

# Evidence Discussion (PV 2.1)

- Transabdominal pelvic and/or transvaginal pelvic ultrasound are widely accepted as the initial imaging modality of choice for evaluation of abnormal uterine bleeding<sup>1,2</sup>. Ultrasound also allows for real-time evaluation with color and power Doppler which can help identify vascular flow and distinguish fluid and cysts from soft tissue<sup>1</sup>. Additional benefits to ultrasound as a first line imaging modality include wide availability, fast access, and lack of ionizing radiation exposure. 3-D Rendering has been shown to be a useful adjunct for analysis of suspected lesions of the endometrial cavity<sup>3</sup>.
- MRI is not supported as an initial imaging modality for the diagnosis of abnormal uterine bleeding<sup>1</sup>. While MRI is accepted as an adjunct modality to ultrasound in cases where ultrasound may not fully characterize a soft tissue abnormality, imaging should be directed by the type of suspected soft tissue abnormality (i.e. adenomyosis, endometriosis, fibroids, and adnexal mass) and is addressed in additional sections of these guidelines. CT is of limited use in the evaluation of abnormal uterine bleeding given its suboptimal evaluation of the soft tissue of female pelvic organs<sup>1</sup>.
- In premenopausal women presenting with abnormal uterine bleeding a pregnancy test should be performed. For those with a positive pregnancy test, imaging with appropriate obstetric ultrasound should be performed.
- Vaginal bleeding is the presenting symptom in 90% of postmenopausal women with endometrial cancer<sup>4</sup>. An endometrial strip of 4mm or less on ultrasound has been found to have a greater than 99% negative predictive value for endometrial cancer<sup>4</sup>. However, this cutoff may be inadequate in Black women, as it missed five-fold more cases than in White women<sup>5</sup>. Endometrial tissue sampling remains the gold standard for diagnosis of endometrial carcinoma. As such, those with thickened endometrium on ultrasound, those whose ultrasound failed to identify a thin, distinct endometrial strip and those with continued vaginal bleeding should all undergo endometrial sampling to rule out endometrial carcinoma<sup>4</sup>.
- The incidence of concurrent endometrial cancer with the diagnosis of Endometrial Intraepithelial Neoplasia or Atypical Endometrial Hyperplasia (EIN-AEH) is approximately 30% to 50%<sup>6</sup>. This makes evaluation for concurrent carcinoma imperative in the diagnosis of EIN-AEH for those considering a fertility-sparing treatment. The most accurate method for diagnosis is hysteroscopic-guided uterine sampling<sup>6</sup> which has the added benefit of direct visualization of any intrauterine pathology such as endometrial polyps.

## References

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# Evidence Discussion (PV 2.2)

- Transabdominal pelvic and/or transvaginal pelvic ultrasound are widely accepted as the initial imaging modality of choice for evaluation of suspected retained products of conception (RPOC)<sup>1,2</sup>. Ultrasound also allows for real-time evaluation with color and power Doppler which can help identify vascular flow within the endometrial complex, which improves the specificity and negative predictive value of detecting RPOC<sup>2</sup>. Additional benefits to ultrasound as a first line imaging modality include wide availability, fast access, and lack of ionizing radiation exposure.
- For most cases ultrasound is sufficient for detection of RPOC. For cases where ultrasound is inconclusive additional imaging with MRI or CT may provide additional information to aid in surgical planning<sup>1</sup>.

## References

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