BIOSIMILARS: WHAT TO KNOW

CONSIDERATIONS FOR HEALTHCARE PROFESSIONALS

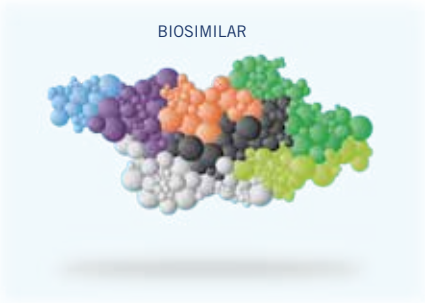
What to know about biosimilars versus generics

How are biosimiliars different from generics?

- Biosimilars are *highly similar* to an FDA-approved biological product, while generics are identical to the small molecules they copy[1-3]
- Biosimilars do not have any *clinically meaningful* differences in safety, purity, and potency from their reference products[2]

Generics are:

- Chemically synthesized to copy reference product[1,3]
- Smaller, less complex[1,3]
- Identical to reference products[1,3]



Biosimilars are:

- Grown in living systems with unique cell lines, which accounts for variability (ie, glycosylation, immunogenicity, post-translational modifications)[1,2]
- Larger, more complex[1,3]
- Highly similar, but not identical, to reference products[1-3]

What to know about the approval of biosimilars

How does the FDA approve biosimilars?

Biosimilars are approved via a pathway that is separate and abbreviated compared with the approval pathway for a new biologic.[2,4,5]

351(A) PATHWAY FOR NOVEL BIOLOGICS[2,6]

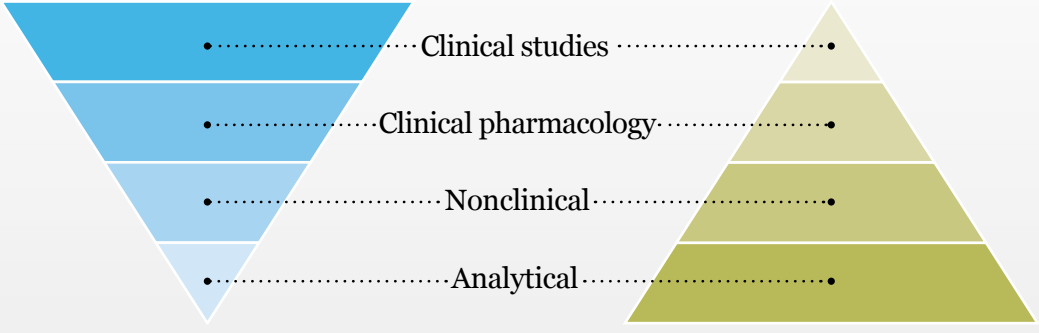
Requires full reports of safety and efficacy investigations

351(K) PATHWAY FOR BIOSIMILARS[2,4]

