

**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 | | | | | | | | | | | |

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|--------------------------------|--------------------|------------------|--------------|---------------------|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
|--|-------------------------|------------------|----------------|---------------------|---|---|---|---|---|---|---|---|---|---|---|

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.