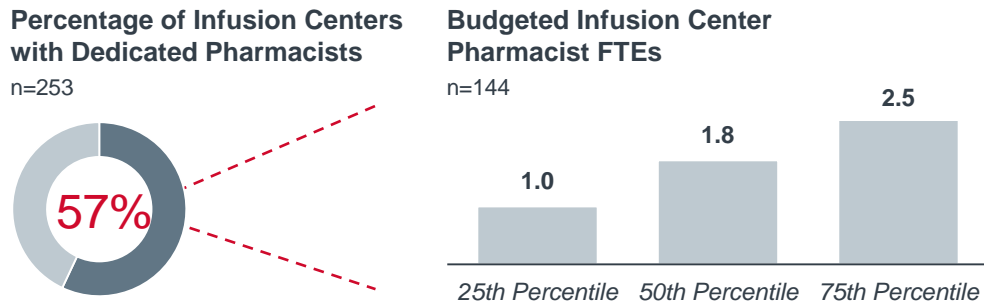


# Primer: Oncology Pharmacists

## Most Cancer Programs Have Dedicated Pharmacists

Pharmacists are common and critical members of today’s cancer care team. In our 2015 Infusion Center Volumes, Staffing, and Operations Survey, 57% of Oncology Roundtable members indicated that they have dedicated pharmacists, with the median employing 1.8 pharmacists. Additional data suggest that this is a growing field. For example, there were more than 1,990 Board Certified Oncology Pharmacists in 2015—an 84% increase from 2010.



## Pharmacists Essential to Care Team of the Future

Despite being a common member of the care team, there is still a lack of understanding around what pharmacists can and should be doing. However, two factors are driving the need to ensure top-of-license practice among pharmacists and better integrate them into cancer care:

1. Due to the rapid rise of comorbidities, an increasing number of cancer patients will be on multiple drugs for multiple conditions. Studies indicate that patients on multiple medications are 88% more likely to experience adverse drug events, 50% more likely to have complications from drug-to-drug interactions, and significantly less likely to adhere to their drug regimen. Pharmacists are uniquely positioned to address all three of these issues.
2. Cancer programs must keep pace with the rapid growth of treatment innovations. Of the drugs in the pipeline today, 73% have the potential to be personalized medicine and 25% of antineoplastic drugs are oral agents. Pharmacists have the expertise to keep abreast of these advances and provide education to clinicians, staff, and patients.

## Pharmacists’ Expertise Often Underleveraged Today

Most cancer programs today are not leveraging their pharmacists to top of license. It is critical for cancer program leaders to evaluate what their pharmacists are doing and what they could be doing.

### Sample Traditional Pharmacist Responsibilities:

- Mixing chemo
- Supervising chemo mixing
- Dispensing medications

### Sample Top-of-License Pharmacist Responsibilities:

- Managing oral chemo patients
- Educating patients
- Educating staff
- Assisting with preauthorizations and off-label use of medications
- Supporting personalized medicine efforts
- Providing supportive care
- Reviewing and verifying medication orders
- Identifying opportunities to enhance care and drive efficiencies

Source: 2015 Infusion Center Volumes, Staffing, and Operations Survey; "When I'm 64: How Boomers Will Change Healthcare," American Hospital Association; "Biopharmaceutical Companies' Personalized Medicine Research Yields Innovative Treatments for Patients," Personalized Medicine Coalition; Ma C, "Role of Pharmacists in Optimizing the Use of Anticancer Drugs in the Clinical Setting," *Integrated Pharmacy Research and Practice*, no. 3 (2014): 11-24; Maher RL, et al., "Clinical Consequences of Polypharmacy in Elderly," *Expert Opin Drug Saf*, 13, no. 1 (2014); "Frequently Asked Questions About Board Certification," American College of Clinical Pharmacy; Oncology Roundtable interviews and analysis.

