

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

Radiologic Management of Uterine Leiomyomas

Variant 1: Middle-aged woman with multiple uterine fibroids resulting in a 20-week-sized uterus on physical examination and menorrhagia. Bulk symptoms of urinary frequency and bloating are present. The patient has a recent negative serum pregnancy test and has no desire for future fertility.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
Medical management	Usually not appropriate		N/A	N/A	3	3	0	0	0	0	0	0	0	0	0
MR-guided high-frequency focused ultrasound ablation	Usually not appropriate		N/A	N/A	2	2	0	0	0	0	0	0	0	0	0
Endometrial ablation	Usually not appropriate		N/A	N/A	2	2	0	0	0	0	0	0	0	0	0
Uterine artery embolization	Usually appropriate		N/A	N/A	8	8	0	0	0	0	0	0	0	0	0
Laparoscopic uterine artery occlusion	Usually not appropriate		N/A	N/A	1	1	0	0	0	0	0	0	0	0	0
Myomectomy	Usually not appropriate		N/A	N/A	3	3	0	0	0	0	0	0	0	0	0
Hysterectomy	Usually appropriate		N/A	N/A	8	8	0	0	0	0	0	0	0	0	0

Variant 2: Childbearing age woman with multiple submucosal and intramural fibroids presents with menorrhagia and pelvic pain. Most of the fibroids measure <4 cm, with two dominant fibroids measuring >6 cm. Uterus is 12 cm on MRI. The patient states that she does not desire future pregnancies and is concerned about the loss of femininity with hysterectomy.

Uterine artery embolization	Usually appropriate		N/A	N/A	7	7	0	0	0	0	0	0	0	0	0
Laparoscopic uterine artery occlusion	Usually not appropriate		N/A	N/A	1	1	0	0	0	0	0	0	0	0	0
Myomectomy	Usually appropriate		N/A	N/A	7	7	0	0	0	0	0	0	0	0	0
Hysterectomy	Usually not appropriate		N/A	N/A	2	2	0	0	0	0	0	0	0	0	0

Variant 4: Middle-aged woman with menorrhagia. MRI reveals a single 3 cm intramural fibroid and diffuse adenomyosis.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
Medical management	Usually not appropriate		N/A	N/A	3	3	0	0	0	0	0	0	0	0	0
MR-guided high-frequency focused ultrasound ablation	Usually not appropriate		N/A	N/A	3	3	0	0	0	0	0	0	0	0	0
Endometrial ablation	May be appropriate		N/A	N/A	4	4	0	2	1	7	1	0	0	0	0
Uterine artery embolization	Usually appropriate		N/A	N/A	7	7	0	0	0	0	0	0	0	0	0
Laparoscopic uterine artery occlusion	Usually not appropriate		N/A	N/A	1	1	0	0	0	0	0	0	0	0	0
Myomectomy	Usually not appropriate		N/A	N/A	3	3	0	0	0	0	0	0	0	0	0
Hysterectomy	Usually appropriate		N/A	N/A	7	7	0	0	0	0	0	0	0	0	0

Variant 5: Middle-aged woman with pelvic discomfort and 8 cm pedunculated subserosal fibroid on MRI.

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.