ServeYou Rx

Biosimilars

An Emerging Opportunity

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About Me

ServeYou Rx

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Disclosure

Kevin Shores, author of this educational activity, is employed by and receives a salary from Serve You Rx.

Certain information, solutions, and strategies discussed may represent solutions implemented by Serve You Rx. Any examples given during this presentation are provided solely with the purpose to educate and inform and are not intended to garner any financial benefit from attendees.

Learning Objectives

At the conclusion of this activity, participants should be able to:

- Recognize the characteristics of a Biosimilar product
- Identify common Biologics with available Biosimilars
- Recognize the wide range of savings opportunities associated with these products
- Recall plan design strategies to increase Biosimilar access
- Recall strategies to increase member engagement with these medications

Agenda

1. Introduction and Fundamentals
2. Clinical Evidence
3. Adoption Challenges
4. Cost Consequences
5. Our Response

Introduction and Fundamentals

Biosimilar

FDA Definition

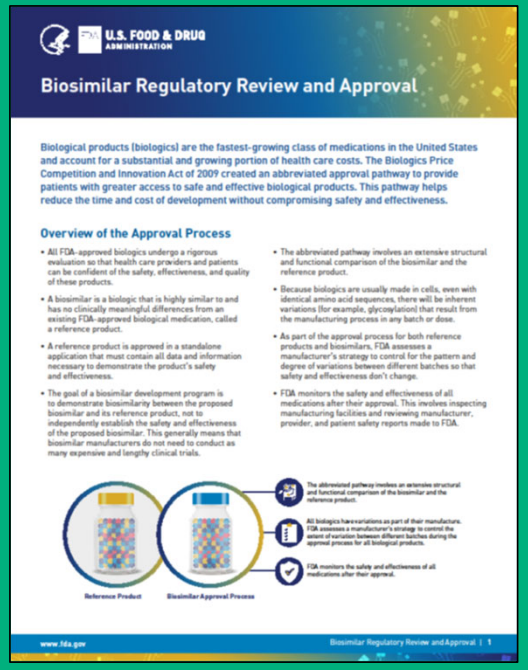
- A biosimilar is very similar, but not identical, to an original biologic medication (also known as a reference product) that FDA has already approved.
- For biosimilars to be approved by FDA, studies must show that there are no differences in the safety and effectiveness of biosimilars and the original biologics.

Both a Biosimilar and its original Biologic must:

1. Be made from the same types of sources (e.g., living sources)
2. Provide the same benefits when treating diseases or medical conditions
3. Be given at the same strength and dosage
4. Not be expected to cause new or worsening side effects

Available FDA Guides

Regulatory Review



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Biosimilar Regulatory Review and Approval

Biological products (biologics) are the fastest-growing class of medications in the United States and account for a substantial and growing portion of health care costs. The Biologics Price Competition and Innovation Act of 2009 created an abbreviated approval pathway to provide patients with greater access to safe and effective biological products. This pathway helps reduce the time and cost of development without compromising safety and effectiveness.

Overview of the Approval Process

- All FDA-approved biologics undergo a rigorous evaluation so that health care providers and patients can be confident of the safety, effectiveness, and quality of these products.
- A biosimilar is a biologic that is highly similar to and has no clinically meaningful differences from an existing FDA-approved biological medication, called a reference product.
- A reference product is approved in a standalone application that must contain all data and information necessary to demonstrate the product's safety and effectiveness.
- The goal of a biosimilar development program is to demonstrate biosimilarity between the proposed biosimilar and its reference product, not to independently establish the safety and effectiveness of the proposed biosimilar. This generally means that biosimilar manufacturers do not need to conduct as many expensive and lengthy clinical trials.
- The abbreviated pathway involves an extensive structural and functional comparison of the biosimilar and the reference product.
- Because biologics are usually made in cells, even with identical amino acid sequences, there will be inherent variations [for example, glycosylation] that result from the manufacturing process in any batch or dose.
- As part of the approval process for both reference products and biosimilars, FDA assesses a manufacturer's strategy to control for the pattern and degree of variations between different batches so that safety and effectiveness don't change.
- FDA monitors the safety and effectiveness of all medications after their approval. This involves inspecting manufacturing facilities and reviewing manufacturer, provider, and patient safety reports made to FDA.

