British Society of Echocardiography

Conditions in which an echocardiogram has low clinical yield from primary care

Situations relevant to primary care where an echocardiogram is likely to be of low clinical yield

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Introduction

Transthoracic echocardiography is an essential test in the evaluation of patients with suspected structural and functional cardiac conditions. When used appropriately it facilitates rapid diagnosis and timely intervention for patients. The BSE have previously issued detailed guidance, aimed at hospital and specialist referrers, regarding the indications for, and optimal timing of, outpatient, inpatient, and critical care transthoracic echocardiography. These indications can be accessed in full here bsecho.org/PCTriage.

However, we also recognise that very often the most useful information in primary care is to know the clinical conditions in which transthoracic echocardiography is not routinely indicated at the time of initial clinical contact. These conditions are grouped by symptom or clinical finding below for rapid reference by General Practitioners for use in primary care settings. This guidance is not intended to override clinical judgment in individual cases and has chiefly been created to support situations where clinical judgement favours avoiding further investigation. This document can also aid the general practitioner in challenging unnecessary echo requests from secondary care.

CONDITIONS IN WHICH AN ECHOCARDIOGRAM IS UNLIKELY TO AFFECT PATIENT MANAGEMENT

HEART MURMUR

- Assessment of an innocent (i.e. physiological/flow) murmur. An innocent murmur has previously been defined as: a systolic murmur of short duration; grade 1 or 2 intensity at the left sternal border; a systolic ejection pattern; a normal S2; no other abnormal sounds or murmurs; no evidence of ventricular hypertrophy or dilation; no thrills; and the absence of an increase in intensity with the Valsalva manoeuvre. Such murmurs are especially common in high-output states such as pregnancy.
- Unchanged murmur in an asymptomatic individual with a previous normal echo

SUSPECTED HEART FAILURE

- Assessment of patients with peripheral oedema and no other symptoms to suggest cardiac disease with a normal ECG and BNP or NT-pro-BNP levels.

HYPERTENSION AND SUSPECTED LEFT VENTRICULAR HYPERTROPHY

- Routine assessment of essential hypertension with normal ECG and examination over the age of 40

SUSPECTED CARDIAC MASS/POSSIBLE CARDIAC CAUSE OF SYSTEMIC-CIRCULATION EMBOLISM

- Patients in whom echo will not affect the decision to commence anticoagulation: for example, patients in atrial fibrillation with cerebrovascular event and no suspicion of structural heart disease

PULMONARY DISEASE

- Lung disease with no clinical suspicion of cardiac involvement or pulmonary hypertension

PALPITATIONS AND PRE-SYNCOPE/SYNCOPE

- Palpitations without ECG proof of arrhythmia or clinical suspicion of structural heart disease on examination
- Classic neuro-cardiogenic (vaso-vagal) syncope

SUSPECTED PERICARDIAL DISEASE

- Repeat assessment of a small pericardial effusion without clinical change

PRE-OPERATIVE ECHOCARDIOGRAPHY FOR ELECTIVE AND SEMI URGENT NON-CARDIAC SURGERY

- Routine pre-operative echocardiography
- Where a patient is under active echo follow-up (i.e. valve disease): repeat echo assessment prior to next planned echo appointment with no intervening change in clinical status

ESTABLISHED CARDIOMYOPATHY

- Routine repeat assessment in clinically stable patients in whom no change in management is contemplated

INHERITED CARDIAC DISEASES

- Where there is a family history of a cardiomyopathy a screening echo should only be undertaken in first-degree relatives (i.e. children, siblings and parents of the proband case) unless specialist guidance suggests otherwise.
- Echo outside of the guidance for frequency of repeat echos with a family history of cardiomyopathy

GENERAL CONSIDERATIONS

- Repeat echocardiogram in the absence of a change of patient symptoms or signs
- In patients with terminal or significantly life-limiting diseases in which an echo would not alter management
- In patients with significant frailty in which an echo would not alter management