Ovarian Cancer Overview: Treatments and Costs in the Brazilian Outpatient Public Settings – A Claim Database (DATASUS) Study

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Background and Objective

- Ovarian cancer (OC), although rare, represents the main cause of death among gynecological neoplasms[1]. In Brazil, incidence of OC is estimated as 6.18/100,000 women, with a mortality rate of 3.75/100,000 women.[2]
- OC is a silent disease and 70% of cases are diagnosed in advanced stages (stages III and IV).[3]
- Treatment can include surgery, neoadjuvant therapy or adjuvant chemotherapy (CT). After CT cycles, patients may be placed on active surveillance or maintenance therapy, to slow disease progression and to reduce the exposure to toxic chemotherapies with restricted efficacy in the later treatment lines.[3,4]
- The most recent therapeutic options to emerge in the maintenance setting as alternatives to bevacizumab or active surveillance are the PARP inhibitors (iPARPs).[5,6]
- This analysis investigated the treatment pattern and costs according to Authorization for High Complexity Procedure (APAC – reimbursement value) in outpatient public settings from 2017 to 2021, using data from DATASUS (a claim database).

Methods

Administrative claim database of public healthcare system (DATASUS)
Records from 2017–2021

Inclusion criteria (n=164,747)
OC patients with ICD-10 C48.1, C48.2, C56, or C57.0

Exclusion criteria (n=47,628)
Missing treatment information
Treatment in disagreement with local OC guideline and clinical practice[7]

Data assessed (n=117,119)
Number of patients and APACs, first line (1L) / second and subsequent line (2L+) patient ratio, OC APACs treatments, outpatient drug costs
Clustered by treatment line, year, and geographical region

- Outpatient drug public cost is presented in Brazilian currency (BRL) and USD (using BACEN mean exchange rate from February 28 to March 26, 2023).[8]
- 2L+ data may include data from later lines (third line onwards) where there is no specific APAC for later lines.

Results and Conclusion

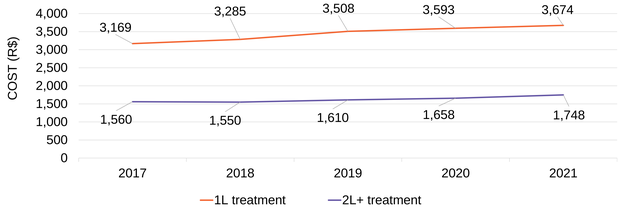
APACs selected were qualified according to local protocol and clinical experts

117,119 APACs for OC (2017–2021)

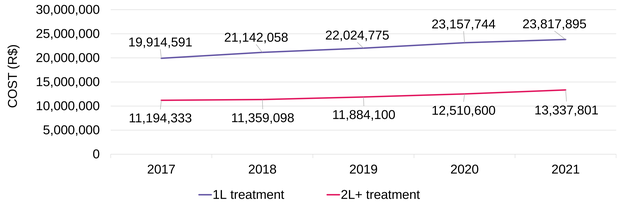
75,641 APACs in 1L → 66,520 (88%) qualified APACs in 1L

41,478 APACs in 2L+ → 30,148 (73%) qualified APACs in 2L+

Number of CT-treated patients increased year on year (mean 3–4% per year)

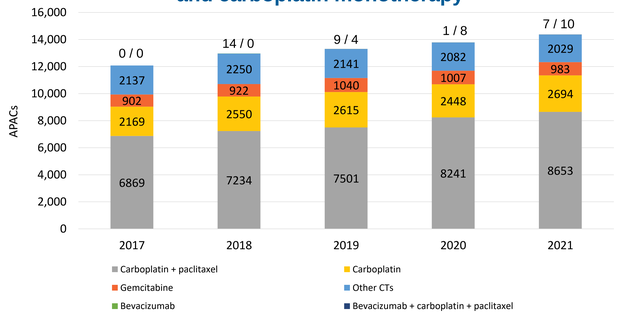


Outpatient reimbursement costs increased year on year (mean 4–5%per year) in both treatment lines



- Total outpatient reimbursement costs were BRL 110,057,063 (USD 21,058,038) and BRL 60,285,932 (USD 11,534,956) for 1L and 2L+, respectively.
- Outpatient reimbursement cost per patient remained constant over the analysis period.

