

The Oncology Pharmacy Navigator





A new best practice model for managing medications in cancer programs

A woman with a new diagnosis of breast cancer does not understand how to taper off her hormone therapy. A young patient with colorectal cancer has intractable pain and cannot manage his opioid medication and side effects. An undocumented citizen without insurance requires anti-coagulation therapy for new pulmonary embolisms but has no way to pay for her blood thinner. These real-life cancer patients need an expert to manage their medications.

The oncology pharmacy navigator is a new best practice model and an integral part of our multidisciplinary program at Legacy Cancer Institute in Portland, Oregon. An oncology pharmacy navigator is a specially trained pharmacist dedicated to providing medication management by educating patients and families about prescribed medications, improving drug adherence, maintaining accurate drug lists for individual patients, addressing drug-related symptoms quickly, and improving overall compliance with treatment plans. The financial burden of a cancer diagnosis is lessened because the oncology pharmacy navigator focuses on cost-effective therapy while also decreasing barriers to medication access and addressing patients' financial concerns.

Composed of two tertiary teaching medical centers, one pediatric medical center, and four community medical centers, Legacy Health is a seven-hospital health system with locations throughout the Portland, Ore., and Vancouver, Wash., metropolitan areas. The Legacy Health Cancer Institute was the first in the United States to receive the American College of Surgeons (CoC) Network Cancer Program accreditation, identifying us as a comprehensive integrated community cancer program. The Legacy Cancer Institute ranks in the top 6 percent of all cancer programs nationally,

Studies have shown that more than 50 percent of all patients do not take their medications correctly. Medication discrepancies, adverse events, and non-adherence are leading causes of 30-day hospital readmissions among all previously hospitalized patients.

according to the American College of Surgeons Commission on Cancer. And it has received the CoC Outstanding Achievement Award for our last three survey cycles. In addition, our cancer program is the first in our region to earn the Excellence in Breast Care designation from the National Accreditation Program for Breast Centers. Legacy is an accredited blood and bone marrow transplant center, and we participate in national oncology clinical research trials.

From Inpatient to Outpatient Specialists

Oncology pharmacists have long been trusted members of the medical team. Medical literature has discussed the important role they play in both inpatient and outpatient settings. However, no literature to date describes a navigation role for oncology pharmacists. Identifying the need for a pharmacy navigator in oncology was our first step toward describing the role.



Legacy Cancer Institute strives for holistic and integrated cancer care.

helped patients learn something new, and improved understanding of medication adherence.² Both patients and professionals in one survey ranked the availability of consultation with an outpatient oncology pharmacist as highly satisfying (95 percent and 98 percent, respectively).³ However, more than one-half of one group of patients identified cost issues as a barrier to appropriate medication therapy. Nevertheless, the need for pharmacist navigators is evident; many practitioners say that their patients need medication intervention.⁴ When pharmacists assessed patients using a standardized tool, they found that many patients had incorrect and duplicate therapies, avoidable side effects, and drug interactions.⁵

Designing and Justifying a New Position

Once we decided to create an oncology pharmacy navigator position, we based the responsibilities of the role partly on the job description for our oncology nurse navigators. The Oncology Nursing Society has delineated core competencies for oncology nurse navigators.⁶ Key among them are education, care coordination, and communication. We included these same competencies in the proposed functions of our new oncology pharmacy navigator (see Table 1, right). As with any new position, we had to justify this new role not only programmatically but also financially. Improved patient and staff satisfaction alone are no longer adequate to justify funding for new positions. Our task was to define not only the need but also the value. As described below, we were able to demonstrate cost savings as well as revenue generated.

We first defined the tasks and responsibilities that were not being effectively covered in our cancer program, and we wrote a draft job description that outlined the responsibilities of the oncology pharmacy navigator. Our oncology clinical pharmacist then pitched the concept to our medical and administrative directors and explained why she was uniquely qualified for the role and how our patients would benefit from her expanded responsibilities.⁷

Once we secured funding for the new role, we ensured that it was positioned to succeed. A key component of the success of our oncology pharmacy navigator at Legacy Health is that the person is employed directly by the Legacy Cancer Institute rather than by the hospital's Department of Pharmacy. This ensures that the navigator's commitment and focus is entirely on the cancer patients we serve, thus lessening the chance that the oncology pharmacy navigator's hours would be reassigned to the inpatient pharmacy (e.g., to cover sick calls, staff shortages, or maternity leaves).

