CLINICAL PHARMACISTS

Care and Collaboration in the Community Cancer Center

BY ANNIE LAMBERT, PHARMD

Annie Lambert, PharmD, oncology pharmacy supervisor for MultiCare Regional Cancer Center, Tacoma, Wash.

In Brief

MultiCare Regional Cancer Center (MRCC) is comprised of four outpatient infusion clinics across Pierce and King Counties in Western Washington, with a total of 84 infusion chairs and 10 employed medical oncologists. Our flagship location is in Tacoma, Wash., with three satellite clinics in Auburn, Gig Harbor, and Puyallup. At MRCC, clinical pharmacists have been an integral member of the cancer care team for over 10 years, starting with our Tacoma General clinic, providing supportive care management through collaborative practice agreements approved by the Washington State Board of Pharmacy. Pharmacists also work closely with our physicians, providing order review and ongoing management of treatment protocols in the electronic health record (EHR). MRCC pharmacists are a crucial component of a system of double-checks that ensure safe care, optimal charge capture, and compliance with both external and internal guidelines. As our program has grown to include additional satellite locations, we have replicated our service model to deliver quality cancer care close to the homes of our patients. This article will focus on how clinical pharmacy services have evolved at MRCC, strategies for implementation of a similar model, and the impact onsite pharmacists can have on patient safety, patient satisfaction, and overall healthcare costs.

The role of pharmacists on the cancer care team has been discussed in *Oncology Issues* and other oncology journals in recent years.[1-3] Most of these articles tend to focus on the operational role of pharmacists in managing drug inventory, tracking drug waste, and overseeing chemotherapy admixture services. Another role of the pharmacist is a safety check for appropriate prescribing based on FDA indication and renal or hepatic function. It is a common misperception that pharmacists are limited to this dispensing capacity. Others, like ACCC, recognize the unique skill set the pharmacist brings to the table and the importance of clinical pharmacy services.[4]

Our Clinical Pharmacy Services

Clearly, pharmacists can and should be an integral part of the cancer care team. However, if a pharmacist is not already part of your team, you will need to take steps to introduce the pharmacist's services and gain the understanding and trust of physicians and clinic staff for this new team member. At MRCC Tacoma General, clinic nursing staff and physicians needed a few months to fully understand how a pharmacist could be helpful in the clinic setting. While staff was familiar with the role of pharmacists on the inpatient care team, they were less clear about the benefits a pharmacist would bring to the clinic setting. For example, our cancer program administrator was accustomed to having nursing staff mix and administer chemotherapy. When the pharmacist and pharmacy technician took over admixture services from the nursing staff, our administrator quickly came to understand that pharmacists can also multi-task and provide services that nurses cannot.

Even if pharmacists begin with a dispensing focus, their ability to review orders for appropriateness includes:

- Clinical assessment
- Knowledge of current issues in oncology and drug indications
- An understanding of the whole plan of care for the patient.

As new treatments or regimens become available, the pharmacist is an excellent resource for providing updated information and education to physicians and infusion nurses. These skills offer pharmacists a natural process to begin developing

MRCC clinical pharmacist, Paul Wallace, PharmD, BCOP, consults chair side in the infusion center.

valuable working relationships with physicians and other clinicians and to demonstrate the knowledge and expertise these staff members possess.

Collaborative Practice Agreements

The next evolution of clinical pharmacy services at MRCC included the development of several collaborative practice agreements that were approved by the Washington State Board of Pharmacy. Also known as collaborative drug therapy management,[5] these are agreements between our physicians and pharmacists to manage certain aspects of care based on national guidelines and practice standards. Depending on the protocol, pharmacists are allowed to initiate or modify drug therapy, order related laboratory tests, and assess a patient's response to therapy.

