

Supportive Care Just When Patients Need It





A pilot 24-hour urgent care oncology clinic reduces ED use and cuts costs

Patients undergoing active cancer treatment—namely, radiation therapy and chemotherapy—can experience a variety of symptoms, including uncontrolled pain, neutropenic fever, dehydration, electrolyte imbalance, diarrhea, anemia, and thrombocytopenia. These symptoms can occur any time of the day or night, and they may require immediate or urgent clinical assessment and treatment. Same-day appointments may be available to oncology patients under active treatment, but they are often limited. Patients who experience symptoms outside of business hours, or when same-day appointments are unavailable, are often directed to seek care in the emergency department (ED) or wait until the next business day.

Receiving care in an ED is not without clinical or financial risk for oncology patients.¹ Neutropenic patients may be exposed to viral and bacterial pathogens from other ill patients. And ED providers may be risk averse, ordering oncology patients redundant tests and procedures, such as lab work, radiology screenings, and electrocardiograms.² ED staff may also be more likely than cancer specialists to admit oncology patients as inpatients.

To determine the need for a 24-hour oncology-only clinic, we analyzed how oncology patients were currently using the ED by reviewing patient charts and conducting targeted interviews with key providers.

One approach to increasing access to oncology-specific urgent care is to create a 24-hour outpatient oncology clinic. This concept is of growing interest to oncology programs across the nation, although there is currently little in the literature describing these disease-specific services. There are a variety of challenges to providing same-day care to patients experiencing acute symptoms related to their diseases or treatments.³ This article describes the

creation of a 24-hour outpatient oncology clinic housed in an academic tertiary referral hospital located in a major metropolitan area.

The Clinical Cancer Center at Froedtert Hospital in Wisconsin is home to more than 4,500 patients newly diagnosed with cancer each year. The center houses eight multidisciplinary disease-specific cancer clinics that offer surgical oncology, radiation oncology, and medical oncology services. Patients also have outpatient access to an oncology lab, procedure suite, a 54-bed infusion room, and a dedicated early-phase clinical trials translational research unit. In fiscal year 2018, there were more than 297,000 outpatient visits to the cancer center.

Analysis of Need

To determine the need for a 24-hour oncology-only clinic, we analyzed how oncology patients were currently using the ED by reviewing patient charts and conducting targeted interviews with key providers. Specifically, we examined patient arrival patterns, the types of diagnostic tests clinicians were ordering, and the frequency with which oncology patients were being admitted to the hospital. Our analysis revealed an average of 150 to 185 oncology-related visits to the ED each month, resulting in an admission rate of more than 55 percent.

An outpatient oncology nurse and an oncology nurse practitioner performed a detailed clinical chart review on a sample of 30 oncology patient visits during a six-month period. They reviewed utilization patterns, paying specific attention to the use of laboratory tests and diagnostic radiology. The nurses found that oncology patients who required urgent supportive care—such as those reporting with chief complaints of pain, nausea and vomiting, and dehydration—used diagnostic services more frequently.

We then conducted structured conversations with several high-volume oncology providers. These individuals expressed frustration with the lack of after-hours appointments for supportive care services, along with their inability to place same-day urgent patients in the hospital’s already busy infusion room.

Laying the Foundation for a Pilot Program

Next, we brainstormed with key oncology leaders about how to best treat urgent care oncology patients in a timely manner. We discussed our vision of a 24-hour oncology clinic staffed by cancer care providers. We then conducted a literature review, which produced several examples of successful oncology urgent care models.⁴

Though there was interest and support for this proposal, we recognized that a permanent oncology urgent care strategy could not be implemented without definitive evidence of patient utilization. We proposed a plan to pilot test a 24-hour oncology clinic to determine its value to patients and the hospital and to gauge the extent of overall patient demand. To do this, we formed a multidisciplinary team of clinic and infusion nurses, medical oncology advance practice providers, and inpatient and outpatient nursing leaders to work out details and guide the clinic’s creation.

This team, which included key opinion leaders, helped refine our vision of the clinic, specifically outlining the operational details necessary to make the clinic successful (see Table 1, below).

Our review of ED utilization by oncology patients had revealed their most common chief complaints to be related to symptom management, including:

- Pain
- Shortness of breath
- Weakness
- Dehydration
- Uncontrolled nausea and vomiting.

Because the goal of the pilot was to create a long-term urgent care strategy for the organization, we determined that the clinic should offer services to address commonly needed supportive care treatments. We decided that the clinic’s services should include:

- Lab draws
- Fluid and electrolyte replacement
- Blood product transfusions
- Antibiotic administration
- Home infusion pump support
- Standard diagnostic services.

