

Improving Understanding and Acceptance of Biosimilars in the United States

White Paper, November 2021

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1 Executive summary

Biologic medicines are among the most innovative drugs to treat many difficult conditions, including cancer and autoimmune diseases. But they are also among the most expensive medicines, accounting for approximately 43% of the total pharmaceutical spending in the United States.¹

In 2010, an abbreviated regulatory approval pathway was created for a class of biologic medicines called “biosimilars.” The approval pathway created under the Biologics Price Competition and Innovation Act of 2009 (BPCI Act)² aims to provide greater access to biologic medicines by providing additional treatment options that would stimulate market competition and potentially lower the overall cost of healthcare in the United States.



What are biosimilars?

They are biologic products that are highly similar to, and have no clinically meaningful differences from, the existing U.S. Food and Drug Administration (FDA)-approved biologic medicines that they seek to replicate.³ An FDA-approved biosimilar has no clinically meaningful differences from the already-approved reference product in terms of safety, purity and potency.⁴

As patent and market exclusivity of branded biologic medicines began to expire, first-generation biosimilars entered the market and there was anticipation around biosimilars’ potential to become a viable solution to drive down costs and expand patient access to biologic medicines.

However, a number of barriers have stymied broader adoption of biosimilars in the United States:

- Many physicians still lack confidence in biosimilars
- Healthcare organizations face institutional challenges, such as Pharmacy & Therapeutics (P&T) committee choices, reimbursement issues, and logistical considerations, which complicate the conversion process
- Physicians and patients feel that they do not benefit enough from cost savings generated by biosimilars
- Not enough understanding and awareness of biosimilars by patients.



Samsung Bioepis is committed to securing the promise of biosimilars and helping as many patients access these important medicines as possible. The company, with support from Organon, recently held three virtual panel sessions with experts from across key stakeholder groups, including doctors, nurses, pharmacists, policy experts, and patient advocates.⁵ Participants sought and shared insights into the issues that are slowing adoption of biosimilars in the United States, and explored opportunities to overcome these barriers so that patients have appropriate access to the treatment options they need. The panel discussions were guided by a series of questions:

- How should the biopharmaceutical industry position biosimilars among stakeholders?
- What can be done to generate more confidence in biosimilars among patients, providers, and health systems that are resistant to switching?
- What are the lessons learned from best practices that resulted in greater acceptance and use of biosimilars?

This white paper – informed by insights gained from the three multidisciplinary panels – explores potential strategies to increase the availability of biosimilars and expand their use in the United States, from educational, clinical, financial, and operational perspectives: the need for deeper understanding about the rigorous biosimilar development, review, and approval processes and standards; the significance of real-world evidence in demonstrating the value of biosimilars; aligning incentives for key stakeholders within the value chain; and new strategies to overcome operational barriers that healthcare institutions face when converting to biosimilars.



Barrier: HCP clinical preferences

Biosimilars are rigorously evaluated by the FDA before regulatory approval is granted to ensure that they produce the comparable clinical result (efficacy, safety and immunogenicity) as reference products. The agency also ensures that the biosimilar manufacturing process follows rigorous standards to ensure consistency of the biologic product from lot to lot.

In general, HCPs' understanding and perception of biosimilars has improved over the years but the level of acceptance still varies across different specialties. For example, many gastroenterologists who prescribe biologics for their patients with inflammatory bowel disease are concerned about biosimilar safety, immunogenicity, and indication extrapolation.⁶ For oncologists, the experience is somewhat different, as biosimilars have found greater acceptance among this medical specialty as a lower-cost and clinically useful alternative to reference biologics that can help alleviate what one panel participant, a patient advocate, described as the "financial toxicity" of treatment costs that many cancer patients must endure.⁷

A federal policy expert shared key findings from a recently published Health & Human Services/FDA survey on physician understanding and willingness to prescribe biosimilars.⁸ In this survey with more than 500 U.S. specialty physicians, prescriber choice was driven primarily by formulary status; however, respondents identified a variety of factors that would influence their willingness to prescribe a biosimilar.

