

24 (19801036)	4
15 (27242355)	2
22 (24293045)	3
7 (26320109)	4
20 (29555833)	2
19 (28329276)	2
10 (27746163)	4
21 (28104075)	4
23 (24603192)	4

US echocardiography transesophageal	May be appropriate (Disagreement)	Expert Opinion	0 0 mSv	0 0 mSv [ped]	5	5	0	0	3	2	1	5	1	2	2
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References	Study Quality
41 (8154507)	4
42 (10482211)	3
40 (20223755)	4
43 (12848698)	2
44 (22727494)	4
47 (17967599)	3
49 (15556816)	3
45 (26162783)	2
50 (23906859)	1
48 (23417650)	3
1 (23369408)	4
39 (26373316)	4

CTA chest with IV contrast	May be appropriate	Limited	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	4	4	2	2	3	2	6	1	0	1	0
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References	Study Quality
13 (23900698)	4
14 (18523779)	4

CTA coronary arteries with IV contrast	May be appropriate	Strong	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	4	4	4	1	3	3	5	0	1	0	0	
		References	Study Quality													
		26 (-3091598)	4													
		25 (19995632)	4													
		17 (19179202)	2													
		15 (27242355)	2													
		28 (30312411)	3													
		27 (30165613)	2													
CT chest with IV contrast	Usually not appropriate	Limited	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	3	3	0	2	10	3	1	0	0	0	0	
		References	Study Quality													
		13 (23900698)	4													
		14 (18523779)	4													
CT chest without IV contrast	Usually not appropriate	Limited	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	3	3	5	1	5	1	4	0	1	0	0	
		References	Study Quality													
		13 (23900698)	4													
		14 (18523779)	4													
CT chest without and with IV contrast	Usually not appropriate	Limited	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	3	3	3	2	4	3	4	0	1	0	0	
		References	Study Quality													
		13 (23900698)	4													
		14 (18523779)	4													
MRI heart function and morphology without IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	3	3	2	2	6	6	0	0	0	0	0	
		References	Study Quality													
		38 (25430531)	4													

MRI heart function and morphology without and with IV contrast	Usually not appropriate	Limited	0 0 mSv	0 0 mSv [ped]	3	3	2	2	7	3	2	0	0	0	0
		References		Study Quality											
		38 (25430531)		4											
WBC scan heart	Usually not appropriate	Limited	☼☼☼☼ 10-30 mSv		3	3	2	4	6	0	3	1	0	1	0
		References		Study Quality											
		37 (15465518)		4											
		36 (25741532)		4											
FDG-PET/CT heart	Usually not appropriate	Strong	☼☼☼☼ 10-30 mSv	☼☼☼☼ 3-10 mSv [ped]	3	3	3	2	8	1	2	0	0	0	0
		References		Study Quality											
		29 (23471580)		2											
		32 (23583251)		2											
		30 (25093540)		3											
		33 (24802193)		2											
		34 (28807509)		3											
		31 (30018167)		2											
Fluoroscopy heart	Usually not appropriate	Limited	☼☼ 0.1-1mSv		1	1	9	3	3	0	0	1	1	0	0
		References		Study Quality											
		35 (6519077)		2											
Arteriography coronary	Usually not appropriate	Limited	☼☼☼ 1-10 mSv		1	1	10	1	2	1	2	0	1	0	0
		References		Study Quality											
		12 (21602418)		4											

