EE522

Cost of 5-years Progression Free Survival Analysis of Triple-Class Exposed Patients with Refractory/ Relapsed Multiple Myeloma Treated with Ciltacabtagene Autoleucel in the Brazilian Private Health System

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Key Takeaway

Ciltacabtagene autoleucel could represent an optimal treatment choice for triple class exposed patients with R/R MM in the Brazilian healthcare system, vs the comparator in this analysis, considering its drug cost profile, and assessed PFS.

Conclusions

Ciltacabtagene autoleucel demonstrated higher assessed PFS when compared to the estimated projection of the comparator's PFS at the 5-year mark;

Ciltacabtagene autoleucel demonstrated lower cost of 5-year % PFS when compared to the comparator of this analysis.

Study Limitation

This study does not represent a direct comparison of data. It provides a naïve comparison, with each asset compared independently.

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Introduction & Objective

- Multiple myeloma (MM) is a plasma cell neoplasm caused by the abnormal proliferation of plasma cells in the bone marrow and excessive increase in the production of M proteins[1]. It is recognized as the second most common hematologic malignancy (10–15% of cases), accounting for approximately 1% of all malignant tumors[2];
- MM is considered a rare disease, whose recent studies report an incidence rate of 2.6 for men and 2.2 for women cases per 100,000 people, corresponding to 187.952 new cases globally in 2022. In Brazil, although population data is scarce, recent studies suggest that the epidemiological profile is similar to that countries[3]. The disease predominantly affects elderly individuals, with a median age of 64 years in Brazil, and shows a higher prevalence among males[2,4];
- MM has a significant impact on patients' quality of life, mainly due to how disease progresses and patients undergo multiple lines of treatment[5,6]. With each relapse, patients with relapsed/ refractory MM (RRMM) experience shorter periods of remission, with lower response rates to previously used therapies. Patients with RRMM who are triple-class exposed (TCE) have particularly poor clinical outcomes.[7]
- The objective of this study was to estimate the cost to maintain patients alive and progression-free over a 5-year time horizon, when treated with ciltacabtagene autoleucel versus real-world physician's choice for TCE patients with RRMM. The analysis considered the Brazilian private healthcare system's perspective.

Methods

- A partitioned survival model was developed on Microsoft Excel. Efficacy inputs were derived from the latest CARTITUDE-1[8] (phase 1b/2, n=97) data and the LocoMMotion[7] trial (prospective study of real-world clinical practice, n=248, 91 unique regimens were used in the first line of treatment after enrollment);
- The progression free survival (PFS) and Overall Survival (OS) Kaplan-Meier curves of both trials were extrapolated in order to weigh treatment costs and to estimate the projected 5-year PFS of the LocoMMotion comparator;
- Drug acquisition costs followed the local official price list (CMED 2025) and drug dosing was aligned with the local regulatory agency approved labels. Only drug acquisition costs were considered to calculate treatment cost for both comparators;
- To estimate the overall cost of the LocoMMotion arm, the cost of the 64% most representative regimens was calculated and weighed according to its overall representativeness;
- The estimated cost required to maintain patients alive and progression-free over a 60-month time horizon was calculated by dividing the total drug cost by the proportion of patients alive and progression-free at the 60th month for each comparator.

Table 1: Trial and analysis representativeness by therapeutic protocol

Therapeutic Protocol	LocoMMotion Representativeness	Analysis Representativeness
CycloPd	14%	22%
Kd70	7%	11%
Kd56	7%	11%
Pd	12%	18%
IxaRd	6%	9%
PanoVd	4%	7%
CycloKd	3%	4%
BendaVd	3%	4%
EloPd	2%	4%
Rd	2%	4%
DKd56	1%	1%
DKd70	1%	1%
DVd	1%	2%
DPd	1%	2%
Total	64%	100%

Results

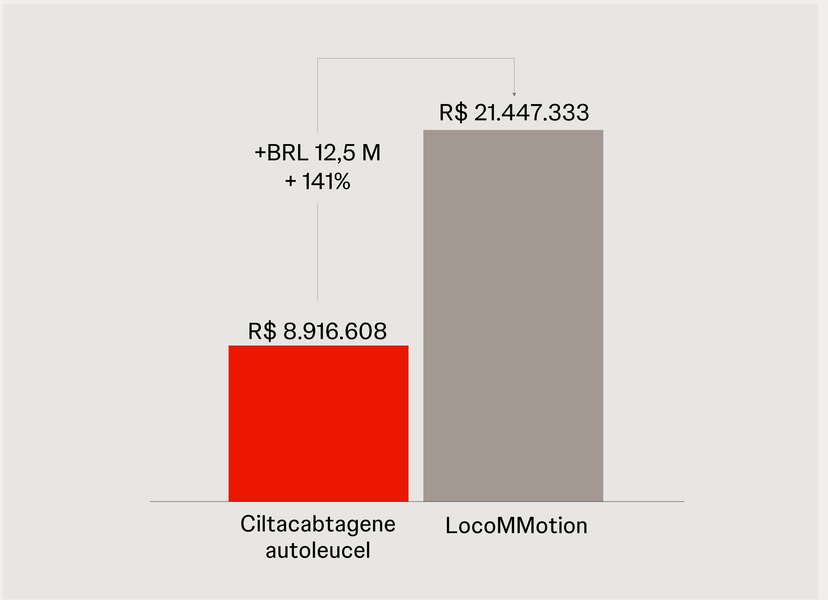
- At 60 months, 33% of cilta-cel patients remained alive and progression-free, while the extrapolated PFS for the LocoMMotion regimens demonstrated an estimation of 2,55%.

Table 2: % PFS value for each comparator at the 5 year mark

Comparator	% PFS at 60 months	Source
Ciltacabtagene autoleucel	33%	5-year FUP CARTITUDE-1
LocoMMotion	2,55%	Projected 5-year LocoMMotion PFS

- Cilta-cel showed lower cost required to maintain patients alive and progression-free versus the LocoMMotion regimens (BRL 8.9 million [M]) vs BRL 21.4 M, respectively).

Figure 1: Cost of 5-year % PFS by comparator



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