## What Is the ROI for an Expanded Pharmacist Role?

Pharmacists are an expensive resource so it is critical to evaluate if they are being deployed effectively. The examples provided below highlight the impact pharmacists can have on revenues, quality, and efficiency. For additional studies demonstrating the value of pharmacists, please reference the bibliography below.



### Increased Revenues

In most states, pharmacists cannot bill for their services; however, pharmacists can have significant financial impact by reducing medical waste and increasing revenues through internal prescriptions.

▶ **\$2.4M**

additional gross yearly revenue at St. Luke's MSTI's<sup>1</sup> specialty pharmacy when pharmacists took over management of oral chemo patients



### Enhanced Quality

Oncology pharmacists have unique training and expertise that can enhance the quality of cancer care; specifically, pharmacists can positively impact oral chemo management and supportive care.

▶ **23%**

improvement in adherence to oral TKI<sup>2</sup> at Kaiser when pharmacists took over management of oral chemo patients



### Improved Efficiencies

Pharmacists drive efficiencies by offloading tasks that require specialized knowledge (e.g. patient education, authorizations for off-label use of drugs) and by finding new opportunities to streamline care

▶ **91 minutes**

saved per infusion at UNC by pharmacist-developed rapid infusion protocols for rituximab

## Tips to Better Leverage and Integrate Pharmacists

- ✓ **Conduct a comprehensive needs assessment.** This helps ensure buy in and identifies concrete opportunities for expansion. Key stakeholders to include are physicians, pharmacists, and nurses.
- ✓ **Start small to build initial buy-in.** Staff may be resistant to change or simply unaware of the pharmacists' role. Improve this by giving the pharmacists a physical presence within the infusion center, creating opportunities for organic interactions. Also, identify easy wins—opportunities for pharmacists to demonstrate their value by taking on tasks that are time-consuming and benefit from their expertise (e.g., oral chemo education).
- ✓ **Use collaborative practice agreements (CPAs) to formalize pharmacist responsibilities.** Successful CPAs are narrowly scoped to target one specific event or procedure, focus on events or procedures that have clearly established guidelines, and have been thoroughly vetted by physicians and pharmacists. Alternatively, cancer centers can create policies to provide explicit guidance for the pharmacist role at the organization and leverage job descriptions to articulate expectations.
- ✓ **Create a process to measure and communicate the additional value that pharmacists bring to the table.** Track the impact of pharmacists and share that information with internal stakeholders. Potential metrics include patient/staff satisfaction, additional pharmacy revenue generated, and number of patient encounters.

## Related Case Studies

Alexander M, et al., "Pharmacists' Impact in Hematopoietic Stem-Cell Transplantation: Economic and Humanistic Outcomes," *Journal of Oncology Practice*, 12, no. 2 (2016)

Lam MSH, Cheung N, "Impact of Oncology Pharmacist-Managed Oral Anticancer Therapy in Patients with Chronic Myelogenous Leukemia," *Journal of Oncology Pharmacy Practice* (2015)

Lambert A, "Care and Collaboration in the Community Cancer Center," *Oncology Issues*, (2012): 42-47

Valgus J, et al., "Integration of a Clinical Pharmacist into the Hematology–Oncology Clinics at an Academic Medical Center," *Am J Health-Syst Pharm*, 68 (2011): 613-619

Valgus J, et al., "Pharmacist-Led, Interdisciplinary Model for Delivery of Supportive Care in the Ambulatory Cancer Clinic Setting," *J Oncol Pract*, 6, no. 6 (2010)

Vu B, et al.; "Implementation of a Pharmacist-Managed Interdisciplinary Oral Chemotherapy Program in a Community Cancer Center," *Journal of Hematology Oncology Pharmacy*, 1, no. 2 (2011)

"[Oncology Pharmacists Can Significantly Reduce Chemotherapy Waste.](#)" *The Oncology Pharmacist*, July 16, 2010

1) St. Luke's Mountain States Tumor Institute.

2) Oral tyrosine kinase inhibitor.

Source: Oncology Roundtable interviews and analysis.