

Cost-minimization analysis of octocog alfa versus emicizumab prophylaxis in patients with hemophilia A without inhibitors in Central America, Ecuador and Perú

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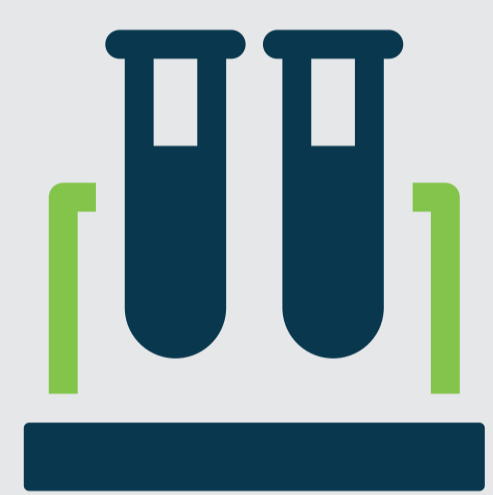
Introduction

- ✓ Hemophilia A is a rare, usually congenital, condition associated with a deficiency or reduced production of clotting factor VIII (1). To prevent bleeding, patients are continuously administering medications that prevent episodes of acute bleeding in the joints and the progression to serious physical disability that affects their quality of life (2). Selecting a treatment that offers the best cost-benefit ratio will allow more patients to benefit from prophylactic therapy.
- ✓ This will provide policymakers with the necessary information to define public policies related to the procurement of medications for this clinical condition (3).
- ✓ This study will minimize the costs of prophylaxis with an extended half-life FVIII compared to one of the non-replacement therapies available on the market to emphasize the need for health systems to advocate for treatments that guarantee optimal clinical outcomes while ensuring the sustainability of the system and the inclusion of all non-inhibitor patients eligible for universal prophylaxis (4).

Objectives

To estimate annual treatment acquisition costs and conduct a cost minimization comparison of drug consumption between octocog alfa (Brand Kovaltry®) and emicizumab for prophylaxis in patients with hemophilia A without inhibitors in El Salvador, Panamá, Peru, Ecuador and Guatemala

Methods



- ✓ A cost minimization analysis was conducted from a payer perspective over one year, comparing dosing of octocog alfa versus emicizumab for Year 1 and Year 2, separately
- ✓ All prices were taken from the public database of prices reported in public SERCOP Ecuador, SEACE Peru, Costaricense Social Security Report Costa Rica and Guatecompras Guatemala. For Panama and El Salvador, the price reference is taken from Costa Rica due to the similarity in purchasing methods and international referencing

Population



- ✓ The target population consists of patients with hemophilia A without inhibitors
- ✓ Number of patients for severe hemophilia A without inhibitors were sourced from prevalence reported in World Federation of Hemophilia (WFH) report and the High-Cost Account Hemophilia 2024 Report for Colombia was using for stratified by age
- ✓ Mean body weights were obtained from nutrition surveys for each country, and dosing inputs were derived from the pooled analysis of LEOPOLD 1, 2 and extension studies for octocog alfa and HAVEN 3 study for emicizumab

