

<b>Complete Aortic Evaluation for Adults with Repaired COA</b>	
<b>Measure Description:</b> Proportion of adults, > 18 years of age, with repaired coarctation of the aorta (rCOA) who have undergone a complete aortic evaluation.	
<b>Numerator</b>	Number of patients who have had a complete aortic evaluation <sup>1</sup> ordered or performed during the measurement period, in the 3 years prior to the clinic visit <sup>2</sup> , or after turning 18 years old.
<b>Denominator</b>	Number of patients, > 18 years old, who had a rCOA <sup>3</sup> and an outpatient cardiology clinic visit during the measurement period.
<b>Denominator Exclusions</b>	<ul style="list-style-type: none"> <li>• Documentation of gadolinium AND dye allergy</li> <li>• Patient refusal</li> <li>• Pregnant women</li> </ul>
<b>Denominator Exceptions</b>	None
<b>Definitions/Notes</b>	<ol style="list-style-type: none"> <li>1. <b>Complete aortic evaluation</b> is defined as having undergone at least one of the following: thoracic CMR, CT scan, or angiography</li> <li>2. <b>Clinic Visit:</b> If the patient has had multiple visits during the measurement period, use the most recent visit (i.e. last visit in the measurement period).</li> <li>3. <b>Repaired coarctation of the aorta</b> can either be surgical or catheter-based.</li> </ol>
<b>Measurement Period</b>	Quarterly
<b>Sources of Data</b>	Retrospective medical or electronic record review
<b>Attribution</b>	Pediatric Cardiologists, Internal Medicine Cardiologists, ACHD Cardiologists (Clinician, practice or institution)
<b>Care Setting</b>	Outpatient
<b>Rationale</b>	
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	
<b>Clinical Recommendation(s)</b>	
<p><u>ACC/AHA Guidelines:</u>            Class 1</p> <p>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)</p> <p>Warnes C, Williams, R, Bashore T, et al. ACC/AHA guidelines for the management of adults with congenital heart disease. JACC 2008;52:e143-263.</p>	

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

Therrien J, Gatzoulis M, Graham T, Bink-Boelkens M, Connelly M, Niwa K, Mulder B, Pyeritz R, Perloff J, Somerville J, Webb GD. Canadian Cardiovascular Society Consensus Conference 2001 update: Recommendations for the Management of Adults with Congenital Heart Disease--Part II. Can J Cardiol. 2001 Oct;17(10):1029-50.

**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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