Reference Product

Biosimilar Approval Process

www.fda.gov

Biosimilar Regulatory Review and Approval | 1

Overview of Biosimilars

U.S. FOOD & DRUG ADMINISTRATION

Overview of Biosimilar Products

Biosimilars are safe and effective biological medications for treating many illnesses, including chronic skin diseases, such as psoriasis; inflammatory bowel diseases, such as Crohn's disease and ulcerative colitis; arthritis; kidney conditions; diabetes; and cancer. These medications can provide more treatment options and potentially reduce costs for patients.

Biosimilars Are Biological Products

- Biological products, or biologics, are generally large, complex molecules that are made from living sources such as bacteria, yeast, and animal cells. On the other hand, drugs made from chemicals are smaller molecules and easier to copy.
- Because they generally come from living organisms, biologics inherently contain many slight variations from batch to batch, and their structures are generally more complex than those of other medications. As a result, biologics are often more complicated to purify, process, and manufacture.
- There are many types of biologics approved for use in the United States, including therapeutic proteins; vaccines; blood, blood components, and their derivatives; allergenic products; and monoclonal antibodies.

Molecule Comparison

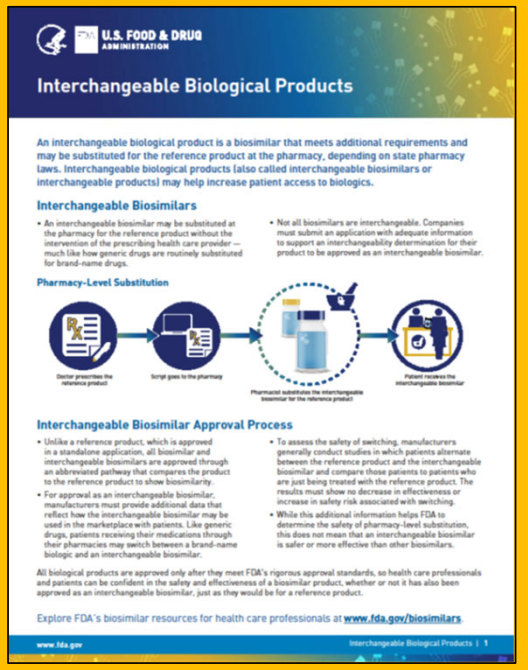
Monoclonal Antibody

Aspirin

www.fda.gov

Overview of Biosimilar Products | 1

Interchangeability



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Interchangeable Biological Products

An interchangeable biological product is a biosimilar that meets additional requirements and may be substituted for the reference product at the pharmacy, depending on state pharmacy laws. Interchangeable biological products (also called interchangeable biosimilars or interchangeable products) may help increase patient access to biologics.

Interchangeable Biosimilars

- An interchangeable biosimilar may be substituted at the pharmacy for the reference product without the intervention of the prescribing health care provider — much like how generic drugs are routinely substituted for brand-name drugs.
- Not all biosimilars are interchangeable. Companies must submit an application with adequate information to support an interchangeability determination for their product to be approved as an interchangeable biosimilar.

Pharmacy-Level Substitution

Doctor prescribes the reference product

Script goes to the pharmacy

Pharmacist substitutes the interchangeable biosimilar for the reference product

Patient receives the interchangeable biosimilar

Interchangeable Biosimilar Approval Process

- Unlike a reference product, which is approved in a standalone application, all biosimilar and interchangeable biosimilars are approved through an abbreviated pathway that compares the product to the reference product to show biosimilarity.
- For approval as an interchangeable biosimilar, manufacturers must provide additional data that reflect how the interchangeable biosimilar may be used in the marketplace with patients. Like generic drugs, patients receiving their medications through their pharmacies may switch between a brand-name biologic and an interchangeable biosimilar.
- To assess the safety of switching, manufacturers generally conduct studies in which patients alternate between the reference product and the interchangeable biosimilar and compare those patients to patients who are just being treated with the reference product. The results must show no decrease in effectiveness or increase in safety risk associated with switching.
- While this additional information helps FDA to determine the safety of pharmacy-level substitution, this does not mean that an interchangeable biosimilar is safer or more effective than other biosimilars.

