Information for GPs on Echocardiography Results

Document Control:

For use by:	GPs		
Document Author:	Dr Omar Abdul-Samad, Consultant Cardiologist Darren Hardy-Shepherd, Head of Echocardiology		
Document Owner:	Darren Hardy-Shepherd, Head of Echocardiology		
Approved By:	Care Group G Document Approval		
Ratified By:	Care Group G Document Approval		
Approval Date:	13/11/2026	**Date to be reviewed by:** This document remains current after this date but will be under review	13/11/2027
Implementation Date:	As per approval date		
Reference Number:	Trust Docs ID: 27176		

Version History:

Version	Date	Author	Reason/Change
V1	August 2026	Head of Echocardiology	To initiate the document

Distribution Control

Printed copies of this document should be considered out of date. The most up to date version is available from the Trust's Webpage, Intranet or document management system.

The information provided applies to open access transthoracic echocardiography and is intended to assist non expert clinicians in interpreting and actioning the results. It is intended as a general guide and not a substitute for clinical judgement. It is the responsibility of the clinician requesting the study to action results appropriately. If clarification is needed, please seek advice from a Cardiologist.

When considering referral to Cardiology or repeat surveillance echocardiography, please consider whether the investigation is likely to influence patient management. In very frail patients or those with limited life expectancy, where the result would not alter treatment or prognosis, referral or repeat imaging is unlikely to provide clinical benefit.

Left Ventricular Systolic Function

This refers to the contractile function of the left ventricle during the systolic phase of the cardiac cycle. The ejection fraction refers to the proportion of blood ejected from the ventricle during systole. This can be directly measured, or a visually estimated range may be given.

Normal (ejection Fraction > 55%)	A normal result. If systolic function is normal yet the patient has signs and symptoms of heart failure. Please see “diastolic dysfunction”.
Low normal (ejection fraction 50% to 54%)	Usually a normal result. Sometimes can indicate mild systolic impairment. Consider referral only if symptoms or other abnormalities suggest significant cardiac disease.
Impaired (ejection fraction 36% to 49%)	An abnormal result. This indicates moderate left ventricular systolic impairment. Initiate guideline directed medical therapy for heart failure and refer to a Cardiologist.
Severely impaired (ejection fraction < 35%	An abnormal result. This indicates severe left ventricular systolic impairment. Initiate guideline directed medical therapy for heart failure and refer to a Cardiologist.

Global longitudinal Strain (GLS)

Also known as left ventricular strain, this refers to the percentage of shortening in length of the left ventricular muscle fibres in the longitudinal plain during systole. It is another measure of left ventricular function and can detect more subtle impairment in certain cardiac disease states. As it reflects a reduction in length is it expressed as a negative percent value. The more negative the value is, the more vigorously the left ventricle is contracting.

Normal value -18% to -22%.
Borderline /mildly impaired -16% to -18%.
Mild impairment -14 to -16%
Moderate impairment -10% to -14%
Severe impairment > -10%

Left Ventricular Hypertrophy and Concentric Remodelling

Concentric remodelling	Concentric remodelling refers to a change in the left ventricle geometry with a relative increase in the thickness of the muscle relative to the left ventricular cavity without a significantly elevated wall thickness or overall mass measurement. Common finding in hypertension – optimise blood pressure treatment.
Mild left ventricular hypertrophy (wall thickness 13-15mm)	Left ventricular hypertrophy refers to an increase in the overall left ventricular mass and/or wall thickness. Common finding in hypertension – optimise blood pressure treatment. If no obvious cause, consider referral to Cardiologist.
Moderate or severe left ventricular hypertrophy (wall thickness ≥ 16mm)	This can occur in cases of severe hypertension, hypertrophic cardiomyopathy or infiltrative cardiac disease such as cardiac amyloidosis. Refer to a Cardiologist.

Left Ventricular Diastolic Function

This relates to an impairment of the relaxation and filling of the left ventricle, and is reported as “Impaired left ventricular diastolic function with normal/elevated filling pressure at rest”

Diastolic dysfunction commonly increases with age, obesity and hypertension. The suggested management in primary care is to optimise blood pressure, weight loss, exercise, Atrial Fibrillation rate/rhythm control if relevant, consider SLGT2 -inhibitor (if Heart Failure with Preserved Ejection Fraction criteria are met) and the use of loop diuretics if there is evidence of fluid congestion.

Refer to a Cardiologist if specialist assessment is required.

