

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

## Staging and Follow-up of Ovarian Cancer

**Variant 1: Adult. Ovarian cancer. Pretreatment staging.**

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	1	3	7
		References		Study Quality											
		16 (23994535)		2											
		6 (20858663)		3											
		15 (1947112)		3											
		17 (12794595)		2											
		18 (18704437)		3											
		19 (17233859)		3											
		21 (20981128)		4											
		20 (19098191)		3											
		14 (7480729)		3											
		13 (25783507)		2											
		2 (-3198224)		4											
CT chest with IV contrast	Usually appropriate	Limited	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	9	9	0	0	0	0	0	1	2	2	6
		References		Study Quality											
		22 (21193598)		2											

CT chest without IV contrast	May be appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	6	6	0	0	1	2	2	5	1	0	0
MRI abdomen and pelvis without and with IV contrast	May be appropriate	Moderate	○ 0 mSv	○ 0 mSv [ped]	6	6	0	0	1	1	2	4	2	1	0
		References		Study Quality											
		30 (22302265)		3											
		31 (10831697)		1											
		28 (17157627)		4											
		29 (14730048)		4											
FDG-PET/CT skull base to mid-thigh	May be appropriate	Limited	☼☼☼☼ 10-30 mSv	☼☼☼☼ 3-10 mSv [ped]	6	6	0	0	1	0	1	4	3	2	0
		References		Study Quality											
		23 (38523146)		Not Assessed											
FDG-PET/MRI skull base to mid-thigh	May be appropriate	Limited	☼☼☼ 1-10 mSv		6	6	0	0	0	0	6	4	2	0	0
		References		Study Quality											
		27 (37410624)		4											
		25 (33006685)		3											
CT abdomen and pelvis without IV contrast	May be appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	5	5	0	0	2	1	4	4	0	0	0
MRI abdomen and pelvis without IV contrast	May be appropriate	Expert Consensus	○ 0 mSv	○ 0 mSv [ped]	4	4	0	0	2	4	3	1	0	1	0
CT abdomen and pelvis without and with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼☼ 10-30 mSv	☼☼☼☼☼ 10-30 mSv [ped]	2	2	7	2	0	1	1	0	0	1	0
CT chest without and with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	2	2	7	2	1	1	1	0	0	0	0
US abdomen and pelvis transabdominal	Usually not appropriate	Limited	○ 0 mSv	○ 0 mSv [ped]	2	2	5	2	3	0	0	0	0	0	1

		References	Study Quality												
		2 (-3198224)	4												
		32 (38042117)	3												
		33 (30630889)	3												
US pelvis transvaginal	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	2	2	7	3	1	0	0	0	0	0	1
		References	Study Quality												
		34 (9623473)	4												

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	Limited	☻☻☻ 1-10 mSv	☻☻☻☻ 3-10 mSv [ped]	9	9	0	0	0	0	1	0	0	3	7
		References		Study Quality											
		2 (-3198224)		4											
		35 (20839002)		4											
CT chest with IV contrast	Usually appropriate	Limited	☻☻☻ 1-10 mSv	☻☻☻☻ 3-10 mSv [ped]	9	9	0	0	0	0	1	1	1	2	6
		References		Study Quality											
		2 (-3198224)		4											
FDG-PET/CT skull base to mid-thigh	Usually appropriate	Limited	☻☻☻☻ 10-30 mSv	☻☻☻☻ 3-10 mSv [ped]	7	7	0	0	0	1	2	2	4	2	0
		References		Study Quality											
		2 (-3198224)		4											
MRI abdomen and pelvis without and with IV contrast	May be appropriate	Limited	0 0 mSv	0 0 mSv [ped]	6	6	0	0	1	0	2	4	3	1	0
		References		Study Quality											

			2 (-3198224)		4														
			37 (19179092)		4														
			38 (28372871)		4														
FDG-PET/MRI skull base to mid-thigh	May be appropriate	Limited	⊕⊕⊕ 1-10 mSv		6	6	0	0	0	0	4	6	2	0	0				
			References		Study Quality														
			27 (37410624)		4														
			36 (27593247)		4														
CT chest without IV contrast	May be appropriate	Expert Consensus	⊕⊕⊕ 1-10 mSv	⊕⊕⊕⊕ 3-10 mSv [ped]	5	5	0	0	1	2	4	3	1	0	0				
CT abdomen and pelvis without IV contrast	May be appropriate	Expert Consensus	⊕⊕⊕ 1-10 mSv	⊕⊕⊕⊕ 3-10 mSv [ped]	4	4	0	0	3	3	2	2	1	0	0				
MRI abdomen and pelvis without IV contrast	May be appropriate	Expert Consensus	○ ○ 0 mSv	○ ○ 0 mSv [ped]	4	4	0	0	3	4	3	1	0	0	0				
CT abdomen and pelvis without and with IV contrast	Usually not appropriate	Expert Consensus	⊕⊕⊕⊕ 10-30 mSv	⊕⊕⊕⊕⊕ 10-30 mSv [ped]	1	1	7	2	1	1	1	0	0	0	0				
CT chest without and with IV contrast	Usually not appropriate	Expert Consensus	⊕⊕⊕ 1-10 mSv	⊕⊕⊕⊕ 3-10 mSv [ped]	1	1	7	2	1	1	1	0	0	0	0				
US abdomen and pelvis transabdominal	Usually not appropriate	Expert Consensus	○ ○ 0 mSv	○ ○ 0 mSv [ped]	1	1	6	3	1	0	0	0	1	0	0				
US pelvis transvaginal	Usually not appropriate	Expert Consensus	○ ○ 0 mSv	○ ○ 0 mSv [ped]	1	1	6	2	2	0	0	0	1	0	0				