The first protocol was for antiemetic management and this continues to be a mainstay of our program today. Physicians were eager to involve pharmacists in this aspect of patient care as it not only eased their workload, but also improved the quality of care. As part of the care team, the pharmacist could assess the patient's symptoms in real time every time the patient came in for treatment and make changes to the patient's antiemetic medications immediately. Check with your state Board of Pharmacy to see what prescribing authority pharmacists are allowed and the requirements for establishing collaborative practice agreements. Refer to National Comprehensive Cancer Network (NCCN) Guidelines and other national guidelines to develop protocols and algorithms for various supportive care needs.

MRCC's model of oncology pharmacy services described above has been so successful, that we have committed to providing the same level of care at all of our locations. Each clinic has a licensed parenteral pharmacy fully compliant with USP 797 standards. In other words, distributive and clinical services are in place at each of our satellite locations. MRCC employs a total of 7.0 FTE pharmacists and 5.0 FTE technicians, under various staffing models related to the volume of infusion chairs and patient visits. Pharmacy services are available Monday through Friday during business hours. MRCC also has a network of retail pharmacy services and anticoagulation clinics, which we partner with on a regular basis.

On any given day, you will be more likely to find a pharmacist at the chair-side rather than in the pharmacy itself. MRCC pharmacists spend much of their time talking with patients about how they tolerated their last cycle of chemotherapy, reviewing their medications, and making adjustments to help gain better control of their nausea, diarrhea, or constipation.

As our locations and pharmacy team grew, we were also able to expand our clinical services. Currently, MRCC providers

and pharmacists operate under several collaborative practice agreements including:

- Management of erythropoetic stimulating agents (ESAs)
- Renal dose adjustment
- Electrolyte replacement
- Cancer pain management
- Anticoagulation
- Management of hypersensitivity reactions
- GI symptom management
- Appropriate use of colony stimulating factors.

Revised Model for Growth

When our Tacoma General clinic expanded in 2010 to serve 35 infusion chairs and 5 oncologists, we increased the clinic's pharmacy team to include 3 pharmacists. Previously, at our satellite clinics, one pharmacist provided all the services, both dispensing and cognitive. With the Tacoma clinic seeing an average daily census of 80 to 100 patients for treatment and office visits, we needed to revise our approach to care.

Now at Tacoma General, the work is divided into three pharmacist positions: infusion, IV room, and physician office visits. The infusion pharmacist focuses on the patients coming in for chemotherapy, reviewing their treatment plans, recent labs, and events since their last visit. The infusion pharmacist also meets with patients during their infusion to adjust antiemetics and manage any other symptoms, based on our protocols. The IV room pharmacist is primarily responsible for dispensing duties, verifying orders, and checking final admixture products. Since these functions involve such high-risk medications and are time sensitive, it is critical to reduce interruptions to this position. Both the infusion and IV pharmacists participate in the multidisciplinary morning report, reviewing patient care plans for the day. These two pharmacists cover the majority of issues that come up in the clinic day-to-day.

Patients coming in for physician office visits have needs as well. The "MD pharmacist" has an office close to the physician offices so that the pharmacist has easy access to providers as questions arise. Providers and the pharmacist review proposed changes to the plan of care for patients coming in that day. The pharmacist then prepares patient education materials to assist with the treatment consent process.

We have found that pharmacists provide a unique perspective on chemotherapy patient education. Pharmacists are often the first person the patient sees after receiving the plan of care from the physician. These professionals use their clinical expertise to help translate the care plan to the patient level, describing what to expect and how our team will help prevent and manage symptoms and side effects. Pharmacists also take into account the patient's current medications, disease states, lab results, and insurance needs. By completing this assessment early in the process, the pharmacists can identify possible issues with the treatment plan, potentially reducing wait time on the day of treatment.

The "MD pharmacist" is able to:

- Field questions from providers and patients about specific medications or drug interactions.
- Coordinate with specialty pharmacies for oral chemotherapy preparations and assist in managing refills. This role is especially important for medications that include a REMS (Risk Evaluation and Mitigation Strategy) program, such as Revlimid. With the volume of oral chemotherapy regimens, the need for this coordination and medication review is increasing.
- Collaborate with social workers and drug recovery specialists when patients need financial assistance.
- Act as a liaison with the inpatient pharmacy team, helping to coordinate planned admissions for chemotherapy.

