EE367

Economic burden of the adverse events during treatment of metastatic breast cancer (mBC) HR+/HER2- patients in Brazilian Private Healthcare System

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Background

The most common breast tumors are those that are HR+ and HER2- per American Society of Clinical Oncology/College of American Pathologists guidelines (ASCO/CAP) guidelines.[1,2] The preferred cornerstone of treatment is iCDK4/6, given commonly in combination with endocrine therapies.[3,4] Patients with tumors that have progressed on endocrine therapy and/or are not eligible for endocrine therapy had limited treatment options beyond chemotherapy until the arrival of antibody-drug conjugates, a new and promising class of treatment in this setting.[3]

Objectives

Treatment of mBC leads to various adverse events (AEs) which burden patients and the healthcare system. This study will identify the cost of managing grade 3 or higher AEs associated with mBC HR+/ HER2- treatment available to patients who have progressed on endocrine therapy and received at least one line of chemotherapy.

Methodology

The treatments were selected based on the NCCN 2025[5] and SBOC 2024[6] guidelines, excluding endocrine and target therapies. Then, AE grade ≥ 3 with frequency of ≥ 2% for each therapy was identified in pivotal studies referenced by guidelines[7-16]. AE management costs were estimated using a micro-costing approach, information from MASCC[17], MOC[18], label and scientific articles to determine the procedures required to manage each AE per patient. Procedures costs were extracted from the D-TISS[19] database, CBHPM[20] and PRÓSER[21] reference price list and CMED drug list price[22]. The Unidas Report (2023)[23] was used for daily inpatient data, while Borba et al. (2023)[24] was referenced for daily outpatient data. The prices were adjusted according to the IPCA 2024[25]. All data was validated by a clinical oncologist.

Results

Based on chemotherapy and ADCs treatment options recommended by the guidelines for mBC HR (+) HER2(-), a total of 28 grade ≥3 AEs were identified. The average cost of managing these AEs was US$ 962.22 (range: US$ 43.04 to US$ 6,320.11). Hematological AEs had a higher mean management cost (US$ 1,511.00 – Fig. 1) compared to non-hematological AEs (US$ 779.29 – Fig. 2).

Figure 1. Management costs of Hematological AEs. Cost (US$)*

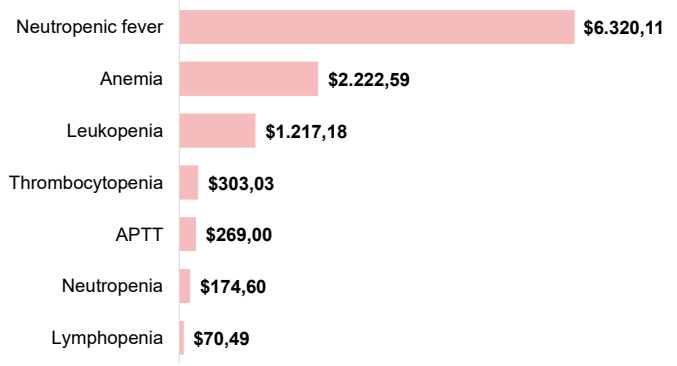
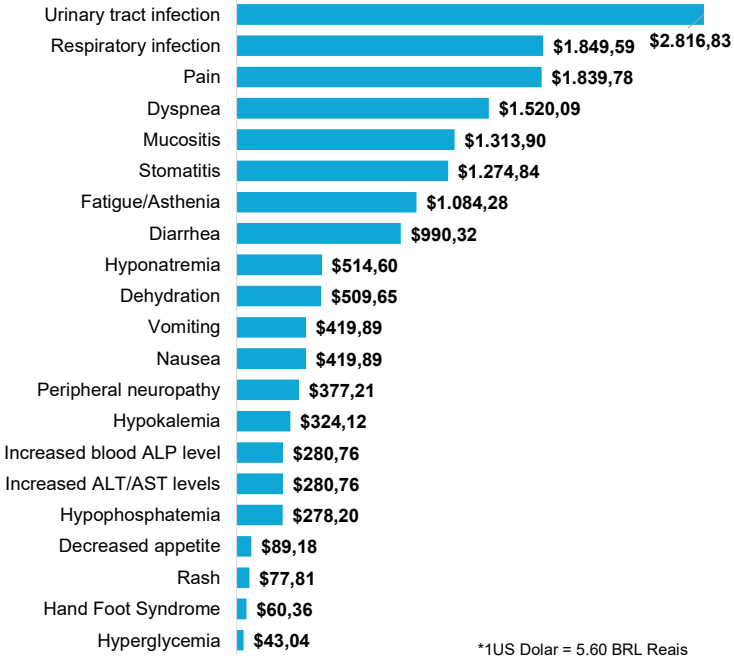


Figure 2. Management costs of Non-hematological AEs. Cost (US$)*



*1US Dolar = 5.60 BRL Reais

Conclusion

In the current treatment of mBC HR+/HER2-, a significant cost was identified associated with managing grade ≥3 AEs, especially with hematological AEs from the perspective of the Brazilian private healthcare system.

Disclosure and Acknowledgement

This work was supported by Daiichi Sankyo Brazil. Some authors are affiliated with the company as employees: GLVA, HT, TBO, FS, CMH, LS.
We thank Global team from Daiichi Sankyo for valuable guidance and insights throughout the development of this project.

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