Table 1. Implementation Process

Gain pilot approval from health systems’ Healthcare Value Council
Gain approval of space planning by the hospital operations committee
Create a multidisciplinary team to determine clinic operations and patient flow
Create dedicated department in the EHR
Create and gain approval for the operating budget, including needed full-time equivalents
Determine clinical provider support
Hire and onboard clinic staff
Determine marketing and communication plan
Finalize organizational metrics for success, including measurement process
Complete construction of 24-hour clinical space, including state inspection
Finalize orientation and key EHR workflows
Open 24-hour cancer clinic
Conduct ongoing monitoring against key metrics.

Finding a Home

Our oncology providers had a strong preference for giving the clinic dedicated space. This would allow providers to send home-based oncology patients to the clinic for triage and evaluation at any time of day. It would also provide a space for patients to have planned follow-up, or continuity of care appointments, during evening or weekend hours. These visits would enable providers to assess recently discharged patients and check their lab values outside of routine clinic hours.

We evaluated multiple locations for the pilot clinic, including the existing space used for our oncology clinic and infusion room within the hospital's outpatient cancer center. Although the cancer center is a logical place for patient care needs and it is already familiar to our patients and clinical staff, it closes on weekdays at 8 pm. After-hours staff are limited to several infusion nurses, and there is no front desk, pharmacy, or immediate provider support. Additionally, the cancer center is in a building on the edge of our large campus, several minutes away from our dedicated hematology and oncology inpatient units, in which an oncology provider is stationed in the evening. We examined the feasibility of opening the cancer center 24 hours a day, but we determined that to be too costly for the purposes of the pilot.

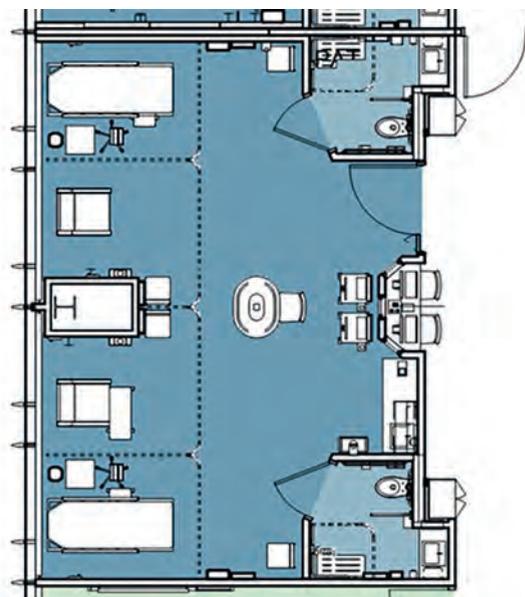
However, a new solution soon presented itself. Around the time that the hospital's Health Care Value Council approved the 24-hour oncology clinic pilot, the hospital also decided to build two additional inpatient units in the building immediately adjacent to the cancer center. The new space would house 64 hematology and oncology inpatient units and connect to the existing cancer center by way of a sky bridge. The hospital decided to reserve space in its new addition for the 24-hour oncology clinic pilot. The clinic would be housed in what was to be two inpatient rooms near the entrance to the new unit. By removing the wall between the two rooms, the hospital created one large 670-foot space for 24-hour oncology patient care. The finished space incorporates four patient bays, two 50-foot patient bathrooms, wall oxygen and suction, and a dedicated nurse charting space (see Figure 1, right). One significant advantage to having the clinic located on the hospital's inpatient unit is the ability of clinic nurses to communicate face to face with receiving inpatient nurses if a patient requires admission. This type of interaction promotes continuity of care as patients transfer from one location to another.

Staffing the Clinic

Given the small space allotted for the pilot study and the need for nurses staffing the clinic to be comfortable with both routine outpatient care and urgent symptom management, building a nursing workforce for the clinic was challenging. Clinic nurses also had to be knowledgeable about the layout of the inpatient unit, because they would be physically stationed in the inpatient setting while working with oncology providers.

To best meet these requirements, we created a first-of-its-kind oncology nursing resource pool to train nurses for both inpatient and outpatient care environments. We cross-trained the nurses who elected to be part of this resource pool so that they would be qualified to provide care in the two dedicated hematology/oncology units, the outpatient oncology infusion

Figure 1. 24-Hour Cancer Clinic Schematic





24-Hour Cancer Clinic entrance, located on the inpatient oncology unit.

room, and the 24-hour cancer clinic. Our extended nurse orientation included training in the inpatient and outpatient electronic health record (EHR) and orientations to three nursing environments (two inpatient units and the outpatient infusion room). A dedicated nursing leader was assigned oversight of both the operations of the 24-hour cancer clinic and of the oncology nursing resource pool staff.

