**American College of Radiology**  
**ACR Appropriateness Criteria®**

**Acute Nonspecific Chest Pain-Low Probability of Coronary Artery Disease**

**Variant 1:** Acute nonspecific chest pain; low probability of coronary artery disease. Initial imaging.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Appropriateness Category</th>
<th>SOE</th>
<th>Adults RRL</th>
<th>Peds RRL</th>
<th>Rating</th>
<th>Median</th>
<th>Final Tabulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTA coronary arteries with IV contrast</td>
<td><strong>Usually appropriate</strong></td>
<td>Expert Consensus</td>
<td>*<strong>1-10 mSv</strong></td>
<td>&lt;0.03 mSv [ped]</td>
<td>8</td>
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<td>1 0 0 1 0 1 4 10 0</td>
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<td>Radiography chest</td>
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<td>&lt;0.1 mSv</td>
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<tr>
<td>CTA chest with IV contrast</td>
<td><strong>May be appropriate</strong></td>
<td>Expert Consensus</td>
<td>*<strong>1-10 mSv</strong></td>
<td>***3-10 mSv [ped]</td>
<td>5</td>
<td>5</td>
<td>1 0 0 1 9 1 4 1 0</td>
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<tr>
<td>CT chest with IV contrast</td>
<td><strong>May be appropriate</strong></td>
<td>Expert Consensus</td>
<td>*<strong>1-10 mSv</strong></td>
<td>***3-10 mSv [ped]</td>
<td>5</td>
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<td>CT chest without and with IV contrast</td>
<td><strong>May be appropriate</strong></td>
<td>Limited</td>
<td>*<strong>1-10 mSv</strong></td>
<td>***3-10 mSv [ped]</td>
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**References**

<table>
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<td>38 (19486717)</td>
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<th>Procedure</th>
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<th>Final Tabulations</th>
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<tr>
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<tr>
<td>Radiography ribs and thoracic spine</td>
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<td>CT chest without IV contrast</td>
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<td>CT heart function and morphology with IV contrast</td>
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<tr>
<td>MRI heart function and morphology without IV contrast</td>
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<td>SPECT or SPECT/CT MPI rest and stress</td>
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<tr>
<td>SPECT or SPECT/CT MPI rest and stress</td>
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<td>Fluoroscopy barium swallow and upper GI series</td>
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<td>MRA chest without IV contrast</td>
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<tr>
<td>MRA chest without and with IV contrast</td>
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<tr>
<td>MRA coronary arteries without IV contrast</td>
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<tr>
<td>MRA coronary arteries without and with IV contrast</td>
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<td>MRI heart function and morphology without and with IV contrast</td>
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<td>Nuclear medicine scan gallbladder</td>
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<td>US echocardiography transthoracic stress</td>
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<td>US echocardiography transesophageal</td>
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<td>MRI heart with function and vasodilator stress perfusion without and with IV contrast</td>
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<td>Procedure</td>
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<td>MRI heart with function and inotropic stress without IV contrast</td>
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<td>MRI heart with function and inotropic stress without and with IV contrast</td>
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<td>Arteriography coronary</td>
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References: Study Quality
31 (25863305)
Inadequate

References: Study Quality
44 (26112200)
4
Appendix Key
A more complete discussion of the items presented below can be found by accessing the supporting documents at the designated hyperlinks.

Appropriateness Category: The panel's recommendation for a procedure based on the assessment of the risks and benefits of performing the procedure for the specified clinical scenario.

SOE: Strength of Evidence. The assessment of the amount and quality of evidence found in the peer reviewed medical literature for an appropriateness recommendation.

- References: The citation number and PMID for the reference(s) associated with the recommendation.
- Study Quality: The assessment of the quality of an individual reference based on the number of study quality elements described in the reference.

RRL: Relative Radiation Level. A population based assessment of the amount of radiation a typical patient may be exposed to during the specified procedure.

Rating: The final rating (1-9 scale) for the procedure as determined by the panel during rating rounds.

Median: The median rating (1-9 scale) for the procedure as determined by the panel during rating rounds.

Final tabulations: A histogram showing the number of panel members who rated the procedure as noted in the column heading (ie, 1, 2, 3, etc.).

Additional supporting documents about the AC methodology and processes can be found at www.acr.org/ac.