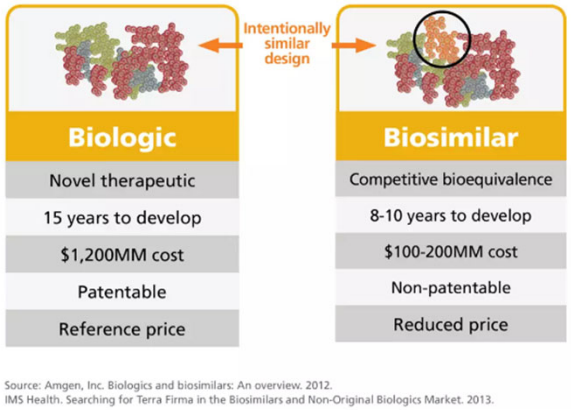
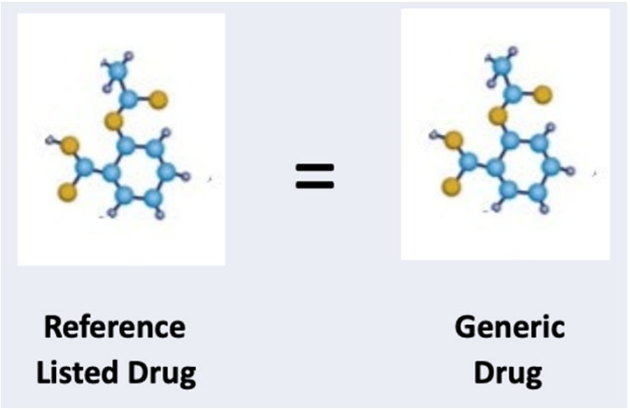
All biological products are approved only after they meet FDA's rigorous approval standards, so health care professionals and patients can be confident in the safety and effectiveness of a biosimilar product, whether or not it has also been approved as an interchangeable biosimilar, just as they would be for a reference product.

Explore FDA's biosimilar resources for health care professionals at www.fda.gov/biosimilars.

