

**American College of Radiology
ACR Appropriateness Criteria®**

Staging and Follow-up of Anal Cancer

Variant 1: Adult. Newly diagnosed squamous cell anal cancer. Locoregional assessment at initial staging.

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	Limited	○ 0 mSv	○ 0 mSv [ped]	7	7	0	0	0	0	2	1	11	0	1
		References		Study Quality											
		18 (19365694)		3											
		19 (36932225)		4											
FDG-PET/CT skull base to mid-thigh	Usually appropriate	Strong	☼☼☼☼ 10-30 mSv	☼☼☼☼ 3-10 mSv [ped]	7	7	0	0	1	0	0	2	5	5	2
		References		Study Quality											
		17 (37592085)		Good											
		16 (24672298)		Good											
		15 (29759568)		Good											
		14 (28972796)		Good											
		13 (25652048)		Good											
MRI pelvis without IV contrast	May be appropriate	Limited	○ 0 mSv	○ 0 mSv [ped]	6	6	0	0	1	2	3	3	4	2	0
		References		Study Quality											
		19 (36932225)		4											
		23 (28874205)		3											
		22 (29134349)		3											
		21 (32540336)		3											

			13 (25652048)		Good														
MRI abdomen and pelvis without IV contrast	Usually not appropriate	Limited	○ 0 mSv	○ 0 mSv [ped]	3	3	0	2	8	4	1	0	0	0	0	0	0	0	
		References			Study Quality														
			27 (33153555)		4														
FDG-PET/MRI whole body	Usually not appropriate	Expert Consensus	⊗⊗⊗ 1-10 mSv	⊗⊗⊗⊗ 3-10 mSv [ped]	3	3	4	0	5	0	4	1	1	0	0	0	0	0	
CT chest without and with IV contrast	Usually not appropriate	Limited	⊗⊗⊗ 1-10 mSv	⊗⊗⊗⊗ 3-10 mSv [ped]	2	2	2	11	2	0	0	0	0	0	0	0	0	0	
		References			Study Quality														
			10 (31753232)		4														

Variant 3: Adult. Squamous cell anal cancer. Posttreatment locoregional assessment.

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	Limited	○ 0 mSv	○ 0 mSv [ped]	7	7	0	0	1	1	1	3	5	4	0				
		References			Study Quality														
			24 (28152518)		3														
FDG-PET/CT skull base to mid-thigh	Usually appropriate	Strong	⊗⊗⊗⊗ 10-30 mSv	⊗⊗⊗⊗ 3-10 mSv [ped]	7	7	0	0	1	0	1	1	7	4	1				
		References			Study Quality														
			29 (35274187)		4														
			28 (33539412)		3														
			17 (37592085)		Good														
			14 (28972796)		Good														
			13 (25652048)		Good														

CT pelvis with IV contrast	May be appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	5	5	0	0	0	7	7	1	0	0	0
MRI pelvis without IV contrast	May be appropriate	Limited	○ 0 mSv	○ 0 mSv [ped]	5	5	0	0	0	2	7	6	0	0	0

References	Study Quality
31 (37462820)	3
30 (27090113)	3
29 (35274187)	4
24 (28152518)	3
19 (36932225)	4

FDG-PET/MRI whole body	May be appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	5	5	0	1	6	0	8	0	0	0	0
CT pelvis without IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	3	3	2	5	4	3	1	0	0	0	0
US pelvis transrectal	Usually not appropriate	Limited	○ 0 mSv	○ 0 mSv [ped]	3	3	3	1	7	1	2	1	0	0	0

References	Study Quality
24 (28152518)	3
32 (25585077)	3

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