Supplementary material

# Sonographer & Nurse led Clinics: Alerts & Frequency of Visit

#### **Mitral Stenosis**

**Severe:** every 6 months (ETT annually) **Moderate:** every 1-2 years

Mild: every 2 years

#### **Echocardiographic alerts:**

- New PA hypertension or rise in PA systolic pressure towards 50 mmHg

#### Other alerts:

- Symptoms
- INR > 4.0 or < 1.5 in last 6 months
- New atrial fibrillation
- TIA or stroke
- Patient request
- Suggestion of endocarditis

#### **Mitral Regurgitation**

**Severe:** every 6 months + annual ETT **Moderate:** every 1-2 years

Mild: not followed

#### **Echocardiographic alerts:**

- LVSD approaching 40 mm
- LV EF approaching 60%
- PA systolic pressure approaching 50mmHg

#### Other alerts:

- Symptoms
- New arrhythmia
- Patient request
- Suggestion of endocarditis

### **Echocardiographic alerts:**

Worsening regurgitation – see MR/TR sections

Mitral & Tricuspid Valve Repair

If repair, competent, continue clinical surveillance annually in

If repair impaired, continue echo surveillance per native

• Systolic anterior motion

Echo at 12 months -

nurse-led clinic.

dysfunction.

#### Other alerts:

- Spontaneous symptoms
- New arrhythmia
- Patient request
- Suggestion of endocarditis

#### **Aortic Stenosis**

 $/ \text{ max } > 4.0 \text{ m/s or EOA} < 1.0 \text{cm}^2$ 

/ max 3.5 – 4.0 m/s + AV Calcium √ max 3.0 – 4.0 m/s or EOI 1.0 – 1.5cm² every year + ETT at baseline,

annual ETT every 6 months when becomes severe, and consider every year after this if early surgery clinically appropriate every 3 years

V max 2.5 – 3.0 m/s

## **Echocardiographic Alerts**

- Any reduction in LV ejection fraction
- $EOI \leq 0.6$ cm<sup>2</sup>
- V max  $\geq$  5.0m/s
- Rapid progression of V max > 0.3 m/s per year
- New diastolic dysfunction (pseudonormal or restrictive)
- Aortic root dilated to 45 mm (Marfan's), 55 mm (other)

**Pulmonary Stenosis** 

#### **Other Alerts**

- Spontaneous symptoms
- New arrhythmia
- Patient request

Severe: every year

Suggestion of endocarditis

**Moderate:** every 1-2 years

Mild: no follow up unless indicated

**Echocardiographic alerts:** 

#### **Aortic Regurgitation**

**Severe:** every 6 months or every 3 months at request of cardiologist if LV significantly dilated (consider ETT annually) Moderate: every 1-2 years

### Mild: not unless aortic root dilated

- **Echocardiographic alerts:**
- LVSD approaching 50 mm or LVDD 70 mm LVSD change (>5mm from previous study) or volume increase since last study
- LVEF approaching 50%

#### Other alerts:

- Spontaneous symptoms
- New arrhythmia
- Patient request
- Suggestion of endocarditis

#### **Aortic Root Dilatation**

Marfan: annually unless dilated to > 40 mm, then every 6

Non-Marfan: annually

**Bicuspid:** annually

#### Echocardiographic alerts:

- Marfan 45 mm or change > 3 mm in one year
- Non-Marfan 55 mm or change > 3 mm in one year

#### Other alerts:

#### **Ehlers Danlos**) Per valve type above

**AVR with Aortic Root Replacement (Marfans/** 

2 yearly CMR or CT scanning (renal bloods needed prior to scan)

### **Echocardiographic alerts:**

• New or worsening regurgitation

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**CARDIAC NETWORK** 

performed before discharge

• More than moderate TR

year after 5 years (e.g. Trifecta)

Ross procedures every year

(Dimensions on post-op echo)

the following:

after 10 years

<40 mm

>45 mm

review

 $40 - 45 \, \text{mm}$ 

LV dilatation

**Every valve once** postoperatively if not

**Replacement Heart Valves** 

**Mechanical valves** annually only if there is any of

• Associated root dilatation (see specific guide)

More than mild paraprosthetic regurgitation

**New designs of biological aortic** valve every

Established aortic biological designs every year

**Biological mitral valves** every year after 5 years

AVR native root monitoring (previous bicuspid

No routine surveillance

Echo at 5 yearly then

Annual echo

- Obstruction reduction of EOA by 25%
- Change in LV or systolic function (or RV for right-sided valves)

#### Other alerts:

- Exertional symptoms
- INR > 4.0 or < 2.0 during last 6 months
- New arrhythmia
- Patient request
- Suggestion of endocarditis

#### **Tricuspid / Pulmonary Regurgitation**

**Severe:** every 6 months **Moderate:** every 1-2 years

### **Echocardiographic alerts:**

- Progressive RV dilatation
- New RV hypokinesis

#### Other alerts:

- Spontaneous symptoms
- New arrhythmia
- Suggestion of endocarditis
- Patient request

### Post-Endocarditis (non-operated)

**Biscuspid Valve (no AS/AR)** 

Echocardiogram at 1, 3, and 6 months

Then according to residual pathology

Every 3 years

### Other alerts:

Spontaneous symptoms

 New RV dilation Velocity > 3.5 m/s

New arrhythmia

Suggestion of endocarditis

Patient request