

Budget impact analysis of venetoclax for management of acute myeloid leukemia from the perspective of the social security and the private sector in Argentina

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OBJECTIVE

To estimate the budget impact of venetoclax incorporation for treatment of patients with acute myeloid leukemia (AML) (a rare disease) over 65 years of age or those with comorbidities contraindication for the use of intensive chemotherapy, from the perspective of the social security and the private healthcare sector in Argentina.

CONCLUSIONS

The incorporation of venetoclax was associated with a slight cost increase in the social security and the health private sector in Argentina.

The extended venetoclax treatment duration was the most influential factor of this slight cost increase.

INTRODUCTION

- In Argentina is estimated that between 1.5 to 3 individuals per 100,000 are diagnosed with acute myeloid leukemia (AML) per year, representing 80% of acute leukemias (LA) in adults.¹ Median age at diagnosis is 65 years and incidence increases in accordance with age.²
- Consistent with FDA,³ in April 2019 the Argentinean regulatory agency approved venetoclax for use with hypomethylating agents or LDCA for AML treatment for patients aged ≥ 75 years or those whose comorbidities make them unfit to receive intensive chemotherapy.⁴

METHODS AND DATA

Model

- A budget impact model for the social security and private sector was programmed considering a hypothetical cohort of 1 million individuals aged ≥ 65 .
- The model consisted of four main components: 1) Eligible population, 2) the market share of the intervention and comparators, 3) acquisition, administration, and monitoring of drugs, 4) costs associated with hospitalization, transfusions, adverse events, and best supportive care.
- A one-way sensitivity analysis was conducted.

Data

- The clinical and epidemiological parameters were obtained from a comprehensive literature review in main biomedical databases, validated by local hematologists expert opinion using a modified Delphi method.
- Efficacy data of venetoclax was obtained from phase III studies.^{5,6}
- The unit costs arise from the IECS Unit Cost database (BCU-IECS). The costs were expressed in Argentinian pesos (\$), September 2020 (76.18 \$ = 1 USD).
- Acquisition cost of venetoclax pack was \$420,685, calculated considering the laboratory price excluding value added tax (retail price divided by 1.7545).
- Healthcare costs were estimated by using the microcosting approach.

Assumptions

- It is assumed that market share are constant over time in the case without venetoclax.
- Prevalence and incidence rate are constant over time.
- Neither discount rate nor inflation is considered in the cost parameters.
- The active post-treatment stage comprises the period between the end of the active treatment stage and the budget year. During this stage, it is assumed that patients do not receive administration of any of the therapies under analysis, but rather that they receive supportive treatment (best supportive care).

RESULTS

Table 1. Eligible population

| Parameters | % | n |
|--|------------|------------|
| Plan population | | 1,000,000 |
| Newly diagnosed AML patients ≥ 65 year-old | 0.020% [*] | 201 |
| Newly diagnosed AML patients ≥ 65 year-old, ineligible for intensive induction chemotherapy | 64% | 129 |
| Eligible population | | 129 |

[*] The incidence of AML among patients 18-64 years old and ≥ 65 years old were obtained from National Institute for Health (NIH) Surveillance, Epidemiology, and End Results (SEER) program. Delphi Panel: Dombret H, Seymour JF, Butrym A, et al. International phase 3 study of azacitidine vs conventional care regimens in older patients with newly diagnosed AML with $>30\%$ blasts. Blood 2015;126(3):291-9. Mela-Osorio MJ, Belli C, Fernández I, et al. Impacto de la respuesta a agentes hipometilantes o quimioterapia intensiva en la sobrevida de pacientes con leucemia mieloide aguda en mayores de 65 años. Hematología 2019;23(2).

References: 1. Argentinean Acute Leukemia Guidelines (available at www.sah.org.ar/docs/2019/Leucemias_Agudas.pdf, last accessed Sep 2021). 2. Siegel R, et al. CA Cancer J Clin 2012;62(1):10-29. 3. FDA Venetoclax approval (available from: <https://www.fda.gov/drugs/fda-approves-venetoclax-combination-aml-adults>, last accessed Sep 2021). 4. ANMAT. Aprobación Venclaxta EX-2018-62796116. 2019. 5. Wei AH, et al. J Clin Oncol 2019;37(15):1277-84. 6. DiNardo CD, et al. Blood 2019;133(1):7-17.

RESULTS (cont.)

Table 2. Market share with and without venetoclax

| Treatment | Patient-year total drugs Cost, in Argentine pesos | Without venetoclax entry | With venetoclax entry | | |
|--------------------------|---|--------------------------|-----------------------|--------|--------|
| | | Year 1 to Year 3 | Year 1 | Year 2 | Year 3 |
| Venetoclax + azacitidine | \$ 14,185,267 | 0.00% | 20.60% | 35.00% | 38.40% |
| Venetoclax + LDAC | \$ 1,599,727 | 0.00% | 14.50% | 14.30% | 14.60% |
| Venetoclax + decitabine | \$ 6,876,151 | 0.00% | 9.60% | 9.60% | 9.60% |
| Azacitidine | \$ 10,258,527 | 58.50% | 22.20% | 14.10% | 12.50% |
| LDAC | \$ 509,019 | 11.50% | 10.10% | 7.60% | 5.80% |
| Decitabine | \$ 3,613,230 | 11.36% | 8.20% | 6.10% | 5.80% |
| Best supportive care | \$ 693,046 | 18.64% | 14.80% | 13.30% | 13.30% |
| Total | | 100.0% | 100.0% | 100.0% | 100.0% |

