

Evidence Discussion (PV 5)

- Transabdominal pelvic and/or transvaginal pelvic ultrasound are widely accepted as the initial imaging modality of choice for female reproductive organs^{1,2}. Ultrasound has high sensitivity (>90%) for adnexal pathology². Ultrasound also allows for real-time evaluation with color and power Doppler which can help identify vascular flow and differentiate solid components³. Additional benefits to ultrasound as a first line imaging modality include wide availability, fast access and lack of ionizing radiation exposure. MRI is accepted as an adjunct modality to ultrasound in cases where ultrasound may not fully characterize a soft tissue abnormality due to its superior signal to noise ratio^{2,4,6}. CT is of limited use in the evaluation of adnexal masses given its suboptimal delineation of adnexal soft tissue².
- Accurate diagnosis of adnexal pathology is imperative in order to limit invasive interventions for benign lesions⁴ and improve preoperative triage to a gynecologic oncologist for high-risk lesions. In order to standardize reporting of adnexal lesions, the American College of Radiology (ACR) has created the Ovarian-Adnexal Reporting and Data-System (O-RADS)⁵. A meta-analysis of 26 studies demonstrated that O-RADS has high sensitivity for detection of malignancy (95%).⁴ A classification of O-RADS US Category 2 has an extremely low risk of malignancy (<1%), while a Category 5 has a high risk of malignancy (≥50%)⁶. For an indeterminate lesion on ultrasound or features concerning for malignancy, adjunct imaging with MRI is supported to aid in preoperative triage.

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