Cost Savings and the Opportunity for Expanded Treatment Access with Increased Use of Biosimilar Adalimumab in the United States

EE375

Kunal Shastri, MSc[1]; Kerise Clarke, MSc[2]; Margaret Ainslie-Garcia, MSc[2]; Nicole Ferko, PhD[2] • [1]Morris Plains, NJ, USA; [2]Burlington, ON, Canada

Background

- Biologics have provided substantial clinical benefit for numerous chronic autoimmune and inflammatory diseases, but their high cost can contribute to economic burden.
- Biosimilars can provide considerable cost-savings compared to the reference product biologic, savings can be redirected to other areas of healthcare or used to treat **additional** patients for the same budget impact.
- Biosimilar adalimumab (ADA) therapies launched in the United States (US) in January 2023; however, uptake has been lower than many other countries[1-2].
- *Ex-ante* analyses are simulation models that can be used to estimate the potential savings and/or expanded patient access (under budget neutrality) from biosimilars[3-4].

Objective

To assess the budget impact and access implications of increased use of ADA biosimilars in a hypothetical plan covering 1-million members for the US population through:

- Direct budget savings
- Savings per member per plan (PMPM)
- Number of additional patients treated

Methods

- ***Ex-ante*** analyses were conducted using US-specific data (Table 1) with **three** biosimilar scenarios tested:
  - **Scenario 1:** 5% (current ADA biosimilar use in the US)
  - **Scenario 2:** 50% (3-year historical adoption rate)
  - **Scenario 3: 100%** (total conversion)

Table 1: US-specific inputs to inform *ex-ante* analysis

Input	Value
Wholesale acquisition cost for ADA reference product (RP)	$3,154.41 per dose[5]
Wholesale acquisition cost for biosimilar reference product	$515.35 per dose[5]
Proportion of population using ADA	0.0932%
Confidential rebates for RP†	80%
Confidential rebates for biosimilar†	20%

Results

Figure 1: Direct annual savings associated with the use of adalimumab biosimilars for a plan covering 1-million lives

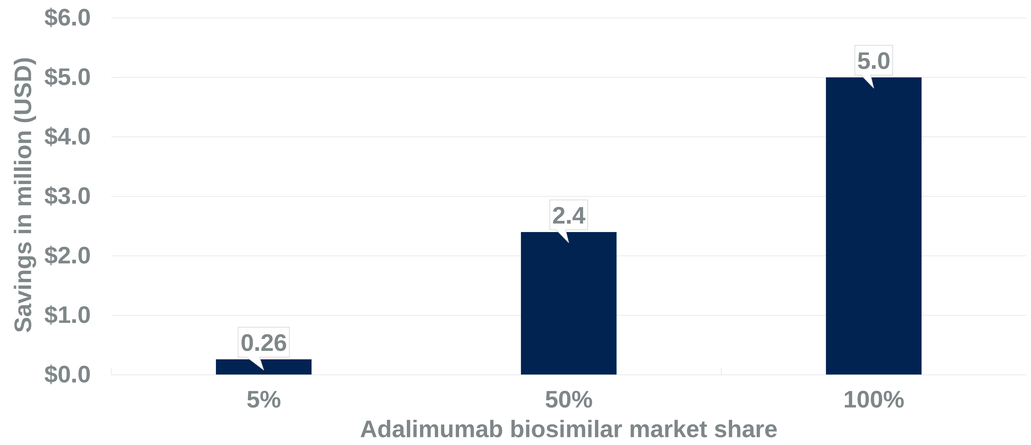
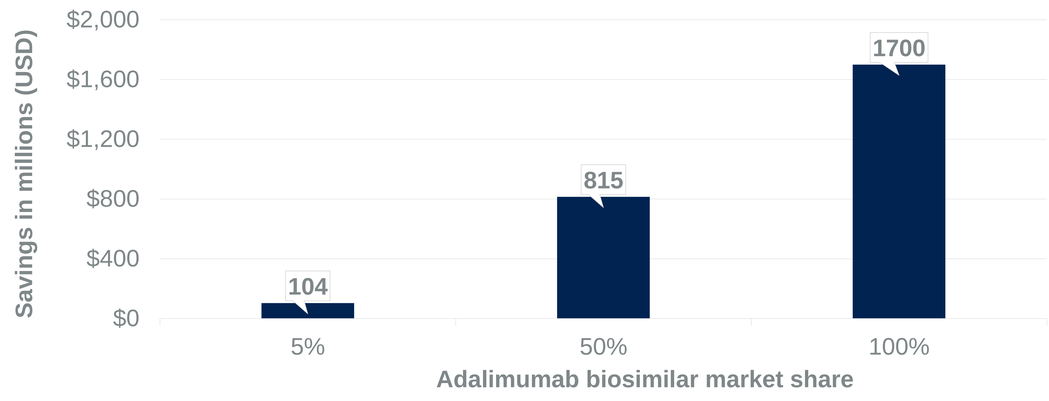


Figure 2: Direct savings associated with the use of ADA in the US population*



In scenario 1, 2, and 3 the savings PMPM were $**0.02, $0.20,** and **$0.42**, respectively.

Assuming 1-million patients covered, the number of additional patients treated that could be achieved from using ADA biosimilars was **222** patients at 50% market share and **469** patients with total conversion to ADA biosimilars per year.

When expanding to the US population, the number of additional patients that could be treated with these redirected savings was **9,678** (5% share)**, 76,058** (50% share), and **159,063** (100% share).

Discussion

This study demonstrates that cost-efficiencies can be realized through increased adalimumab biosimilar adoption, even if deep RP rebating is present. As healthcare budgets continue to face downwards pressure, strategies and policies to increase biosimilar uptake could help effectively manage budget constraints.

Footnotes

* Assuming the population of the USA is 336 million lives. † An assumption in the model.

Abbreviations

ADA = adalimumab; PMPM = per member per plan; RP = reference product; US = United States.

References

1. Lee CC, Najafzadeh M, Kesselheim AS, Sarpatwari A (2021) Cost to medicare of delayed adalimumab biosimilar availability. Clinical Pharmacology & Therapeutics 110 (4): 1050-1056 **2.** Pine, L. (December 18, 2023). Breaking Down Barriers: Why Biosimilars Face Resistance in the US Market. Retrieved from https://www.hcplive.com/view/breaking-down-barriers-why-biosimilars-face-resistance-us-market **3.** McBride A, Wang W, Campbell K, Balu S, MacDonald K et al. (2020) Economic modeling for the US of the cost-efficiency and associated expanded treatment access of conversion to biosimilar pegfilgrastim-bmez from reference pegfilgrastim. *Journal of Medical Economics 23 (8): 856-863.* **4.** MacDonald K, McBride A, Alrawashdh N, Abraham I (2020) Cost-efficiency and expanded access of prophylaxis for chemotherapy-induced (febrile) neutropenia: economic simulation analysis for the US of conversion from reference pegfilgrastim to biosimilar pegfilgrastim-cbqv. *Journal of Medical Economics 23 (12): 1466-1476.* **5.** NAVLIN by EVERSANA database.

Presented at ISPOR 2024
Atlanta, Georgia
May 5th to 8th, 2024

FRESENIUS KABI BIOPHARMA