British Society of Echocardiography

Primary Care Cardiovascular Society
Empowering primary care to deliver the best in cardiovascular health

BRITISH SOCIETY FOR HEART FAILURE

Making best use of echocardiography in primary care

Below is a guide to support decision making when considering requesting an echocardiogram in primary care for these common indications. This is not designed to overrule clinical judgement in individual cases. If clinical concern remains following consultation of this guidance, it is recommended that further assistance is sought with a specialist. The BSE has published specific guidance on clinical indications for echo in out-patient, heart valve disease, and emergency and in-patient echo.[1]

BREATHLESSNESS OR OEDEMA

Suspect heart failure? First check NT proBNP level[2]

>2000ng/L	400-2000ng/L	<400ng/L
Specialist HF assessment and echo < 2 weeks	Specialist HF assessment with echo < 6 weeks	HF unlikely, consider other causes.

Echo recommended	Echo not recommended
Murmur	Unchanged murmur in an asymptomatic individual with a previous normal echo

PALPITATIONS OR PRE-SYNCOPE/SYNCOPE

Echo recommended	Echo not recommended
Abnormal ECG	Vasovagal syncope with clear precipitant and normal ECG / cardiac examination[3]
Suspected underlying cardiac disease based on symptoms, past medical or family history or examination findings	Palpitations without ECG proof of arrhythmia or clinical suspicion of structural heart disease

ATRIAL FIBRILLATION

Echo recommended	Echo not recommended
No previous echocardiogram and findings are likely to alter management (e.g. suspicion of structural heart disease or to guide antiarrhythmic medication choice)	Previous echocardiogram and no change in cardiovascular status. Echocardiography unlikely to alter management e.g. advanced frailty

HEART VALVE DISEASE

Echo recommended	Echo not recommended
Murmur and cardiovascular symptoms, abnormal ECG or previous cardiac history	Stable native valve disease with no change in symptoms and prior to recommended surveillance follow-up timing
Family history of bicuspid aortic valve in a first degree relative	Follow-up of mild mitral, tricuspid or pulmonary regurgitation with a structurally normal valve
Known heart valve disease or previous heart valve surgery with deterioration of cardiovascular symptoms	Mild aortic regurgitation with structurally normal valve and aortic root <40mm

UTILISATION OF LOCAL CARDIOLOGY ADVICE AND GUIDANCE PATHWAYS RECOMMENDED BEFORE CONSIDERING REFERRAL FOR ECHO FOR THESE LOW YIELD INDICATIONS

- Asymptomatic hypertension with normal cardiovascular examination and no concerns for secondary causes. Features of LVH alone on ECG does not necessitate an echo if will not alter management[4,5]
- Atypical chest pain with no anginal features in a low-risk patient (standard transthoracic echo is not an appropriate test for chest pain).
- Family history of ischaemic heart disease in an asymptomatic individual.
- Cardiomegaly on chest XR with normal 12 lead ECG and cardiovascular examination (and normal BNP/NT-proBNP if suspicion of heart failure).
- Echocardiography unlikely to alter management e.g. in advanced frailty.

References:

1. British Society of Echocardiography. Updated clinical indications and triage of echocardiography posters published. July 2024. https://www.bsecho.org/Public/Public/News/Articles/2024/2024-07/202407-PUE004-PUE005-PUE006.aspx
2. NICE chronic heart failure 2018: https://www.nice.org.uk/guidance/ng106/resources/chronic-heart-failure-diagnosis-visual-summary-pdf-6663137726
3. ESC Scientific Document Group. 2018 ESC Guidelines for the diagnosis and management of syncope, European Heart Journal, Volume 39, Issue 21, 01 June 2018, Pages 1883–1948, https://doi.org/10.1093/eurheartj/ehy037
4. ESC Scientific Document Group, 2018 ESC/ESH Guidelines for the management of arterial hypertension: The Task Force for the management of arterial hypertension of the European Society of Cardiology (ESC) and the European Society of Hypertension (ESH), European Heart Journal, Volume 39, Issue 33, 01 September 2018, Pages 3021–3104, https://doi.org/10.1093/eurheartj/ehy339
5. NICE Hypertension March 2023: https://cks.nice.org.uk/topics/hypertension/diagnosis/investigations/