Biosimilars have potential advantages in the treatment of cancer, as they introduce competition into the drug development process, which can lead to cost savings for patients and spur the development of new treatments.

BIOSIMILARS AND THEIR ROLE IN CANCER TREATMENT

When chemical-based drugs are approved by the United States Food and Drug Administration (FDA), the company that developed the drug is given a patent—the exclusive right to produce and market the specific drug for a set number of years. After the patent expires, other companies are allowed to produce and market drugs with the same chemical make-up (after FDA approval); in all important ways, these drugs are the same as the original and are called “generics.”

Other medications—are called “biologics”—are derived from a living system, such as a microorganism, plant, or animal. Most biologics are very large and complex mixtures of molecules that are not easily identified or characterized, and are produced using cutting-edge technologies.

Biologics are also approved by the FDA and given a patent, and other companies are allowed to compete once that patent expires. However, those competing products have allowable differences because they are made from a living organism, and are called “biosimilars.” Although they are not an exact copy, biosimilars are expected to produce the same clinical result as the original product, and have no clinically meaningful differences in terms of safety, purity, and potency.

Biologics include a wide range of products such as vaccines, hormones, blood and blood components, and allergens (anti-allergy medications). Monoclonal antibodies are an especially important biologic; they are used in the treatment of many conditions, including breast cancer, lymphoma, rheumatoid arthritis, psoriasis, ulcerative colitis, and Crohn’s disease.

The first biosimilar, filgrastim-sndz (Zarxio), was approved by the FDA in 2015. Both filgrastim-sndz and the original product, filgrastim (Neupogen) are bone marrow stimulants, which can help the body make white blood cells after cancer treatments. Administered through an injection, filgrastim-sndz is the only biosimilar currently approved by the FDA for the treatment of cancer patients.
THE ROLE OF PHARMACISTS IN YOUR CANCER TREATMENT JOURNEY

Pharmacists are highly-accessible members of the health care community. While pharmacists are often employed by independent or chain drug stores, they also work in clinics, hospitals, and “specialty pharmacies,” which manage the dispensing, reimbursement, case management, and other services specific to medications for complex or chronic conditions.

Regardless of the type of medicine that a doctor prescribes, pharmacists help patients by:

• **Explaining how the medication works.**
  Your doctor or another member of your health care team may have reviewed the ins-and-outs of the medication when you received your prescription, but hearing the information more than once is helpful—especially at what can be a stressful time.

• **Reinforcing how the medication is to be taken.**
  For example, some medications should be taken with meals; others should be taken on an empty stomach. If the medication is self-administered via an injection, the pharmacist can explain the proper injection technique.

• **Reviewing what side effects might occur.**
  This information is provided in the “package insert” (PI) that accompanies the medication, but it can be valuable to hear it explained in everyday language. The pharmacist can also monitor any side effects you may experience, and offer guidance (in collaboration with your health care team) on possible ways to relieve the symptoms these side effects may cause.

• **Explaining what your insurance covers.**
  An insurer may require that a generic (or biosimilar) version of the drug be dispensed, if one exists. Your pharmacist can help you determine if this is the case, and explain any differences between the original drug and the covered drug, including any out-of-pocket cost implications.

• **Ensuring patients take their medication as prescribed.**
  Pharmacists can provide tips to help you stay “compliant” with your medication, such as using a pill sorter to stay organized, and signing up for automated refill reminder calls or text messages from the pharmacy. He or she may also suggest you download a medication reminder app for use on your smart phone or tablet. Many apps of this type are available for free or at a small cost.

• **Recommending financial resources.**
  There are a number of financial aid organizations and patient assistance programs available to help patients with their out-of-pocket expenses. Your pharmacist can be a good source of information about these resources. Oncology social workers can also help. CancerCare’s oncology social workers are licensed professionals who counsel people affected by cancer, providing emotional support and helping people access practical assistance. Call 800-813-HOPE (4673) or visit www.cancercare.org for more information.

*CancerCare® Can Help*

Founded in 1944, CancerCare is the leading national organization providing free support services and information to help people manage the emotional, practical and financial challenges of cancer. Our comprehensive services include counseling and support groups over the phone, online and in-person, educational workshops, publications and financial and co-payment assistance. All CancerCare services are provided by professional oncology social workers and world-leading cancer experts.

To learn more, visit [www.cancercare.org](http://www.cancercare.org) or call **800-813-HOPE (4673)**.

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