

American College of Radiology
ACR Appropriateness Criteria®

Palpable Abdominal Mass-Suspected Neoplasm

Variant 1: Palpable abdominal mass. Suspected intra-abdominal neoplasm. Initial imaging.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
CT abdomen with IV contrast	Usually appropriate	Strong	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	9	9	0	0	0	0	0	0	0	1	12
		References	Study Quality												
		10 (27377325)	4												
		5 (27452935)	4												
		11 (26321453)	4												
		6 (24901125)	4												
		7 (24764686)	3												
		13 (24724763)	4												
		12 (23381506)	4												
		4 (23212183)	4												
		8 (6112538)	1												
		9 (6734063)	3												
		14 (16371582)	3												
		15 (6561119)	4												
US abdomen	Usually appropriate	Limited	○ ○ mSv	○ ○ mSv [ped]	7	7	0	0	0	1	0	1	5	6	0
		References	Study Quality												
		5 (27452935)	4												
		23 (25793296)	3												

6 (24901125)	4
4 (23212183)	4
21 (15953224)	4
16 (7223287)	4
17 (2407418)	3
19 (7084598)	4
18 (3285944)	4
20 (2152047)	4
22 (26507695)	2

MRI abdomen without and with IV contrast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	6	6	0	0	0	0	0	7	2	1	3
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References	Study Quality
10 (27377325)	4

CT abdomen without IV contrast	May be appropriate	Strong	☢☢☢ 1-10 mSv	☢☢☢☢☢ 3-10 mSv [ped]	5	5	0	0	1	5	6	2	2	0	0
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References	Study Quality
10 (27377325)	4
5 (27452935)	4
11 (26321453)	4
6 (24901125)	4
7 (24764686)	3
13 (24724763)	4
12 (23381506)	4
4 (23212183)	4
8 (6112538)	1
9 (6734063)	3
14 (16371582)	3
15 (6561119)	4

MRI abdomen without IV contrast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	5	5	0	0	0	7	6	2	1	0	0
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References	Study Quality
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Fluoroscopy upper GI series	Usually not appropriate	Limited	☹☹☹ 1-10 mSv	☹☹☹ 0.3-3 mSv [ped]	2	2	3	6	3	1	0	0	0	0	0	0
		References	Study Quality													
		28 (23219189)	3													
Fluoroscopy upper GI series with small bowel follow-through	Usually not appropriate	Limited	☹☹☹ 1-10 mSv	☹☹☹☹ 3-10 mSv [ped]	2	2	3	6	3	1	0	0	0	0	0	0
		References	Study Quality													
		28 (23219189)	3													

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
US abdomen	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	9	9	0	0	0	0	0	0	1	4	8
		References		Study Quality											
		38 (22884230)		4											
		39 (28218772)		4											
		36 (27328495)		4											
		32 (26657747)		4											
		37 (26162574)		4											
		30 (25064764)		4											
		29 (24043554)		4											
		33 (24145938)		4											
		34 (23535226)		4											
		31 (19414084)		3											
		CT abdomen with IV contrast	Usually appropriate	Limited	☼☼☼ 1-10 mSv										☼☼☼☼ 3-10 mSv [ped]
		References		Study Quality											

		15 (6561119)	4												
		43 (28004137)	3												
		41 (15728607)	3												
		42 (29571558)	4												
CT abdomen without and with IV contrast	Usually not appropriate	Limited	☼☼☼☼ 10-30 mSv	☼☼☼☼☼ 10-30 mSv [ped]	3	3	1	7	6	2	0	0	0	0	0
		References		Study Quality											
		30 (25064764)		4											
		12 (23381506)		4											
		14 (16371582)		3											
		15 (6561119)		4											
		43 (28004137)		3											
		41 (15728607)		3											
		42 (29571558)		4											
FDG-PET/CT skull base to mid-thigh	Usually not appropriate	Expert Consensus	☼☼☼☼ 10-30 mSv	☼☼☼☼☼ 3-10 mSv [ped]	2	2	3	7	2	1	0	0	0	0	0
Radiography abdomen	Usually not appropriate	Expert Consensus	☼☼ 0.1-1mSv	☼☼ 0.03-0.3 mSv [ped]	2	2	6	3	3	0	1	0	0	0	0
Fluoroscopy contrast enema	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼☼ 3-10 mSv [ped]	1	1	8	4	1	0	0	0	0	0	0
Fluoroscopy upper GI series	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼ 0.3-3 mSv [ped]	1	1	9	3	1	0	0	0	0	0	0
Fluoroscopy upper GI series with small bowel follow-through	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼☼ 3-10 mSv [ped]	1	1	8	4	1	0	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.