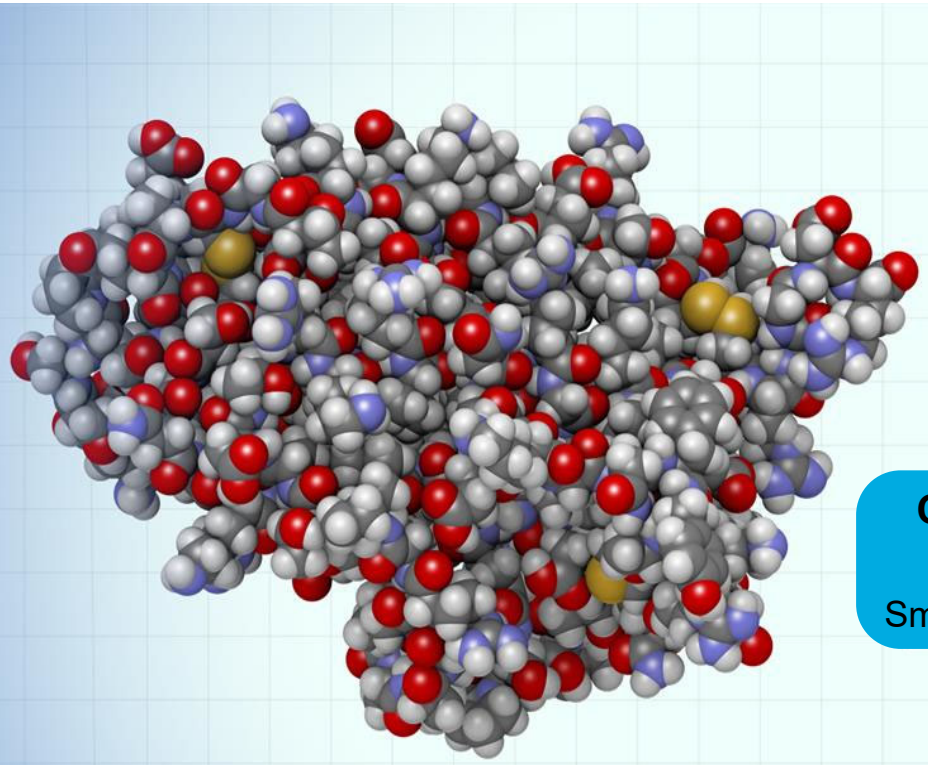
www.fda.gov

Interchangeable Biological Products | 1

Generics vs. Biosimilars

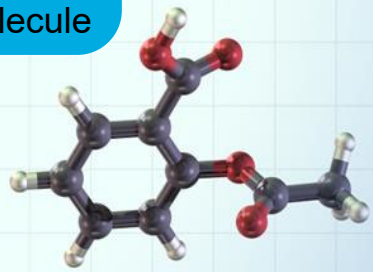
	BIOSIMILARS	GENERICS
FDA Assessment	“Highly Similar” No Clinically Meaningful Differences	“Same” Active Ingredient Bioequivalent
Manufacturing Base	Specialized process made from living sources	Simpler “copy process” made from chemicals
Chemical Schematics	 Source: Amgen, Inc. Biologics and biosimilars: An overview. 2012. IMS Health. Searching for Terra Firma in the Biosimilars and Non-Original Biologics Market. 2013.	

Humira vs. Aspirin



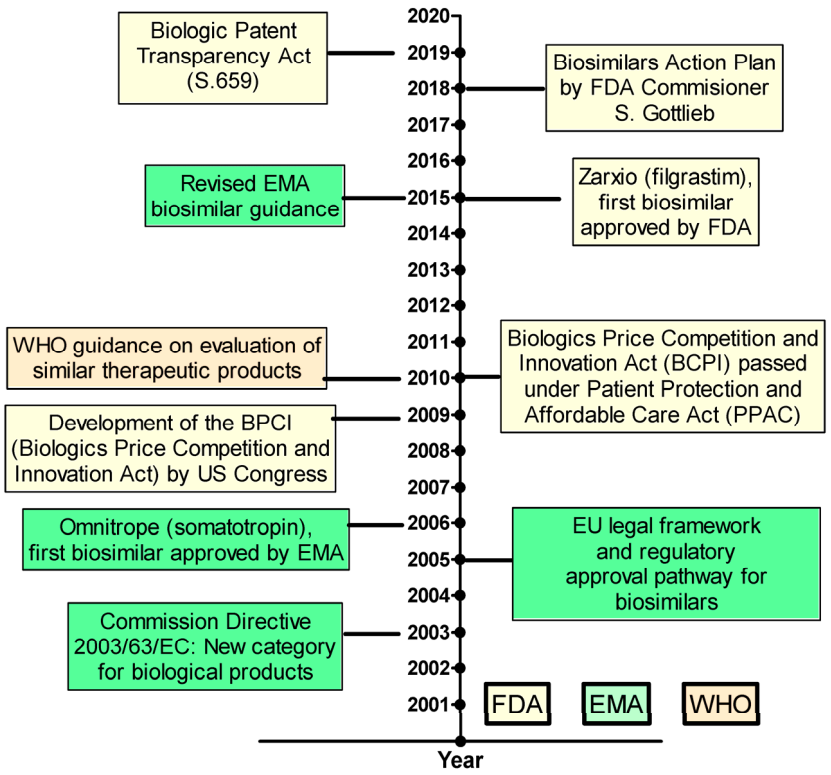
Biological Drug
Large Molecule

Chemical Drug
Small Molecule



Legislation

Overview of Biosimilar Legislation and Guidance Development 2003-2019



U.S. Pathways for Approval

2003 → European Union (EU)creates the framework for approving biosimilars products

2006 → EU approves first ever biosimilar

2009 → BPCI Act of 2009 creates biosimilar approval framework in US

2010 → WHO issues guidance opening up path to biosimilars internationally

Clinical Evidence

FDA Approvals

Product Class		Approvals
Supportive Care	Filgrastim	B B B
	Epoetin	B
	Pegfilgrastim	B B B B B B
Oncology	Rituximab	B B B
	Bevacizumab	B B B B
	Trastuzumab	B B B B B
Autoimmune	Infliximab	B B B B
	Etanercept	B B
	Adalimumab	B I B B B B B B B
	Insulin Glargine	I I
Ophthalmology	Ranibizumab	B I

B Biosimilar

I Interchangeable Biosimilar

- **41 Biosimilars Approved**
- **29 Currently marketed**

Clinical Evidence

Burden of Proof

Pharmacokinetics (PK)

Pharmacodynamics (PD)

Immunogenicity

Clinical Study Outcomes → FDA-approved biosimilars are as safe and effective as their original biologic and you can expect biosimilars to have the same benefits and risks as the original biologic.