Research & Clinical Trials

Cancer research and clinical trials are an important part of the MRCC program. While pioneer pharmacist Richard Shine, PharmD, still has his roots in oncology pharmacy, he now serves as the director of the MultiCare Research Institute. The Institute coordinates clinical trials via the Northwest Community Clinical Oncology Program (NWCCOP), industry-sponsored trials, and studies available through our network affiliation with Seattle Cancer Care Alliance (SCCA). In the absence of an Investigational Drug Service, our individual clinic pharmacists are involved in research in many ways, from the Institutional Review Board to management of study product inventory. These duties are in addition to routine dispensing and clinical services.

Patient Safety & Patient Satisfaction

Pharmacists provide an additional level of safety checks in the chemotherapy process. At MRCC we added process steps in the early years of our clinic-based pharmacy program. The oncology pharmacist began by printing Medication Administration Records (MARs) from the pharmacy computer system, providing a more organized method of documenting chemotherapy doses and administration than the handwritten information on the flow chart.

In 2007 MultiCare upgraded to a fully integrated Epic© EHR, including the Beacon oncology module. Pharmacists played a key role in EHR implementation, first by helping to develop MultiCare standards for antiemetic and emergency medications, then by reviewing chemotherapy protocols prior to release, and finally by converting paper treatment plans to Beacon protocols. This process involved research on current

best practices and national guidelines, as well as immense attention to detail to ensure accuracy of information on a general and patient-specific level. During the process, our providers were also involved, and commented many times that they could not imagine going through this process without our pharmacists.

Now after four years on our EHR, the pharmacist safety checks remain as important as ever. With the EHR system, information is easier to access and to communicate to physicians. Pharmacists can easily track trends in key lab results, doses, and weight changes. These data help pharmacists alert physicians to the need for a potential dose adjustment, always ensuring we have the right drug and the right dose based on information available through the EHR.

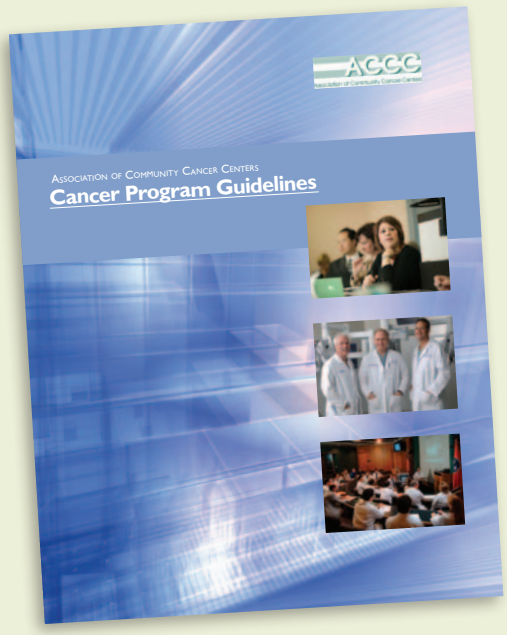
Not only do physicians and clinical staff value a pharmacist on the cancer care team, so do patients. Sometimes patients need some time to understand the difference between a clinical pharmacist and other pharmacists they've had contact with. Patients are excited to have a "drug expert" as part of their care team. Being in the clinic every day, right alongside the physicians and nurses, gives pharmacists the opportunity to interact directly with patients. Patients appreciate the support with their medication regimens and in managing their symptoms. And the pharmacists, in turn, appreciate the instant feedback from patients about the success of their interventions. Patients often comment on how accessible the pharmacist is and how grateful they are for the time pharmacists spend with them. Happy patients and families help increase patient satisfaction scores for our clinics.

Cost Effectiveness

With an average salary of $115,500, pharmacists are not an inexpensive resource.[6] So how can implementing a clinical pharmacy model in the community cancer program setting be cost effective? The value of pharmacists in managing the bottom line has been described by others—both in terms of inventory management and contract negotiation.[7] MRCC pharmacists have also played a significant role in managing drug shortages, not only to track and acquire products, but also in proposing alternate therapies when the usual medications are not available.

