American College of Radiology
ACR Appropriateness Criteria®

Abnormal Vaginal Bleeding

Variant 1: Postmenopausal vaginal bleeding. First study. (Endometrial sampling may also be performed initially followed by imaging if results are inconclusive or symptoms persist despite negative findings.)

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
US pelvis transvaginal	Usually appropriate		O 0 mSv	O 0 mSv [ped]	9	n/a	0	0	0	0	0	0	0	0	0
US pelvis transabdominal	Usually appropriate		O 0 mSv	O 0 mSv [ped]	8	n/a	0	0	0	0	0	0	0	0	0
US saline infusion sonohysterography	May be appropriate		O 0 mSv	O 0 mSv [ped]	6	n/a	0	0	0	0	0	0	0	0	0
US duplex Doppler pelvis	May be appropriate		O 0 mSv	O 0 mSv [ped]	5	n/a	0	0	0	0	0	0	0	0	0
CT pelvis with IV contrast	Usually not appropriate		☢☢☢ 1-10 mSv		2	n/a	0	0	0	0	0	0	0	0	0
MRI pelvis without and with IV contrast	Usually not appropriate		O 0 mSv	O 0 mSv [ped]	2	n/a	0	0	0	0	0	0	0	0	0
CT pelvis without IV contrast	Usually not appropriate		☢☢☢ 1-10 mSv		1	n/a	0	0	0	0	0	0	0	0	0
CT pelvis without and with IV contrast	Usually not appropriate		☢☢☢☢ 10-30 mSv		1	n/a	0	0	0	0	0	0	0	0	0
MRI pelvis without IV contrast	Usually not appropriate		O 0 mSv	O 0 mSv [ped]	1	n/a	0	0	0	0	0	0	0	0	0

Variant 2: Postmenopausal vaginal bleeding, endometrium 5 mm by transvaginal ultrasound. (Some centers may choose to use 4 mm rather than 5 mm. Please see narrative.) Follow-up study.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
US pelvis transabdominal	May be appropriate		O 0 mSv	O 0 mSv [ped]	4	n/a	0	0	0	0	0	0	0	0	0
US duplex Doppler pelvis	May be appropriate		O 0 mSv	O 0 mSv [ped]	4	n/a	0	0	0	0	0	0	0	0	0
MRI pelvis without and with IV contrast	Usually not appropriate		O 0 mSv	O 0 mSv [ped]	2	n/a	0	0	0	0	0	0	0	0	0
US saline infusion sonohysterography	Usually not appropriate		O 0 mSv	O 0 mSv [ped]	2	n/a	0	0	0	0	0	0	0	0	0
CT pelvis with IV contrast	Usually not appropriate		☢☢☢ 1-10 mSv		1	n/a	0	0	0	0	0	0	0	0	0
CT pelvis without IV contrast	Usually not appropriate		☢☢☢ 1-10 mSv		1	n/a	0	0	0	0	0	0	0	0	0
CT pelvis without and with IV contrast	Usually not appropriate		☢☢☢☢ 10-30 mSv		1	n/a	0	0	0	0	0	0	0	0	0
MRI pelvis without IV contrast	Usually not appropriate		O 0 mSv	O 0 mSv [ped]	1	n/a	0	0	0	0	0	0	0	0	0

Variant 3: Postmenopausal vaginal bleeding, endometrium >5 mm by transvaginal ultrasound. (Endometrial sampling would also be warranted in this clinical setting to evaluate for malignancy.) (Some centers may choose to use >4 mm. Please see narrative.) Follow-up study.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
US saline infusion sonohysterography	Usually appropriate		O 0 mSv	O 0 mSv [ped]	8	n/a	0	0	0	0	0	0	0	0	0

