



Pharmacists Optimizing Cancer Care®

The Role of Hematology/Oncology Pharmacists

Hematology/oncology pharmacists (oncology pharmacists) play a vital role in the delivery of care for individuals living with cancer. As an integral part of the cancer care team, oncology pharmacists represent a broad range of expertise and levels of practice, skills, and responsibilities.

Direct Patient Care and Associated Clinical Activities

Oncology pharmacists are involved with the care of patients at all phases of their cancer care journey; from screening awareness, assessment and diagnosis, treatment decisions, medication management, supportive care, and throughout survivorship. They collaborate with the cancer care team to assess and validate a comprehensive and accurate medication list, select appropriate therapies, monitor the effects of prescribed medications and self-reported treatments for efficacy, toxicity and potential drug interactions, and manage any adverse effects that often accompany cancer treatment. Additionally, the oncology pharmacist is routinely tasked with assuring compliance with updated treatment guideline recommendations, regulatory requirements, and navigating insurers prior authorization criteria. As the complexity of care for cancer patients continues to rapidly evolve with breakthrough scientific advances and novel, high-cost therapies, against the backdrop of medications shortages and dwindling reimbursement, the oncology pharmacist consistently proves essential to providing value-based care for patients and the overall healthcare system.

Oncology pharmacists:

- Are “cancer medication experts” who focus their time providing direct patient care, patient education, and actively participating in clinical decision making.
- Work collaboratively with other health care professionals to develop institutional guidelines and make evidence-based decisions designed to improve patient care.
- Trained experts that provide medication management services across the care continuum for most common patient complications and supportive care: pain management, nausea/vomiting, diarrhea, anemia, depression, fatigue, vaccination, etc.
- Contribute to cancer research by leading clinical studies, reporting important observations from practice, and supporting investigational drug service programs.
- Participate on committees to improve the safety, efficacy, and quality of cancer care.
- Develop policies and implement programs to ensure the safety of staff and patients during the receipt, preparation, administration, and monitoring of anticancer therapies.
- Responsible for ensuring safety and accurate compounding and dispensing of chemotherapy, minimizing drug waste, minimizing unnecessary exposure to hazardous drugs, maintaining an appropriate medication inventory, and managing the cost and reimbursement for cancer drugs.

Patient and Provider Education

Having expert knowledge of the medications used to treat cancer and their associated side effects, oncology pharmacists play a key role in the education of patients and their caregivers, and of other health care providers (non-oncology pharmacists, pharmacy students and residents, medical students and residents, nurses and advanced practice providers, oncology fellows, etc.).

This role includes development of:

- Educational materials for patients and caregivers in a format that makes it easy to monitor and report treatment concerns, to understand proper handling and disposal of chemotherapy in their home, and how to limit chemotherapy exposure to family members, children, and pets.
- Educational materials and programs for providers detailing the medication’s efficacy in cancer treatment and adverse effects, potential drug interactions, and effective symptom management.
- Treatment protocols, policies, patient aides, and programs to improve medication adherence and compliance with complicated regimens.

Training and Practice Settings

Several paths exist to become an oncology pharmacist:

- All pharmacists in the U.S. complete a 4-year professional program following a minimum of 2 years of pre-pharmacy undergraduate coursework. In 2021, 37% of all pharmacy graduates completed Bachelor's degrees before entering the Doctor of Pharmacy program¹.
- Completing a post-graduate residency (1 or 2 years), where the first year is focused on fine-tuning skills learned during their pharmacy education with the goal of practicing competently in a clinical setting, and the second year is focused specifically on expanding their knowledge of cancer treatments and management of associated toxicities and adverse effects.
- Completion of a structured oncology traineeship.
- Receiving on-the-job training in an oncology practice setting.
- Some oncology pharmacists may pursue specialty certification. Board Certified Oncology Pharmacist (BCOP) certification is a highly visible credential to oncology care teams and patients. It signals an elevated level of excellence in oncology practice, demonstrating the breadth and depth in this specialty.

Common practice settings for oncology pharmacists include, but are not limited to, cancer centers, academic medical centers, community hospitals, outpatient oncology centers and/or infusion centers, medical oncology community practices, community retail pharmacies, specialty or mail-order pharmacies, home healthcare companies, palliative care or hospice settings, professional/regulatory/advocacy/managed care organizations, and the pharmaceutical industry.

Expanded Opportunities for Oncology Pharmacists

The role of an oncology pharmacist in a hospital is well established. Areas for growth include:

- Establishing a greater presence and a consistent role in the outpatient clinics, infusion centers, or other settings (e.g., primary research, hospice, community pharmacy, specialty pharmacy, cancer institute leadership).
- Developing a role in cancer prevention and survivorship issues as they relate to drug therapy.
- Developing medication therapy management (MTM) programs—including medication therapy review, optimal cost-effective therapy selection, pharmacotherapy management, disease management, individualization of therapy, and medication safety and billing for those services.
- Provider status as acknowledged by Centers for Medicare & Medicaid Services (CMS).
- Developing independent prescribing protocols for medications commonly involved in the treatment of cancer.

Conclusion

The knowledge and skills of an oncology pharmacist support a wide variety of functions in all aspects of patient care that improve the overall care within all aspects of the patient's care journey; from the bedside to implementing policies, and from primary research to influencing other clinicians in the selection and management of anticancer therapies. This in-depth knowledge provides the health care team with a unique perspective on disease management that encompasses not only individual patient care but also includes the broader scope of the institution and healthcare system. The oncology pharmacist is often one of the few team members that fully understands the safety, efficacy, pharmacologic, and financial components of patient care in individuals with cancer. The changing landscape of health care and evolving approach to cancer care (e.g., oral therapies, targeted therapies, personalized medicine) necessitates the vital role an oncology pharmacist brings to the health care team, and it is truly a disservice to the cancer patient to be deprived of the opportunity of having an oncology pharmacist on their health care team.

1. Lopez E & Nguyen, N. The Pharmacy Student Population: Applications Received 2020-21, Degrees Conferred 2020-21, Fall 2021 Enrollments. *American Journal of Pharmaceutical Education*. 2022;86(6). doi:10.5688/ajpe9228