American College of Radiology
ACR Appropriateness Criteria®

Pretreatment Evaluation and Follow-up of Invasive Cancer of the Cervix

Variant 1: Initial local staging of pretreatment cervical cancer; assessment of local tumor extension (T staging) for any clinically visible lesion.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
MRI pelvis without and with IV contrast	Usually appropriate	Strong	O 0 mSv	O 0 mSv [ped]	9	9	0	0	0	0	1	0	1	4	6

References	Study Quality
29 (25794993)	3
28 (30503642)	3
27 (21479769)	3
26 (28726120)	Good
25 (18936313)	2
24 (27012496)	3
22 (30799568)	3
21 (30903231)	4
20 (7784021)	2
19 (8331236)	2
18 (1362678)	1
12 (32415584)	3
11 (14529663)	4

FDG-PET/MRI skull base to mid-thigh	Usually appropriate	Strong	☢☢☢ 1-10 mSv		7	7	1	0	0	0	4	0	5	1	1

References	Study Quality
17 (20580064)	3

References	Study Quality
16 (19604567)	2
15 (33482909)	3
14 (28840302)	3

MRI pelvis without IV contrast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	6	6	0	0	0	1	3	5	1	1	1

References	Study Quality
29 (25794993)	3
28 (30503642)	3
27 (21479769)	3
22 (30799568)	3
21 (30903231)	4

FDG-PET/CT skull base to mid-thigh	May be appropriate	Limited	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	6	6	1	0	0	0	5	0	4	1	1

References	Study Quality
9 (32551909)	4
12 (32415584)	3

US pelvis transvaginal	May be appropriate	Strong	O 0 mSv	O 0 mSv [ped]	5	5	0	0	0	2	9	0	0	0	0

References	Study Quality
32 (23022593)	2
31 (30028181)	3
30 (32096793)	Good

CT pelvis with IV contrast	May be appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	4	4	1	3	2	0	5	0	1	0	0

References	Study Quality
12 (32415584)	3
11 (14529663)	4
10 (17179104)	2
9 (32551909)	4

CT pelvis without and with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	2	2	6	4	0	1	0	0	1	0	0
CT pelvis without IV contrast	Usually not appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	1	1	7	2	2	0	0	0	1	0	0

References	Study Quality
13 (12117194)	4

US pelvis transabdominal	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	7	3	1	0	0	0	0	1	0

Variant 2: Initial systemic staging of pretreatment cervical cancer; assessment of lymph node and distant metastases (N/M staging).

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
FDG-PET/CT skull base to mid-thigh	Usually appropriate	Strong	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	9	9	0	0	0	1	0	0	1	4	6

References	Study Quality
38 (27178725)	3
37 (-3195133)	4
36 (20298252)	M
35 (27357415)	4
34 (30739082)	3
33 (29185901)	2
12 (32415584)	3

CT abdomen and pelvis with IV contrast	Usually appropriate	Moderate	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	8	8	1	0	0	0	1	0	4	4	2

References	Study Quality
36 (20298252)	M
35 (27357415)	4
34 (30739082)	3

		33 (29185901)		2												
		12 (32415584)		3												
MRI pelvis without and with IV contrast	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	8	8	0	0	0	0	0	0	5	5	1	
		References		Study Quality												
		12 (32415584)		3												
		36 (20298252)		M												
FDG-PET/MRI skull base to mid-thigh	Usually appropriate	Limited	☢☢☢ 1-10 mSv		8	8	0	0	0	0	1	0	4	5	1	
		References		Study Quality												
		17 (20580064)		3												
		16 (19604567)		2												
		14 (28840302)		3												
CT chest with IV contrast	Usually appropriate	Moderate	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	7	7	0	0	0	0	0	0	10	1	0	
		References		Study Quality												
		33 (29185901)		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	2	6	3	0	0	
		References		Study Quality												
		12 (32415584)		3												
		36 (20298252)		M												
CT chest without IV contrast	May be appropriate	Moderate	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	5	5	1	0	0	1	8	0	1	0	0	
		References		Study Quality												
		33 (29185901)		2												
MRI abdomen without IV contrast	May be appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	5	5	0	0	0	1	8	1	0	1	0	
MRI pelvis without IV contrast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	5	5	0	0	0	1	5	2	2	1	0	

