Potential Savings from Interchangeable Biosimilars in the Pharmacy Benefit

By Alex Brill and Christy Robinson

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MATRIX GLOBAL ADVISORS

INTRODUCTION

Biosimilars have begun to enter the U.S. market in the last few years thanks to a regulatory pathway established in the Affordable Care Act. Lower-cost versions of expensive, complex prescription drugs known as biologics, biosimilars approved by the Food and Drug Administration (FDA) have no clinically meaningful differences from their reference products. The legislation that established the biosimilar pathway also allows the FDA to designate a biosimilar as "interchangeable" with its reference product. Though no biosimilar has received this designation yet, we believe that interchangeable biosimilars could foster efficiency gains and other avenues for savings in the pharmacy benefit. To show how interchangeable biosimilars could generate savings, we present a stylized model of the market dynamics of specialty drugs in the pharmacy benefit and offer a hypothetical example of the savings that interchangeable biosimilars could achieve.

INTERCHANGEABLE BIOSIMILARS

To receive an interchangeable designation, a biosimilar manufacturer must conduct additional clinical testing beyond what is required for ordinary biosimilar approval, including a study of patients switching between the reference biologic and the biosimilar. If deemed interchangeable, the biosimilar would be eligible for automatic substitution with its reference product without prescriber involvement, unlike a biosimilar without an interchangeable designation. Automatic substitution is common among small-molecule drugs, where generic drugs are regularly substituted for more expensive brand counterparts.

While there are no interchangeable biosimilars in the United States yet, the designation represents a unique savings opportunity for biosimilars covered by a pharmacy benefit. As then–Acting FDA Commissioner Ned Sharpless noted in May 2019:

> For chronically used biologic medications patients get at the pharmacy, such as insulin, the ability to have a licensed interchangeable that can be substituted at the pharmacy without the intervention of the prescribing health care professional — much like how generic drugs are routinely substituted for brand name drugs — could be integral to the success of reducing drug prices for patients. (*FDA, 2019*)

Since discussions of a biosimilar pathway in the United States began, many health policy analysts have considered the savings opportunity of biosimilars generally, but we are not aware of any studies that consider the market dynamics and savings potential of interchangeable biosimilars specifically.

BIOSIMILARS IN THE PHARMACY BENEFIT

Many biologics (including biosimilars) are physician-administered, while some are self-administered. In general, physician-administered drugs are covered under an insurance plan's medical benefit, and self-administered drugs under the pharmacy benefit. When it comes to biosimilars, the interchangeability designation holds greater significance for the pharmacy benefit than it does for the medical benefit, where decisions about which drugs are stocked and used are often made for a facility or health system (*Smeeding, et al., 2019*).

In contrast, the pharmacy benefit covers prescriptions filled for patients at brick-and-mortar or mail-order pharmacies. Biologics and biosimilars covered under the pharmacy benefit are typically dispensed from mail-order specialty pharmacies. There is, therefore, more opportunity in the pharmacy benefit for the type of automatic substitution that interchangeable biosimilars would allow.

SAVINGS CHANNELS FOR INTERCHANGEABLE BIOSIMILARS

There are several channels through which an interchangeable biosimilar could yield efficiency gains and additional health care cost savings in the pharmacy benefit relative to non-interchangeable biosimilars and reference biologics.

1. Higher Biosimilar Utilization Rates

Automatic substitution would allow specialty pharmacists to dispense interchangeable biosimilars with greater speed and efficiency, and at lower cost. This would, in turn, encourage health plans to prefer interchangeable biosimilars, which would facilitate further savings. Moreover, some health plans and prescribers may consider an additional switching study as informative efficacy evidence that encourages the preferred coverage or prescribing of the interchangeable biosimilar.