Variant 2: Known or suspected infective endocarditis. Additional imaging to direct patient management or treatment.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations									
							1	2	3	4	5	6	7	8	9	
CT heart function and morphology with IV contrast	Usually appropriate	Strong	☹☹☹☹ 10-30 mSv	☹☹☹☹ 3-10 mSv [ped]	8	8	0	0	0	1	1	0	4	8	2	
		References	Study Quality													
		16 (22622348)	3													
		18 (20173130)	2													
		17 (19179202)	2													
		24 (19801036)	4													
		15 (27242355)	2													
		22 (24293045)	3													
		7 (26320109)	4													
		20 (29555833)	2													
		51 (30214859)	3													
		19 (28329276)	2													
		10 (27746163)	4													
		21 (28104075)	4													
		23 (24603192)	4													
US echocardiography transthoracic resting	Usually appropriate	Strong	○ 0 mSv	○ 0 mSv [ped]	8	8	0	0	0	0	0	1	2	8	5	
		References	Study Quality													
		44 (22727494)	4													
		63 (15983252)	3													
		64 (15310690)	3													
		45 (26162783)	2													
		50 (23906859)	1													
		7 (26320109)	4													
		39 (26373316)	4													
US echocardiography transesophageal	Usually appropriate	Strong	○ 0 mSv	○ 0 mSv [ped]	8	8	0	0	1	0	0	0	2	6	8	

References	Study Quality
40 (20223755)	4
44 (22727494)	4
63 (15983252)	3
45 (26162783)	2
50 (23906859)	1
7 (26320109)	4
39 (26373316)	4

CTA chest with IV contrast	May be appropriate	Limited	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	6	6	0	0	0	2	3	9	2	0	0
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References	Study Quality
25 (19995632)	4
13 (23900698)	4
14 (18523779)	4

CTA coronary arteries with IV contrast	May be appropriate	Strong	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	6	6	0	0	0	1	2	6	3	3	1
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References	Study Quality
26 (-3091598)	4
25 (19995632)	4
17 (19179202)	2
15 (27242355)	2
28 (30312411)	3
27 (30165613)	2

Radiography chest	May be appropriate	Expert Consensus	☼ <0.1 mSv	☼ <0.03 mSv [ped]	6	6	1	0	0	1	5	3	2	3	2
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FDG-PET/CT heart	May be appropriate	Strong	☼☼☼☼ 10-30 mSv	☼☼☼☼ 3-10 mSv [ped]	6	6	0	0	0	1	4	6	5	0	0
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References	Study Quality
56 (19953353)	4
52 (23653242)	3

57 (15035522)	4
47 (17967599)	3
31 (30018167)	2
54 (21463705)	4
53 (20636421)	1
55 (22538331)	3
4 (31738598)	4

CT chest with IV contrast	May be appropriate	Limited	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	5	5	0	0	0	2	8	5	1	0	0
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References	Study Quality
25 (19995632)	4

CT chest without IV contrast	May be appropriate	Limited	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	5	5	2	1	2	3	8	0	1	0	0
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References	Study Quality
25 (19995632)	4

CT chest without and with IV contrast	May be appropriate	Limited	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	5	5	0	0	0	1	9	5	1	0	0
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References	Study Quality
25 (19995632)	4

Fluoroscopy heart	May be appropriate	Limited	☼☼ 0.1-1mSv		5	5	1	1	1	4	5	4	0	0	0
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References	Study Quality
35 (6519077)	2

Arteriography coronary	May be appropriate	Limited	☼☼☼ 1-10 mSv		5	5	0	0	0	5	4	5	1	1	0
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References	Study Quality
12 (21602418)	4
7 (26320109)	4

MRI heart function and morphology without IV contrast	May be appropriate	Limited	○ 0 mSv	○ 0 mSv [ped]	5	5	0	0	0	2	8	6	0	0	0
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References	Study Quality
60 (17389206)	4
38 (25430531)	4
61 (27600463)	4
62 (28314623)	4

MRI heart function and morphology without and with IV contrast	May be appropriate	Limited	0 0 mSv	0 0 mSv [ped]	5	5	1	0	0	4	5	2	4	1	0
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References	Study Quality
60 (17389206)	4
38 (25430531)	4
61 (27600463)	4
62 (28314623)	4

WBC scan heart	May be appropriate	Limited	☢☢☢☢ 10-30 mSv		5	5	0	0	1	2	8	4	1	0	0
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References	Study Quality
59 (25453046)	3
39 (26373316)	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.