

Clinical Pathway for Aortic Dilatation Surveillance and Management

1. Aortic root or ascending aorta diameter < 40 mm

- No surveillance or cross-sectional imaging is needed.

2. Aortic root or ascending aorta diameter between 40mm and 44mm

- Baseline cross-sectional imaging is recommended (CCTA or CMR)
- First surveillance echo is recommended in 12 months
- If no significant growth in 12 months ($< 3\text{mm/year}$), surveillance echo in every 2-3 years.
- If growth rate $\geq 3\text{mm/year}$, repeat cross sectional imaging to confirm and surveillance echo in every 6 months.

3. Aortic root or ascending aorta diameter between 45mm and 49mm

- Baseline cross sectional imaging is recommended (CCTA or CMR)
- First surveillance echo in 6 months.
- If no significant growth in 6 months ($< 3\text{mm/year}$), then surveillance echo every year.
- If growth rate $\geq 3\text{mm/year}$, repeat cross sectional imaging to confirm and surveillance echo in every 6 months.

4. Aortic root or ascending aorta diameter is $\geq 50\text{mm}$

- Cross-sectional imaging is recommended.
- Cardiology referral is required.

Special Considerations

Lower thresholds for cardiology referral should be applied to:

- **Pregnant patients or those planning pregnancy** (if aortic size > 40 mm).
- **Syndromic patients:** Turner, Marfan, vascular Ehlers-Danlos, or Loeys-Dietz syndrome.
- **Patients with shorter stature** (< 169 cm).
- **Patients with resistant hypertension.**
- **Family history** of acute aortic events.
- **Young patients** (< 50 years).

Ongoing Monitoring and Management

- Conduct periodic surveillance as recommended for each diameter category.
- Ensure timely escalation to cardiology for patients with concerning growth rates or other high-risk factors.

Prepared by Dr Tolga Ozyigit based on the 2024 ESC Guidelines for peripheral arterial and aortic disease management.

23.12.2024