

# 2026 ANNUAL MEETING



**Poster 52:** Ovarian cancer response to chemotherapy after use of PARPi

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Topic  
Ovarian

## Objectives

Use of a PARP inhibitor (PARPi) in patients with ovarian cancer may contribute to induction of platinum resistance, impacting subsequent therapies. We evaluated the time from the start of initial treatment to the time of progression on the next line of therapy (or death) (2PFS) of patients with epithelial ovarian cancer (EOC) who received chemotherapy following use.

## Methods

A retrospective study of patients from Kaiser Permanente Northern California and University of California San Francisco who had a diagnosis of EOC and received a PARPi between 9/1/13 and 5/31/21. We evaluated the 2PFS of this post-PARPi cohort.

## Results

We identified a cohort of 200, including 141 patients who received PARPi as maintenance therapy (43% front line maintenance) and 59 as treatment. 91% of patients had tumors with serous histology. Pathogenic variants in BRCA1/2 were germline in 56/200 patients (28%) and somatic in 21/200 patients (11%). Median (interquartile [IQR]) duration of PARPi exposure was 7 (4-12.3) months. Median time from last dose of platinum to initiation of subsequent therapy was 11 (7.9-16) months (including time on PARPi). 61% of patients received platinum-based chemotherapy after PARPi therapy. Overall, median 2PFS of all patients was 6 (3-9.1) months. Median 2PFS for patients who received platinum-based chemotherapy was 7.2 (4.7-10) months, which is significantly shorter ( $p < 0.0001$ ) than an estimated 10mo PFS from historical data for PARPi-naive patients with recurrent platinum sensitive EOC treated with platinum-based chemotherapy.

## Conclusions

Relative to historical data, PARPi use in our patients is associated with shorter 2PFS after platinum-based chemotherapy, suggesting PARPi-induced platinum resistance and underscoring the importance of monitoring to facilitate earlier transition to non-platinum therapy.

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Abstract Table or Graph

Table 1: Second progression-free survival (2PFS) following post-PARPi chemotherapy, stratified by PARPi indication (maintenance vs treatment), platinum exposure, and PARPi sensitivity status.

<b>2PFS (months), median (IQR)</b>	<b>PARPi-resistant*</b>	<b>PARPi-sensitive†</b>	<b>P-value</b>
<b>PARPi used as maintenance</b>			
Post-PARPi chemotherapy: platinum	7.8 (5-10.2)	6.6 (3.5-10.9)	0.57
Post-PARPi chemotherapy: non-platinum	3.5 (2.1-7.0)	2.5 (0.7-4.2)	0.35
<b>PARPi used as treatment</b>			
Post-PARPi chemotherapy: platinum	7.0 (4.0-9.4)	15.0 (9.0-19.0)	0.09
Post-PARPi chemotherapy: non-platinum	3.3 (1.9-6.7)	3.8 (3.8-3.8)	0.72

\* Patients who had progression of disease during PARPi therapy

† Patients who had progression of disease after PARPi therapy