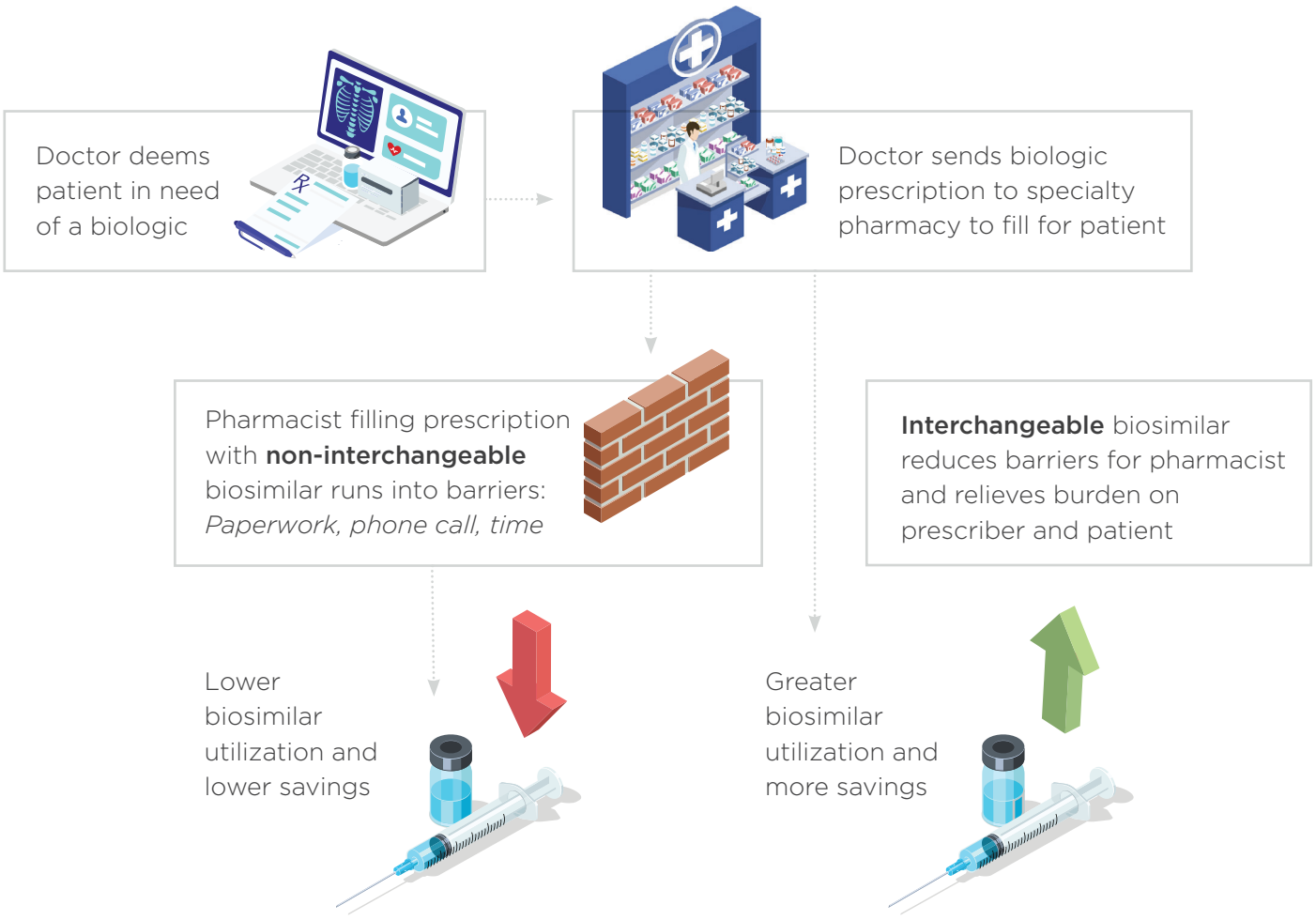
2. Increased Price Competition for Reference Biologics and Non-Interchangeable Biosimilars

In the current biosimilars market, reference biologics compete with biosimilars on price. An interchangeable biosimilar could reasonably be expected to induce additional price cuts in reference biologics. Additionally, interchangeable biosimilars, having the advantage of being more easily substituted for reference biologics, could also be expected to bring price competition to non-interchangeable biosimilars.

3. Fewer Hurdles for a Specialty Pharmacy

In the absence of interchangeable biosimilars, a specialty pharmacy must undertake several steps to substitute a biosimilar for a reference biologic, unless the biosimilar is both specifically prescribed by the physician and preferred by the health insurance plan. In general, when a prescription for a drug not preferred by an insurance plan is presented to a specialty pharmacy, a pharmacist must tell the patient that the drug is not covered, contact the prescriber to get a different prescription, and then follow the regular process for filling the new prescription. Because these pharmacist communications — typically phone calls — are time-consuming and costly, an interchangeable designation for a biosimilar would generate savings by eliminating the need for these additional steps (see **Figure 1**).

FIGURE 1: EFFICIENCY GAINS FROM INTERCHANGEABLE BIOSIMILARS



4. Fewer Burdens for Prescribers and Patients

When a specialty pharmacist has to make calls about a non-preferred drug, it creates a burden for the person on the other end of the phone — that is, for prescribers (or their staff) and patients. These burdens, which are not reimbursable, would be lifted if pharmacists were able to substitute an interchangeable biosimilar.