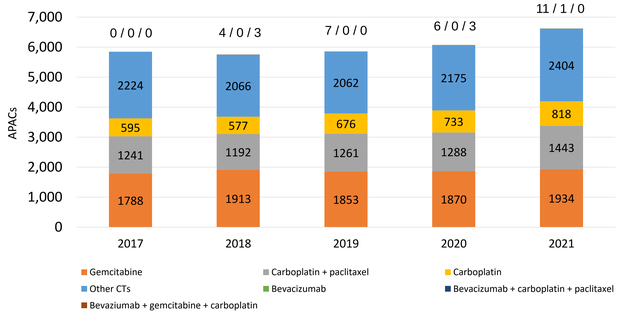
Most frequently used 1L CTs were carboplatin + paclitaxel and carboplatin monotherapy



Values for invisible bars shown as: bevacizumab / bevacizumab + carboplatin + paclitaxel

- Use of bevacizumab regimens in 1L was very restricted across all of the period of analysis, with a usage preference for bevacizumab combined with carboplatin plus paclitaxel in later years.

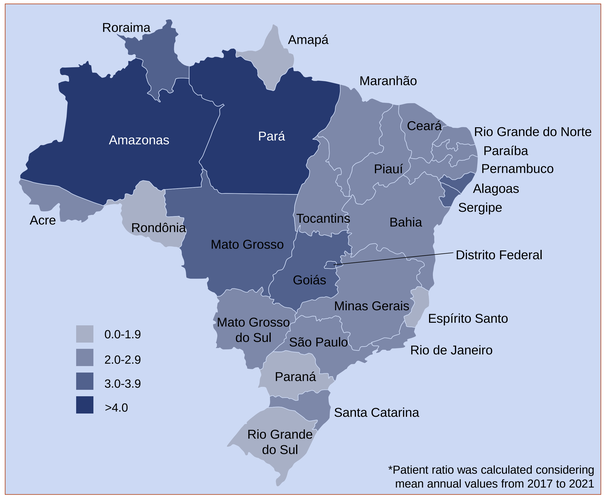
Most frequently used 2L+ CTs were gemcitabine monotherapy and carboplatin + paclitaxel



Values for invisible bars shown as: bevacizumab / bevacizumab + carboplatin + paclitaxel / bevacizumab + gemcitabine + carboplatin

- The use of bevacizumab regimens (bevacizumab monotherapy, bevacizumab plus gemcitabine plus carboplatin, and bevacizumab plus carboplatin plus paclitaxel) in 2L+ was also very restricted.

1L/2L+ patient ratio* was around 2.2 with the exception of some northern/northeastern states



- Southern and southwestern states São Paulo, Minas Gerais, Rio de Janeiro, Espirito Santo, Paraná, Santa Catarina and Rio Grande do Sul accounted for 65% and 68% of 1L- and 2L+-treated patients. Mean age of patients was 58 years.
- The highest 1L/2L+ patient ratios were observed for Amazonas, Pará, and Sergipe (range of means 3.7–5.5).

Conclusions

- Number of CT-treated patients increased steadily each year, but outpatient reimbursement cost per patient remained constant.
- Carboplatin + paclitaxel and gemcitabine were consistently the most used 1L and 2L+ chemotherapy, respectively. Use of bevacizumab regimens was very restricted in both lines, and maintenance treatments such as iPARPs were not observed, despite their availability.
- Given that there are no significant changes in treatment pattern across regions, patients' prognosis at diagnosis might be different in the higher 1L/2L+ ratio regions.
- Further investigation to understand the restricted usage of bevacizumab and iPARPs in public settings and a future analysis that presents the real impact of APAC value on choosing the available treatments and on the survival prognosis of OC patients may help to lead a discussion of health public policies for these patients.

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