BACKGROUND

• PolyADP-ribose polymerase inhibitor (PARPi) therapy is used in a variety of cancer indications but is most utilized in ovarian malignancies.1
• PARPi therapy has been used largely in patients who are female, white, and possess a breast cancer gene (BRCA) mutation.2,3
• High out-of-pocket (OOP) costs for oral cancer treatment lead to delays in therapy.4
• Integrated specialty pharmacy assistance for OOP costs can reduce financial toxicity.5

OBJECTIVE

To analyze disease characteristics, time to medication approval, and out-of-pocket costs for patients receiving PARPi therapy.

METHODS

DESIGN Single-center retrospective cohort study
INCLUSION Adult patients who initiated PARPi therapy through center’s outpatient oncology clinic from November 2017 - December 2018
EXCLUSION Patients who did not initiate PARPi therapy
Patients enrolled in a clinical trial

RESULTS

Table 1. Demographics and baseline characteristics (n=15)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years, mean ± SD</td>
<td>63 ± 9</td>
</tr>
<tr>
<td>Gender, female</td>
<td>14 (93)</td>
</tr>
<tr>
<td>Race</td>
<td>12 (80)</td>
</tr>
<tr>
<td>White</td>
<td>2 (13)</td>
</tr>
<tr>
<td>African American</td>
<td>1 (7)</td>
</tr>
<tr>
<td>Body mass index, mean ± SD</td>
<td>31 ± 8</td>
</tr>
<tr>
<td>Disease duration, years, mean ± SD</td>
<td>4 ± 4</td>
</tr>
<tr>
<td>Total previous chemotherapies, median (range)</td>
<td>3 (1-6)</td>
</tr>
<tr>
<td>Previous platinum-based regimens, median (range)</td>
<td>2 (0-3)</td>
</tr>
<tr>
<td>ECOG** Performance Status</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>3 (20)</td>
</tr>
<tr>
<td>1</td>
<td>12 (80)</td>
</tr>
<tr>
<td>Insurance type</td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td>7 (47)</td>
</tr>
<tr>
<td>Medicare</td>
<td>6 (40)</td>
</tr>
<tr>
<td>Tricare</td>
<td>1 (7)</td>
</tr>
<tr>
<td>Uninsured</td>
<td>1 (7)</td>
</tr>
<tr>
<td>Alcohol use</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>9 (60)</td>
</tr>
<tr>
<td>Occasional</td>
<td>3 (20)</td>
</tr>
<tr>
<td>Daily</td>
<td>1 (7)</td>
</tr>
<tr>
<td>2-3 drinks per week</td>
<td>1 (7)</td>
</tr>
<tr>
<td>Not documented</td>
<td>1 (7)</td>
</tr>
<tr>
<td>Smoking status</td>
<td></td>
</tr>
<tr>
<td>Non-smoker</td>
<td>8 (53)</td>
</tr>
<tr>
<td>Previous smoker</td>
<td>6 (40)</td>
</tr>
<tr>
<td>Current smoker</td>
<td>1 (7)</td>
</tr>
</tbody>
</table>

Figure 1. BRCA, HER2* and hormone-receptor status (n=15)
BRCA1 was the most common BRCA mutation (n=7, 47%).

Table 2. Medication and starting dose (n=15)

<table>
<thead>
<tr>
<th>Medication</th>
<th>Dose</th>
<th>Cancer type</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OLAPARIB</td>
<td>300 mg twice daily</td>
<td>Ovarian</td>
<td>7 (47)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fallopian tube</td>
<td>2 (13)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pancreatic</td>
<td>1 (7)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Primary peritoneal</td>
<td>1 (7)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Metastatic squamous cell</td>
<td>1 (7)</td>
</tr>
<tr>
<td>RUCAPARIB</td>
<td>600 mg twice daily</td>
<td>Ovarian</td>
<td>2 (13)</td>
</tr>
</tbody>
</table>

Figure 2. Sites of metastasis (n=15)
Most common sites of metastasis were the peritoneal cavity (n=6, 40%) and lymph nodes (n=5, 33%).

Table 3. Medication and starting dose (n=15)

<table>
<thead>
<tr>
<th>OOP Cost ($)</th>
<th>Before FA</th>
<th>After FA</th>
<th>No FA n (%)</th>
<th>FA n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0</td>
<td>3 (43)</td>
<td>8 (100)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$25-30</td>
<td>2 (29)</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$1000-1500</td>
<td>2 (29)</td>
<td>--</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CONCLUSIONS

• PARPi therapy was predominantly utilized in patients with epithelial ovarian cancer, with olaparib as the most commonly used agent.
• High insurance approval rate and low OOP costs were observed, supporting the role of an integrated specialty pharmacist in reducing financial toxicity.