From Concept to Reality

The process of hiring an oncology pharmacy navigator took two years from initial concept to permanent funding (see Table 2, right). The role was assumed by our oncology clinical pharmacist. Because money was not initially available in the cancer program budget to fund this role, we submitted a grant to the Legacy Health Foundation to fund the salary of a half-time oncology pharmacy navigator. For the rest of the time, our oncology pharmacy navigator continued to work in our inpatient oncology unit.

We identified the need for our network cancer program to extend the role of our pharmacists into the outpatient setting. Although the majority of our anticancer treatments are delivered outside of our office, Legacy had no oncology pharmacist dedicated to serving our outpatients. Studies have shown that more than 50 percent of all patients do not take their medications correctly. Medication discrepancies, adverse events, and non-adherence are leading causes of 30-day hospital readmissions among all previously hospitalized patients. Because patients generally trust pharmacists and appreciate opportunities to consult with them, pharmacists are natural patient navigators.

When we reviewed the literature that supports an expanded role for pharmacists, we discovered descriptions of novel roles for outpatient oncology pharmacists. For example, one roving supportive care pharmacist was able to reduce self-reported patient scores for pain, nausea, and constipation.¹ Another study found that time spent with a pharmacist improved patient satisfaction,

Our new oncology pharmacy navigator began work in April 2015. It was critical for us to track and collect both quality and cost savings to justify the new position. During the first year, the pharmacy navigator tracked quality outcomes and interventions as well as the cost savings generated by her work. Our initial goal was to demonstrate savings that at least covered the cost of the oncology pharmacy navigator's salary. In the first year, we reported quarterly to our cancer program administrative team.

In the first year of this new position, the oncology pharmacy navigator was directly responsible for more than \$237,000 of cost savings (see Table 3, right). Most of those savings resulted from accessing patient support programs, grants, foundations, and free drug programs through pharmaceutical companies to help offset the high co-pays often incurred by our patients. We realized additional savings from formulary changes and the revenue generated by selling supplements in our hospital-based retail pharmacies. We currently do not bill for the services of our oncology pharmacy navigator, although other clinical pharmacists in our health system do bill and receive payment for their services. In April 2016 the oncology pharmacy navigator position was funded full-time by the Legacy Cancer Institute, and we continue to realize cost savings of more than \$200,000 annually.

Access to All

Patient assistance programs have been instrumental in the success of our program. When our oncology pharmacy navigator receives a referral to provide financial assistance for high-cost prescriptions, we send a request to the patient's insurance company. It is not uncommon for us to do a prior authorization and/or an appeal and denial to obtain access to funds.

Luckily, many pharmacy manufacturers have excellent patient assistance programs and foundations. At times it is necessary for us to switch therapies to minimize the financial impact on a cancer patient (for example, switching between two different oral anti-coagulants). Some healthcare systems, including Legacy Health, provide charity assistance and write-offs for medications. Access to these programs varies, and our close coordination with the patients' case managers is critical. Our pharmacy navigator also writes a grant every year to the Legacy Foundation for additional co-pay assistance for our cancer patients receiving oral oncolytics or other high-cost oral therapies.

To promote understanding of our oncology pharmacy navigator's role, we have created a patient handout describing the services that she provides (see Figure 1, page 38) Written at a sixth-grade reading level, the handout accommodates those patients who struggle with general and/or health literacy. It is available in all of our oncology offices, and we give it to all patients seeing the oncology pharmacy navigator on referral.