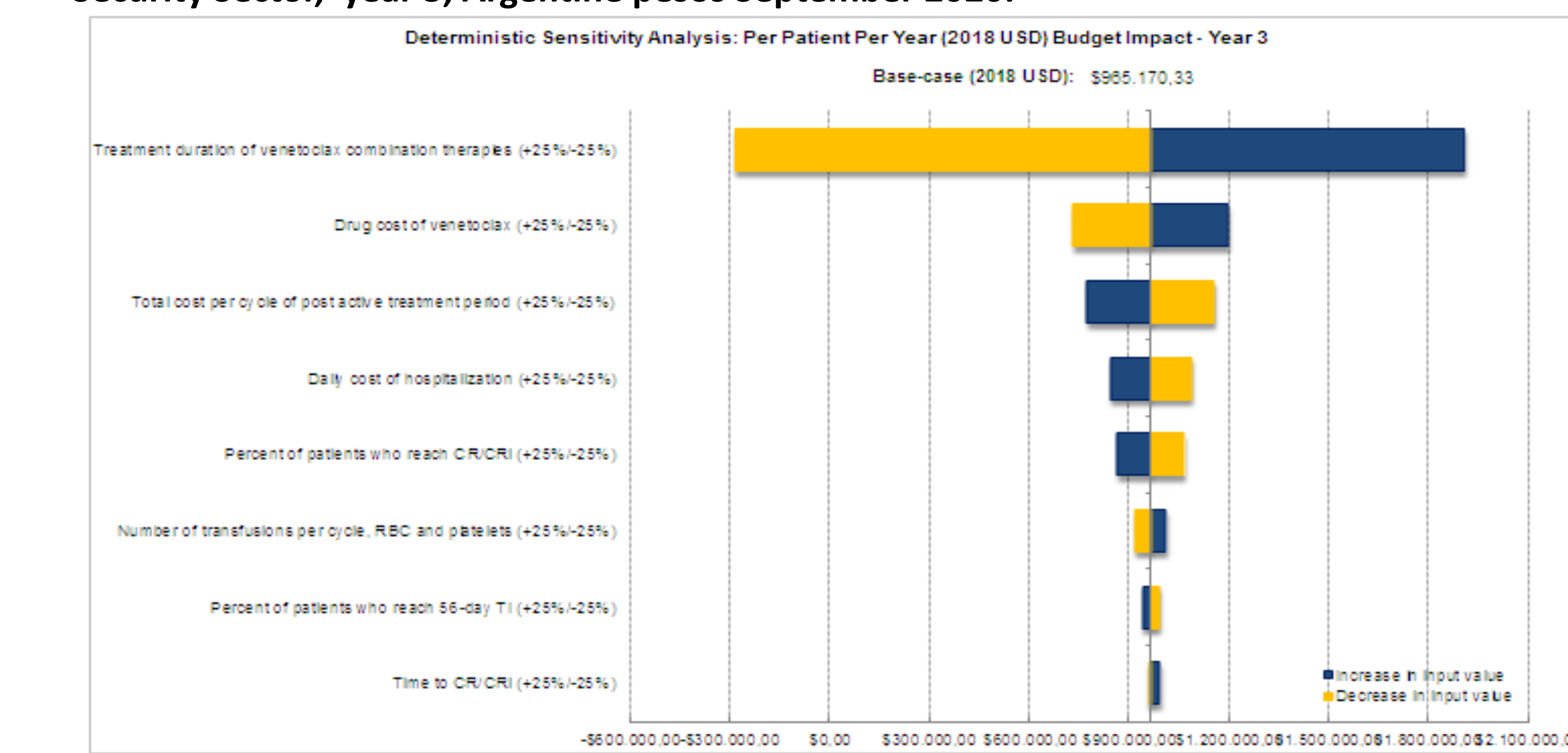
Table 3. Budget impact for social security and private sector, in Argentine pesos, September 2020

| | Year 1 | Year 2 | Year 3 |
|------------------------------------|----------------|---------------|------------------|
| Social Security perspective | | | |
| Total budget impact | -\$ 34,439,317 | \$ 90,079,427 | \$ 124,159,562 |
| Budget impact, in % | -2.31 % | 6.03 % | 8.32 % |
| PPPY Budget impact | -\$ 267,719 | \$ 700,244 | \$ 965,171 |
| PMPM Budget impact | -\$ 2.87 | \$ 7.51 | \$ 10.35 |
| Private Sector perspective | | | |
| Total budget impact | -\$ 56,435,220 | \$ 54,878,321 | \$ 85,396,065.23 |
| Budget impact, in % | -3.07 % | 2.98 % | 4.64 % |
| PPPY Budget impact | -\$ 438,707 | \$ 426,604 | \$ 663,838 |
| PMPM Budget impact | -\$ 4.70 | \$ 4.57 | \$ 7.12 |

Note: PMPM: per member per month; PPPY: per patient per year

- On average, the budget impact share in the total budget was estimated in 4.01% for a social security payer and 1.52% for a private sector payer.
- Savings were reported in the detailed budget impact analysis, driven mainly by hospitalizations and blood transfusion costs. In the first year, a saving in acquisition costs was also estimated.
- Drug acquisition cost and hospitalizations costs represented nearly 60% and 22% of the total impact budget, respectively. These results are valid for both sectors.
- The duration of the treatment with venetoclax is the most influential parameter in the budget impact in social security (Figure 1). The same result in DSA is obtained for the private sector.

Figure 1. Deterministic sensitivity analysis (DSA). Budget impact per patient per year. Social Security Sector, year 3, Argentine pesos September 2020.



DISCLOSURE

- Agregar Abbvie

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Federico Augustovski, Ariel Bardach, Natalia Espinola, Andrés Pichon Riviere, Alfredo Palacios, Juan Martín Gonzalez, and Carlos Rojas-Roque declare that they have no conflict of interest

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