

Cost Calculator of Immunotherapies in the 1L Endometrial Cancer Treatment From the Brazilian Private Healthcare System Perspective

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Background

The treatment paradigm for primary advanced or recurrent endometrial cancer (EC) has been evolving with the introduction of immunotherapies in the first-line (1L) settings.^{1,2} While these novel treatments show promise in terms of efficacy and patient outcomes, their adoption raises significant concerns about economic feasibility and sustainability.

Conclusions



The use of cost calculators can help payers to understand the budget impact of introducing new technologies (e.g., immunotherapies in the 1L EC treatment) into the healthcare system.



The results presented potential savings with dostarlimab, with lower total cost over 3 years (dostarlimab BRL 19,740,704 and pembrolizumab BRL 22,351,391).



These savings were present even considering the longer treatment duration with dostarlimab (up to 29 cycles vs. up to 20 cycles).

Aims



The objective of this study was to evaluate the budget impact of immunotherapies as new treatment option in patients with EC through the development of a cost calculator.

Study design



Posology of the clinical trials

Pembrolizumab First 6 cycles 200 mg every 3 weeks → Up to + 16 cycles 400 mg every 6 weeks

Dostarlimab First 6 cycles 500 mg every 3 weeks → Up to + 23 cycles 1000 mg every 6 weeks



Drug acquisition costs were based on the list price with 18% state taxes (PF 18%) from the Brazilian official drug list prices - Chamber of Regulation of the Medicines Market (CMED), as of May 6, 2024.



Only the cost of immunotherapies were considered once the chemotherapy along were the same for both arms of the study.



Progression-free survival (PFS) curve data from RUBY trial for the intention-to-treat (ITT) population was used as an assumption for treatment duration for both arms.



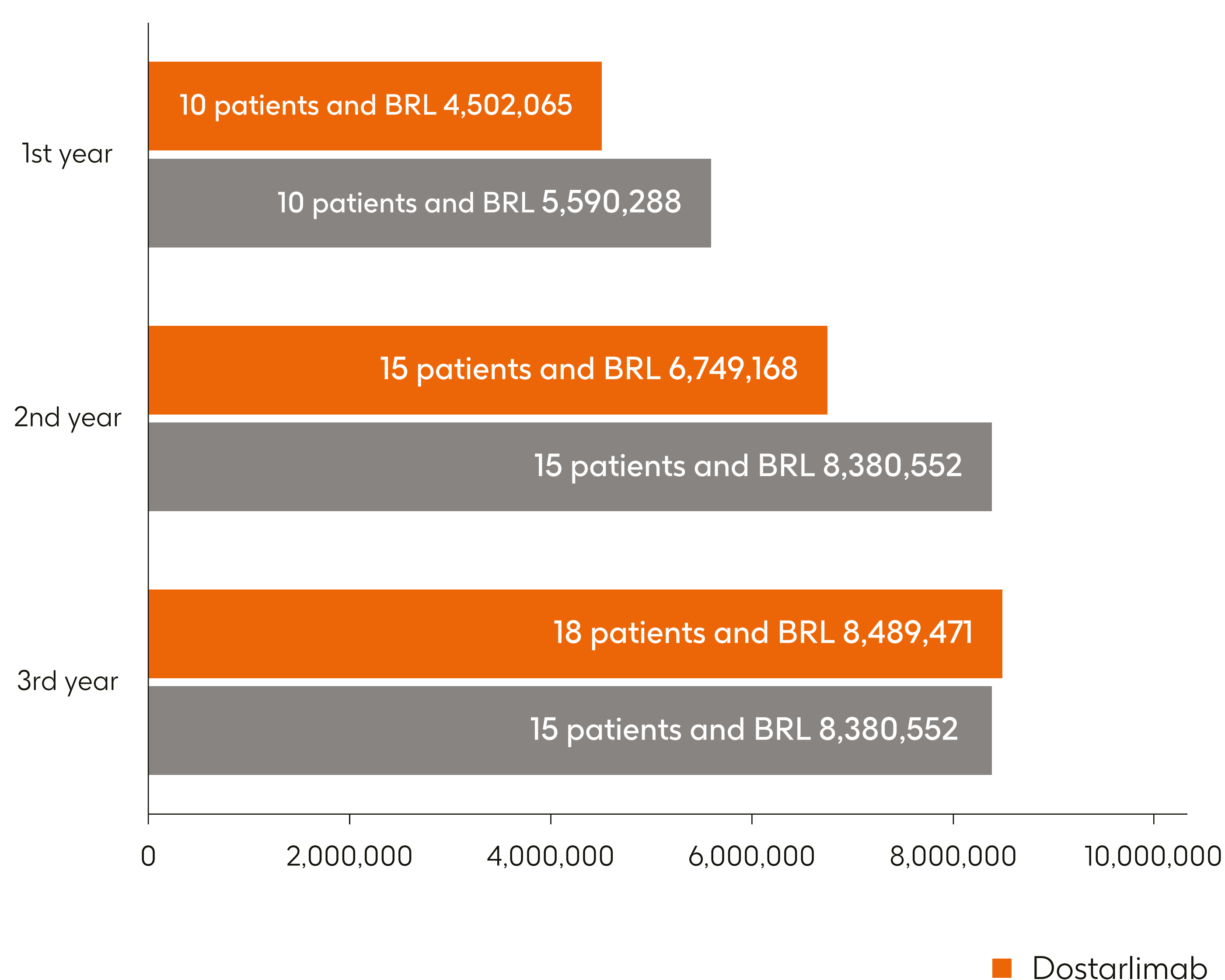
For the budget impact analysis, a scenario considering 10 new patients per year for each treatment arm over a 3-year time horizon was evaluated as seen below for illustration:

