

CT abdomen and pelvis without and with IV contrast	May be appropriate	Strong	☼☼☼☼ 10-30 mSv	☼☼☼☼☼ 10-30 mSv [ped]	4	4	0	2	3	6	5	0	0	0	0
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References	Study Quality
30 (26248155)	3
25 (20116016)	4
34 (24280147)	3
26 (10789801)	3
17 (19878040)	3
24 (20463429)	4
31 (21257870)	4
23 (16769549)	3
27 (16738930)	2
29 (19841952)	3
28 (24902657)	3
11 (-3110988)	4

Radiography abdomen	May be appropriate	Strong	☼☼ 0.1-1mSv	☼☼☼ 0.03-0.3 mSv [ped]	4	4	0	0	3	11	2	0	0	0	0
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References	Study Quality
17 (19878040)	3
18 (18710981)	2
19 (17765461)	2
21 (20825832)	3
15 (12355000)	3
22 (26757563)	4
16 (22507493)	3
20 (24880255)	4

WBC scan abdomen and pelvis	Usually not appropriate	Strong	☼☼☼☼ 10-30 mSv		3	3	6	2	4	4	0	0	0	0	0
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References	Study Quality
45 (4015374)	4

			43 (2112472)		4													
			44 (3567506)		2													
			46 (1941134)		1													
			9 (-3110989)		4													
WBC scan abdomen and pelvis	Usually not appropriate	Strong	☼☼☼☼ 10-30 mSv		3	3	4	4	4	4	0	0	0	0	0			
			References		Study Quality													
			45 (4015374)		4													
			43 (2112472)		4													
			44 (3567506)		2													
			46 (1941134)		1													
			9 (-3110989)		4													
Nuclear medicine scan gallbladder	Usually not appropriate	Strong	☼☼ 0.1-1mSv		3	3	3	4	2	5	2	0	0	0	0			
			References		Study Quality													
			45 (4015374)		4													
			43 (2112472)		4													
			44 (3567506)		2													
			46 (1941134)		1													
			9 (-3110989)		4													
FDG-PET/CT skull base to mid-thigh	Usually not appropriate	Limited	☼☼☼☼ 10-30 mSv	☼☼☼☼☼ 3-10 mSv [ped]	3	3	3	4	3	3	1	2	0	0	0			
			References		Study Quality													
			42 (27399241)		4													
Fluoroscopy contrast enema	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼☼ 3-10 mSv [ped]	2	2	8	5	2	1	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]	2	2	8	4	3	1	0	0	0	0	0			

CT abdomen and pelvis without IV contrast	May be appropriate	Strong	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	5	5	0	0	2	5	5	5	0	0	0
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References	Study Quality
52 (23735667)	3
47 (17164970)	3
49 (17514398)	3
50 (17189112)	3
51 (17122986)	3
23 (16769549)	3
54 (22084185)	4
48 (25747433)	2
53 (18646473)	3

MRI abdomen and pelvis without IV contrast	May be appropriate	Limited	○ 0 mSv	○ 0 mSv [ped]	5	5	1	1	0	3	5	5	1	0	0
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References	Study Quality
36 (26526902)	3
37 (18649091)	4
35 (19118967)	4
38 (21826466)	3

CT abdomen and pelvis without and with IV contrast	May be appropriate	Strong	☼☼☼☼ 10-30 mSv	☼☼☼☼☼ 10-30 mSv [ped]	4	4	0	2	4	3	6	1	0	0	0
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References	Study Quality
52 (23735667)	3
47 (17164970)	3
49 (17514398)	3
50 (17189112)	3
51 (17122986)	3
54 (22084185)	4
48 (25747433)	2
53 (18646473)	3

Fluoroscopy contrast enema	May be appropriate	Limited	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	4	4	0	0	1	11	2	2	0	0	0
		References	Study Quality												
		47 (17164970)	3												
Fluoroscopy upper GI series with small bowel follow-through	May be appropriate	Strong	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	4	4	0	0	2	10	2	2	0	0	0
		References	Study Quality												
		49 (17514398)	3												
		50 (17189112)	3												
		51 (17122986)	3												
		48 (25747433)	2												
Radiography abdomen	May be appropriate	Limited	☼☼ 0.1-1mSv	☼☼ 0.03-0.3 mSv [ped]	4	4	0	1	1	8	2	4	0	0	0
		References	Study Quality												
		15 (12355000)	3												
WBC scan abdomen and pelvis	Usually not appropriate	Strong	☼☼☼☼ 10-30 mSv		3	3	4	3	4	4	0	1	0	0	0
		References	Study Quality												
		45 (4015374)	4												
		43 (2112472)	4												
		44 (3567506)	2												
		46 (1941134)	1												
WBC scan abdomen and pelvis	Usually not appropriate	Strong	☼☼☼☼ 10-30 mSv		3	3	2	6	3	4	0	1	0	0	0
		References	Study Quality												
		45 (4015374)	4												
		43 (2112472)	4												
		44 (3567506)	2												
		46 (1941134)	1												

22 (26757563)	4
16 (22507493)	3
20 (24880255)	4

Fluoroscopy contrast enema	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	2	2	7	7	0	2	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]	2	2	7	6	0	3	0	0	0	0	0
Nuclear medicine scan gallbladder	Usually not appropriate	Expert Consensus	☼☼ 0.1-1mSv		2	2	2	8	2	1	2	1	0	0	0

Variant 4: Acute nonlocalized abdominal pain. Not otherwise specified. 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 and pelvis with IV contrast	Usually appropriate	Strong	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	9	9	0	0	0	0	0	0	0	4	12