Left Atrial Size

Dilated Left atrium	Is normally a result of left ventricular systolic dysfunction, diastolic dysfunction (see above), mitral valve disease or atrial fibrillation.

Information for GPs on Echocardiography Results

Aortic Valve Stenosis

Bicuspid aortic valve	A common congenital defect. Refer to a Cardiologist.
Aortic valve sclerosis	This is mild degenerative change and a normal finding in the elderly.
Mild aortic stenosis	Repeat echo in 3 years. Consider referral to a Cardiologist.
Moderate aortic stenosis	Refer to a Cardiologist. If asymptomatic will need repeat echo in 1 year.
Severe aortic stenosis	Refer to a Cardiologist.
Left ventricular outflow tract obstruction	Refer to a Cardiologist.

Aortic Valve Regurgitation

Bicuspid aortic valve	A common congenital defect. Refer to a Cardiologist.
Mild aortic regurgitation	If valve is not abnormal and aortic root is normal, then review by GP and consider repeat echo in 3 years.
Moderate aortic regurgitation	Refer to a Cardiologist. If asymptomatic will need repeat echo in 1 year.
Severe aortic regurgitation	Refer to a Cardiologist.

Aortic Root, Ascending Aorta and Arch

Aortic root and ascending aorta dilatation	This is a common finding. If present, please optimise blood pressure. Consider referral to Cardiology if the absolute diameter is >40mm or if there are features of connective tissue disease or family history of aneurysms.
If the patient is greater than 75 years old	Please optimise blood pressure. If the absolute value is > 44mm, please refer to a Cardiologist.

Mitral Valve Stenosis

Mitral valve sclerosis	This is a mild degenerative change and common in older patients.
Mild mitral stenosis	Consider referral to a Cardiologist. Repeat echo in 3-5 years.
Moderate mitral stenosis	Refer to a Cardiologist.
Severe mitral stenosis	Refer to a Cardiologist.

Mitral Valve Regurgitation

Mild mitral regurgitation	If the valve appearance is reportedly normal, then no action is required. If the valve is reportedly abnormal, please seek advice from a Cardiologist.
Moderate mitral regurgitation	Refer to a Cardiologist.
Severe mitral regurgitation	Refer to a Cardiologist.

Right Ventricular Dilatation, Impairment and Hypertrophy

Dilated and impaired right ventricle	Common causes include chronic lung disease, obesity hypoventilation, sleep apnoea, cardiomyopathy or congenital heart disease. If no clear underlying cause, seek advice from Cardiologist.
Hypertrophied Right ventricle	This may be due to cardiomyopathy or pulmonary hypertension. Refer to a Cardiologist.

Pulmonary Stenosis

Pulmonary / Right ventricular outflow tract / Supra-valvular stenosis	Refer to a Cardiologist.

Pulmonary Regurgitation

Mild or moderate regurgitation	Common and no action usually required.
Moderate to severe or severe regurgitation	Refer to a Cardiologist.

Tricuspid Regurgitation

Mild or moderate regurgitation	Common. If in isolation with otherwise normal right heart then no action usually required.
Moderate to severe or severe regurgitation	Refer to a Cardiologist.

Pulmonary hypertension

All echo reports will include an estimate of the probability of pulmonary hypertension based on specific measurements and findings. This is graded as a low, intermediate or high probability of pulmonary hypertension. The most common causes of pulmonary hypertension are left sided heart disease and significant lung disease. If there is an intermediate or high probability of pulmonary hypertension and symptoms without an obvious cause, then please refer to a Cardiologist.

Intracardiac shunts

Patent Foramen Ovale (PFO)	Review by GP (a PFO is found in 25% of the population) Reassure. Only relevant in cases of cryptogenic stroke or embolism, unexplained hypoxia, or post decompression illness in scuba divers.
Atrial Septal Defect (ASD)	Refer to a Cardiologist with a specialist interest in congenital heart disease
Ventricular Septal Defect (VSD)	Refer to a Cardiologist with a specialist interest in congenital heart disease

Pericardial Effusion

Small (<10mm)	Review by GP (if patient becomes symptomatic, please contact on call Cardiology Resident or Consultant)
Moderate (10-20mm)	Review by GP (if patient becomes symptomatic, please contact on call Cardiology Resident or Consultant)
Large (>20mm)	Discuss with on call Cardiology Resident or Consultant.
Features of tamponade	These are echocardiographic findings that suggest that an effusion is starting to cause serious compromise to cardiac output and the patient is at risk of cardiac arrest. Discuss with on call Cardiology Resident or Consultant.