

American College of Radiology
ACR Appropriateness Criteria®

Chronic Chest Pain-Noncardiac Etiology Unlikely: Low to Intermediate Probability of Coronary Artery Disease

Variant 1: Chronic chest pain, noncardiac etiology unlikely: low to intermediate 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	Strong	☢☢☢ 1-10 mSv	☢☢☢☢☢ 3-10 mSv [ped]	9	9	0	0	1	0	0	0	0	4	8
	References		Study Quality												
	39 (26330417)		1												
	18 (26892420)		4												
	19 (27043808)		4												
	10 (25984459)		4												
	11 (26782999)		4												
	13 (26112200)		4												
	14 (23684682)		3												
	15 (27081014)		3												
	21 (25714275)		4												
	22 (22830462)		1												
	27 (21565735)		2												
	31 (27318587)		4												
	33 (22032711)		2												
	34 (22922562)		1												
	36 (23934536)		4												
	37 (24110575)		3												
	25 (25773919)		1												

12 (25844996)	4
23 (23517254)	2
30 (25125300)	2
35 (23562923)	4
26 (28389572)	2
40 (27470449)	2
24 (25788230)	1
28 (25473041)	1
32 (27502292)	3
16 (28973101)	Good
29 (23727215)	3
38 (28444153)	3
20 (26746631)	1
17 (28329294)	2

US echocardiography transthoracic stress	Usually appropriate	Strong	0.0 mSv	0.0 mSv [ped]	8	8	0	0	1	0	1	0	4	5	2
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	References	Study Quality
	51 (15215802)	2
	52 (17222734)	Good
	53 (25896850)	3

MRI heart with function and vasodilator stress perfusion without and with IV contrast	Usually appropriate	Strong	0.0 mSv	0.0 mSv [ped]	7	7	0	0	0	0	1	2	5	4	1
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References	Study Quality
55 (12403662)	3
56 (15289384)	2
58 (22196944)	3
59 (16580532)	3
60 (22084203)	1
57 (23578348)	4

[illegible]

		References		Study Quality											
		66 (16949498)		2											
		67 (20541718)		4											
Rb-82 PET/CT MPI rest and stress	Usually appropriate	Limited	☢☢☢☢ 10-30 mSv		7	7	0	0	0	1	1	0	11	1	1
		References		Study Quality											
		66 (16949498)		2											
		67 (20541718)		4											
SPECT or SPECT/CT MPI rest and stress	Usually appropriate	Limited	☢☢☢☢ 10-30 mSv	☢☢☢☢☢ 10-30 mSv [ped]	7	n/a	0	0	0	0	0	0	0	0	0
		References		Study Quality											
		41 (11397352)		3											
		25 (25773919)		1											
		44 (24026478)		3											
		42 (25745089)		2											
		43 (26052677)		2											
SPECT or SPECT/CT MPI rest and stress	Usually appropriate	Limited	☢☢☢☢ 10-30 mSv	☢☢☢☢☢ 10-30 mSv [ped]	7	7	0	0	0	0	0	2	5	3	3
		References		Study Quality											
		41 (11397352)		3											
		25 (25773919)		1											
		44 (24026478)		3											
		42 (25745089)		2											
		43 (26052677)		2											
SPECT or SPECT/CT MPI stress only	Usually appropriate	Limited	☢☢☢ 1-10 mSv		7	7	0	0	1	0	2	3	6	1	0
		References		Study Quality											
		41 (11397352)		3											
		25 (25773919)		1											

[illegible]

SPECT or SPECT/CT MPI rest only	Usually not appropriate	Limited	☢☢☢ 1-10 mSv		3	3	2	1	10	2	0	0	0	0	0
		References		Study Quality											
		41 (11397352)		3											
		25 (25773919)		1											
		44 (24026478)		3											
		42 (25745089)		2											
		43 (26052677)		2											

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.