SAVINGS MODEL

To illustrate the interplay of these market dynamics and the potential savings from interchangeable biosimilars, we created a stylized model of the markets for Humira® (adalimumab) and Enbrel® (etanercept). These two reference biologics are widely used in the pharmacy benefit and may one day face competition from interchangeable biosimilars.

Our model is intended to both highlight the savings potential of interchangeable biosimilars and demonstrate the points at which stakeholders will play an important role in achieving maximum savings.

Our two case studies rely on plausible price discount, market share, and administrative cost assumptions. Actual realized market dynamics may differ from these assumptions, but they are intended to show the magnitude of the savings potential.

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Data and Baseline Assumptions

We use 2019 IQVIA data for U.S. Humira® and Enbrel® sales, units, and prescriptions and make no assumptions to trend the data to a future year.[1] Given that the FDA has already approved non-interchangeable biosimilars for both reference biologics (though these biosimilars have not yet launched), we assume that non-interchangeable biosimilars will be on the market before interchangeable biosimilars. In keeping with data on current non-interchangeable biosimilar markets, we assume that, before interchangeable biosimilar entry, 1) the non-interchangeable biosimilar achieves 40 percent market share and offers a 30 percent price discount compared to the reference product's original price, and 2) the reference product is discounted 20 percent to compete with the non-interchangeable biosimilar.

Market Share Assumptions

We model three scenarios depicting different market share levels for interchangeable biosimilars: 25 percent, 50 percent, and 75 percent. We assume that the market shares of the reference biologic and non-interchangeable biosimilars decline with the increase in interchangeable biosimilar market share. In Scenario A, when the interchangeable biosimilar market share is 25 percent, we assume that the non-interchangeable biosimilar market share is 30 percent and the reference product market share is 45 percent. In Scenario B, we assume market shares of 50 percent, 20 percent, and 30 percent, respectively. And in Scenario C, we assume market shares of 75 percent, 10 percent, and 15 percent, respectively. (See **Table 1**).

[1] *Prices and sales for Humira® and Enbrel® may be substantially higher by the time biosimilars can compete, as biosimilar competition is blocked until 2023 for the former, while the latter may not face competition until 2028.*

TABLE 1. MARKET SHARE AND PRICE ASSUMPTIONS BY SCENARIO

	SCENARIO A	SCENARIO B	SCENARIO C
Interchangeable biosimilar market share	25%	50%	75%
Non-interchangeable biosimilar market share	30%	20%	10%
Reference product market share	45%	30%	15%
Interchangeable biosimilar price discount*	30%	40%	50%
Non-interchangeable biosimilar price discount*	40%	50%	55%
Reference product price discount	25%	30%	35%

** We assume that the interchangeable biosimilar will induce downward price pressure on non-interchangeable biosimilars in order for the non-interchangeables to retain market share. The price difference could, in theory, be very small, but our model assumes a spread of 5–10 percentage points.*

Price Assumptions

For our price assumptions, all prices are relative to the reference biologic's average net price prior to biosimilar entry. In Scenario A, we assume that the interchangeable biosimilar has a 30 percent price discount, non-interchangeable biosimilars a 40 percent discount, and the reference biologic a 25 percent discount. In Scenario B, price discounts are 40 percent, 50 percent, and 30 percent, respectively. And in Scenario C, price discounts are 50 percent, 55 percent, and 35 percent, respectively. (See **Table 1**).

To better understand the price assumptions, consider, for example, a reference biologic without biosimilar competition with an average per-unit net price of $2,000. In Scenario A in our model, this price would drop to $1,500, while the average per-unit net price of a non-interchangeable biosimilar would be $1,200 and the average per-unit net price of an interchangeable biosimilar would be $1,400. In Scenario B, these prices would be $1,400, $1,000, and $1,200, respectively. And in Scenario C, $1,300, $900, and $1,000, respectively.

Administrative Cost Assumptions

For the administrative burden that interchangeable biosimilars would relieve, we assume, based on consultations with specialty pharmacists, that a phone call and associated administrative burden for a specialty pharmacy to switch a prescription costs $55 on average. We assume that an interchangeable biosimilar would save, on average, 1.5 phone calls per occurrence for new prescriptions but not refills.

Most states have enacted laws that require notification of the prescribing physician before substitution with an interchangeable biosimilar. We assume that the specialty pharmacy could notify a physician of the switch by fax, and we further assume that a fax would cost $5 on average.

In our model, the prescriptions that would require a fax but not require a call are the new prescriptions that would have been filled with a non-interchangeable biosimilar that are instead filled with an interchangeable biosimilar. In Scenario A, we estimate this to be 10 percent of prescriptions; in Scenario B, 20 percent; and in Scenario C, 30 percent.

