



Healthcare Resource Use and Costs Associated With Endometrial Cancer Treatment in the Private Setting in Brazil

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Advanced EC management cost can vary depending on disease stage (1L or 2L), with a greater burden reported in 2L due to monitoring examinations, emergency visits, hospitalizations, and treatment costs

Aim

This study aimed to estimate costs in the advanced and recurrent endometrial cancer (EC) management from diagnosis to treatment in the Brazilian private settings.

Background

EC is responsible for 90% of uterine cancers and is the 7th most common type of cancer among women in Brazil, with 7,840 new cases estimated per year¹ and a mortality rate of 1.80 deaths per 100,000 women². EC places a significant burden on the Brazilian private healthcare system, with an estimated total cost related to hospitalizations of almost 45 million Brazilian Real (BRL) from 2015–2019³.

Methods

The resources and procedures utilized in the management of advanced EC were captured using a Delphi panel approach (Figure 1) with 5 oncologists.

Figure 1: Delphi panel methodology



- A questionnaire was developed, based on literature review of EC management and EC treatment guidelines, to capture patient annual costs related to EC diagnosis, follow-up medical care, disease complications, and adverse event (AE) management in first (1L) and second (2L) lines of treatment.

- 5 gynecological oncologists were selected to be interviewed individually to understand the clinical practice in the EC management in the Brazilian supplementary healthcare system.
- From the questionnaire responses, a panel discussion took place to reach a consensus regarding resource utilization and procedures used in the management of EC.
- For exams, procedures, and hospitalization, Brazilian hierarchical classification of medical procedures (CBHPM), Planserv and Unimed reference medical procedure lists were used as reference for costs.
- For drug costs, the Brazilian official price list from CMED (Feb 2023) was used as reference. Each resource identified was valued in the micro-costing phase considering unit costs and frequency of use (weighted costs). Results were presented in BRL and United States Dollar (USD) (BACEN⁴). EC costs were categorized as follows:
 - Diagnosis
 - Emergency care and hospitalization
 - Follow-up medical care
 - Drug treatment
 - Disease progression
 - AEs

Results

Diagnosis

Immunohistochemistry (IHC) for MMR was reported as the most common diagnostic test in the clinical practice (easier access). Other diagnostic tests were mentioned with lower use:

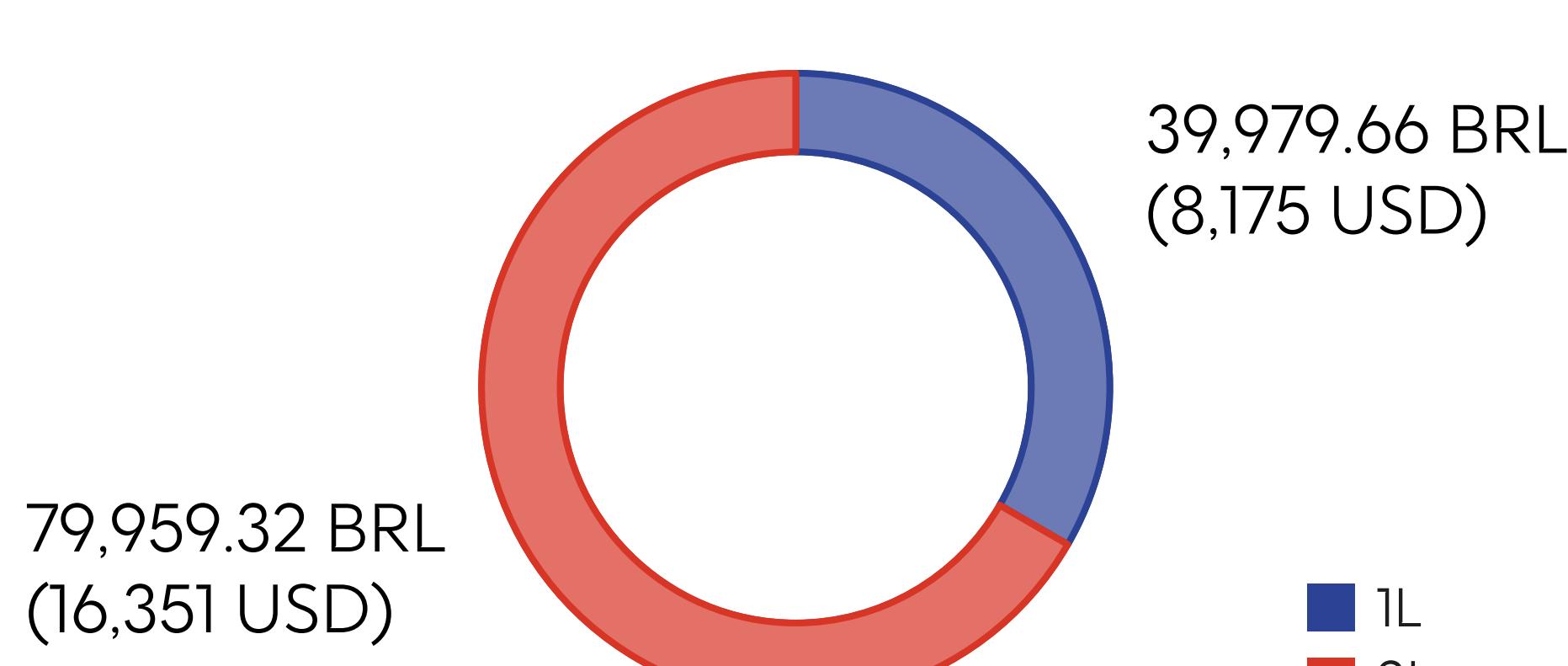
- IHC for P53
- POLE gene sequencing
- IHC for estrogen and progesterone receptors
- PCR for MSI
- NGS for MSI

