Introduction/Background The incidence of endometrial cancer has increased over the past years, with the age of onset younger than in the prior years. Although cancer is still more commonly diagnosed in postmenopausal women, it can also be found in younger reproductive age females. Measurement of endometrial thickness in postmenopausal women has been extensively studied to suggest who are at higher risk for malignancy. However, in premenopausal women, the endometrial thickness cut-off has been debatable.

Methodology This is a retrospective, cross-sectional study in a tertiary hospital. Among 552 patients admitted for abnormal uterine bleeding, 267 patients were premenopausal. Electronic medical records were reviewed. Patient characteristics studied were age, parity, body mass index, duration of bleeding, hypertension, diabetes, polycystic ovarian syndrome, family history of cancer and endometrial thickness. Binary logistic regression was used to identify the significant predictors and a mathematical model was developed to compute for the probability of malignancy. The discriminative ability of endometrial thickness as predictor of malignancy was quantified by computing for: sensitivity and specificity; positive and negative predictive values; positive and negative likelihood ratios; over- and underestimation for: sensitivity and specificity; positive and negative predictive values; positive and negative likelihood ratios; overall diagnostic accuracy; and determining the area under the curve.

Results Among the 267 premenopausal patients with abnormal uterine bleeding, 55 had endometrial cancer. Body mass index and endometrial thickness were statistically significant predictors of malignancy with a p-value <0.05. This study proposes an endometrial thickness cut-off of 13.2 mm among premenopausal women in addition to body mass index as a predictor for endometrial malignancy with a specificity of 76.36% and sensitivity of 60.38%.

Conclusion Body mass index and endometrial thickness in premenopausal women with abnormal uterine bleeding are significant predictors of malignant endometrial pathology. A proposed endometrial thickness cut-off of 13.2 mm for premenopausal women in this study had the highest specificity and sensitivity in predicting probability of malignancy.

Disclosures There is no disclosure nor conflict of interest inherent to this study.