HHS/FDA survey results

More than half of respondents say the main factors that influence HCPs' biosimilar prescribing habits include:

- ▶ Formulary status
- ▶ Financial savings to the patient
- ▶ Pharmacovigilance
- ▶ Real-world data

Fewer than half of prescribers had a baseline understanding of key elements of biosimilarity, even among respondents who had previously prescribed a biosimilar. One in three physicians surveyed indicated a preference for reference products and nearly half indicated a hesitancy to try biosimilars until the drugs had been on the market for an extended period of time.

While this survey is one of many studies conducted with physicians and does not represent the whole picture of physicians' attitudes toward biosimilars, it indicates the following:

- 1) Prescribers across all specialties can benefit from more education to address any underlying misconceptions and knowledge gaps about the FDA's robust evaluation, review, and approval standards for biosimilars
- 2) Physicians feel the need to see more scientific data, clinical or real-world, for extrapolated indications.

Panelists stressed that manufacturers should strive to provide more real-world data demonstrating the safety and efficacy of their biosimilar compared to the reference drug, as such comparisons are important to prescribers. A gastroenterologist participating on the panel who has published on the merits of biosimilars in treating inflammatory conditions shared that many physicians are too busy to study in-depth clinical trial data and would prefer to receive easily digestible educational materials demonstrating a biosimilar's safety, equivalence, and cost savings.



“ Although healthcare providers understand the general premise of an abbreviated pathway for biosimilars, it feels different when they’re trying to make a prescribing decision, particularly when the comparative analytical data do not seem real to them because they do not fully understand the regulatory pathway. ”

– FEDERAL POLICY EXPERT

The panelists recommended several communications strategies to increase understanding and awareness of biosimilars. These include disseminating real-world safety, efficacy, and immunogenicity data on biosimilars to stakeholders, including examples from Europe, where there is significantly more robust adoption of biosimilars compared to the United States; being transparent about biosimilar pricing and cost-savings; leveraging positive data on clinical outcomes after biosimilar switching; and integrating biosimilars into curricula at medical, pharmacy, and nursing schools and through continuing education.

3 Barrier: Incentive issues



While many agree that biosimilars bring cost savings to the overall healthcare system, one of the topics often discussed is whether physicians and patients benefit enough from these savings. Panelists agreed that there is no “one-size-fits-all” solution and that as biosimilar manufacturers seek market entry or market expansion, both financial and non-financial factors should be considered as part of the whole package that must be customized to fit the needs of different types of stakeholders.

Case study

Successful biosimilar adoption at Cleveland Clinic through HCP and patient education

The Cleveland Clinic, a non-profit medical center based in Cleveland, Ohio, has shown best-in-class conversion rates for biosimilar adoption within their health system. They have worked to implement biosimilar use mainly through tailored education, clear communication and continued reporting. To ensure a smooth adoption process, education was tailored to the different stakeholders and decision makers.

A specific example includes education for nurses, which focused on informing nurses of the ongoing patient experience. This specifically included points about lack of differences in pre-medications, concentration, infusion rates, and monitoring parameters. A primary goal of this nurse education was to enable them to reassure patients about the quality of care they would be receiving, and to answer any questions patients might have. This effort was supplemented with brochures and other material for patient use. In effect, the nurse education served to bring nurses on board with prescribing biosimilars as well as to position them to provide patient education.

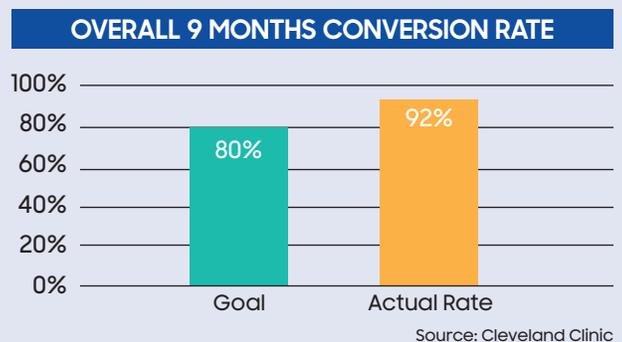
The Cleveland Clinic reached a **92% Success Rate** (2711 out of 2936 infusions) of conversions, compared to their goal of 80% conversions.⁹

