Royal North Shore Hospital

Health Northern Sydney Local Health District

Department of Cardiology
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Transthoracic Echocardiography (TTE) Study

Procedure date/time:	24/07/2025 11:04 AM	**Accession no:**	1981953241
Patient name:	CLARK Nelson Robert	**Patient ID:**	2363156
Date of birth:	22/02/1947	**Age:**	78 year(s)
Height:	170 cm	**Gender:**	Male
Weight:	66 kg	**BSA:**	1.8 m²

Procedure Staff

Referring Physician: Brereton Russel J Dr
Sonographer: Kylie Sin
Interpreting Physician: Professor Geoffrey Tofler

Proc. sub type: TTE procedure

Indications

Preop cardiac evaluation.
MBS Code: 55126 - TTE (initial, only assign once/24 months)

Additional Indications

?CABG vs TAVI

Procedure Information

HR:	67 bpm	**Source:**	Inpatient
Rhythm:	SR with BBB	**Study location:**	Mobile
Image quality:	Adequate visualization	**Specialty:**	Cardiothoracic
Procedure consent:	Yes, verbal consent given		

Measurements

Dimensions

Sinus of Valsalva:	3.8 cm	LV Internal Dimension (end dias):	5.3 cm
Sinus of Valsalva index:	2.24 cm/m	LV Internal Dimension (end sys):	3.8 cm
Septal Thickness:	1 cm	RA area:	15.6 cm²
Post LV Wall Thickness:	1 cm	RA volume index:	24.4 ml/m²
LA area:	18.6 cm²	LA volume (BP) index:	36.5 ml/m²
LA volume (BP):	64.5 ml		

Aortic Valve		Mitral Valve	
AV Peak velocity:	4.1 m/s	MV Peak E-wave:	1.56 m/s
AV Peak gradient:	68.2 mmHg	MV Peak A-wave:	1.27 m/s
AV Mean gradient:	42 mmHg	Lateral E' velocity:	0.045 m/s
AV VTI:	99 cm	Septal E' velocity:	0.037 m/s
LVOT diameter:	2.5 cm	E/E' lateral:	34.67
LVOT peak velocity:	1.1 m/s	E/E' septal:	41.82
LVOT VTI:	24.1 cm	E/E' average:	38.24
AVA (Continuity):	1.2 cm²	**Tricuspid Valve**	
AVA Indexed:	0.7 cm²/m²	TR velocity:	2.9 m/s
SV Indexed:	67 ml/m²	IVC Max:	1.5 cm
Right Ventricle		IVC Min:	0.4 cm
TAPSE:	2.5 cm	IVC Collapsibility index:	73.3 %
RV s' velocity:	0.121 m/s		
RV basal diam:	4.7 cm		
RV mid diam:	3.8 cm		

LV Ejection Fraction - Simpson

LVEDV (Biplane):	157 ml	LVESV (Biplane):	78.5 ml
LVEDVI (Biplane):	89 ml/m²	LVESVI (Biplane):	44.5 ml/m²
EF (Biplane):	50 %		

Ejection Fraction - 3D

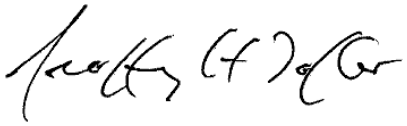
Procedure Summary

Summary:

Normal left ventricular chamber size, upper normal wall thickness, and normal systolic function. Ejection fraction visually estimated at 55-60%. Mildly dilated right ventricle with normal systolic function. Mildly dilated left atrium. Trileaflet aortic valve with severely calcified and restricted leaflets. Peak flow velocity 4.1 m/s measured from apical view, predicting a peak instantaneous pressure gradient of 68.2 mmHg and a mean pressure gradient of 42 mmHg. Doppler data consistent with severe aortic stenosis (iAVA 0.7cm2/m2, DVI 0.24). Moderate aortic regurgitation. Severe mitral annular calcification with thickened and restricted mitral leaflets. MVA 1.5cm2 and MG 5mmHg, consistent with moderate mitral stenosis. Trivial mitral regurgitation. MIld tricuspid regurgitation without evidence to suggest significant pulmonary hypertension. Normal aortic root and ascending aorta size.

Findings (Rest)

Left Ventricle:	Normal left ventricular chamber size, upper normal wall thickness, and normal systolic function. Ejection fraction visually estimated at 55-60%. GLS -17.1%. No apical sparing noted.
Right Ventricle:	Mildly dilated right ventricle. Normal systolic function.
Left Atrium:	Mildly dilated left atrium.
Right Atrium:	Normal right atrial size.
Aortic Valve:	Trileaflet aortic valve with severely calcified and restricted leaflets. Peak flow velocity 4.1 m/s measured from apical view, predicting a peak instantaneous pressure gradient of 68.2 mmHg and a mean pressure gradient of 42 mmHg. Doppler data consistent with severe aortic stenosis (iAVA 0.7cm2/m2, DVI 0.24). Moderate aortic regurgitation (PHT 417ms).
Aorta:	Normal aortic root and ascending aorta size.
Mitral Valve:	Severe mitral annular calcification with thickened and restricted mitral leaflets. MVA 1.5cm2 by PHT and MG 5mmHg, consistent with moderate mitral stenosis. Trivial mitral regurgitation.
Tricuspid Valve:	Mild tricuspid annular calcification with normal tricuspid leaflet structure. Normal valvular opening. Mild tricuspid regurgitation. Peak flow velocity 2.9 m/sec, predicting pulmonary artery systolic pressure of 37 mmHg, assuming a right atrial pressure 3 mmHg.
Pulmonary Valve:	Mildly thickened pulmonary leaflet structure. Normal valvular opening. Trivial pulmonary regurgitation.
Pericardium & Pleura:	No evidence of pericardial effusion.
Septa & Shunts:	No shunt detected by colour Doppler examination. No atrial septal aneurysm detected.
Additional Findings:	Normal IVC size with normal inspiratory collapse (estimating RAP 3mmHg).



Electronically signed by Professor Geoffrey Tofler (Interpreting Physician) on 24/07/2025 at 4:56 PM