

# Poster 10: Rate of homologous recombination repair gene expression in endometrial cancer patients

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### Topic: Endometrial

#### Objectives

The efficacy of PARP inhibitors in combination with immunotherapy has been shown to have some therapeutic benefit in endometrial cancer patients. However, no phase III study is yet to show clinical benefit of single use PARP inhibitor. The purpose of this study is to highlight the expression patterns of homologous recombination repair (HRR) genes in endometrial cancer patients.

#### Methods

We queried the Myriad Collaborative Research Registry for patients with endometrial carcinoma who had undergone tumor testing. Patient characteristics and tumor testing profiles were collected and descriptive analysis was performed.

#### Results

In this dataset, we identified 609 endometrial cancer patients however 82 patients had HRR genes detected. The median age was 59 with a range of 30-85 years old. For patients with the variant, there were 34.9% Non-Hispanic White, 27.9% Hispanic/Latino, 5.8% African-American, and 15.1% patients that were none specified. The most common HRR gene was ATM at 3.4% followed by BRCA2 at 1.8% (table 1). 45 of the 82 patients were 1A variants.

## Conclusions

The results reflect the general trend of low expression of HRR genes in endometrial cancer patients. Although this is a limited patient pool, it is a large database that reflects the general population. Given the number of patients expressing some level of HRR gene, one can theorize that the efficacy of PARP inhibitor as single use would only be seen in a very small subset of patients.

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