Referring, Tracking, and Reconciling

In the first weeks after assuming her position, our oncology pharmacy navigator met several times with our electronic health record (EHR) support team to build a referral process, amend a quality flowsheet, and develop a visit navigator. Now, any Legacy Health provider can place a referral to the oncology pharmacy

Table 1. Roles of the Oncology Pharmacy Navigator

Improve adherence to medications.
Maintain accurate medicine lists.
Address medication-related symptoms quickly.
Improve overall compliance with treatment plans.
Reduce the risk of drug errors and duplications.
Provide patient and family education.
Lessen the financial burden of a cancer diagnosis.
Develop new programs and formulary decisions to support patients, increase revenue, and decrease costs.

Table 2. Timeline for Implementing Legacy Cancer Institute's Oncology Pharmacy Navigator Position

February 2014	Develop proposal for new position, complete literature review
April 2014	Present proposal to Legacy Cancer Institute medical and administrative directors and receive endorsement
November 2014	Request foundation grant for one-year pilot position
February 2015	Receive foundation funds for 0.5 full-time equivalent position for one year
April 2015	Launch program
February 2016	Present year-to-date quality and financial results, receive approval for 0.9 full-time equivalent position with cancer institute budget

Table 3. How Legacy's Oncology Pharmacy Navigator Achieves Costs Savings and Generates Revenue

Coordinate all oral oncolytics for an active gynecologic oncology clinic.
Pursue drug company patient assistance foundations for patients with high co-pays and/or no prescription insurance benefit.
Sell commonly recommended supplements in outpatient pharmacies.
Write grants and receive foundation support for patients to receive free supplements and/or co-pay assistance.
Adjust drug formulary to save money (e.g., change from oral aprepitant to intravenous fosaprepitant for inpatients).

navigator using a referral entry in our EHR (Legacy’s EHR is called EPIC). We amended a flowsheet that was already built into our EHR for nurse navigation to include a section for the oncology pharmacy navigator to track interventions (see Table 4, right) We also built a visit navigator into our EHR with user-friendly buttons. The information entered into the navigator allows the oncology pharmacy navigator to quickly populate progress notes (see Figure 2, right). Tracking volume and quality benchmark information in our EHR allows us to print reports and generate data for ongoing justification of the oncology pharmacy navigator position.

To promote the new service, our oncology pharmacy navigator visited every cancer conference in our system. We also published a short article in our health system’s weekly online newsletter describing the new service. Subsequently, referrals to our oncology pharmacy navigator increased by more than 50 percent from the first year to the second year of the program (see Figure 3, page 40). Referrals come primarily from oncologists, nurse navigators, nurse practitioners, surgeons, radiation oncologists, and cancer program support staff practitioners. Our oncology pharmacy navigator attends several huddles and tumor boards each week to identify patients in need and provide medication and symptom management.

We are next planning to use our EHR to more effectively track referrals and interventions, create patient and provider satisfaction surveys, and expand patient education programs with web-based teaching and video libraries. With the use of oral oncolytics rapidly increasing in our oncology clinics, Legacy Health also plans to establish a formalized oral chemotherapy program and develop our own specialty pharmacy on site.

Medication Reconciliation

Medication lists are often inaccurate, and medication reconciliation is a top priority for many healthcare facilities. Medication reconciliation is defined by the Institute for Healthcare Improvement as “the process of creating the most accurate list possible of all medications a patient is taking—including drug name, dosage, frequency, and route. The goal is to provide correct medications to the patient at all transition points within the hospital.”⁸ Study data show that “an effective process can detect and avert most medication discrepancies, potentially avoiding adverse drug events and related costs of care for the affected patients.”⁹

Our oncology pharmacy navigator currently provides medication reconciliation for 62 percent of the referrals we receive (see Figure 4, page 41). In the first year of the program, more than 110 patients had a comprehensive medication reconciliation completed in our EHR. As shown in Table 5, right, Legacy Health cancer outpatients take between 3 and 69 medications, for an average of 13. Less than 2 percent of the patients seen by our oncology patient navigator had a completely accurate medicine list. After examining individual patient drug lists, our oncology pharmacy navigator stopped, changed, or added medications for 98 percent of our patients. Our oncology pharmacy navigator has subsequently developed additional quality targets, including

Figure 1. Oncology Pharmacy Navigator Handout

Oncology Pharmacy Navigators

Our oncology pharmacy navigators are here to help answer all of your medication questions! Managing your medications can be a bit overwhelming, and we are trained to assist you with your medications and with managing symptoms from your cancer treatment. There is no cost to you or your insurance company to meet with us in person or by telephone or email.