Creating a Cost Structure

Because lowering the cost of oncology care is a key objective of the 24-hour cancer clinic, we designed it to be an extension of our existing outpatient daytime oncology services. This allowed us to duplicate our daytime charge structure for the new clinic, creating seamless billing for oncology providers who see patients in the 24-hour facility. Like our outpatient services, the new clinic would participate in the Oncology Care Model (OCM) program, a national five-year payment reform program sponsored by the Center for Medicare and Medicaid Innovation. The purpose of the OCM is to promote higher-quality, more coordinated oncology care with payment arrangements that include financial and performance accountability for episodes of care. Because our 24-hour cancer clinic's charge master (or fee structure) mirrors the one that we use for our daytime outpatient clinic services, the new clinic was able to serve as a potential opportunity for lowering the patient's cost of care, which is the goal of participating in the OCM. This eliminated the need for our 24-hour cancer clinic to adopt a more expensive charge master like those found in other urgent care or emergency departments.

To further simplify the new clinic's functionality, we created a dedicated EHR department that mirrors the functionality of

our daytime outpatient infusion room, making both documentation and ordering familiar to nurses and oncology providers. This dedicated EHR allowed us to track visits, arrival patterns, and other key metrics related to the 24-hour cancer clinic.

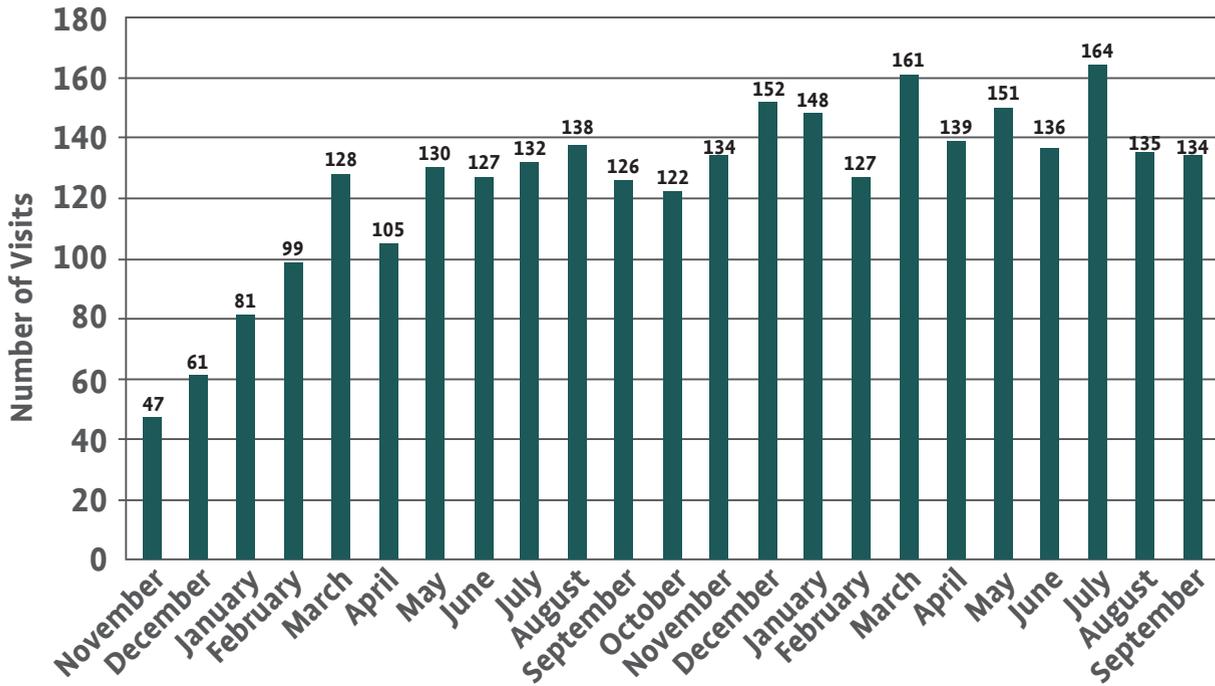
Initial Results

Our quality improvement analysis was based on our ability to demonstrate clinically competent care that meets patients' and providers' expectations. We tracked the volume of patients presenting to the 24-hour cancer clinic, the types of services that we provided, the number of patients that we admitted (or readmitted), and the utilization of diagnostic services. We measured patient satisfaction with surveys, patient rounding, and postdischarge phone calls.