**Variant 3: Adult. Ovarian cancer. Posttreatment routine surveillance. Asymptomatic patient, no suspected recurrence.**

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	May be	Limited	⊕⊕⊕ 1-10	⊕⊕⊕⊕ 3-	6	6	0	0	0	0	3	3	1	2	2

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
contrast	appropriate		mSv	10 mSv [ped]											
		References		Study Quality											
		4 (19407561)		4											
		38 (28372871)		4											
		40 (20153027)		4											
CT chest with IV contrast	May be appropriate	Limited	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	6	6	0	0	0	0	5	2	1	1	2
		References		Study Quality											
		2 (-3198224)		4											
MRI abdomen and pelvis without and with IV contrast	May be appropriate	Limited	○ ○ mSv	○ ○ mSv [ped]	5	5	0	0	0	1	8	2	1	0	0
		References		Study Quality											
		2 (-3198224)		4											
FDG-PET/CT skull base to mid-thigh	May be appropriate	Limited	☼☼☼☼ 10-30 mSv	☼☼☼☼ 3-10 mSv [ped]	5	5	0	1	0	3	3	1	2	1	0
		References		Study Quality											
		2 (-3198224)		4											
CT abdomen and pelvis without IV contrast	May be appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	4	4	0	1	3	2	4	1	0	0	0
CT chest without IV contrast	May be appropriate	Limited	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	4	4	0	1	4	3	2	1	0	0	0
		References		Study Quality											
		2 (-3198224)		4											
MRI abdomen and pelvis without IV contrast	May be appropriate	Limited	○ ○ mSv	○ ○ mSv [ped]	4	4	0	0	0	7	3	1	1	0	0
		References		Study Quality											

			2 (-3198224)		4														
FDG-PET/MRI skull base to mid-thigh	May be appropriate	Expert Consensus	⊗⊗⊗ 1-10 mSv		4	4	1	2	2	3	2	0	0	1	0				
CT abdomen and pelvis without and with IV contrast	Usually not appropriate	Expert Consensus	⊗⊗⊗⊗ 10-30 mSv	⊗⊗⊗⊗⊗ 10-30 mSv [ped]	1	1	9	0	1	1	1	0	0	0	0				
CT chest without and with IV contrast	Usually not appropriate	Expert Consensus	⊗⊗⊗ 1-10 mSv	⊗⊗⊗⊗ 3-10 mSv [ped]	1	1	9	0	0	1	2	0	0	0	0				
US abdomen and pelvis transabdominal	Usually not appropriate	Expert Consensus	○ ○ mSv	○ ○ mSv [ped]	1	1	7	1	1	1	0	0	1	0	0				
US pelvis transvaginal	Usually not appropriate	Limited	○ ○ mSv	○ ○ mSv [ped]	1	1	7	1	0	0	2	0	1	0	0				
			References		Study Quality														
			2 (-3198224)		4														

**Variant 4: Adult. Ovarian cancer. Posttreatment evaluation. Suspected or known recurrence.**

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	Limited	⊗⊗⊗ 1-10 mSv	⊗⊗⊗⊗ 3-10 mSv [ped]	9	9	0	0	0	0	0	0	0	1	9		
			References		Study Quality												
			43 (26745811)		3												
			42 (7676985)		3												
			41 (18418592)		3												
			40 (20153027)		4												
			38 (28372871)		4												
CT chest with IV contrast	Usually appropriate	Expert Consensus	⊗⊗⊗ 1-10 mSv	⊗⊗⊗⊗ 3-10 mSv [ped]	9	9	0	0	0	0	1	0	2	1	7		

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	3	2	3	3
		References		Study Quality											
		2 (-3198224)		4											
		44 (36419900)		Good											
		45 (21752752)		4											
MRI abdomen and pelvis without and with IV contrast	May be appropriate	Expert Consensus	○ ○ mSv	○ ○ mSv [ped]	6	6	0	0	0	1	3	2	3	1	1
FDG-PET/MRI skull base to mid-thigh	May be appropriate	Limited	☼☼☼ 1-10 mSv		6	6	0	0	0	0	3	7	2	0	0
		References		Study Quality											
		27 (37410624)		4											
CT abdomen and pelvis without IV contrast	May be appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	5	5	0	0	1	2	4	3	1	0	0
CT chest without IV contrast	May be appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	5	5	0	0	1	1	4	4	1	0	0
MRI abdomen and pelvis without IV contrast	May be appropriate	Expert Consensus	○ ○ mSv	○ ○ mSv [ped]	4	4	0	0	1	6	2	1	0	0	1
CT abdomen and pelvis without and with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼☼ 10-30 mSv	☼☼☼☼☼ 10-30 mSv [ped]	1	1	9	1	0	1	1	0	0	0	0
CT chest without and with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	1	1	9	1	0	1	1	0	0	0	0
US abdomen and pelvis transabdominal	Usually not appropriate	Expert Consensus	○ ○ mSv	○ ○ mSv [ped]	1	1	7	1	1	1	0	0	0	1	0
US pelvis transvaginal	Usually not appropriate	Expert Consensus	○ ○ mSv	○ ○ mSv [ped]	1	1	10	0	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](http://www.acr.org/ac).