Interchangeability

BPCI Act of 2009 Definitions

Reference Product

A reference product is the single biological product, already approved by FDA, against which a proposed biosimilar product is compared

Biosimilar Product

A biosimilar is a biological product that is highly similar to and has no clinically meaningful differences from an existing FDA-approved reference product

Interchangeable Product

- Is a biosimilar
- Expected to produce the same clinical result as the reference product (RP) in any given patient
- Switching between the proposed product and the RP does not ↑ safety risks or ↑ effectiveness compared to using the RP without switching

Interchangeability

BPCI Act of 2009 Definitions

Interchangeability Criteria

- Match the reference product in all approved indications
- Show no risk to patients when alternating or switching between the product and the reference product.

Interchangeability Product Advantages

- Substitution
- Prescriber/Patient Confidence

NOTE: Interchangeability does NOT equal more effective

Adoption Challenges

Adoption Challenges

Barriers

Lack of Interchangeability

Education and Acceptance

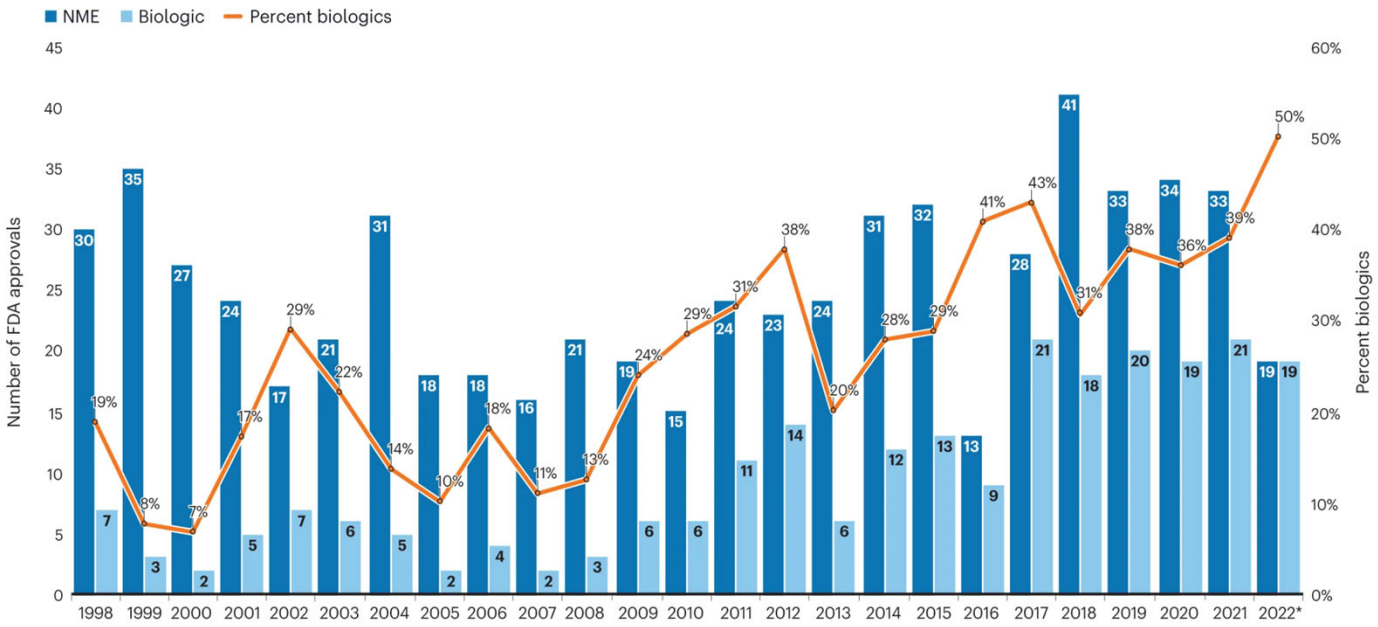
Lack of Incentivization

Cracking the Formulary

Cost Consequences

Follow the Money

From: Fresh from the biotech pipeline: fewer approvals, but biologics gain share



Approvals were down after a string of strong years. *Figures for 2022 as of 14 December.

Ballooning Costs

Specialty Biologics take up nearly half of U.S. drug spend with less than 3% of all Rx's.