The financial impact of pharmacy services expands when the clinical component is included, although this data is often challenging to quantify. Some examples of the intuitive financial contributions pharmacists provide center around appropriate selection of therapy and in serving as physician extenders. Clinical pharmacists review physician orders for appropriateness related to FDA indications and assist in providing evidence-based support for off-label or experimental

continued on page 47



ACCC'S *CANCER PROGRAM GUIDELINES*

Chapter 4, Section 5, Guideline III: Clinical Pharmacy Services will be established to ensure the appropriateness and safety of therapy.

Rationale: A multidisciplinary approach should be used in assessing the patient, obtaining medication history, and developing a therapy plan based on the patient's current condition, physiological changes, and reaction to previous therapy. Current medication plans will be reconciled with other providers to ensure coordination and optimizing of the patient's total care.

Chapter 4, Section 5, Guideline IV: Appropriate drug-related education will be provided to patients and staff.

Rationale: It is important to incorporate new scientific discoveries and standards into practice as soon as possible, by educating patients and members of the multidisciplinary team. Training new staff and retraining established staff on a regular basis are important. Specific areas of focus include pharmacology, pharmacokinetics, pharmacodynamics, drug compatibility, drug administration, drug therapy interactions in patients taking multiple therapeutic agents, adverse effects of medication, medication outcomes, and taking comprehensive medication histories.

Read ACCC's full Pharmacy Services Guidelines at: *www.accc-cancer.org*.

IN THEIR OWN WORDS

The clinic administrator was reluctant to hire a pharmacist because he thought pharmacists were limited in their skills and abilities. In a short period of time, I branched out from distributive services and started providing education to patients. I then went on to provide cognitive services to the physicians and nurses, helping patients with their medication regimens, and more. It didn't take long for the nursing and physician staff to realize the value of pharmacy services in the clinic.—Richard Shine, PharmD, pioneer pharmacist at Tacoma General Oncology Clinic, MRCC

I think the pharmacists here at MRCC are one of the core strengths of the oncology program. They are very approachable and willing to work with physicians and staff to coordinate and facilitate patient care, including following up on symptom management in clinic and even by telephone as an interval follow-up for patients.—Umesh Chitaley, MD, medical oncology chief, Tacoma General, MRCC

I am new to MultiCare, having just joined the MultiCare Regional Cancer Center in November 2011. Previously, I was in private practice in hematology and medical oncology for the last 30 years. In all that time I've never had the opportunity to work with a clinical pharmacist as an integral part of the cancer care team. After the physician, they [pharmacists] are the key point of contact for patients regarding establishing informed consent for treatment. They [the pharmacists] provide education and support for the oncology nurses, in addition to supporting patients and their families. Clearly, the sophistication of our cancer program overall is tremendously enhanced by the presence of our dedicated clinical pharmacy team. I am delighted to now be a part of this team. This [practice model] is like traveling first class for the first time—if you've not done it, you don't know what you're missing. If you have done it, there's no going back.—Jack Keech, DO, Gig Harbour Clinic, MRCC

The pharmacy team is an excellent resource. Without any hesitation, I can say that the pharmacist is part of a group that is hard-working, enthusiastic, eager to explore and research unusual interactions, and able to collaborate with SCCA in getting regimens implemented here.—Umesh Chitaley, MD, medical oncology chief, Tacoma General, MRCC

indications, increasing the likelihood of reimbursement and minimizing the burden on the pre-authorization team. Medication use evaluations on classes of drugs, such as antiemetics or anti-resorptive agents, can identify not only compliance with treatment guidelines, but also opportunities for more favorable reimbursement within the class.