Treatment	1 st year	2 nd year	3 rd year
Pembrolizumab	10 patients	15 patients 10 news + 5 (1 st year)	15 patients 10 news + 5 (1 st year)
Dostarlimab	10 patients	15 patients 10 news + 5 (1 st year)	18 patients 10 news + 5 (1 st year) + 3 (2 nd year)

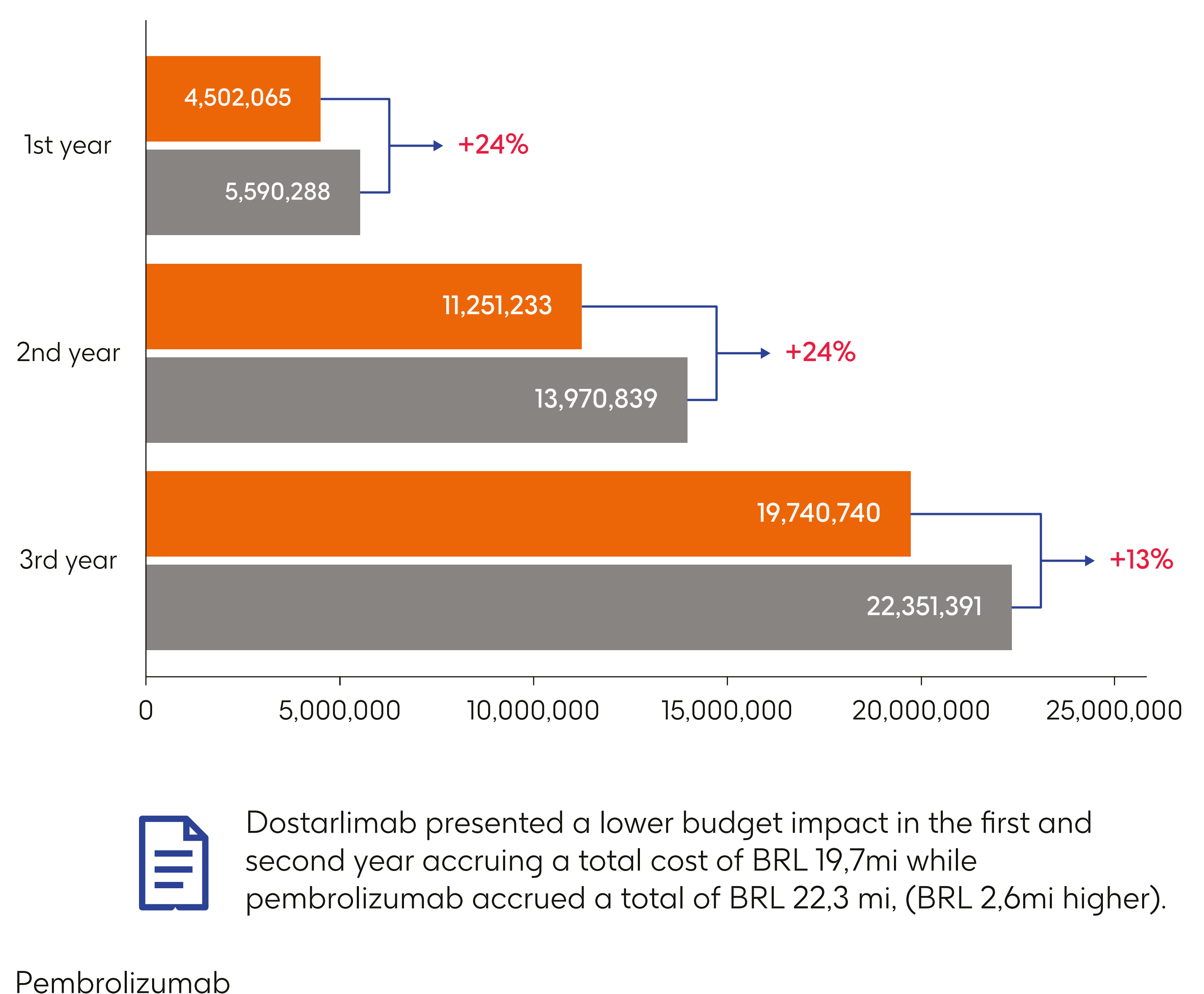
Note: Only the drug cost were considered. The analysis did not include any other healthcare costs.

Results

Cost of treatment per year (BRL)



Total cost accrued per year (BRL)



Dostarlimab presented a lower budget impact in the first and second year accruing a total cost of BRL 19,7mi while pembrolizumab accrued a total of BRL 22,3 mi, (BRL 2,6mi higher).

Abbreviations

EC: endometrial cancer;
PFS: progression-free survival;
ITT: intention-to-treat;
CMED: Chamber of Regulation of the Medicines Market.

References

- Endometrial cancer: ESMO Clinical Practice Guideline for diagnosis, treatment and follow-up. Oaknin, A. et al. Annals of Oncology, Volume 33, Issue 9, 860 – 877.
- Hamoud, B.H.; Sima, R.M.; Vacaroiu, I.A.; Georgescu, M.-T.; Bobirca, A.; Gaube, A.; Bobirca, F.; Georgescu, D.-E. The Evolving Landscape of Immunotherapy in Uterine Cancer: A Comprehensive Review. Life 2023, 13, 1502. <https://doi.org/10.3390/life13071502>

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Disclosures

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Digital poster

