolism echocardiography where other tests are not available.
Echocardiograms are usually performed 3 months after proven pulmonary embolism to assess for pulmonary hypertension.

7. **Suspected Pericardial Disease**

Echocardiography is investigation of choice for suspected pericardial effusion.

8. **Evaluation of Stroke or TIA or Peripheral Arterial Embolism**

Please assess patient for abnormalities that may indicate the heart as a source of emboli and that an echo will change the treatment plan. If IP treatment likely to change request as IP if not request as OP.

9. **Assessment of pulmonary hypertension**
Echocardiography can be used to obtain an estimation of systolic pulmonary artery pressure.

10. **Transoesophageal Echo**

Consultant cardiologist must be consulted before requesting

11. **"Out of Hours" Service**

If an urgent Transthoracic echo is required out of hours please discuss with the on call cardiology consultant.

References

ACC/AHA/ASE 2003 guidelines update for the clinical application of echocardiography.
Circulation 2003; 108: 1146-1162.