		References		Study Quality												
		39 (32636272)		4												
		40 (18201753)		3												
CT chest without and with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	3	3	4	2	3	0	3	0	0	0	0
CT abdomen and pelvis without IV contrast	Usually not appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	2	2	5	3	2	1	0	0	0	0	0
		References		Study Quality												
		13 (12117194)		4												
US abdomen	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	5	4	1	1	1	0	0	0	0
Radiography chest	Usually not appropriate	Limited	☢ <0.1 mSv	☢ <0.03 mSv [ped]	2	2	6	2	1	0	2	0	1	0	0
		References		Study Quality												
		41 (7557610)		2												
		42 (16556457)		4												
CT abdomen and pelvis without and with IV contrast	Usually not appropriate	Expert Consensus	☢☢☢☢ 10-30 mSv	☢☢☢☢☢ 10-30 mSv [ped]	1	1	7	1	3	0	0	0	0	0	0
US pelvis transabdominal	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	7	3	1	0	0	1	0	0	0
US pelvis transvaginal	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	7	3	1	0	0	0	0	0	1

Variant 3: Initial treatment response assessment of cervical cancer after chemoradiation.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
MRI pelvis without and with IV	Usually	Strong	O 0 mSv	O 0 mSv	8	8	0	0	1	0	0	0	1	8	2

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
contrast	appropriate			[ped]											

References	Study Quality
66 (31079257)	3
65 (26919800)	4
64 (32621877)	3
63 (32424659)	3
62 (33788707)	Good
61 (28301309)	3
60 (26622060)	3
59 (30149749)	Good
58 (30712019)	3
57 (32701045)	3
56 (26671305)	3
55 (16425027)	4
54 (26849153)	4
52 (29159572)	2
14 (28840302)	3

FDG-PET/CT skull base to mid-thigh	Usually appropriate	Strong	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	8	8	0	0	0	0	1	1	3	6	1

References	Study Quality
52 (29159572)	2
51 (31328452)	Good
50 (30207790)	Good
48 (31414206)	3
47 (27276204)	3
46 (29470614)	3
45 (30069578)	3
44 (29559287)	3

		43 (24407578)		4												
MRI pelvis without IV contrast	Usually appropriate	Strong	O 0 mSv	O 0 mSv [ped]	7	7	0	0	0	0	2	3	5	1	0	
		References		Study Quality												
		66 (31079257)		3												
		64 (32621877)		3												
		63 (32424659)		3												
		62 (33788707)		Good												
		59 (30149749)		Good												
		58 (30712019)		3												
		57 (32701045)		3												
FDG-PET/MRI skull base to mid-thigh	Usually appropriate	Limited	☢☢☢ 1-10 mSv		7	7	0	0	0	0	2	1	3	5	0	
		References		Study Quality												
		53 (32798280)		3												
CT abdomen and pelvis with IV contrast	May be appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	6	6	0	0	0	2	2	2	5	0	0	
		References		Study Quality												
		37 (-3195133)		4												
CT chest with IV contrast	May be appropriate (Disagreement)	Expert Opinion	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	5	5	0	0	3	2	2	1	3	0	0	
		References		Study Quality												
		37 (-3195133)		4												
MRI abdomen without and with IV contrast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	5	5	0	0	1	1	4	3	1	1	0	
		References		Study Quality												
		37 (-3195133)		4												
MRI abdomen without IV contrast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	4	4	0	0	2	4	3	1	1	0	0	
		References		Study Quality												

