Biosimilar Substitution Policy and Practitioner Perspectives

Philip J. Schneider, MS, FASHP
Advisory Board Chair, Alliance for Safe Biologic Medicines
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Harry L. Gewanter, MD, FAAP, FACR: Chairman, pediatric rheumatologist

Philip J. Schneider, MS, FASHP, FASPEN, FFIP: Dean, University of Arizona College of Pharmacy-Advisory Board Chair

Michael Reilly, Executive Director
michael@safebiologics.org

• Steering Committee composed of patient and physician groups.

• Advisory Board of physicians, researchers, pharmacists, and patients.
Challenges of Biologics and Biosimilars
**Biologic vs. Chemical Medicines**

**SIZE:** significantly larger, potential for immunogenic reactions

**STRUCTURE:** more complex, cannot be completely characterized or copied

**STABILITY:** susceptible to light, heat, denaturing / degradation

**SENSITIVITY:** even small manufacturing changes can cause changes in efficacy and/or adverse effects

**DRIFT:** can change with time
Biosimilars cannot be, and thus are not expected to be, direct copies of originator (also known as “reference”) biologics.

FDA defines a biosimilar as “a biological product that is highly similar to the reference product notwithstanding minor differences in clinically inactive components.”

Minor differences are expected and permitted but must be demonstrated not to be “clinically meaningful” in regards to safety, purity, or potency.
Benefits of Biosimilars

• Increased therapeutic options
  – Put U.S. patients on par with patients in Europe and Canada.
  – More treatment choices for physician and patient.

• Potential for cost savings
  – Unlike generics, which save 40-80%, due to higher development costs biosimilars are expected to save payers 15-30% \(^1\)

March 6: First Biosimilar Approved in U.S.

- **Zarxio** (filgrastim-sndz)
- **Went on sale September 3.**
- **15% discount over reference product**
- **NOT “INTERCHANGEABLE”**

**HIGHLIGHTS OF PRESCRIBING INFORMATION**
These highlights do not include all the information needed to use ZARXIO safely and effectively. See full prescribing information for ZARXIO.

ZARXIO™ (filgrastim-sndz) injection, for subcutaneous or intravenous use
Initial U.S. Approval: 2015

----------------------INDICATIONS AND USAGE----------------------
ZARXIO is a leukocyte growth factor indicated to:

- Decrease the incidence of infection, as manifested by febrile neutropenia, in patients with nonmyeloid malignancies receiving myelosuppressive anti-cancer drugs associated with a significant incidence of severe neutropenia with fever (1.1)
- Reduce the time to neutrophil recovery and the duration of fever, following induction or consolidation chemotherapy treatment of patients with acute myeloid leukemia (AML) (1.2)
- Reduce the duration of neutropenia and neutropenia-related clinical sequelae, e.g., febrile neutropenia, in patients with nonmyeloid malignancies undergoing myeloablative chemotherapy followed by bone marrow transplantation (BMT) (1.3)
- Mobilize autologous hematopoietic progenitor cells into the peripheral...
What Does “Interchangeable” Mean?

A higher regulatory standard to meet. More data is required.

An “INTERCHANGEABLE”:

1) Must bebiosimilar (“highly similar” to reference product).

2) Must havesame clinical result expectedas with reference product.

3) Must create no additional risk to patient when switching back and forth between itself and reference product.

4) May be substituted for the reference product without the intervention of thehealth care providerwho prescribed the reference product.
Biosimilar Substitution Policy
Perspectives on Biosimilar Substitution in Europe and Canada

• The European Medicines Agency advises that **the physician should be in charge of the decision to switch** between the reference and biosimilar, or vice versa\(^1\).

• “Health Canada **does not support automatic substitution** of a Subsequent Entry Biologic for its reference biologic drug and recommends that physicians make only well-informed decisions regarding therapeutic interchange.”\(^2\)

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**Substitution Policy in the U.S.**

**CONGRESS**
- Sets legal definition
- Interchangeable: substitution without physician intervention

**FDA**
- Makes scientific decisions
- Sets interchangeability criteria

**STATES**
- Sets pharmacy substitution policy
Policy Questions Surrounding U.S. Biosimilar Substitution

• Under what circumstances may a pharmacist substitute a biosimilar (approved by FDA as interchangeable) without the involvement of the physician?

