

**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.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
CTA coronary arteries with IV contrast	Usually appropriate	Expert Consensus	⊕⊕⊕ 1-10 mSv	⊕⊕⊕⊕ 3-10 mSv [ped]	8	8	1	0	0	1	0	1	4	10	0
Radiography chest	Usually appropriate	Expert Consensus	⊕ <0.1 mSv	⊕ <0.03 mSv [ped]	8	8	0	0	0	0	1	2	3	3	8
CTA chest with IV contrast	May be appropriate	Expert Consensus	⊕⊕⊕ 1-10 mSv	⊕⊕⊕⊕ 3-10 mSv [ped]	5	5	1	0	0	1	9	1	4	1	0
CT chest with IV contrast	May be appropriate	Expert Consensus	⊕⊕⊕ 1-10 mSv	⊕⊕⊕⊕ 3-10 mSv [ped]	5	5	1	0	1	1	10	4	0	0	0
CT chest without and with IV contrast	May be appropriate	Limited	⊕⊕⊕ 1-10 mSv	⊕⊕⊕⊕ 3-10 mSv [ped]	5	5	1	1	1	4	7	2	1	0	0
			References	Study Quality											
			38 (19486717)	4											
			20 (27819965)	4											
V/Q scan lung	May be appropriate	Expert Consensus	⊕⊕⊕ 1-10 mSv		5	5	2	1	2	2	10	0	0	0	0
US echocardiography transthoracic resting	May be appropriate (Disagreement)	Expert Opinion	○ 0 mSv	○ 0 mSv [ped]	5	5	0	2	0	0	4	4	6	1	0
			References	Study Quality											

MRA chest without and with IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	2	2	4	7	6	0	0	0	0	0	0
		References		Study Quality											
		40 (27533160)		4											
MRA coronary arteries without IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	2	2	5	8	3	0	1	0	0	0	0
MRA coronary arteries without and with IV contrast	Usually not appropriate	Expert Consensus	0 0 mSv	0 0 mSv [ped]	2	2	4	6	5	1	1	0	0	0	0
MRI heart function and morphology without and with IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	2	2	2	7	7	0	0	0	0	0	1
		References		Study Quality											
		42 (19389557)		4											
		41 (28005512)		4											
		43 (27899132)		4											
Nuclear medicine scan gallbladder	Usually not appropriate	Expert Consensus	☼☼ 0.1-1mSv		2	2	6	3	1	4	2	0	0	1	0
US echocardiography transthoracic stress	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	2	2	2	8	3	1	2	0	0	1	0
		References		Study Quality											
		15 (26910053)		4											
		23 (28378340)		3											
		22 (25378470)		4											
		24 (29909113)		3											
US echocardiography transesophageal	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	2	2	6	5	1	3	1	0	1	0	0
		References		Study Quality											
		22 (25378470)		4											
MRI heart with function and vasodilator stress perfusion without and with IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	2	2	6	6	2	0	2	0	0	0	1
		References		Study Quality											

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.