

## **ABSTRACT**

**TITLE:** Treatment patterns and incidence trends amongst women diagnosed with endometrial cancer < age 50

**OBJECTIVE:** To evaluate surgical treatment methods and incidence trends amongst women diagnosed with endometrial cancer (EC) < age 50

**MATERIALS AND METHODS:** Surveillance, Epidemiology, and End Results (SEER) registries from 1992 – 2012 were queried to perform a retrospective cohort study of women diagnosed with invasive uterine cancer < age 50. Prevalence trends were calculated overall and by age subgroup. Surgical treatment methods were categorized by age subgroup and histologic grade and compared.

**RESULTS:** Between 1992 – 2012 EC increased in prevalence amongst women < age 50, with greater annual percent change (APC) noted amongst women age 20 – 29 (3.8%, 95%CI 2.2 – 5.5) and women age 30 – 39 (3.6%, 95%CI 3.1 – 4.0) compared to women age 40 – 49 (0.9%, 95%CI 0.6 – 1.1),  $p < 0.05$ . Amongst women < age 50 diagnosed with grade I or II EC, women age 20 – 29 initially underwent either no surgery or uterine preserving surgery more frequently than women age 30 – 39 and women age 40 – 49,  $p < .0001$ . Hysterectomy with removal of the ovaries was performed least frequently in women age 20 – 29 and most frequently in women age 40 – 49,  $p < .0001$ . Women in age subgroups 20 – 29 and 30 – 39 were more likely to receive ovarian preserving hysterectomy than women age 40 – 49,  $p < .0001$ .

**CONCLUSION:** Prevalence of EC diagnosed in women < age 50 is increasing across all age subgroups, and is increasing most rapidly in women < age 40. At diagnosis, younger women (< age 40) are more likely to receive uterine and/or ovarian preserving treatment compared to women age 40 – 49. Although overall prevalence is low, clinicians must consider EC as a possibility in young women with risk factors and concerning symptoms, and recognize that prevalence amongst this population will likely continue to increase.