The contracting practices of reference product manufacturers can raise barriers to biosimilar incentives (and uptake) in the United States. Big, diversified pharmaceutical companies can use aggressive product bundling incentives, off-invoice discounts, and rebates to incentivize payors to give reference biologics favorable formulary status. Since each health system operates based on a different business model, health systems would need to evaluate the level of financial gain from using biosimilars versus reference products. Larger health systems that serve a large population of patients, such as Integrated Delivery Networks (IDNs), may have considerable leverage to gain concessions from manufacturers and approach biosimilar use differently than rural or community hospitals that do not have the same purchasing power.

Accountable care organizations (ACOs) may evaluate new biosimilar entrants through the lens of a value-based care model that prioritizes patient outcomes while managing costs, whereas small, independent healthcare practices may be motivated to adopt biosimilars because of shared-savings incentives. In another variation, one panelist, a chief pharmacy officer at a hospital serving low-income and uninsured patients through the federal 340B drug pricing program, explained that her institution's financial benefit is tied to how many patients qualify for the 340B program. However, although the healthcare institution and the payor may realize cost savings from adopting biosimilars, those cost incentives may not trickle down either to the clinician or to the patient. **As biosimilar manufacturers develop their market strategy, one solution can be not only to match the rebate and discount offerings of their larger competitors, but also to consider non-pricing factors such as patient assistance programs that are designed to meet the needs of patients.**

In addition to educating stakeholders, the Cleveland Clinic focused on clear communication. They set up a hotline to answer any questions from providers and patients. They used various communication streams in advance of the transitions directed at providers and patients, including in-person discussions, emails, letters, website updates, etc. This outreach effort clearly shared the implementation timeline and how insurance coverage from various payors would be affected to address any unanswered questions.

To implement biosimilar conversion successfully, the medical center continues regular reporting of metrics to key stakeholders in an effort to identify successes and areas for improvement.



Timeline for Infliximab Biosimilar Adoption at Cleveland Clinic



Significant Amount of Time Working with Key Physicians

4 Barrier: Integrating biosimilars into health systems

While financial savings are a key factor in the adoption of biosimilars, there are several other considerations that influence payors and HCPs. These include a manufacturer's reputation for producing high-quality products and reliably supplying these products, as well as its capacity to provide supply chain security and anti-counterfeit measures to prevent diversion. Healthcare systems also need to consider whether a biosimilar's labeling, packaging and identifying national drug code (NDC) numbers can be readily integrated into the institution's electronic medical records (EMRs) or inventory management system.

The panelists agreed that successful biosimilar adoption requires a well-designed and well-executed plan to engage stakeholders, both before and after biosimilar introduction. The federal policy expert cited Kaiser Permanente as an example of a payor that has used an effective multifactorial approach to switch many of its beneficiaries to biosimilars from reference products.¹⁰ [Kaiser's approach starts with a rigorous review of available biosimilar evidence, including data from manufacturers, FDA approvals, and real-world data from countries where biosimilars have already launched. Timely access to these data is critical to garner stakeholder trust for biosimilars and can spur informed conversations between HCPs and patients about starting on or transitioning to a biosimilar.](#)

Another panel member, a director of pharmacy services at a large health system, said that provider and patient buy-in was critical to adopting an infliximab biosimilar for the treatment of IBD. By implementing a streamlined process that involved educating providers and patients ahead of time about potential switching from the infliximab reference product, health system leaders were able to overcome barriers and carry out their transition plan with the confidence and buy-in of their HCPs and patients.





Best practices for biosimilar adoption and transition

- Enable P&T committee and HCPs to make informed decisions by providing science-based, balanced data on biosimilars.
- Educational materials should be created and disseminated to patients to increase their familiarity and comfort with biosimilars and address any concerns about biosimilars, including situations where patients switch from a reference product to a biosimilar, or from one biosimilar to another biosimilar.
- Conducting educational outreach to HCPs and patients should happen well in advance of the anticipated introduction of a biosimilar, to give all stakeholders ample time to understand the issues and to get answers to their questions.
- Health systems, led by their pharmacy teams, should carefully vet manufacturers and contract with those that meet the highest manufacturing standards and can optimize supply chain management.

