Royal North Shore Hospital

Health Northern Sydney Local Health District

Department of Cardiology
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Transthoracic Echocardiography (TTE) Study

Procedure date/time:	16/07/2025 3:16 PM	**Accession no:**	RNS-ECHO-25-4262
Patient name:	MCMULLEN John	**Patient ID:**	2359358
Date of birth:	5/04/1938	**Age:**	87 year(s)
Height:	165 cm	**Gender:**	Male
Weight:	70 kg	**BSA:**	1.8 m²

Procedure Staff

Interpreting Physician: Dr Malcolm Anastasius

Sonographer: Justine Moss

Proc. sub type: TTE procedure

Indications

Pre-TAVI.
MBS Code: 55126 - TTE (initial, only assign once/24 months)

Additional Indications

For TAVI workup. ?LFLG severe AS.

Procedure Information

HR:	57 bpm	**Source:**	Outpatient
Rhythm:	Sinus bradycardia	**Study location:**	Echo lab 3
Image quality:	Adequate visualization	**Specialty:**	Outpatient
		Limitation reason:	Body habitus

Procedure consent: Yes, verbal consent given

Comments: Thin rib spaces. Poor sub-costal window.

Measurements

Dimensions

Sinus of Valsalva:	3.4 cm	LA Internal Dimension:	3.6 cm
Sinus of Valsalva index:	2.06 cm/m	LV Internal Dimension (end dias):	5.7 cm
Septal Thickness:	1 cm	LV Internal Dimension (end sys):	4.9 cm
Post LV Wall Thickness:	1 cm	RA area:	16.3 cm²
LA area:	20.5 cm²	RA volume index:	25.5 ml/m²
LA volume (BP):	70 ml	LA volume (BP) index:	39.5 ml/m²

Aortic Valve

AV Peak velocity:	3.4 m/s
AV Peak gradient:	45.7 mmHg
AV Mean gradient:	33 mmHg
AV VTI:	71.8 cm
LVOT diameter:	1.9 cm
LVOT peak velocity:	0.9 m/s
LVOT VTI:	18.2 cm
AVA (Continuity):	0.7 cm²
AVA Indexed:	0.4 cm²/m²
SV Indexed:	29.1 ml/m²

Right Ventricle

TAPSE:	2.3 cm
RV s' velocity:	0.087 m/s
RV basal diam:	4.4 cm

Mitral Valve

MV Peak E-wave:	0.494 m/s
MV Peak A-wave:	0.953 m/s
Lateral E' velocity:	0.03 m/s
Septal E' velocity:	0.034 m/s
E/E' lateral:	16.47
E/E' septal:	14.44
E/E' average:	15.46

Tricuspid Valve

TR velocity:	2.3 m/s
IVC Max:	1.6 cm
IVC Min:	0.6 cm
IVC Collapsibility index:	65.6 %

LV Ejection Fraction - Simpson

LVEDV (Biplane):	139 ml	LVESV (Biplane):	97.7 ml
LVEDVI (Biplane):	78.5 ml/m²	LVESVI (Biplane):	55.2 ml/m²
EF (Biplane):	29.7 %		

Ejection Fraction - 3D

Procedure Summary

Summary:

Moderately dilated left ventricle, normal wall thickness and severe systolic dysfunction (LVEF 25-30%); grade I diastolic dysfunction; akinesis of the basal inferior wall
Mildly dilated right ventricle and moderate systolic dysfunction.
Mildly dilated left atrium.
Probable bicuspid aortic valve (raphe between the left and right coronary cusps); severe low flow low gradient aortic valve stenosis (AVA 0.7cm2, PG/MG 46/33mmHg, DVI 0.25); trivial aortic regurgitation.
Mild posterior mitral annular calcification, thickened leaflets and mild-moderate mitral regurgitation
Trivial tricuspid regurgitation; normal right ventricular systolic pressure, 24 mmHg

Findings (Rest)

Left Ventricle:	Moderately dilated left ventricle, normal wall thickness and severe systolic dysfunction (LVEF 25-30%); grade I diastolic dysfunction; akinesis of the basal inferior wall
Right Ventricle:	Mildly dilated right ventricle and moderate systolic dysfunction.
Left Atrium:	Mildly dilated left atrium.
Right Atrium:	Normal right atrial size.
Aortic Valve:	Probable bicuspid aortic valve (raphe between the left and right coronary cusps); severe low flow low gradient aortic valve stenosis (AVA 0.7cm2, PG/MG 46/33mmHg, DVI 0.25); trivial aortic regurgitation.
Aorta:	Normal aortic root 3.4 cm and ascending aorta size 3.4 cm.
Mitral Valve:	Mild posterior mitral annular calcification, thickened leaflets and mild-moderate mitral regurgitation
Tricuspid Valve:	Trivial tricuspid regurgitation. Estimated right ventricular systolic pressure 24 mmHg (assuming a right atrial pressure of 3 mmHg)
Pulmonary Valve:	Normal pulmonary valve structure with trivial pulmonary regurgitation.
Pericardium & Pleura:	No evidence of pericardial effusion.
Septa & Shunts:	No color Doppler evidence of left to right shunt
Additional Findings:	Normal IVC size with normal inspiratory collapse (estimating RAP 3mmHg).

Electronically signed by Dr Malcolm Anastasius (Interpreting Physician) on 17/07/2025 at 8:08 AM