TITLE:

Healthcare Costs and Resource Utilization Associated with PARP Inhibitors in Ovarian Cancer Patients Initially Treated with Platinum-Based Therapy

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OBJECTIVES

There is limited information on the real-world costs associated with PARP inhibitors (PARPi) in patients with ovarian cancer (OC). This analysis aimed to explore the costs and healthcare utilization in OC patients undergoing PARPi treatment following first-line platinum-based therapy using U.S. administrative claims data.

METHODS

OC patients initiating a PARPi after first-line platinum-based therapy were identified in the IBM Marketscan database (1/1/2009 to 7/31/2019). The date of the first PARPi claim after platinum-based therapy was the index date. Patients were categorized into 3 groups receiving olaparib, rucaparib or niraparib at any time following platinum therapy. Pharmacy, medical (non-pharmacy) and total costs were calculated on a per-patient per-month (PPPM) basis from index date through the end of available data (follow-up period). Healthcare utilization (outpatient visits [OP], emergency department [ED] visits, and hospitalization) were also compared between the groups.

RESULTS

A total of 276 patients were identified with 48% receiving olaparib (n = 133), 35% niraparib (n = 96), and 17% rucaparib (n = 47)). Median PPPM pharmacy costs were significantly higher in olaparib ($10,312.36) and rucaparib ($9,289.87) patients relative to niraparib ($6,560.89) ($p<0.05$). Conversely, a trend ($p=0.06$) was found for medical costs with niraparib being higher ($5,230.88) than the other two PARPi (olaparib, $3,194.05; rucaparib, $2,197.23). Resource utilization (OP visits, ED visits and hospital stay) showed a trend for higher proportion of patients on niraparib requiring OP and ED visits, while there were longer ED and hospital stays among rucaparib patients.

CONCLUSIONS

Pharmacy costs were higher for olaparib and rucaparib, but medical expenditures were the highest for niraparib. These findings suggest that pharmacy costs might serve as a strong driver

of the total treatment costs among PARPis. Limitations are that this study explored only medical and pharmacy costs, while other economic and humanistic outcomes could also be considered.