5 Conclusion

Education and collaboration are key drivers of biosimilar adoption

The consensus from the expert panel series is that biosimilars approved by the FDA are safe and efficacious and can play an important role in value-based healthcare. The FDA has published a wealth of information describing its approach to ensuring the safety and efficacy of biosimilars relative to their reference biologic.

While formulary status is a key driver for biosimilar use, there remain considerable information gaps among HCPs and with patients and their caregivers that are fueling misperceptions and concerns about biosimilar safety and efficacy.

Additionally, aggressive contracting practices between large, diversified reference drug manufacturers and payors, distributors and large healthcare systems may create further barriers to the adoption of lower cost biosimilar products.

Policies and programs at the state and federal level, as well as within healthcare institutions, that create a conducive environment for biosimilar use are critical to driving adoption. Through an investment of time and resources, many healthcare systems have successfully communicated with and educated their prescribers and patients, with the result that biosimilar adoption has proceeded smoothly. There is an opportunity to share these best practices through publication and professional forums.

Furthermore, industry, professional associations and patient advocacy groups could support sustained education programs targeting HCPs and patients to improve their understanding and allay their concerns about biosimilars. **The end result of such outreach would offer many benefits, as more patients would gain wider access to safe and effective, FDA-approved therapies, clinicians would be able to treat their patients with more cost-effective biologics, and value-based care would be enhanced as institutions realized significant cost savings.**

6 Future outlook



In 2010, as part of the Obama Administration's Affordable Care Act (ACA), the FDA created the BPCI Act to establish a U.S. biosimilars regulatory pathway to improve patient access to safe and effective treatments, and potentially to bring savings to the healthcare system. However, uptake and integration of biosimilars have been slower than anticipated. The reasons are complex and span a number of areas, including misconceptions around the quality, safety and reliability of biosimilars as well as the ways in which the drugs are covered and reimbursed by health insurers. **In today's healthcare environment, there remains significant variation in provider preferences and priorities, financial incentives to all stakeholders, and critical payor decisions across the United States; these many issues intersect to affect biosimilar uptake and the actual cost savings that can be achieved.**

As discussed during the expert panels, increasing biosimilar understanding and acceptance requires a multifactorial, multidisciplinary approach. Educating HCPs and patients about regulatory policy and manufacturing standards for biosimilars, and sharing real-world clinical data on their use, may help increase providers' comfort level to prescribe biosimilars as well as patients' willingness to be prescribed biosimilars.

In addition, market incentives throughout the value chain can play a critical role in driving the use of biosimilars. A range of factors, from payment and reimbursement (value-based vs. volume-driven) to provider type (IDN, ACO, individual rural or community-based practice, 340B hospital), can influence both the choice and the impact of physician and health system

incentives. Given the significant differences in preferences, priorities, and contractual approaches among payors, wholesalers and healthcare institutions, the panelists strongly endorsed the idea that biosimilar manufacturers should carefully individualize their incentives to each group. Coupled with efforts to match, as closely as possible, the financial bundling and rebate incentives offered by large competitors, cultivating a very carefully individualized approach to each institution was the panel's best advice to biosimilar manufacturers. **No one approach will meet the needs (or demands) of all stakeholders.**

Lastly, health system pharmacists are ideally suited to integrate biosimilars successfully into their organizations' formularies and clinical workflows. They have the requisite knowledge and experience to lead collaborative efforts within their health systems, bringing clinicians, payors and P&T committee members together to create a unified voice to negotiate with manufacturers, ensuring sound supply chain availability, inventory, and logistics.

With patents set to expire reasonably soon for many biologics in the United States, there are new opportunities for introducing biosimilars into health systems, hospitals, and community practices – all of which share the goal of improving clinical outcomes while lowering costs. **Biosimilar manufacturers can accelerate the adoption of these cost-effective agents by creating thoughtful, well-constructed approaches tailored to the specific requirements of each individual healthcare institution.**



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