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### **“Predictors of Equitable Receipt of Next Generation Sequencing in Endometrial Cancer Patients Receiving Cancer Care in the Deep South”**

Socioeconomic status remains a predictor of endometrial cancer prognosis and is correlated with advanced disease in patients. Next Generation Sequencing (NGS) provides the ability to prescribe targeted cancer therapies and increases patient survival. Race, ethnicity, and insurance status impact the use of NGS analysis, though the degree of impact remains unclear. An IRB-Approved retrospective research study was performed using data collected of gynecologic cancer patients in a southern healthcare system through use of the electronic medical record (EMR). Baseline clinicopathologic and demographic factors were collected for all endometrial cancer patients. These factors were then tested for significant association on whether they received NGS. Analytic factors of interest include race, ethnicity, insurance status, and recurrence free and overall survival (RFS, OS). We hypothesize that utilization of NGS analysis will be correlated to race, ethnicity, and insurance status due to both clinical practice patterns and biases in the healthcare system. Race, ethnicity, insurance status, and cancer stage were not predictors of being more or less likely to receive NGS testing. Recurrence free and overall survival were not different between patients who received and did not receive NGS. A significant difference of NGS utilization based on sociodemographic factors of the patient was not found, though a trend of underutilization based on race and ethnicity was found. The study was limited by small sample size, and investigation of the impact of race and ethnicity on NGS testing warrants further investigation to ensure equitable precision cancer care delivery.

