## Complete Aortic Evaluation for Adults with Repaired COA

**Measure Description:** Proportion of adults, >18 years of age, with repaired coarctation of the aorta (rCOA) who have undergone a complete aortic evaluation.

<table>
<thead>
<tr>
<th>Numerator</th>
<th>Number of patients who have had a complete aortic evaluation(^1) ordered or performed during the measurement period, in the 3 years prior to the clinic visit(^2), or after turning 18 years old.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denominator</td>
<td>Number of patients, &gt;18 years old, who had a rCOA(^3) and an outpatient cardiology clinic visit during the measurement period.</td>
</tr>
</tbody>
</table>

**Denominator Exclusions**
- Documentation of gadolinium AND dye allergy
- Patient refusal
- Pregnant women

**Denominator Exceptions** None

**Definitions/Notes**
1. **Complete aortic evaluation** is defined as having undergone at least one of the following: thoracic CMR, CT scan, or angiography
2. **Clinic Visit:** If the patient has had multiple visits during the measurement period, use the most recent visit (i.e., last visit in the measurement period).
3. **Repaired coarctation of the aorta** can either be surgical or catheter-based.

**Measurement Period** Quarterly

**Sources of Data** Retrospective medical or electronic record review

**Attribution** Pediatric Cardiologists, Internal Medicine Cardiologists, ACHD Cardiologists (Clinician, practice or institution)

**Care Setting** Outpatient

### Rationale
Adults with rCOA may develop aortic aneurysm/pseudoaneurysm proximal, distal, or at the coarctation repair site and may be asymptomatic until aortic dissection or rupture. CMR/CT is superior to physical examination and echocardiography for surveying the entire thoracic aorta for complicated vascular anatomy and future comparison.

### Clinical Recommendation(s)

**ACC/AHA Guidelines:**
- **Class 1**
  - Every patient with coarctation (repaired or not) should have at least 1 cardiovascular MRI or CT scan for complete evaluation of the thoracic aorta and intracranial vessels. (Level of Evidence: B)

Other guidelines:
All patients should have a periodic MRI or angiogram following repair of the aortic coarctation to document the post-repair anatomy and mechanical complications (restenosis or aneurysm formation).
Grade: Consensus

Challenges to Implementation
Some institutions without electronic medical records and proper coding of CHD diagnoses may find difficulty identifying rCOA patients from their cardiology outpatient charts.

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