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
US duplex Doppler pelvis	May be appropriate		O 0 mSv	O 0 mSv [ped]	6	n/a	0	0	0	0	0	0	0	0	0
MRI pelvis without and with IV contrast	May be appropriate		O 0 mSv	O 0 mSv [ped]	5	n/a	0	0	0	0	0	0	0	0	0
US pelvis transabdominal	May be appropriate		O 0 mSv	O 0 mSv [ped]	4	n/a	0	0	0	0	0	0	0	0	0
CT pelvis with IV contrast	Usually not appropriate		☢☢☢ 1-10 mSv		2	n/a	0	0	0	0	0	0	0	0	0
MRI pelvis without IV contrast	Usually not appropriate		O 0 mSv	O 0 mSv [ped]	2	n/a	0	0	0	0	0	0	0	0	0
CT pelvis without IV contrast	Usually not appropriate		☢☢☢ 1-10 mSv		1	n/a	0	0	0	0	0	0	0	0	0
CT pelvis without and with IV contrast	Usually not appropriate		☢☢☢☢ 10-30 mSv		1	n/a	0	0	0	0	0	0	0	0	0

Variant 4: Premenopausal vaginal bleeding. First study.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
US pelvis transvaginal	Usually appropriate		O 0 mSv	O 0 mSv [ped]	9	n/a	0	0	0	0	0	0	0	0	0
US pelvis transabdominal	Usually appropriate		O 0 mSv	O 0 mSv [ped]	8	n/a	0	0	0	0	0	0	0	0	0
US duplex Doppler pelvis	May be appropriate		O 0 mSv	O 0 mSv [ped]	5	n/a	0	0	0	0	0	0	0	0	0

US saline infusion sonohysterography	May be appropriate		O 0 mSv	O 0 mSv [ped]	4	n/a	0	0	0	0	0	0	0	0	0
CT pelvis with IV contrast	Usually not appropriate		☢☢☢ 1-10 mSv		2	n/a	0	0	0	0	0	0	0	0	0
MRI pelvis without and with IV contrast	Usually not appropriate		O 0 mSv	O 0 mSv [ped]	2	n/a	0	0	0	0	0	0	0	0	0
CT pelvis without IV contrast	Usually not appropriate		☢☢☢ 1-10 mSv		1	n/a	0	0	0	0	0	0	0	0	0
CT pelvis without and with IV contrast	Usually not appropriate		☢☢☢☢ 10-30 mSv		1	n/a	0	0	0	0	0	0	0	0	0
MRI pelvis without IV contrast	Usually not appropriate		O 0 mSv	O 0 mSv [ped]	1	n/a	0	0	0	0	0	0	0	0	0

Variant 5: Premenopausal vaginal bleeding, endometrium <16 mm by transvaginal ultrasound. Follow-up study.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
US saline infusion sonohysterography	May be appropriate		O 0 mSv	O 0 mSv [ped]	6	n/a	0	0	0	0	0	0	0	0	0
US duplex Doppler pelvis	May be appropriate		O 0 mSv	O 0 mSv [ped]	6	n/a	0	0	0	0	0	0	0	0	0
US pelvis transabdominal	May be appropriate		O 0 mSv	O 0 mSv [ped]	4	n/a	0	0	0	0	0	0	0	0	0
CT pelvis with IV contrast	Usually not appropriate		☢☢☢ 1-10 mSv		2	n/a	0	0	0	0	0	0	0	0	0
MRI pelvis without and with IV contrast	Usually not appropriate		O 0 mSv	O 0 mSv [ped]	2	n/a	0	0	0	0	0	0	0	0	0
CT pelvis without IV contrast	Usually not appropriate		☢☢☢ 1-10 mSv		1	n/a	0	0	0	0	0	0	0	0	0

CT pelvis without and with IV contrast	Usually not appropriate		☢☢☢☢ 10-30 mSv		1	n/a	0	0	0	0	0	0	0	0	0
MRI pelvis without IV contrast	Usually not appropriate		O 0 mSv	O 0 mSv [ped]	1	n/a	0	0	0	0	0	0	0	0	0

Variant 6: Premenopausal vaginal bleeding, endometrium 16 mm by transvaginal ultrasound. Follow-up study. (Endometrial sampling may also be warranted in this clinical setting depending on patient risk factors for malignancy.)