The total cost per patient related to diagnosis was estimated as 2,351 BRL (481 USD), 1,410 BRL (288 USD) associated with diagnosis of the primary disease and the remaining 940 BRL (192 USD) related to diagnosis of disease recurrence.

Emergency care and hospitalization

Specialists reported that recurrent disease was associated with an increase in emergency care and hospitalization. It was estimated that patients in the recurrent setting required twice the resources related to emergency care and hospitalization than patients with primary disease.

Figure 2: Estimated annual costs for emergency care and hospitalization



Follow-up medical care

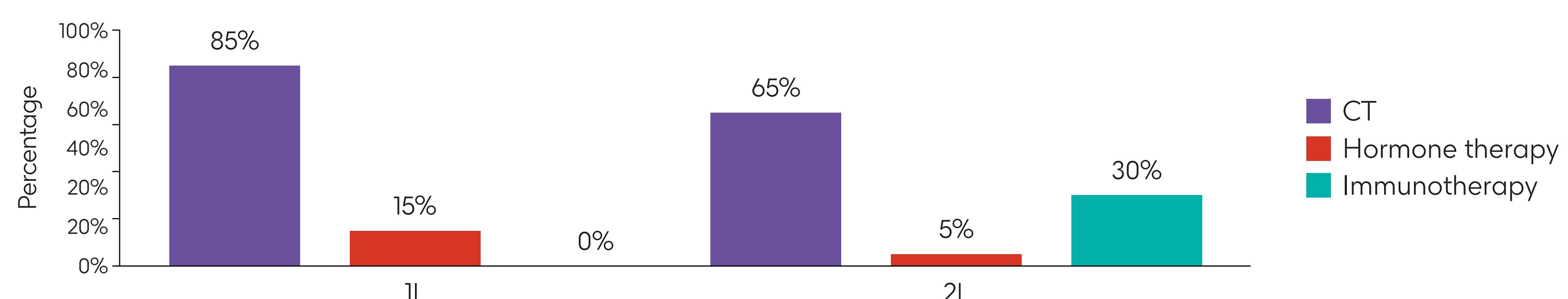
Resources used for follow-up medical care are similar for advanced EC, irrespective of treatment line. Annual estimated costs per patient were 24,342 BRL (4,978 USD) in 1L and 26,166 BRL (5,351 USD) in 2L.

Drug treatment

The most common treatments reported by line were: CT (carboplatin + paclitaxel – 1L; gemcitabine + doxorubicin – 2L); hormone therapies in 1L and 2L; and immunotherapy in 2L.

Estimated monthly drug costs per patient were 10,860 BRL (2,221 USD) in 1L and 20,043 BRL (4,099 USD) in 2L.

Figure 3: Reported treatments utilized per line



Conclusions

Advanced EC management cost can vary depending on disease stage (1L or 2L), with a greater burden reported in 2L due to monitoring examinations, emergency visits, hospitalizations, and treatment costs.

Resources used in emergency care and hospitalization represent a significant increase in cost in the recurrent setting. Prevention of disease recurrence is therefore not just important to address the unmet needs for patients with EC but highlights the importance of improving outcomes in the 1L setting from a cost perspective.

There is a continuous need for 1L and 2L treatments that reduce the impact of disease progression.

Abbreviations

1L, first line; 2L, second line; AE, adverse event; CT, chemotherapy; EC, endometrial cancer; IHC, immunohistochemistry; MMR, mismatch repair; MRI, magnetic resonance imaging; MSI, microsatellite instability; NGS, next-generation sequencing; PCR, polymerase chain reaction; PET, positron emission tomography

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Disclosures

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