Clinical pharmacists can also play a key role in compliance with local or national coverage criteria, such as that governing eyrthropoesis stimulating agents (ESAs), resulting in cost avoidance by preventing lost revenue. MRCC pharmacy team is now the "gatekeeper" for all ESA medications. We revised our collaborative practice agreement to include prescriptive authority for key lab tests that require assessment prior to and during ESA therapy. The physician prescribes the initial dose, but all further dose titrations are prescribed by a pharmacist. Pharmacists also review physician notes for documentation of medical necessity as required by the coverage criteria, and participate in an internal audit team of all ESA claims. This process allowed us to maintain compliance and achieve significant improvement in our Medicare reimbursement rate for ESA therapy.

Pharmacists as Extenders

The most significant and long-term impact of clinical pharmacy services in the MRCC care model is as a physician extender. With physicians challenged to see more patients in less time, someone must still be available to manage symptoms and answer patient questions. While many on the care team are capable, clinical pharmacists fill an important part of that gap at MRCC. The physician can trust that a qualified clinician is monitoring for, assessing, and managing many of the side effects of treatment on a day-to-day basis. Pharmacist interventions can also reduce unnecessary visits to the emergency department when a physician is not otherwise available, thus reducing costs to the patient and the healthcare system overall.

The next step in creating a more financially sustainable oncology pharmacist model is to be able to bill for these clinical services. Some commercial payers recognize pharmacists as providers, but the majority—including Medicare—do not. Others have described some successful billing mechanisms, but the barriers outweigh the wins.[8,9] MultiCare has achieved reimbursement for medication therapy management services in other areas, such as anticoagulation and chronic disease management. In 2012 we will explore this possibility for oncology pharmacy services as well.

While inclusion of pharmacists in the oncology team is becoming more common, we feel we have developed a unique model for pharmacy services at MRCC that thrives on our clinical expertise, collaboration, and contributions to patient care. Our pharmacists' accessibility and credibility make them a valued partner of MRCC physicians, practice administrators, and patients alike. OI

MRCC pharmacy staff, Kelly Hackney, PharmD, and Ivan Cordova, CPhT, prepare and check chemotherapy.

—Annie Lambert, PharmD, has worked as oncology pharmacy supervisor for MultiCare Regional Cancer Center since 2007. MultiCare Health System, MultiCare Regional Cancer Center was a 2011 ACCC Innovator Award recipient.

References

1. Ostriker SP. The growing value of a pharmacist in community oncology practice. *Oncol Issues*. 2010;25(1):38-40.
2. Patel K and Grusenmeyer P. Integrating hospital-based pharmacists in a private medical oncology office. *Oncol Issues*. 2009;24(3):30-34.
3. Larson BA. Emerging role of pharmacists in private oncology practices. *Oncol Issues*. 2009 ;(4)37-39.
4. The Association of Community Cancer Centers. *ACCC Cancer Program Guidelines* (2009). Rockville, MD: Association of Community Cancer Centers. Available online at: www.accc-cancer.org. Last accessed March 22, 2012.
5. American Pharmacists Association. *Issue Brief: Collaborative Drug Therapy Management;* March 2008. Available online at: *www.pharmacist.com/AM/Template.cfm?Section=Home2&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=16882*. Last accessed April 2, 2012.
6. Rajecki R. Drug Topics' 2010 pharmacists salary survey. Drug Topics, Modern Medicine Network. Available online at: *http://drugtopics.modernmedicine.com/drugtopics/article/articleDetail.jsp?id=664501*. Last accessed March 22, 2012.
7. Thompson CA. News report: Oncology practices recruit pharmacists for efficiency, savings. *Am J Health-Syst Pharm*. 2006. Oct 1:63(19):1774-1776.
8. Clinical Pharmacists in Oncology Practice. *J Oncol Practice*. 2008 Jul;4(4):172-174.
9. Murawski ME, Villa KR, Dole EJ, et al. Advanced-practice pharmacists: Practice characteristics and reimbursement of pharmacists certified for collaborative clinical practice in New Mexico and North Carolina. *Am J Health-Sys Pharm*. 2011 Dec15;68(24): 2341-2350.