Economic burden in patients with hemophilia with inhibitors: Results from a real-world cohort study in the United States

Poster
EE545

https://sciencehub.novonordisk.com/ispor-us2023/Shah.html?cid=qr-5250909180

Sanket Shah*[1]; John Waller[2]; Elizabeth Ibiloye[1]; Jennifer R Dusendang[3]; Krisha Patel[3]

*Presenting author

[1]Novo Nordisk Inc., Plainsboro, USA; [2]Novo Nordisk Health Care AG, Zurich, Switzerland; [3]PicnicHealth, San Francisco, USA

Aim

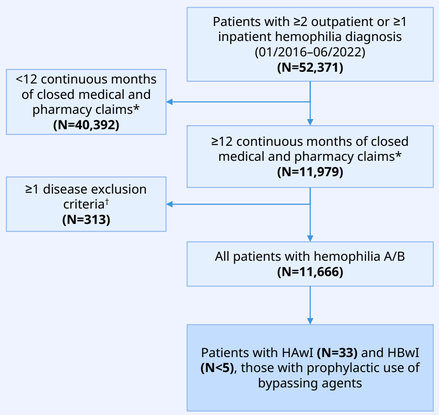
- Assess the economic burden in US patients with hemophilia with inhibitors using retrospectively-captured claims data.

Introduction

- Approximately 13.0% and 2.6% of US patients with hemophilia A and B respectively are estimated to have inhibitors (HAwI/HBwI) [1], a subtype of hemophilia with significant treatment and disease burden.
- Patients with hemophilia with inhibitors have limited treatment options and have historically relied on the prophylactic or on-demand use of bypassing agents [2].
- Presented here are patient-level medical and prescription claims data from a descriptive, non-interventional, retrospective study of US patients with hemophilia A/B with a focus on patients with inhibitors (HAwI/HBwI) on prophylactic and on-demand treatment.

Methods

Figure 1. Patients included in analysis



Patients were identified from Komodo Health's Healthcare Map of de-identified, patient-level medical and prescription claims data during the study period (1 January 2016–30 June 2022). *Medical claims include outpatient, inpatient, and emergency room costs; and pharmacy costs include prophylactic and on-demand treatment costs. †Other bleeding disorder, HIV, and/or hepatitis B or C.

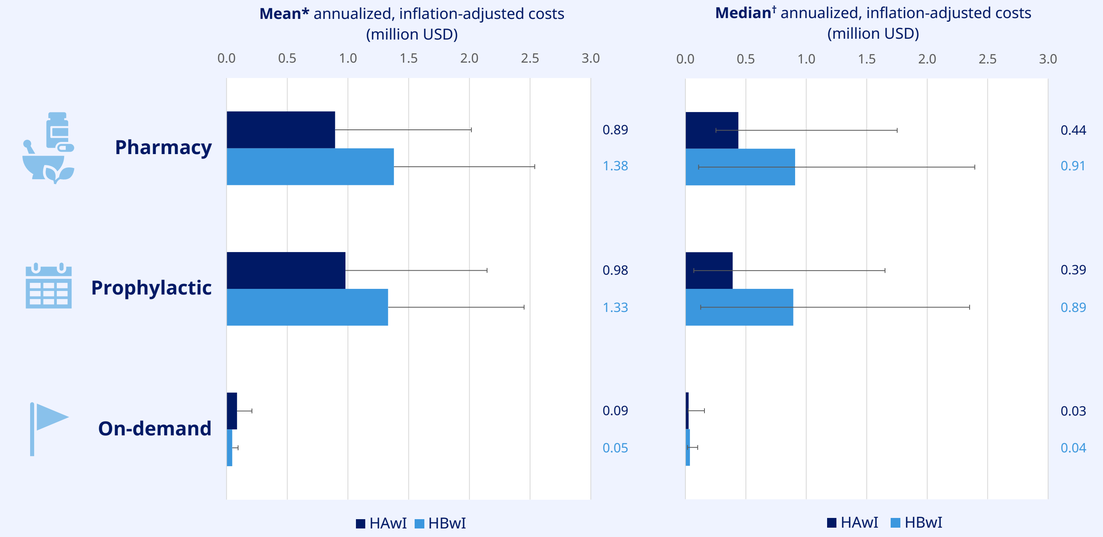
Hemophilia-related costs

- Interim analyses of hemophilia-related costs among patients with HAwI/HBwI were performed. Numbers of patients included in the analysis are presented in Figure 1.
- Pharmacy claims were considered prophylactic if they involved 6 consecutive claims for the same medication after accounting for days supply prescribed and allowing for gaps of <60 days.
- Any costs that did not fit the definition of prophylaxis (at least 6 consecutive claims) were included in on-demand treatment costs.
- Costs data were presented using both median and mean values, as cost data are typically highly skewed.
- Mean and median costs are calculated among patients with at least one occurrence of that cost.

Results

- 33 HAwI patients and <5 HBwI patients were identified, with an average age of 32 years (standard deviation: 20; median: 29, IQR: 16–48).
- Costs of treatment are presented in Figure 2.
- Average, inflation-adjusted, annual pharmacy costs per patient were $893,704 [median: $438,527] and $1,378,131 [$906,982] for HAwI and HBwI, respectively.
- Annual costs averaged $979,564 [median: $391,247] and $1,330,847 [$892,868] for prophylactic treatment, and $86,001 [$27,203] and $47,284 [$37,482] for on-demand treatment per patient with HAwI and HBwI, respectively.

Figure 2: Mean and median costs of treatment in US patients with hemophilia with inhibitors (USD)



*Error bars represent standard deviation, †Error bars represent interquartile range

HAwI, Hemophilia A with inhibitors; HBwI, Hemophilia B with inhibitors; USD, United States Dollar.

All costs are inflation-adjusted to July 2021 (using the multipliers which are calculated by the US Bureau of Labor Statistics [3]) and reported as cost per person, per year among patients with at least one claim of that type during the study period.

Conclusions

- Patients with hemophilia with inhibitors contribute significant economic burden to healthcare systems as a result of their treatment. However, current findings are limited by the comparatively small number of patients with hemophilia B with inhibitors.
- There is a need for more cost-saving, efficacious treatment options for patients with hemophilia with inhibitors.

Acknowledgments and disclosures:

This observational study was sponsored by Novo Nordisk Health Care AG. The authors acknowledge the medical writing assistance of Ashfield MedComms GmbH (Mannheim, Germany), an Inizio company, and funding by Novo Nordisk. Sanket Shah and Elizabeth Ibiloye are employees of Novo Nordisk Inc., John Waller is an employee of Novo Nordisk Health Care AG, Jennifer R Dusendang and Krisha Patel are employees of PicnicHealth and hold stock options in PicnicHealth.

 Presented at the ISPOR 2023 Conference, May 7–10, Boston, USA.

References:

[1] Puetz J, Soucie JM, Kempton CL, Monahan PE; Hemophilia Treatment Center Network (HTCN) Investigators. Prevalent inhibitors in haemophilia B subjects enrolled in the Universal Data Collection database. Haemophilia. 2014;20(1):25-31

[2] Meeks, SL, Batsuli, G; Hemophilia and inhibitors: current treatment options and potential new therapeutic approaches. Hematology. American Society of Hematology. Education Program, 2016(1), 657–662 **[3]** Consumer Price Index Inflation Calculator. United States Bureau of Labor Statistics https://www.bls.gov/data/inflation_calculator.htm (last accessed: March 2023)