TABLE 2. ESTIMATED SAVINGS FROM INTERCHANGEABLE BIOSIMILARS FOR ENBREL® AND HUMIRA®

	ENBREL® SAVINGS			HUMIRA® SAVINGS		
	Attributable to interchangeable biosimilars	Attributable to reduced admin burden	Savings as % of 2019 Enbrel® spending	Attributable to interchangeable biosimilars	Attributable to reduced admin burden	Savings as % of 2019 Humira® spending
Scenario A	$543.8 M	$3.3 M	7%	$1,505.4 M	$7.9 M	7%
Scenario B	$1,208.5 M	$6.5 M	15%	$3,345.4 M	$15.8 M	15%
Scenario C	$1,953.7 M	$9.8 M	24%	$5,408.4 M	$23.7 M	24%

Results

By our estimation, interchangeable biosimilars for Enbrel® could generate annual savings ranging from roughly $547 million to $2 billion, while annual savings from interchangeable biosimilars for Humira® could range from $1.5 billion to $5.4 billion (see **Table 2**).

It is important to note that these results represent additional savings beyond what non-interchangeable biosimilars would generate in these markets. Our estimated savings from an interchangeable biosimilar include both direct savings from the interchangeable biosimilar and indirect savings from the price discounts induced by the interchangeable biosimilar for the reference biologic and non-interchangeable biosimilars. As our analysis demonstrates, savings rise with increased market share for interchangeable biosimilars. This indicates that stakeholders interested in maximizing cost savings opportunities — from employers to health plans to specialty pharmacies to the FDA — should work to facilitate the utilization of interchangeable biosimilars if and when they are approved in the US market.

Limitations

There is a great deal of uncertainty about how the biosimilars market will unfold in the pharmacy benefit if an interchangeable biosimilar were to be approved. Our model is intended not to predict precise expected savings, but to foster discussion of the potential of interchangeable biosimilars in the pharmacy benefit by identifying market dynamics that can be expected. These dynamics may be different for different products and may evolve over time. Nevertheless, this framework offers a starting point for further modeling as new information becomes available.

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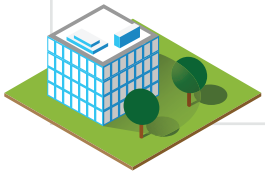
HOW STAKEHOLDERS CAN MAXIMIZE SAVINGS OPPORTUNITY OF INTERCHANGEABLE BIOSIMILARS

Regulators

Foster and promote biosimilar education

Specialty Pharmacies

Engage with health plans to encourage plan designs that promote interchangeable biosimilars



Manufacturers

Set competitive prices

Payors

Select plans that prefer interchangeable biosimilars first — focus on long-run savings potential from higher biosimilar utilization rates and efficiency gains

Physicians

Gain greater understanding of biosimilars and help educate patients

Conclusion

This paper demonstrates that, while the exact level of savings arising from biosimilar interchangeability is uncertain, the potential for savings is significant. An interchangeable biosimilar would circumvent hurdles at specialty pharmacies because it could be automatically substituted for the reference biologic, and this would facilitate savings even if the interchangeable biosimilar is priced higher than the non-interchangeable biosimilar. As with non-interchangeable biosimilars, steps by multiple stakeholders will be required to maximize savings from interchangeable biosimilars.[2] We estimate that combined annual savings from interchangeable biosimilars for Enbrel® and Humira® could range from $2.1 billion to $7.4 billion, depending on the emphasis that health plans, manufacturers, and other stakeholders put on pushing substitution rates higher and prices lower.

[2] *See Alex Brill and Christy Robinson, "Steps to Reducing Barriers to Biosimilars in the United States," September 2018, available at www.getmga.com/wp-content/uploads/2018/09/BarriersToBiosimilars_September2018.pdf.*

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ABOUT THE AUTHORS

Alex Brill is the founder and CEO of Matrix Global Advisors (MGA). He previously served on the staff of the House Ways and Means Committee and the White House Council of Economic Advisers. He is also a resident fellow at the American Enterprise Institute.

Christy Robinson is a principal at MGA.

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MGA is an economic policy consulting firm in Washington, DC. Founded by Alex Brill in 2007, MGA specializes in fiscal, health care, and tax policy matters. Drawing on years of policy experience, the MGA team uses analytics to help identify, quantify, and solve economic policy problems.

MATRIX GLOBAL ADVISORS

1350 Connecticut Avenue, NW Suite 610 Washington, DC 20036 | info@GetMGA.com www.GetMGA.com