Your pharmacy navigator will help you:

- Understand your medications.
- Provide a current and accurate medication list.
- Understand the side effects of your medications and help manage the symptoms.
- Make it easier to take your medications correctly through coaching, medicine schedules, and pillboxes.
- Address medication-related symptoms quickly.
- Explore financial concerns related to your medicine.

**To contact an oncology pharmacy navigator,
please call (503) 413-6590**

Legacy Cancer Institute
Legacy Cancer Healing Center
Legacy Good Samaritan Medical Center
1130 N.W. 22nd Ave. • Portland, OR 97210
Phone: 503-413-6590
Fax referrals to: 503-413-6872
www.legacyhealth.org/cancer

Table 4. Oncology Pharmacy Navigator Quality Metrics in an EPIC Flowsheet

Medication Concerns	
Med Rec completed in Epic	
Med Rec # of Meds on Med List	
Med Rec changes made	
Med Rec deletions made	
Provided with Epic med list	
Provided with medication schedule	
Assist patient with pill box	
Med teaching provided	
Health Literacy Concerns	
Medication Adherence Concerns	
Patient on high risk medications	
Financial/Insurance concerns	

Figure 2. Example of OPN Visit Navigator in EPIC

▼ Pharmacist Section	
Total Meds on List prior to Med Rec?	<input type="text" value="14"/> 14 by Rice, Kelly A, RPh at 12/07/17 1547
Medication Reconciliation Completed?	<input checked="" type="radio"/> Yes <input type="radio"/> No Yes by Rice, Kelly A, RPh at 12/07/17 1424
Total Meds on List after Med Rec?	<input type="text" value="10"/> 10 by Rice, Kelly A, RPh at 12/07/17 1547
High risk of enhanced medication toxicity?	<input checked="" type="radio"/> No <input type="radio"/> Depression <input type="radio"/> Diabetes <input type="radio"/> HTN <input type="radio"/> HF <input type="radio"/> Hyperlipide... No by Rice, Kelly A, RPh at 12/07/17 1547
PIM (Potentially Inappropriate Meds)?	<input checked="" type="radio"/> None <input type="radio"/> NSAIDS <input type="radio"/> Benzos/sleeping... <input type="radio"/> Anticholinergics <input type="radio"/> Antipsychotics NSAIDS by Rice, Kelly A, RPh at 12/07/17 1424
Did RPh recommend DC PIMs to provider?	<input checked="" type="radio"/> Yes <input type="radio"/> No Yes by Rice, Kelly A, RPh at 12/07/17 1424

Note. OPN = oncology pharmacy navigator.

meeting at least 50 percent of patient referrals in person and conducting accurate medication reconciliation for at least 50 percent of all referrals (see Table 5, right).

Setting a New Gold Standard in Accreditation

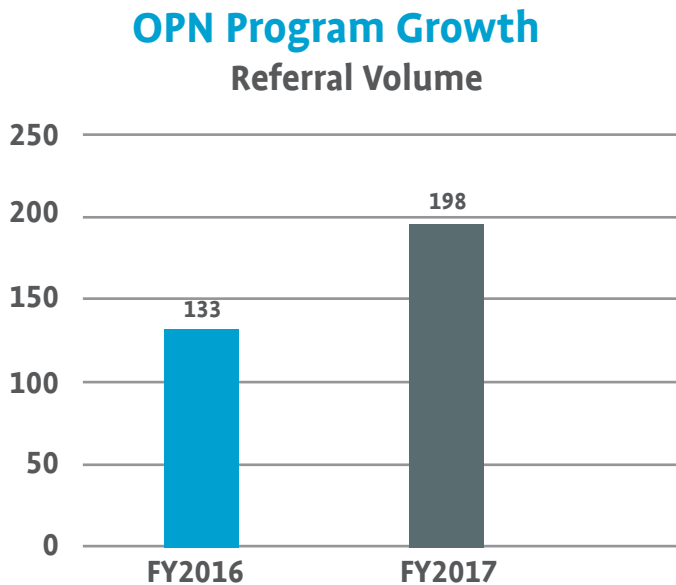
Having an oncology pharmacy navigator also distinguished us during accreditation processes. During our most recent American College of Surgeons Commission on Cancer accreditation visit, surveyors specifically cited our oncology patient navigator program as a “new best practice model.” The surveyors were impressed with our innovation and expressed hope that more cancer programs will add an oncology patient navigator to their cancer care teams.

