

## **Analysis of timely follow up in the evaluation of postmenopausal bleeding**

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**Background:** Postmenopausal bleeding (PMB) is the most common initial presentation of endometrial cancer. The American College of Obstetrics and Gynecology recommends evaluation of PMB with transvaginal ultrasound (TVUS) to determine the endometrial thickness, followed by tissue sampling if endometrial thickness exceeds 4 mm. We assessed if differences in race, ethnicity, language, or insurance status were associated with delayed endometrial sampling following a thickened or inadequately visualized endometrium on TVUS, and if the timing of endometrial sampling after TVUS was associated with differences in rates of endometrial cancer diagnosis and staging. We also assessed reasons for delayed endometrial sampling among patients with an abnormal TVUS.

**Methods:** We conducted a retrospective study of patients with an intact uterus and postmenopausal bleeding who presented to a single academic institution and underwent transvaginal ultrasound between January 2013-December 2022. Primary outcome measures were prompt follow-up, defined as receipt of endometrial sampling within 3 months of a thickened or inadequately visualized endometrium, diagnosis of endometrial cancer, cancer stage at diagnosis, and rates of tissue sampling. Associations between sociodemographic variables and timely receipt of endometrial sampling were assessed. A Pareto analysis was performed to describe reasons for lack of prompt follow-up.

**Results:** There were 307/1,671 (18%) patients with a thickened endometrium and 128/389 (33%) with an inadequately visualized endometrium that did not receive prompt follow-up. Sociodemographic variables were not associated with receipt of prompt follow-up. Provider-related factors, such as misinterpretation of ultrasound results, accounted for 46% of delayed/absent follow-up of an abnormal endometrium and 59% with an inadequately visualized endometrium. There was a similar chance of diagnosing endometrial cancer within 1 year of a thickened (8.8%; 95% CI 7.5%-10.3%) versus inadequately visualized (7.7%; 95% CI 5.3%-10.9%) endometrium.

**Conclusion:** Provider misinterpretation of transvaginal ultrasound performed for postmenopausal bleeding was the most common reason for delayed/absent follow-up. Given observed suboptimal rates of prompt follow-up after a thickened or inadequately visualized endometrium on ultrasound and similar rates of eventual cancer diagnosis in these cohorts, efforts focused on provider understanding of sonographic endometrial evaluation should be made. Universal endometrial sampling for patients with postmenopausal bleeding could also be considered.