Since the Froedtert & Medical College of Wisconsin 24-Hour Cancer Clinic opened Nov. 1, 2016, it has served more than 3,000 patients—approximately 140 each month (see Figure 2, right). The cancer clinic is open to all oncology patients, including those who have been seen by our medical oncology, surgical oncology, and radiation oncology departments. Our initial analysis shows a 10.7 percent decrease in oncology patients' use of the ED from January 2016 to June 2016 compared to January 2017 to June 2017. We measured 56 percent, 32 percent, and 11 percent decreases in radiology, electrocardiogram, and lab utilization, respectively, for patients seen and discharged from the cancer clinic compared to patients discharged from the ED. The admission rate from the 24-hour cancer clinic was 18 percent, compared to a 42 percent admission rate for oncology patients treated in the ED.



Figure 2. 24-Hour Cancer Clinic Volume, November 2016 to September 2018





Patients at the 24-Hour Cancer Clinic see oncology providers who are familiar with their specific needs.



The Froedtert & MCW Clinical Cancer Center is one of six treatment locations in the Froedtert & MCW Cancer Network.

With less ED use, direct charges to oncology patients who received care in the clinic have decreased by \$1,500 to \$2,500 per visit compared to ED charges for similar services. Patients have expressed a high level of satisfaction with the 24-hour cancer clinic, where they say that providers understand their needs, promptly address them, and, in many cases, send patients home rather than admitting them to the hospital. Patient satisfaction currently has a top box score of 92 percent for the overall rating of care, with comments that show significant appreciation for the clinic's services. Postdischarge phone calls have demonstrated that oncology patients recognize the value of an urgent care clinic that specifically serves them. Some patient comments include:

- *“You guys are great. It is so comforting to know that you are here, and you understand what I need.”*



Jessica Glaser, RN, and Chantel Relihan, RN, are nurses serving patients in the 24-Hour Cancer Clinic.

- “This was way better than having to go to the ER or urgent care. You know exactly what I need and know what to do, and you get it done.”
- “Things went perfectly. You guys took very good care of me. It is nice to have a place like this where people know what I am going through.”

Looking Ahead

The long-term success of our 24-hour cancer clinic will depend on our ability to demonstrate a sustained reduction in the use of emergency services, diagnostic testing, and readmissions. By decreasing the need for these services, both oncology patients and government and commercial payers will benefit financially. A more efficient use of our resources will help us be more competitive in today’s oncology market, a key to the overall long-term success of our organization. Given the success of the initial pilot, discussions are in process to determine how to expand the space and services of the 24-hour cancer clinic to meet ongoing patient demands.

As the shift from volume- to value-based reimbursement accelerates, organizations must develop processes that promote efficiency and appropriate use of medical resources while also providing adequate, cost-effective disease-specific care. The Froedtert & Medical College of Wisconsin 24-Hour Cancer Clinic is an important step toward both lowering the cost of oncology care and increasing overall value for patients. 

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Cancer Clinic, Froedtert & the Medical College of Wisconsin Clinical Cancer Center at Froedtert Hospital campus, Milwaukee, Wisc.

Thank you to the dedicated nurses, advanced practice providers, physicians, and numerous support staff from Froedtert and the Medical College of Wisconsin who worked tirelessly to make this clinic available to our cancer patients. This project would not have been possible without the assistance of Dr. Susan Breakwell and Dr. Kristin Haglund, Marquette University, College of Nursing.

References

1. Sitzes-Determann AL. *Planning for the Sustainment of a 24/7 Oncology Clinic: An Action and Evaluation Research Project* [doctoral dissertation]. Retrieved from ProQuest Health Management. UMI Dissertation Publishing.
2. Pines JM, Newman D, Pilgrim R, Schuur JD. Strategies for integrating cost-consciousness into acute care should focus on rewarding high-value care. *Health Aff.* 2013;32(12):2157-2165.
3. Ruegg TA. A nurse practitioner-led urgent care center: meeting the needs of the patient with cancer. *Clin J Oncol Nurs.* 2013;17(4):e52-e57.
4. Advisory Board. Urgent care for cancer patients: reduce ED visits and hospitalizations. Available online at: https://www.advisory.com/Research/Oncology-Roundtable/Studies/2014/Urgent-Care-for-Cancer-Patients?WT.ac=Feat+Ben%20_OR_Study__UrgentCareforCancerPatients_2. Last accessed March 1, 2019.