Accreditation is critical to cancer programs, and the standards for both the CoC and the National Accreditation Program for Breast Centers (NAPBC) were evaluated in relation to our oncol-

Table 5. Medication Reconciliation as a Quality Benchmark

	Average	Low	High
Meds on EPIC List	13	3	69
Meds to ADD	2	0	9
Meds to DISCONTINUE	3	0	12
Meds to CHANGE	2	0	12

Figure 3. Oncology Pharmacy Network Program Growth



Note. OPN = oncology pharmacy navigator.

Main referral sources:

1. Oncologists
2. Oncology Nurse Navigators
3. Nurse Practitioners
4. Non-Legacy physicians
5. Radiation Oncologists
6. Self-referred
(fliers in every oncology office)



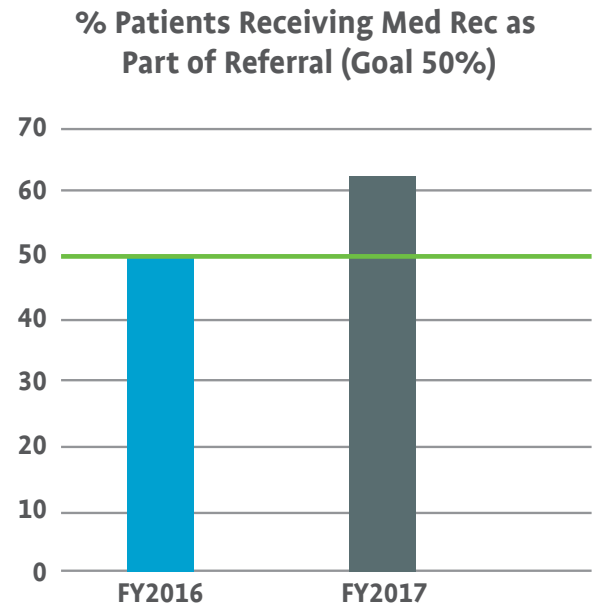
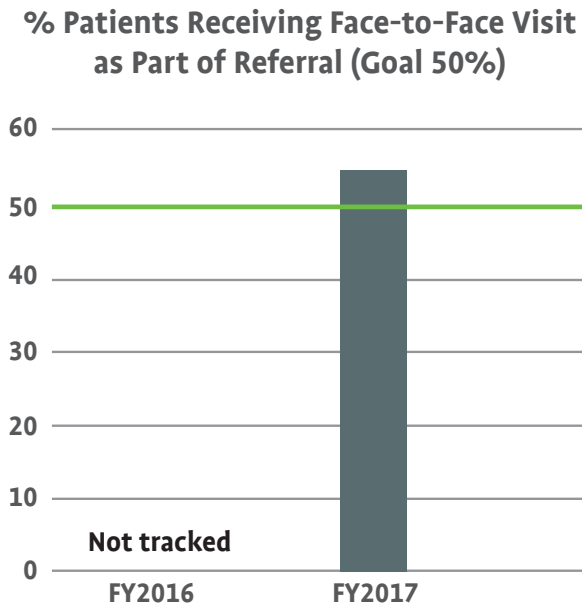
The Legacy Cancer Institute is a comprehensive integrated community cancer program.

ogy patient navigator program.^{10,11} Both CoC and NAPBC accreditation standards contain sections on patient navigation processes. These standards aim to guide patients through provider services and address healthcare disparities and barriers to cancer care. Both CoC and NAPBC require studies of quality of care and outcomes. All of these standards were enhanced through the addition of an oncology pharmacy navigator to our cancer team.

