required clinician input. 431 (96.6%) treatments were carried out solely by the radiographers. There were no procedure related complications noted. Some of the reasons requiring clinician input were radiographer unavailability, anxious and tense patients requiring change in the size of applicator and vaginal bleeding requiring examination.

Conclusion/Implications Radiographer led VBT is safe, effective, frees up clinician time, improves service delivery and streamlines work force utilisation.

**EP117/#831 ARE WE UNDERUTILIZING STEREOTACTIC BODY RADIOThERAPY IN THE TREATMENT OF OLIGOMETASTATIC UTERINE CANCER?**

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**Introduction** Oligometastatic disease is an intermediate state between locoregional disease and widely metastatic disease. Previous work by our group showed a significant difference between the median survival of uterine cancer patients with a single metastatic site versus multiple sites, hence we defined our oligometastatic cohort as having one metastatic site at diagnosis. In our current analysis we explore the trends of stereotactic body radiotherapy (SBRT) use in this oligometastatic population.

**Methods** The National Cancer Database was analyzed in patients diagnosed with uterine cancer between 2004–2019. We excluded patients with non-metastatic disease at diagnosis, lack of metastatic sites listed, multiple primaries and missing survival data. We included patients treated with radiotherapy and defined SBRT as ≤5 fractions and ≥500cGy dose per fraction.

**Results** Among 641,276 women with uterine cancer, 17,343 remained after exclusion and 12,214 had oligometastatic disease. 23.7% of metastatic patients received radiation (4.3% SBRT) and 22.0% of oligometastatic patients received radiation (3.2% SBRT). Among the oligometastatic SBRT cohort, patients received a median total dose of 21 Gy (range 800 cGy-67 Gy). SBRT sites include: brain (46.3%), uterus (11%), lung (9.8%), spine (8.5%), pelvis (7.3%), extremity bone (6.1%), other bone (4.8%), vagina (2.4%), liver (1.2%), lymph node (1.2%) and other (1.2%). SBRT patients had a median age of 63, low comorbidity index scores, and were high income earners.

**Conclusion/Implications** SBRT is underutilized in the treatment of uterine cancers, particularly in oligometastatic disease. Increasing the use of SBRT may have implications for increasing overall survival in oligometastatic uterine cancer.

**EP123/#1544 IDENTIFICATION OF A DNA DAMAGE RESPONSE RELATED PROGNOSTIC MODELS IN ENDOMETRIAL CANCER**

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**Introduction** Genomic instability is a hallmark of cancers, which leads to tumor heterogeneity and tolerance to chemoradiotherapy thus affecting the prognosis. Exploring the DDR gene in the prediction of prognosis, response of ICB and anti-tumor therapy is of great importance.

**Methods** RNA-seq data was from 19 endometrial cancer patients. 585 patients’ data were from TCGA. Cox, Kaplan Meier, and Lasso logistic regression were used to screen the univariate factor and build the DDR nomogram. R ‘limma’ package was used to analyze the DEGs between the high and low-risk groups. Enrichment analysis was achieved. Immune infiltration status and ICB response prediction were performed. r-H2AX foci after UBE2T knockdown were analyzed. Western blot was used to investigate DDR protein expression.

**Results** A DDR-related nomogram containing UBE2T and EME1 was established. UBE2T expression increased in high-risk group. The high-risk group showed different infiltration patterns. DDR nomogram exhibits an AUC of 0.764 to
Abstract EP123/#1544 Figure 1

Abstract EP123/#1544 Figure 2
predict 3-year prognosis. UBE2T showed an AUC of 0.977 to predict 3-year prognosis. UBE2T mono-ubiquiting FANCD2 is a critical process in ICL repair. Comet assay showed UBE2T knockdown-induced DNA damage, which is enhanced after MMC treatment. FANCD2 ubiquitin decreased after UBE2T knockdown. p-Chk1 and p-ATM increased when exposed to MMC. UBE2T expression level is related to immune receptors such as TNFRSF14, etc.

Conclusion/Implications A DDR genes nomogram with UBE2T as a key variable was identified. This study may help risk stratification and promote DDR agent and ICB use in endometrial cancer.

**EP124/#764**

**NATURAL COMPOUND BAICALEIN SYNERGIZES WITH AMP-ACTIVATED PROTEIN KINASE ACTIVATOR SR04 IN ENDOMETRIAL CANCER BY INHIBITION OF PI3K/mTOR AND STAT3 WITHOUT ACTIVATING AKT OR MAPK**

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**Introduction** Loss of PTEN expression is common in endometrial cancer. The PI3K/mTOR pathway has been a target, but counter-regulatory pathways via Akt and ERK may hinder efficacy. We previously showed that the natural flavonoid baicalein inhibits cell growth via mTOR pathway. We investigated the effects of a novel AMPK activator SR04 in combination with baicalein in endometrial cancer.

**Methods** Endometrial cancer cell lines, RL95–2 and KLE were treated with varying concentrations of baicalein and SR04. Cell viability assessment at 72 hours was determined by MTT assay. Drug combination studies and synergy quantification was performed using Chou-Talalay method. Western blot analysis was utilized to evaluate PI3K/mTOR end targets.

**Results** Baicalein or SR04 alone inhibited proliferation of endometrial cancer cell lines in a dose dependent manner. In combination, baicalein and SR04 acted synergistically to inhibit cell proliferation, especially at low concentrations (figure 1). The synergistic effect was mediated by inhibition of STAT3 and PS6 as demonstrated on Western blot (figure 2). Interestingly compensatory activation of AKT and MAPK pathways,