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INFORMED PRESCRIBING: PHYSICIANS NEED COMPLETE AND SPECIFIC PRESCRIBING INFORMATION FOR BIOSIMILAR MEDICATIONS

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Every prescription medication approved in the United States is accompanied by a printed document for physicians called the prescribing information. The prescribing information is also known as the package insert or product label—not to be confused with the box or paper affixed to a medication bottle that simply states the product's name. Prescribing information is designed to give physicians the details they need to make prescribing decisions for patients. For each medication, the prescribing information follows a standardized, indexed format developed by the US Food and Drug Administration (FDA). Every word in the prescribing information is subject to intense scrutiny and is approved by the FDA.

Historically, each prescription medication was accompanied by specific and unique prescribing information. In the 1980s, the government passed a law allowing generic drugs to use the same prescribing information as the original medication. This law applied to conventional drugs—medications that are chemically synthesized.

In March of 2015, the FDA approved the nation's first biosimilar. Biosimilars are biological medications (biologics) that are similar but not identical to the original product; they are not generics. Despite the inherent differences between biologics, prescribing information for the first biosimilar was entirely based on the prescribing information of the original medication. This is a questionable approach because even minor differences in biologics can lead to unexpected safety issues,[1] and physicians need complete and specific information about medications they prescribe.

IMPORTANT CONSIDERATIONS FOR INFORMED PRESCRIBING OF BIOSIMILARS

Physicians Need the Results from Clinical Trials with the Biosimilar, Not Just the Original Biologic

Patients trust their physicians to prescribe the medications that are best for them. To accomplish this, physicians must have full information about each medication's dosing, safety, and effectiveness. This information comes from studies conducted by the medication's manufacturer.

To date, the FDA has required biosimilar manufacturers to conduct studies examining the medication's pharmacology, safety, and effectiveness in patients. For example the manufacturer of the first biosimilar conducted studies in both healthy volunteers and breast cancer patients.[2,3] However, these studies are neither mentioned nor described in the biosimilar's prescribing information. Instead, the FDA included the studies conducted with the original biologic. This practice was followed even for the safety information: adverse events were listed for the original biologic instead of the biosimilar. Moreover, the biosimilar's prescribing information does not clearly state that the information came from studies conducted with the original medication instead of with the biosimilar.

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Using the original biologic's prescribing information for a biosimilar is an approach that lacks transparency. It fails to provide physicians with full information about the biosimilar, even though physicians are responsible for prescribing the medication and treating adverse side effects that may result.

Physicians Need Data for the Biosimilar for Each Patient Group

Many biologics are useful for more than one health condition or in more than one group of patients. Historically, the FDA has required each biologic to be tested for each health condition in order to gain an official approval and "indication" for that condition. This practice recognizes that a biologic may not have comparable effects in all patient groups.

However, the FDA did not follow this approach with the approval of the first biosimilar. As part of the study package submitted to the FDA, the first biosimilar was tested in one group of patients—those with breast cancer.[3] Yet the biosimilar received approval for all of the medical indications for which original biologic was approved at the time.[4,5] This action suggests that the effects of biosimilars are identical to those of the original biologic across different patient groups.

Prescribing Information Should Reflect Distinctions between Biosimilars and Original Biologics

Biologics are unique medications that differ from conventional drugs like aspirin. Conventional drugs are small chemical molecules, and their structures can be readily determined. In contrast, biologics are typically large and complex. Unlike conventional drugs, biologics are often highly sensitive to their manufacturing methods, handling, and administration. Moreover, it is relatively easy to copy the structure of a conventional drug and create a generic, but it is not possible to produce an exact copy a large biologic. Even slight differences in the manufacturing process can result in changes to the medication that could affect patients.

To date, the FDA has recognized differences among biologics. Biologics in the same class, such as those based on botulinum toxin type A, have been given unique non-proprietary names (i.e., non-trade names) that have the same root word but different prefixes. The non-proprietary name given to the first biosimilar was not identical to that of the original medication, but rather carried a suffix denoting the manufacturer. However, the FDA has indicated that this nomenclature is not necessarily permanent.

Many states have also acknowledged the differences between biologics by requiring that pharmacies notify physicians when they substitute a similar biologic for the original medication. Giving a biosimilar the same prescribing information as the original biologic diverges from the FDA's previous approach of recognizing the unique nature of biologics.

POTENTIAL SOLUTIONS

With a few modifications, prescribing information for biosimilars can be more useful for physicians. The prescribing information must clearly state that the product is a biosimilar and indicate whether or not it is therapeutically interchangeable with the original biologic. It must also include safety and effectiveness data obtained specifically with the biosimilar. If information generated from the original biologic is included, it should be clearly stated in the document. This approach would ensure transparency. Moreover, biosimilar prescribing information should specify the patient groups and disease states in which the medication has been tested. These inclusions would give physicians access to the most accurate and pertinent information about the original biologic or the biosimilar their patients receive.

COMPONENTS OF COMPLETE, SPECIFIC BIOSIMILAR PRESCRIBING INFORMATION

Prescribing information should indicate if the medication is a biosimilar.	Prescribing information should indicate whether each study was conducted with the biosimilar or original biologic.
Prescribing information should include data from studies with the biosimilar.	Prescribing information should specify the patient groups and disease states in which the biosimilar was tested.

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CONCLUSIONS

Biologics are unique medications that meaningfully improve life for many patients. The approval of biosimilars is an important step toward increasing patient access to these therapies, but they must be accompanied by complete and transparent information for physicians. Prescribing information for biosimilars should not be entirely based on the original biologics while omitting data obtained with the biosimilar itself. Instead, prescribing information should reflect the specific safety and effectiveness information obtained in studies of the biosimilar, recognizing that biosimilars are not generics. These actions would provide physicians the information they need to give patients the best care possible.

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