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
US pelvis transvaginal	Usually appropriate		O 0 mSv	O 0 mSv [ped]	8	n/a	0	0	0	0	0	0	0	0	0
US saline infusion sonohysterography	Usually appropriate		O 0 mSv	O 0 mSv [ped]	7	n/a	0	0	0	0	0	0	0	0	0
MRI pelvis without and with IV contrast	May be appropriate		O 0 mSv	O 0 mSv [ped]	5	n/a	0	0	0	0	0	0	0	0	0
US duplex Doppler pelvis	May be appropriate		O 0 mSv	O 0 mSv [ped]	5	n/a	0	0	0	0	0	0	0	0	0
US pelvis transabdominal	May be appropriate		O 0 mSv	O 0 mSv [ped]	4	n/a	0	0	0	0	0	0	0	0	0
MRI pelvis without IV contrast	Usually not appropriate		O 0 mSv	O 0 mSv [ped]	3	n/a	0	0	0	0	0	0	0	0	0
CT pelvis with IV contrast	Usually not appropriate		☢☢☢ 1-10 mSv		2	n/a	0	0	0	0	0	0	0	0	0
CT pelvis without IV contrast	Usually not appropriate		☢☢☢ 1-10 mSv		1	n/a	0	0	0	0	0	0	0	0	0
CT pelvis without and with IV contrast	Usually not appropriate		☢☢☢☢ 10-30 mSv		1	n/a	0	0	0	0	0	0	0	0	0

Variant 7: Heterogeneous endometrium or suspected focal abnormality at transvaginal ultrasound. Follow-up study.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
US saline infusion sonohysterography	Usually appropriate		O 0 mSv	O 0 mSv [ped]	8	n/a	0	0	0	0	0	0	0	0	0
US duplex Doppler pelvis	Usually appropriate		O 0 mSv	O 0 mSv [ped]	7	n/a	0	0	0	0	0	0	0	0	0
MRI pelvis without and with IV contrast	May be appropriate		O 0 mSv	O 0 mSv [ped]	5	n/a	0	0	0	0	0	0	0	0	0
MRI pelvis without IV contrast	May be appropriate		O 0 mSv	O 0 mSv [ped]	4	n/a	0	0	0	0	0	0	0	0	0
US pelvis transabdominal	May be appropriate		O 0 mSv	O 0 mSv [ped]	4	n/a	0	0	0	0	0	0	0	0	0
CT pelvis with IV contrast	Usually not appropriate		☢☢☢ 1-10 mSv		2	n/a	0	0	0	0	0	0	0	0	0
CT pelvis without IV contrast	Usually not appropriate		☢☢☢ 1-10 mSv		1	n/a	0	0	0	0	0	0	0	0	0
CT pelvis without and with IV contrast	Usually not appropriate		☢☢☢☢ 10-30 mSv		1	n/a	0	0	0	0	0	0	0	0	0

Variant 8: Endometrium not adequately visualized at transvaginal ultrasound. Follow-up study.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
US saline infusion sonohysterography	Usually appropriate		O 0 mSv	O 0 mSv [ped]	8	n/a	0	0	0	0	0	0	0	0	0

MRI pelvis without and with IV contrast	May be appropriate		O 0 mSv	O 0 mSv [ped]	6	n/a	0	0	0	0	0	0	0	0	0
US pelvis transabdominal	May be appropriate		O 0 mSv	O 0 mSv [ped]	6	n/a	0	0	0	0	0	0	0	0	0
MRI pelvis without IV contrast	May be appropriate		O 0 mSv	O 0 mSv [ped]	4	n/a	0	0	0	0	0	0	0	0	0
US duplex Doppler pelvis	Usually not appropriate		O 0 mSv	O 0 mSv [ped]	3	n/a	0	0	0	0	0	0	0	0	0
CT pelvis with IV contrast	Usually not appropriate		☢☢☢ 1-10 mSv		2	n/a	0	0	0	0	0	0	0	0	0
CT pelvis without IV contrast	Usually not appropriate		☢☢☢ 1-10 mSv		1	n/a	0	0	0	0	0	0	0	0	0
CT pelvis without and with IV contrast	Usually not appropriate		☢☢☢☢ 10-30 mSv		1	n/a	0	0	0	0	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.**