American College of Radiology
ACR Appropriateness Criteria®

Screening for Abdominal Aortic Aneurysm

Variant 1: Adult. Abdominal aortic aneurysm screening. Asymptomatic, with or without a family history of AAA or history of smoking.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
US aorta abdomen	Usually appropriate	Moderate	O 0 mSv	O 0 mSv [ped]	9	9	0	0	0	0	0	0	1	5	9

References	Study Quality
29 (25446298)	4
32 (21915236)	4
23 (27871502)	Good
33 (23403222)	4
35 (21861264)	4
13 (28193267)	2
28 (31821437)	4
30 (21439859)	3
25 (24262320)	3
31 (33308596)	4
27 (24957320)	4
24 (34370826)	3
34 (25593624)	3
26 (36334952)	4

US duplex Doppler aorta abdomen	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	6	6	0	0	0	1	6	7	2	1	0

References	Study Quality

	39 (27436173)	4														
	37 (26391962)	3														
	38 (31204220)	3														
	17 (33609372)	4														
	36 (32611427)	3														
CT abdomen and pelvis without IV contrast	May be appropriate (Disagreement)	Expert Opinion	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	5	5	1	1	5	1	6	1	2	0	0
	References	Study Quality														
	13 (28193267)	2														
	16 (36246457)	2														
CT abdomen and pelvis with IV contrast	Usually not appropriate	Moderate	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	3	3	2	5	9	1	0	0	0	0	0
	References	Study Quality														
	14 (28216357)	4														
	13 (28193267)	2														
	15 (19581643)	4														
CT abdomen and pelvis without and with IV contrast	Usually not appropriate	Moderate	☢☢☢☢ 10-30 mSv	☢☢☢☢☢ 10-30 mSv [ped]	3	3	3	5	8	1	0	0	0	0	0
	References	Study Quality														
	13 (28193267)	2														
CTA abdomen and pelvis with IV contrast	Usually not appropriate	Moderate	☢☢☢☢ 10-30 mSv		3	3	2	4	6	5	0	0	0	0	0
	References	Study Quality														
	12 (26840606)	4														
	18 (26715680)	4														
	6 (29268916)	4														
	13 (28193267)	2														
	17 (33609372)	4														

MRA abdomen and pelvis without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	3	3	3	4	8	2	0	0	0	0	0
MRA abdomen and pelvis without and with IV contrast	Usually not appropriate	Strong	O 0 mSv	O 0 mSv [ped]	3	3	4	4	6	3	0	0	0	0	0

References	Study Quality
21 (23392427)	1
22 (31660983)	2

MRA abdomen and pelvis with IV contrast	Usually not appropriate	Strong	O 0 mSv	O 0 mSv [ped]	3	3	4	4	5	4	0	0	0	0	0

References	Study Quality
20 (27131923)	1
13 (28193267)	2

MRI abdomen and pelvis with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	3	3	3	4	4	1	2	1	0	0	0
CTA abdomen and pelvis without and with IV contrast	Usually not appropriate	Moderate	☢☢☢☢ 10-30 mSv		3	3	5	3	8	1	0	0	0	0	0

References	Study Quality
12 (26840606)	4
13 (28193267)	2
19 (31200051)	3

Aortography abdomen and pelvis	Usually not appropriate	Limited	☢☢☢☢ 10-30 mSv		2	2	6	4	4	1	0	0	0	0	0

References	Study Quality
12 (26840606)	4

MRI abdomen and pelvis without IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	5	4	2	1	3	0	0	0	0
MRI abdomen and pelvis without and with IV contrast	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	5	4	2	1	2	1	0	0	0
Radiography abdomen and pelvis	Usually not appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢ 0.3-3 mSv [ped]	1	1	10	3	1	1	0	0	0	0	0

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.**