Southern Illinois University Edwardsville School of Pharmacy

Assessing Potential Cost Savings in Utilization of Biosimilars vs the Originator Products

Hadizat Olagunju, PharmD Candidate, Heather Sundar PharmD
Southern Illinois University Edwardsville School of Pharmacy

BACKGROUND

- Biologic drugs play an important role in the treatment of various advanced health-care conditions such as cancer, rheumatoid arthritis and psoriasis; and like all drugs, they are regulated and approved by the United States Food and Drug Administration.[1]
- Biosimilars are also FDA approved drugs that were developed to be highly similar to biologics at lower costs.
- The cost of biologics is a factor that contributes to rising health-care plan cost, which is a big concern for most insurance payors and patients.
- The Congressional Budget Office (CBO) has estimated that the use of biosimilars could generate savings of about $25 billion over 10 years, roughly 0.5 percent of national spending on prescription drugs.[2,3]

OBJECTIVES

- The purpose of this study is to determine an estimated cost savings on specialty drugs, with increased use of biosimilars over originator products.
  - Savings are calculated based on current claims data spends and Average Wholesaler Price (AWP).

METHODS

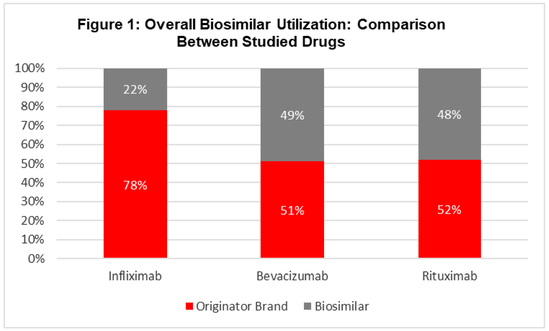
- Based on payors' claims data and drug usage, this study focused on analysis of three originator products with their corresponding biosimilars:

Biologics	Biosimilars
Remicade (Infliximab)	Inflectra
	Avsola
	Renflexis
Avastin (Bevacizumab)	Mvasi
	Zirabev
	Alysmys
Rituxan (Rituximab)	Riabni
	Ruxience
	Truxima

- Data was retrieved from a database of de-identified claims data, and information provided includes the spending and utilization of originator products and biosimilars from their medical health plan benefit between August 2020 – July 2022.
- Savings were calculated by comparing price differences between a biosimilar and it's originator product to get an estimated savings percentage off the originator product, and applying these percentages to current claims spending on the originator product. We estimated cost savings under two scenarios: 100% and 25% adoption of biosimilars.

RESULTS

Figure 1: Overall Biosimilar Utilization: Comparison Between Studied Drugs



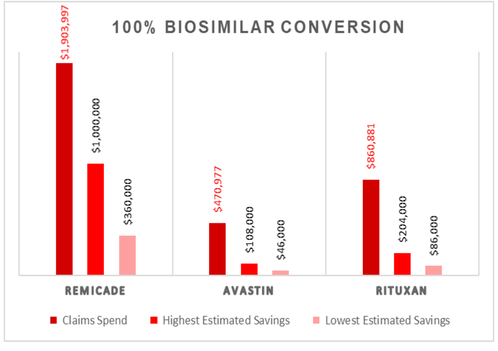
The utilization of biosimilars varies considerably by drug and claims data information but all three studied products showed lower utilization of biosimilars among all payors who participated in this study. Overall 22% of all Infliximab claims, 49% of all Bevacizumab claims and 48% of all Rituximab claims are biosimilar products.

Figure 2: Calculated Savings On Originator Product Between August 2020 – July 2022

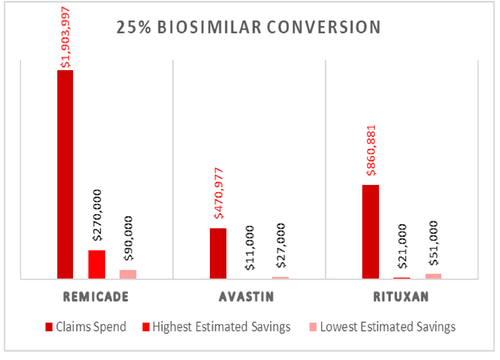
Originator Product	Amount Spend on Claims	Estimated Savings Range off Originator Product (%)	Savings Range through use of 100% Biosimilar Conversion	Savings Range through use of 25% Biosimilar Conversion
Remicade	$1,903,997	19% - 57%	$360,000 - $1,000,00	$90,000-$270,000
Avastin	$470,977	10% - 23%	$46,000 - $108,000	$11,000 -$27,000
Rituxan	$860,881	10% - 24%	$86,000 - $204,000	$21,000 -$51,000

This estimated saving range did not take into account payor-specific rebates and discount prices of individual drug product

Figure 3: Claims Spend and Estimated Savings Based on AWP Model



At 100% biosimilar conversion, the participating payors would have saved $360,000 - $1,000,000 on Remicade, $46,000 - $108,000 on Avastin and $86,000 - $204,000 on Rituxan from the total claims spend



At 25% biosimilar conversion, savings at current claims spend would range from $90,000 - $270,000 on Remicade, $11,000 - $27,000 on Avastin and $21,000 - $51,000 on Rituxan.

DISCUSSION

- Approximately $1,000,000 in savings could have been realized through extensive usage of biosimilar drugs for infliximab, bevacizumab and rituximab as opposed to originator products.
- Potential cost saving to payors were estimated at an average of $680,000 for infliximab, $77,000 for bevacizumab and $145,000 for rituximab, if all the current originator product's utilization had been replaced by the biosimilar at 100% substitution rate. At a 25% substitution rate, payors could have saved an average of $226,000 dollars as well if biosimilar use is increased.

LIMITATIONS

- Not all available biosimilar products for the studied originator products were as included in this study.
- Lack of information on payor-specific rebates and discount prices may have influenced the savings calculation.

CONCLUSION

- The results of this study showed that significant cost savings can be realized through increased use of the biosimilars.
- To generate savings and promote price competition, it is important that payors consider their options and utilize the full savings potential offered by each product.
- There are several biosimilars in the pipeline to help improve drug utilization and reduce cost of medications.

ACKNOWLEDGEMENT

Special thanks to all the participating payors for providing the data utilized in this study. Thanks to all my mentors and the SIUE School of Pharmacy.

REFERENCES

1. How do drugs and biologics differ? BIO. (n.d.). Retrieved January 27, 2023, from https://archive.bio.org/articles/how-do-drugs-and-biologics-differ.
2. How many Americans get health insurance from their employer? | ehealth. (n.d.). Retrieved January 26, 2023, from https://www.ehealthinsurance.com/resources/small-business/how-many-americans-get-health-insurance-from-their-employer.
3. Congressional Budget Office. Cost savings from follow-on biologics. https://www.cbo.gov/sites/default/files/110th-congress-2007-2008/costestimate/s16950.pdf.