Relies on existing data from the novel biologic

+

New data demonstrating that it is *highly similar*

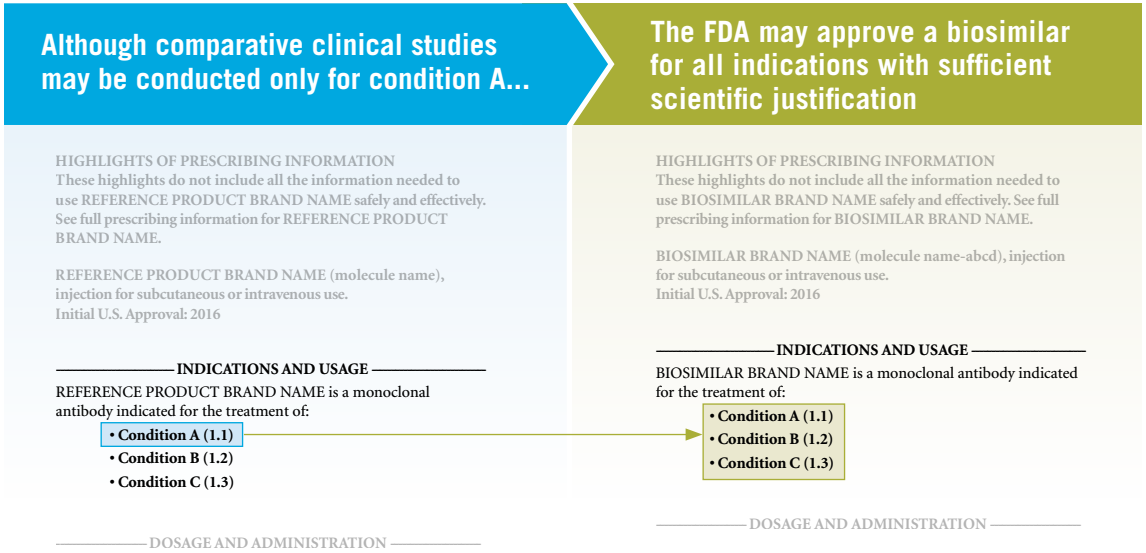


While the approval of a biologic reference product relies heavily on clinical data, biosimilar approvals rely more heavily on analytical data[2]

What to know about extrapolation

How could a biosimilar be approved for an indication without a clinical trial?[2,5]

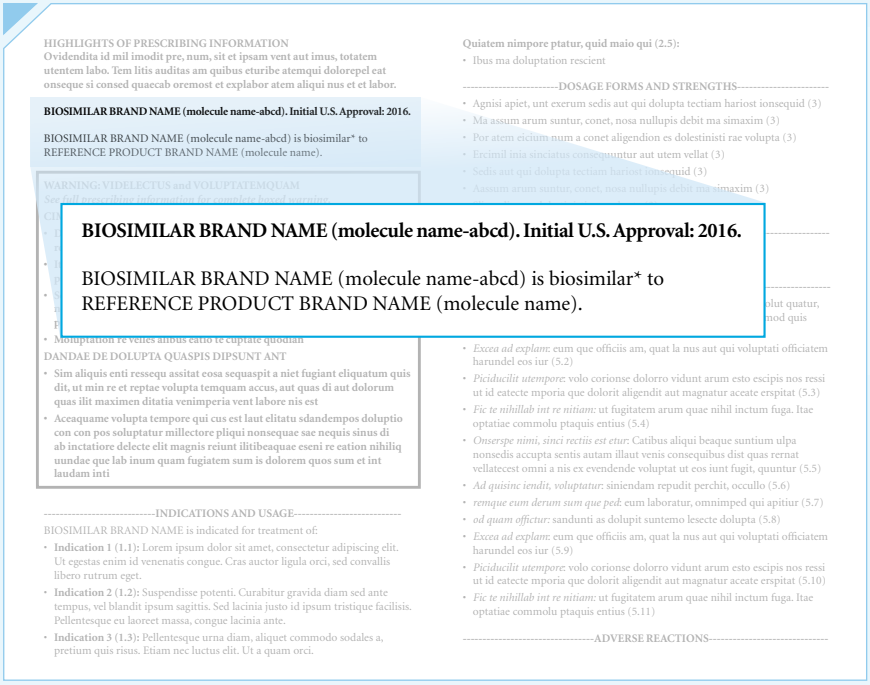
Through *extrapolation*: A biosimilar may be studied in one indication but approved for multiple indications without additional clinical studies if the reference product is approved for these indications.[2]



What to know about biosimilar naming and labels

How will a biosimilar be identified?

Biosimilar labels generally do not include the clinical data used to establish biosimilarity.[7] Data shown is from the reference biologic's clinical trials.



The label will be nearly identical to the reference product's, except for its 4-letter suffix and statement noting that the product is a biosimilar.[7,a]

[a] According to the most recent FDA guidance.[7]

Distinct biosimilar naming and labeling is important to support pharmacovigilance[7,8]

What to know about interchangeability and substitution

What are interchangeability and substitution, and what are their implications for clinical practice?

Interchangeability is an FDA designation that can be added after biosimilar approval and requires additional data.[9]

To be considered interchangeable by the FDA, a manufacturer must clinically demonstrate that switching between the reference drug and biosimilar would not diminish efficacy or safety.[10]

Currently, none of the biosimilars approved by the FDA have been designated as interchangeable with their reference products or with each other.[11]

An interchangeable biosimilar would be eligible for automatic substitution by the pharmacy.[12]

- Automatic substitution laws and the requirements for notifying the healthcare provider are governed at the state level and are still evolving[12]
- Healthcare providers should retain the right to indicate "dispense as written" when prescribing biologics and when it is in the best interest of the patient[13,14]

References

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Biosimilars are new to the US market. To be informed for conversations with your peers and patients, it is important to understand their development, their unique path to approval, and how they are differentiated from biologic reference products.

For more information, including views from clinical experts in oncology and rheumatology:

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