		37 (-3195133)			4											
CT abdomen and pelvis without IV contrast	Usually not appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	3	3	2	1	3	2	2	0	1	0	0
		References			Study Quality											
		37 (-3195133)			4											
CT abdomen and pelvis without and with IV contrast	Usually not appropriate	Limited	☢☢☢☢ 10-30 mSv	☢☢☢☢☢ 10-30 mSv [ped]	3	3	3	3	3	1	1	0	1	0	0
		References			Study Quality											
		37 (-3195133)			4											
CT chest without IV contrast	Usually not appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	3	3	3	1	4	0	3	0	1	0	0
		References			Study Quality											
		37 (-3195133)			4											
CT chest without and with IV contrast	Usually not appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	3	3	4	2	3	1	2	0	0	0	0
		References			Study Quality											
		37 (-3195133)			4											
US pelvis transvaginal	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	3	3	3	3	2	0	3	0	0	0	1
US abdomen	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	2	2	6	5	1	0	0	0	0	0	0
Radiography chest	Usually not appropriate	Limited	☢ <0.1 mSv	☢ <0.03 mSv [ped]	2	2	6	3	3	0	0	0	0	0	0
		References			Study Quality											
		37 (-3195133)			4											
US pelvis transabdominal	Usually not appropriate	Expert Consensus	O 0 mSv	O 0 mSv [ped]	1	1	7	4	0	0	0	0	1	0	0

Variant 4: Surveillance of treated cervical cancer in asymptomatic patients.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
FDG-PET/CT skull base to mid-thigh	Usually appropriate	Strong	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	8	8	0	0	1	1	0	0	3	6	1

References	Study Quality
73 (32034109)	3
72 (33620285)	3
71 (24177043)	Good
70 (24798933)	Good
54 (26849153)	4
46 (29470614)	3
43 (24407578)	4
37 (-3195133)	4
5 (28372871)	4

CT abdomen and pelvis with IV contrast	Usually appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	7	7	0	0	1	0	1	0	8	1	0

References	Study Quality
37 (-3195133)	4

CT chest with IV contrast	Usually appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	7	7	0	0	1	0	2	0	7	1	0

References	Study Quality
37 (-3195133)	4

MRI pelvis without and with IV contrast	Usually appropriate	Strong	O 0 mSv	O 0 mSv [ped]	7	7	0	0	0	1	1	0	6	3	0

References	Study Quality
81 (27842663)	Good

References	Study Quality
80 (32312283)	3
79 (28935271)	3
78 (30980126)	4
77 (33039422)	3
66 (31079257)	3
59 (30149749)	Good
54 (26849153)	4
44 (29559287)	3
37 (-3195133)	4

FDG-PET/MRI skull base to mid-thigh	Usually appropriate	Strong	☢☢☢ 1-10 mSv		7	7	0	0	0	0	2	0	5	4	0

References	Study Quality
76 (24804676)	2
75 (26551527)	3
73 (32034109)	3
53 (32798280)	3

CT abdomen and pelvis without IV contrast	May be appropriate (Disagreement)	Expert Opinion	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	5	5	2	1	2	2	2	1	1	0	0

References	Study Quality
37 (-3195133)	4

CT chest without IV contrast	May be appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	5	5	0	0	1	4	3	1	2	0	0

References	Study Quality
37 (-3195133)	4

MRI abdomen without IV contrast	May be appropriate (Disagreement)	Expert Opinion	O 0 mSv	O 0 mSv [ped]	5	5	0	1	2	3	2	1	2	0	0

References	Study Quality
37 (-3195133)	4

MRI abdomen without and with IV contrast	May be appropriate (Disagreement)	Expert Opinion	O 0 mSv	O 0 mSv [ped]	5	5	0	0	2	1	1	2	3	2	0

References	Study Quality
37 (-3195133)	4

MRI pelvis without IV contrast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	5	5	0	1	0	1	5	2	2	0	0

References	Study Quality
37 (-3195133)	4
80 (32312283)	3
79 (28935271)	3
78 (30980126)	4
77 (33039422)	3

CT abdomen and pelvis without and with IV contrast	Usually not appropriate	Limited	☢☢☢☢ 10-30 mSv	☢☢☢☢☢ 10-30 mSv [ped]	2	2	5	2	4	0	0	0	0	0	0

References	Study Quality
37 (-3195133)	4

CT chest without and with IV contrast	Usually not appropriate	Limited	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	2	2	3	4	4	0	0	0	0	0	0

References	Study Quality
37 (-3195133)	4

US abdomen	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	2	2	6	4	1	1	0	0	0	0	0

References	Study Quality
5 (28372871)	4
37 (-3195133)	4

US pelvis transabdominal	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	2	2	6	3	2	0	0	0	1	0	0