The percentage of FDA approvals being Biologics has steadily increased over the last decade.

Follow the Money

- Who's No. 1? With $25B in sales, Merck's Keytruda looks to be the top-selling drug of 2023
- Stelara patent deal puts J&J back on path to $57 billion 2025 revenue forecast
- AbbVie raises 2027 sales forecast for new immunology drugs to $27 billion
- Amgen reports $767M profit in Q4 despite declining sales of Enbrel
- J&J Beats Q4 Expectations, Reports $21.4B in Revenue as Faces Patent Cliff

Ballooning Concerns

According to a 2024 PSG survey of 179 health plan administrators, 77% of respondents identified managing specialty drug cost or overall cost as their top priority for the upcoming plan year.

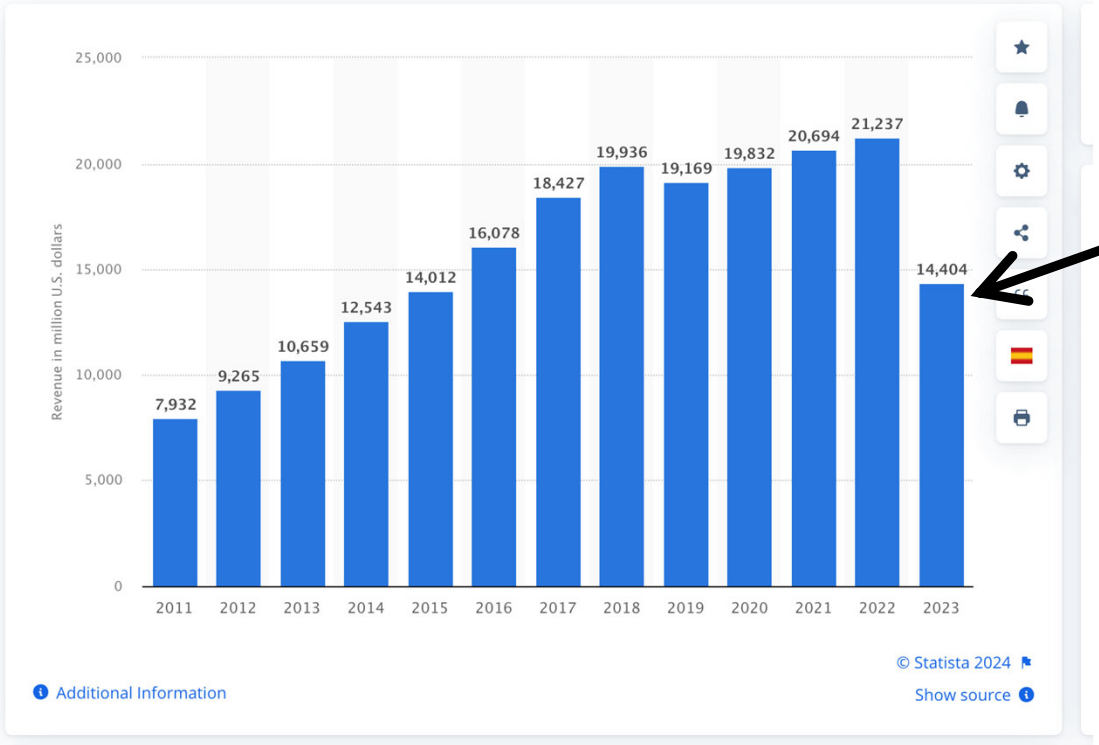
Cost Consequences

Effects

Health, Pharma & Medtech › Pharmaceutical Products & Market

AbbVie's revenue from top product Humira from 2011 to 2023

(in million U.S. dollars)



First Humira Biosimilar:

Amjevita

Released 1/1/24

Cost Consequences

Effects

Drug Name (Biosimilar)	Lowest WAC Cost	Savings from Baseline	Annualized Savings
Humira (baseline)	$7,000	$0	$0
Abrilada	$1,400	$5,600	$67,200
Amjevita	$1,800	$5,200	$62,400
Cyltezo (IC)	$3,200	$3,800	$45,600
Hadlima	$700	$6,300	$75,600
Hyrimoz	$800	$6,200	$74,400
Hulio	$3,200	$3,800	$45,600
Idacio	$6,500	$500	$6,000
Yuflyma	$3,200	$3,800	$45,600
Yusimry	$600	$6,400	$76,800
Average Biosimilar	**$2,378**	**$4,622**	**$55,467**