• What communication is required between pharmacist and:
  – Physician?
  – Patient?

• What records must be kept of the substitution?

• This is the purview of state government: Legislatures, Boards of Pharmacy
Why are these Issues Important?

• Patient always needs to be informed about the medicine he/she is receiving in order to make informed choices and be an effective partner in care.

• Physician needs to be aware of what medicine patient is receiving to provide proper care.

• Accurate patient record must be kept for pharmacovigilance/post-market monitoring for adverse events and efficacy

• Physicians and pharmacists have a responsibility to the patient and to the larger community (other healthcare providers, regulators, manufacturers) to work collaboratively together – that includes clear, timely communication.
U.S. Physicians Overwhelmingly Consider Communication of a Substitution and DAW* Authority “Very Important or Critical”:

- **Communication**: 79.50% Very Important or Critical, 14.60% Somewhat Important, 5.80% Slightly or Not Important.
- **DAW* Authority**: 82.2% Very Important or Critical, 15.3% Somewhat Important, 2.5% Slightly or Not Important.

* DAW = “Dispense As Written”
Communication Requirements are Gaining Momentum Nationally...

- In 2014, INDIANA, DELAWARE, and MASSACHUSETTS enacted laws with these requirements.
- In 2015, CALIFORNIA, COLORADO, GEORGIA, ILLINOIS, LOUISIANA, NORTH CAROLINA, PUERTO RICO, TENNESSEE, TEXAS, UTAH and WASHINGTON joined them.
- NEW JERSEY has passed a bill unanimously and sent it to their governor.
- Similar bills are being debated in MICHIGAN and PENNSYLVANIA.
Physician-Pharmacist Communication Requirements by State

- Legislation passed
- Legislation pending
- Legislation failed or provisions stripped
Physician/Pharmacist Collaboration is Key

• Physicians have the authority to specify “do not substitute” for biological products and that specification overrides any policy – e.g. by payers or state law – that would have substitution be the standard or default practice.

• Physicians and pharmacists should work collaboratively to ensure that the treating physician is aware of the exact biologic – by manufacturer – given to a patient in order to facilitate patient care and accurate attribution of any adverse events that may occur.
Biosimilar Education
ASBM Partners with Colleges of Pharmacy, State Medical Societies, State Pharmacy Boards, and Health Systems around the country to provide Continuing Education credits to healthcare providers on biosimilars, and their associated safety and regulatory challenges.

Coursework is tailored to the specialties and needs of the audience. Some recent examples include:

• **March 15, 2015**: 5-hour course for 125 NY and NJ pharmacists.

• **May 2015**: Conducted 1- and 3-hour CE courses on biosimilars for 180 Pharmacists in NY and CA.

• **July 2015**: Conducted a 1-hour course for physicians, pharmacists, and nurses at six hospitals in OR employing 3,000.

To arrange a CE course in your state, please contact our Executive Director Michael Reilly: michael@safebiologics.org
Perceived Biosimilar Familiarity Among Pharmacists

- 92% consider themselves FAMILIAR or VERY FAMILIAR with biosimilars...
CE Course Polling Shows Value of Education on Biosimilars

- 67% of pharmacists had not heard of, or could not define biosimilars.

- 48% incorrectly believed that a biosimilar has IDENTICAL STRUCTURE to its reference product, which is not possible.

- 43% believed a shared INN implies approval for same indications, which may or may not be the case.

- Before/after polling showed that the CE Course was informative, answers improved.

- Led ASBM to quantify pharmacist knowledge with a 401-PHARMACIST SURVEY
Low Familiarity with Biosimilars/Interchangeables Highlights the Need for Education…and Clear Substitution Policy.

- 56% of pharmacists have low or no familiarity with the PURPLE BOOK, compared to 4% unfamiliar with the ORANGE BOOK:
Summary

• Collaboration and communication between pharmacists and physicians is when substitution biosimilars is essential to maintaining accurate patient records and making informed treatment decisions.

• We are encouraged that laws fostering good communication are gaining traction around the U.S.

• As education on biosimilars is important for health providers – allowing more informed treatment decisions; for policymakers it leads to better-informed policy decisions.
Thank You For Your Attention