References	Study Quality
5 (28372871)	4

		37 (-3195133)		4												
Radiography chest	Usually not appropriate	Limited	☢ <0.1 mSv	☢ <0.03 mSv [ped]	2	2	5	3	3	0	1	0	0	0	0	
		References		Study Quality												
		5 (28372871)		4												
		37 (-3195133)		4												
US pelvis transvaginal	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	1	1	6	4	1	0	0	0	0	0	0	
		References		Study Quality												
		5 (28372871)		4												
		37 (-3195133)		4												

Variant 5: Evaluation of known or suspected cervical cancer local recurrence or distant metastatic disease. Follow-up imaging.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
FDG-PET/CT skull base to mid-thigh	Usually appropriate	Moderate	☢☢☢☢ 10-30 mSv	☢☢☢☢ 3-10 mSv [ped]	8	8	0	0	0	0	0	0	2	5	4
		References		Study Quality											
		37 (-3195133)		4											
		47 (27276204)		3											
		54 (26849153)		4											
		82 (24299154)		Good											
CT abdomen and pelvis with IV contrast	Usually appropriate	Moderate	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	7	7	0	0	0	0	0	0	8	3	0
		References		Study Quality											
		37 (-3195133)		4											
		82 (24299154)		Good											

CT chest with IV contrast	Usually appropriate	Moderate	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	7	7	0	0	0	0	0	0	8	3	0
References			Study Quality												
37 (-3195133)			4												
82 (24299154)			Good												
MRI abdomen without and with IV contrast	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	7	7	0	0	0	0	2	2	5	2	0
References			Study Quality												
37 (-3195133)			4												
MRI pelvis without and with IV contrast	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	7	7	0	0	0	0	0	0	9	2	0
References			Study Quality												
37 (-3195133)			4												
FDG-PET/MRI skull base to mid-thigh	Usually appropriate	Limited	☢☢☢ 1-10 mSv		7	7	0	0	0	0	2	1	3	4	1
References			Study Quality												
75 (26551527)			3												
76 (24804676)			2												
CT chest without IV contrast	May be appropriate	Moderate	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	6	6	0	0	0	3	2	3	3	0	0
References			Study Quality												
37 (-3195133)			4												
82 (24299154)			Good												
MRI pelvis without IV contrast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	6	6	0	0	1	0	4	2	4	0	0
References			Study Quality												
37 (-3195133)			4												
CT abdomen and pelvis without IV contrast	May be appropriate (Disagreement)	Expert Opinion	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	5	5	1	1	2	1	3	2	1	0	0

		References	Study Quality													
		37 (-3195133)	4													
		82 (24299154)	Good													
CT abdomen and pelvis without and with IV contrast	May be appropriate (Disagreement)	Expert Opinion	☢☢☢☢ 10-30 mSv	☢☢☢☢☢ 10-30 mSv [ped]	5	5	3	1	4	0	1	1	1	0	0
		References	Study Quality													
		37 (-3195133)	4													
		82 (24299154)	Good													
MRI abdomen without IV contrast	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	5	5	0	0	1	0	7	1	2	0	0
		References	Study Quality													
		37 (-3195133)	4													
CT chest without and with IV contrast	Usually not appropriate	Moderate	☢☢☢ 1-10 mSv	☢☢☢☢ 3-10 mSv [ped]	3	3	3	2	4	0	1	0	1	0	0
		References	Study Quality													
		37 (-3195133)	4													
		82 (24299154)	Good													
US pelvis transvaginal	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	2	2	4	5	2	0	0	0	0	0	0
		References	Study Quality													
		5 (28372871)	4													
		37 (-3195133)	4													
Radiography chest	Usually not appropriate	Limited	☢ <0.1 mSv	☢ <0.03 mSv [ped]	2	2	4	4	2	0	1	0	0	0	0
		References	Study Quality													
		5 (28372871)	4													
		37 (-3195133)	4													
US abdomen	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	1	1	7	2	2	0	0	0	0	0	0

References	Study Quality
5 (28372871)	4
37 (-3195133)	4

US pelvis transabdominal	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	1	1	7	2	2	0	0	0	0	0	0

References	Study Quality
5 (28372871)	4
37 (-3195133)	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.**