Cost Consequences

Replacing Humira

Drug Name (Biosimilar)	2022 Total Fills (Millions)	Calculated Cost (no Rebates) (Billions)	Annualized Plan Savings (Billions)
Humira (baseline $7,000)	3.033	$21.2	**$0**
Biosimilar (75% avg $3,500)	3.033	$10.6	**$10.6**
Biosimilar (25% avg $1,500)	3.033	$4.6	**$16.6**
Biosimilar (low $600)	3.033	$1.8	**$19.4**

Cost Consequences

Psoriatic Indications

Expanding Biosimilar Impact into Other Top Biologic Indications

Drug Name (Biosimilar)	Annual Fills	Calculated Cost (Billions)	Cost with $1,500 Biosimilar (Billions)	Annualized Plan Savings (Billions)
Humira – $7,000	3,033,000 Fills	$21.2	$4.6	**$16.6**
Skyrizi – $20,000	105,000 Fills	$2.1	$0.16	**$1.9**
Otezla – $4,500	110,000 Fills	$0.50	$0.17	**$0.3**
Stelara – $25,000	275,000 Fills	$6.9	$0.41	**$6.5**
Cosentyx – $7,500	650,000 Fills	$4.9	$0.98	**$3.9**
Cimzia – $5,500	900,000 Fills	$4.9	$1.4	**$3.5**

Our Response

Serve You Rx Response

Market Demand

TABLE 2

Biosimilars Strategies Currently or Planned to be Used *(n=171)*

	Currently Using	Planning to Use
Prior Authorization Requirement for Branded Reference Biologics with Biosimilar Available	54%	30%
Step Therapy Requirement for New to Therapy Patients to Try Biosimilar First	51%	33%
Lowest Net Cost Strategy	46%	38%
Mandatory Biosimilars for Patients New to Therapy Where a Biosimilar is Available	37%	39%
Cost Sharing Differential to Encourage Patients to Switch from Branded Reference Biologic to Biosimilar	33%	34%
Mandatory Conversion of Patients on Same Dosage of Branded Reference Biologic to Biosimilar	30%	38%
Higher Cost Sharing for New to Therapy Patients to Encourage Use of Biosimilar Versus Branded Reference Biologic	28%	31%

Pharmaceutical Strategies Group. 2023 Trends in Specialty Drug Benefits Report. Dallas, TX: PSG.

Serve You Rx Response

Market Demand

New Formulary

- Focus on transparent pricing and biosimilars

Adaptive Clinical Programs

- Specialty Carve-Outs
- Specialty Management
- Prior Authorization Edits
- Step Therapy Requirements

Creating Strategic Partnerships

- Cost Plus Pharmacy - $0 member cost
- Third Party Carve-Out Vendors

Key Takeaways

Key Takeaways

1. FDA approvals for Biosimilars are increasing, and offer alternative solutions to providers and patients who may not be able access a reference biologic.

2. Biosimilar approval criteria requires significant clinical data with a strict burden of proof. Interchangeability criteria requires additional clinical evidence for approval but does equate to being more effective.

3. Biosimilars offer immense savings opportunities compared to their reference products.

4. Strategies to increase Biosimilar engagement can involve adjusting formularies, copays, benefit design, third-party vendors, and more.

References

1. FDA – Biosimilar: What Patients Need To Know https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7824407/
2. Gherghescu I, Delgado-Charro MB. The Biosimilar Landscape: An Overview of Regulatory Approvals by the EMA and FDA. *Pharmaceutics*. 2021; 13(1):48. https://doi.org/10.3390/pharmaceutics13010048
3. Slides from the May 16, 2024 Meeting of the Office of Therapeutic Biologics and Biosimilars
4. TRENDS IN SPECIALTY DRUG BENEFITS REPORT, COPYRIGHT 2024. Pharmaceutical Strategies Group. 2024 Trends in Specialty Drug Benefits Report. Dallas, TX: PSG.
5. Fresh from the biotech pipeline: fewer approvals, but biologics gain share https://www.nature.com/articles/s41587-022-01630-6

Questions?

Obtaining CE Credit Information goes here

>>>TABA will provide at later date<<<