References	Study Quality
68 (26341808)	2
30 (26248155)	3
75 (25917534)	4
81 (23179149)	3
25 (20116016)	4
64 (20093517)	3
67 (17896131)	3
69 (8976942)	3
26 (10789801)	3
70 (1426841)	3
17 (19878040)	3
24 (20463429)	4

66 (18423315)	3
31 (21257870)	4
80 (20074835)	2
72 (20306104)	3
61 (17185667)	4
62 (16941110)	4
63 (17178362)	2
27 (16738930)	2
83 (22072086)	4
79 (23715771)	3
29 (19841952)	3
82 (24134171)	4
71 (26112159)	4
73 (24261352)	2
74 (24623365)	3
28 (24902657)	3
77 (17114622)	3
65 (21251432)	Good
78 (-3121966)	4

CT abdomen and pelvis without IV contrast	Usually appropriate	Strong	☼☼☼ 1-10 mSv	☼☼☼☼☼ 3-10 mSv [ped]	7	7	0	0	0	0	0	8	7	0	1
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References	Study Quality
68 (26341808)	2
30 (26248155)	3
75 (25917534)	4
81 (23179149)	3
25 (20116016)	4
64 (20093517)	3
67 (17896131)	3
76 (25157993)	3
69 (8976942)	3

26 (10789801)	3
70 (1426841)	3
17 (19878040)	3
24 (20463429)	4
66 (18423315)	3
31 (21257870)	4
80 (20074835)	2
72 (20306104)	3
63 (17178362)	2
27 (16738930)	2
83 (22072086)	4
79 (23715771)	3
29 (19841952)	3
82 (24134171)	4
71 (26112159)	4
73 (24261352)	2
74 (24623365)	3
28 (24902657)	3
77 (17114622)	3
65 (21251432)	Good
78 (-3121966)	4

MRI abdomen and pelvis without and with IV contrast	Usually appropriate	Strong	0 0 mSv	0 0 mSv [ped]	7	7	0	0	0	1	2	4	7	2	0
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References	Study Quality
36 (26526902)	3
37 (18649091)	4
85 (18443876)	1
86 (16505393)	3
58 (18097696)	4
84 (19959521)	4
35 (19118967)	4

87 (17848700)	4
88 (23479698)	4
38 (21826466)	3
89 (22264900)	4

US abdomen	May be appropriate	Strong	0 0 mSv	0 0 mSv [ped]	6	6	0	0	1	0	2	7	2	3	1
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References	Study Quality
92 (24842498)	2
60 (19561056)	3
95 (10888131)	4
94 (20732861)	2
93 (22572686)	4
89 (22264900)	4
41 (21365197)	2
90 (19897964)	4
91 (19321676)	4

MRI abdomen and pelvis without IV contrast	May be appropriate	Limited	0 0 mSv	0 0 mSv [ped]	5	5	0	0	0	3	6	2	3	2	0
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References	Study Quality
36 (26526902)	3
37 (18649091)	4
85 (18443876)	1
86 (16505393)	3
58 (18097696)	4
84 (19959521)	4
35 (19118967)	4
87 (17848700)	4
88 (23479698)	4
89 (22264900)	4

CT abdomen and pelvis without and with IV contrast	May be appropriate	Strong	☼☼☼☼ 10-30 mSv	☼☼☼☼☼ 10-30 mSv [ped]	4	4	0	2	3	8	3	0	0	0	0
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References	Study Quality
68 (26341808)	2
30 (26248155)	3
75 (25917534)	4
81 (23179149)	3
25 (20116016)	4
64 (20093517)	3
67 (17896131)	3
76 (25157993)	3
69 (8976942)	3
26 (10789801)	3
70 (1426841)	3
17 (19878040)	3
24 (20463429)	4
66 (18423315)	3
31 (21257870)	4
80 (20074835)	2
72 (20306104)	3
63 (17178362)	2
23 (16769549)	3
27 (16738930)	2
83 (22072086)	4
79 (23715771)	3
29 (19841952)	3
82 (24134171)	4
71 (26112159)	4
73 (24261352)	2
74 (24623365)	3

28 (24902657)	3
77 (17114622)	3
65 (21251432)	Good
78 (-3121966)	4

Radiography abdomen	May be appropriate	Limited	☼☼☼ 0.1-1mSv	☼☼☼ 0.03-0.3 mSv [ped]	4	4	0	3	0	9	2	2	0	0	0
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References	Study Quality
15 (12355000)	3

Fluoroscopy upper GI series with small bowel follow-through	Usually not appropriate	Expert Consensus	☼☼☼☼ 1-10 mSv	☼☼☼☼☼ 3-10 mSv [ped]	2	2	8	4	1	3	0	0	0	0	0
WBC scan abdomen and pelvis	Usually not appropriate	Expert Consensus	☼☼☼☼☼ 10-30 mSv		2	2	6	4	4	1	0	1	0	0	0
WBC scan abdomen and pelvis	Usually not appropriate	Expert Consensus	☼☼☼☼☼ 10-30 mSv		2	2	6	4	4	1	0	1	0	0	0
Nuclear medicine scan gallbladder	Usually not appropriate	Expert Consensus	☼☼☼ 0.1-1mSv		2	2	5	6	2	1	1	1	0	0	0
FDG-PET/CT skull base to mid-thigh	Usually not appropriate	Expert Consensus	☼☼☼☼☼ 10-30 mSv	☼☼☼☼☼ 3-10 mSv [ped]	2	2	6	4	3	2	1	0	0	0	0
Fluoroscopy contrast enema	Usually not appropriate	Expert Consensus	☼☼☼☼ 1-10 mSv	☼☼☼☼☼ 3-10 mSv [ped]	1	1	9	5	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.