

# **Royal North Shore Hospital**



# **Department of Cardiology** Level 4 Acute Services Building

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# **Transthoracic Echocardiography (TTE) Study**

Procedure date/time: 31/07/2025 2:22 PM Accession no: 1985695655

Patient name: WADEY Anthony Keith Patient ID: 0501859 Date of birth: 2/02/1936 Age: 89 year(s) Height: 172 cm Gender: Male Weight: 68 kg BSA: 1.8 m<sup>2</sup>

**Procedure Staff** 

Referring Physician: Hansen Peter Sonographer: Zhi-Jian Huang

Interpreting Physician: Professor Geoffrey Tofler

Proc. sub type: TTE procedure

#### **Indications**

Pleural effusion, Dyspnea/SOB, Aortic stenosis, Pre-TAVI, Coronary artery disease and Hypertensive heart disease. MBS Code: 55126 - TTE (initial, only assign once/24

months)

#### **Procedure Information**

HR: 60 bpm Source: Inpatient Rhythm: Normal sinus rhythm Study location: Stress lab Image quality: Adequate visualization Specialty: Cardiology

Procedure consent: Yes, verbal consent given

### **Measurements**

#### **Dimensions**

Sinus of Valsalva: 3.1 cm LA Internal Dimension: 3.4 cm Sinus of Valsalva index: 1.8 cm/m LV Internal Dimension (end dias): 4.5 cm Septal Thickness: 1.1 cm LV Internal Dimension (end sys): 2.9 cm Post LV Wall Thickness: 0.9 cm RA area: 16 cm<sup>2</sup> LA area: 22.2 cm<sup>2</sup> RA volume index: 19.3 ml/m<sup>2</sup> 50.4 ml 28 ml/m<sup>2</sup> LA volume (BP): LA volume (BP) index:

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Aortic Valve Mitral Valve

AV Peak velocity: 3.9 m/s MV Peak E-wave: 0.72 m/s
AV Peak gradient: 60.5 mmHg MV Peak A-wave: 0.707 m/s
AV Mean gradient: 31.2 mmHg Lateral E' velocity: 0.057 m/s

AV VTI: 84.7 cm E/E' lateral: 12.68

LVOT diameter: 2.2 cm <u>Tricuspid Valve</u>

LVOT peak velocity: 0.8 m/s TR velocity: 2.4 m/s

LVOT VTI: 17.9 cm

AVA (Continuity): 0.8 cm<sup>2</sup>

AVA Indexed: 0.5 cm<sup>2</sup>/m<sup>2</sup>

SV Indexed: 38.8 ml/m<sup>2</sup>

Right Ventricle

TAPSE: 2.3 cm RV s' velocity: 0.151 m/s

**LV Ejection Fraction - Simpson** 

 LVEDV (Biplane):
 54.5 ml
 LVESV (Biplane):
 20.4 ml

 LVEDVI (Biplane):
 30.2 ml/m²
 LVESVI (Biplane):
 11.3 ml/m²

 EF (Biplane):
 62.6 %
 GLS (avg):
 21.9 %

**Ejection Fraction - 3D** 

LVEDV (3D): 92 ml EF (3D): 61 %

LVESV (3D): 36 ml

## **Procedure Summary**

### **Summary:**

Sinus rhythm. Normal left ventricular chamber size and upper normal wall thickness. Normal left ventricular systolic function. Ejection fraction estimated at 60%. Normal right ventricular size and systolic function. Mildly dilated left atrium. Trileaflet aortic valve with severe aortic stenosis and mild regurgitation.. Calcified aortic leaflets with severely reduced leaflet excursion. Peak flow velocity 3.9 m/s measured from apical view, predicting a peak instantaneous pressure gradient of 60mmHg and a mean pressure gradient of 34mmHg. Valve area (continuity equation) 0.8 cm2. Mild mitral annular calcification. Mild thickening of the anterior mitral valve leaflet. Mild mitral regurgitation. Trivial tricuspid regurgitation without evidence to suggest significant pulmonary hypertension. Normal aortic root and ascending aorta size.

Findings (Rest)

**Left Ventricle:** Sinus rhythm. Normal left ventricular chamber size and upper normal wall thickness.

Normal left ventricular systolic function. Ejection fraction estimated at 60%. No segmental

wall motion abnormality detected. Global longitudinal strain normal at 21.9.

Right Ventricle: Normal right ventricular size and systolic function.

Left Atrium: Mildly dilated left atrium.

Right Atrium: Normal right atrial size.

Aortic Valve: Trileaflet aortic valve with severe aortic stenosis Calcified aortic leaflets with severely

reduced leaflet excursion. Peak flow velocity 3.9 m/s measured from apical view, predicting a peak instantaneous pressure gradient of 60mmHg and a mean pressure gradient of 34mmHg. Valve area (continuity equation) 0.8 cm2. Mild aortic regurgitation.

Aorta: Normal aortic root 3.1 cm and ascending aorta size 3 cm.

Mild mitral annular calcification. Mild thickening of the anterior mitral valve leaflet. Mild

mitral regurgitation.

<u>Tricuspid Valve:</u> Normal tricuspid valve structure with trivial tricuspid regurgitation. Estimated right

ventricular systolic pressure 26 mmHg (assuming a right atrial pressure of 3 mmHg)

<u>Pulmonary Valve:</u> Normal pulmonary valve structure with trivial pulmonary regurgitation.

<u>Pericardium & Pleura:</u> No evidence of pericardial effusion.

**Septa & Shunts:** No shunt detected by colour Doppler examination.

<u>Additional Findings:</u> Normal IVC size and collapsibility.

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Electronically signed by Professor Geoffrey Tofler (Interpreting Physician) on 31/07/2025 at 6:26 PM