The oncology pharmacy navigator is an innovative role that has helped distinguish Legacy Cancer Institute from other local, regional, and national cancer care programs. To evaluate the success of our navigator's interventions and outcomes, we have established quality benchmarks that we track regularly. This has enabled us to justify our oncology pharmacy navigator's salary by demonstrating how our program successfully taps drug company assistance and charitable foundations. Patient education is also an integral part of the oncology pharmacy navigator role, focusing on side effect management, hormonal therapy, and targeted oral oncolytics. Our oncology pharmacy navigator program also distinguishes us during accreditation processes and helps maintain the goals of our Center for Excellence. Most important, our oncology pharmacy navigator program has significantly benefited the patients we serve, improving medication management, lowering barriers to drug access, and addressing financial concerns.

Kelly Rice, Pharm.D., is the Oncology Pharmacy Navigator at the Legacy Cancer Institute in Portland, Oregon. She also serves as the pharmacist in charge of an inpatient hospice facility, and oversees all investigational medications for the Cancer Research Program.

Figure 4. Oncology Pharmacy Navigator Quality Benchmarks



Legacy Health is a seven-hospital health system with locations throughout the Portland, Ore., and Vancouver, Wash., metropolitan areas.



The Legacy Cancer Institute ranks in the top 6 percent of all cancer programs nationally, according to the American College of Surgeons Commission on Cancer.

References

1. Barnard SA, Valgus J, Jarr S, et al. Use of a pharmacist/nurse model for the delivery of supportive care in adult oncology clinics at the University of North Carolina Hospital. JCO, ASCO Annual Meeting Abstracts. 2010;28(15):9166.
2. McKee M, Frei BL, Garcia A, et al. Impact of clinical pharmacy services on patients in an outpatient chemotherapy academic clinic. *J Oncol Pharm Pract.* 2012;19(20):151-158.
3. Ruder AD, Smith DL, Madsen MT, et al. Is there a benefit to having a clinical oncology pharmacist on staff at a community oncology clinic? *J Oncol Pharm Pract.* 2010;17(4):425-432.
4. Shah S, Dowll J, Greene S. Evaluation of clinical pharmacy services in a hematology/oncology outpatient setting. *Ann Pharmacother.* 2006;40:1527-1533.
5. Mancini R. Implementing a standardized pharmacist assessment and evaluation: the role of a pharmacist in a multidisciplinary supportive care oncology clinic. *J Support Oncol.* 2012;10:99-106.
6. The Oncology Nursing Society. 2017 Oncology nurse navigator core competencies. Available online at: ons.org/sites/default/files/2017-05/2017_Oncology_Nurse_Navigator_Competencies.pdf. Last accessed February 5, 2019.
7. Knight R. How to ask for the job title you deserve. *Harvard Bus Rev.* July 2017. Available online <https://hbr.org/2017/07/how-to-ask-for-the-job-title-you-deserve>. Last accessed June 7, 2018.
8. Institute for Healthcare Improvement. Medication reconciliation to prevent adverse drug events. Available online at: <http://www.ihl.org/topics/ADEsMedicationReconciliation/Pages/default.aspx>. Last accessed February 5, 2019.
9. Agency for Healthcare Research and Quality. Medications at Transitions and Clinical Handoffs (MATCH) toolkit for medication reconciliation. Available online at: ahrq.gov/professionals/quality-patient-safety/patient-safety-resources/resources/match/index.html. Last accessed February 5, 2019.
10. American College of Surgeons Commission on Cancer. Cancer program standards: ensuring patient-centered care, 2016 edition. Available at: facs.org/quality-programs/cancer/coc/standards. Last accessed February 5, 2019.
11. National Accreditation Program for Breast Centers. Standards manual, 2018 edition. Available online at: facs.org/quality-programs/napbc/standards. Last accessed February 5, 2019.