Comparisons & Model

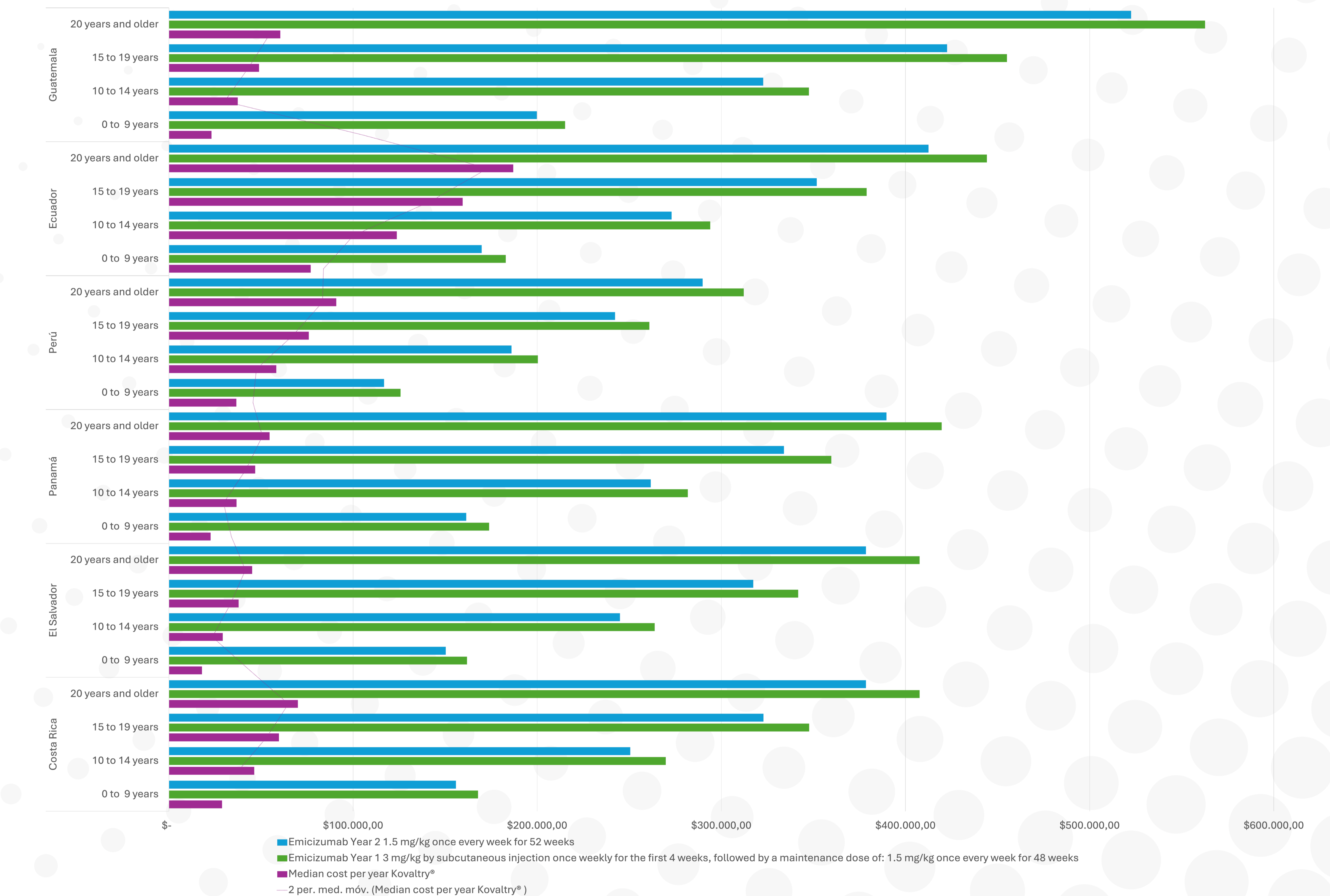


- ✓ Compare the annual costs year 1 & year 2 of prophylactic treatment with octocog alfa (Brand Kovaltry®) versus emicizumab in patients with hemophilia A without inhibitors.
- ✓ Octocog alfa (Prophylaxis): The model incorporates schemes with different frequencies and doses (UI/kg), with a distribution of patients derived from the clinical trial scheme
 - Twice a week: 33,6 UI/kg; 40%
 - Three times a week: 30,9 UI/kg; 60%
- ✓ Emicizumab (Prophylaxis), taking account the dosage: 3 mg/kg by subcutaneous injection once weekly for the first 4 weeks, followed by a maintenance dose of: 1.5 mg/kg once every week, or 3 mg/kg once every two weeks, or 6 mg/kg once every four weeks. The model incorporates schemes from the clinical trial:
 - Loading dose: 3 mg/kg by subcutaneous injection once weekly for the first 4 weeks (Year 1)
 - Maintenance dose: 1.5 mg/kg once every week for 48 weeks (Year 1)
 - Year 2: 1.5 mg/kg once every week for 52 weeks

Results

The analysis provides a comparison of annual drug acquisition costs (USD) per patient and at the population level for octocog alfa versus emicizumab. Sensitivity and scenario analyses address uncertainties related to key inputs, such as patient weight and factor VIII or emicizumab consumption. The results show that octocog alfa leads to savings of 70% to 89% in Year 1 compared to emicizumab for all countries except Ecuador that shows savings around 57%. In Year 2, savings range from 68% to 88% in all countries except Ecuador that shows savings around 53%.

Figure 1. Cost patient per year Minimization Analysis Year 1 Octocog alfa versus Emicizumab and Year 2 Octocog alfa versus Emicizumab



The average cost for octocog alfa (Kovaltry®) was estimated based on mean factor VIII consumption stratified by prophylaxis regimen in patients with hemophilia A, as reported in clinical trials and real-world studies. The analysis considered dosing schedules of two or three infusions per week and was adjusted for the mean body weight within each age group, as well as the proportional distribution of these weight categories across the national population. These costs were subsequently compared with the corresponding average costs of emicizumab accounting for its loading and maintenance dosing phases.

Conclusions

The cost minimization analysis indicates that octocog alfa is a cost-saving alternative, offering over 65% annual cost savings compared to emicizumab in El Salvador, Panamá, Peru and Guatemala and. In the case of Ecuador, offering over 50% annual cost savings compared to emicizumab

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