



Pharmacists Optimizing Cancer Care®

The Role of Hematology/Oncology Pharmacists

Hematology/Oncology pharmacists (oncology pharmacists) play an important 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 cancer patients at all phases of their treatment; from assessment and diagnosis, to treatment decisions, medication management, symptom management and supportive care, and finally with survivorship programs at the completion of their treatment. They work with other care providers to ensure a current and accurate medication list, select the most appropriate therapy, monitor the effects of medications prescribed, and manage the adverse effects that often accompany cancer treatment. As the care of cancer patients continues to be challenged with a dynamic landscape, high cost therapies, medication shortages, regulatory requirements and dwindling reimbursement, the oncology pharmacist is heavily relied upon to provide support for the clinical team in an effort to improve overall cancer care and patient quality of life.

Oncology pharmacists:

- Are responsible for ensuring safety in the compounding and dispensing of chemotherapy, maintaining an adequate supply of medications, minimizing drug waste, minimizing unnecessary exposure to hazardous drugs, and managing cost and reimbursement for cancer drugs. With the advent of new technologies and assistance of support staff such as pharmacy technicians, these responsibilities are no longer the primary focus of a pharmacists' day.
- Are viewed as the "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.
- Participate on committees to improve the safety, efficacy, and quality of cancer care and are heavily relied upon to develop policies and implement programs to ensure the safety of staff and patients during the receipt, preparation, administration, and monitoring of anticancer agents.
- Have training and expertise that places them in an optimal position to 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.

Patient and Provider Education

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

This role includes development of:

- Educational materials and programs for providers detailing the medications used to treat cancer and its complications, potential drug interactions, adverse effects and effective symptom management.

- 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.
- Tools and programs to improve medication adherence with complicated regimens, including dosing calendars and medication journals.

Training and Practice Settings

Several paths exist to become an oncology pharmacist:

- Receiving on-the-job training in an oncology practice setting.
- 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 practice 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.
- Of note, all pharmacists in the U.S. complete a 4-year professional program following a minimum of 2 years of pre-pharmacy undergraduate coursework. In 2012, 41% all pharmacy graduates completed Bachelor's degrees before entering the PharmD program.

Pharmacists who choose one of the paths listed above often pursue advanced specialty certification, known as board certified oncology pharmacist (BCOP):

- A BCOP recommends, designs, implements, monitors, and modifies therapy plans to optimize outcomes in patients with malignant and benign hematology/oncology diseases, which represents a high level of expertise and is primarily focused on clinical skills
- Pharmacists without board certification may perform some, but usually not all, of these functions in their scope of practice, as caring for hematology/oncology patients may not be the sole focus of their practice

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 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).
- 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.
- Developing independent prescribing protocols.
- Developing a role in cancer prevention and survivorship issues as they relate to drug therapy.

Conclusion

The knowledge and skills of an oncology pharmacist support a wide variety of functions in all aspects of patient care; 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) will emphasize the need for the oncology health care team to include an oncology pharmacist.