

A New Model of Chemotherapy Delivery

The St. John Hospital and Medical Center, Van Elslander Cancer Center Experience

by Roxanne L. Clark, MPA, FAAMA,
Arthur F. deVaux, JD, and
J. Scott Nystrom, MD, FACP

St. John Hospital and Medical Center opened in 1952. Over the years, the hospital has grown to a 607-bed community teaching facility in a primary and secondary service market of just under 2 million people. The hospital has a long history of providing cancer care and has participated with the Michigan Cancer Foundation since 1972.

Opening the Van Elslander Cancer Center in 2001 on the campus of St. John Hospital and Medical Center in Detroit, Mich., was no small feat. Years of planning and development went into the start up of this newly constructed facility. From the beginning, those involved knew they faced some tough challenges, including stiff competition in the marketplace. Unlike most other cancer programs, St. John Hospital and Medical Center in Detroit, Mich., is located in close proximity to not one but *two* National Cancer Institute-designated comprehensive cancer programs—the Karmanos Cancer Center in Detroit (just 15 minutes away) and the University of Michigan in Ann Arbor (approximately an hour's drive away).

Partly based on the need to differentiate itself from its competition, the Van Elslander Cancer Center developed a “new” model of cancer care delivery, which grew out of

the dynamic interaction between the private practice physicians, the hospital, and the community beginning in the 1980s.

Focusing on Community Needs

For those involved in the planning, construction, and opening of the Van Elslander Cancer Center, challenging the status quo was imperative. Focus groups played a key role in helping define how the new facility would take shape. These groups concluded that the new cancer center “should not look, feel, or smell like a hospital” but rather “should feel different,” especially for an urban setting.

The goal was to create an environment of health and healing. Cancer care would be delivered in one convenient location that didn't feel like the typical healthcare delivery model. Instead, warm colors, open floor plans, wide expanses of windows to maximize natural light, wood accents, and continually changing “art shows” of local artists would create an ambience in which patients and their families could experience excellent patient care in a beautiful, tranquil, and caring environment. Treating the whole patient—and not the disease—would drive the new care delivery process.

Attracting Physicians and Patients

One of the first challenges facing the new cancer center was how to attract physicians to the new facility. In order to do so, planners needed to ensure that the new facility would be attractive to physicians as well as to prospective patients. Offering a full spectrum of oncology services in one location helped.

Today, the 69,000-square-foot freestanding outpatient facility provides the full range of physician services: radiation oncology, medical oncology/hematology, oncologic and general surgery physician offices, pediatric oncology, pharmacy and pharmacists, clinical and research trials, genetic testing and screening, support services, a large complementary and alternative medicine (CAM) area, community services, including screening and education, CME programs, breast center, on-site laboratory, on-site CT and diagnostic radiology services, and multidisciplinary site-specific clinics.

A Centralized Infusion Center

A second challenge facing the Van Elslander Cancer Center was how to create an efficient physical plant design for the delivery of the chemotherapy agents and other infusion services. The center did not accommodate the space demands required for the private physicians to provide chemotherapy in their own offices. To maximize the use of space, which was at a premium, it was determined that chemotherapy would be provided in a centralized area.

Fortunately, the centralized infusion area dovetailed with information gleaned from the local focus groups—a vision for receiving treatment and care in areas “that didn't have a restricted feel.” Local stakeholders also said they wanted to receive care from any and all staff that was present in a particular area.

The resulting open-floor plan for the infusion center met the needs of patients, physicians, and



The Van Elslander Cancer Center is located on the campus of St. John Hospital and Medical Center in Detroit, Michigan.



Music therapy adds a unique dimension to the cancer center's support services.

Infusion Center Services

- Pharmacists/Pharmacy Technicians mix drugs
- Drug inventory is controlled by Pxylix machines, which monitor individual practice inventory; the physician group maintains them
- Current infusions provided—ChemoRx, Blood transfusions, Remicade®, antibiotics, etc.
- Electronic Medical Records (EMR) available to some participating practices
- EMR provides nurse charting
- EMR provides all Protocol drug dosing
- Billing routers sent to the respective practice

the physical plant requirements. However, the physicians' use of the Infusion Center varied dramatically, so rental charges for the Infusion Center vary from a fixed per-year fee to a per-use basis.

Currently, the Infusion Center offers 34 infusion stations for patients and family, with 18 chairs located in the large, open circular portion of the plan. The space was designed with four private rooms, equipped with full hospital room acumens, four cubicle spaces for privacy where intake and assessment, port access, and education are conducted. Also located in this area is a special procedures room where bone marrow aspirates are drawn, a triage room, and a separate six-chair area that had been designated for outpatient hospital space.

Staffing Concerns

With the space design established, the next major challenge was determining how to provide seamless care to patients while meeting all relevant legal requirements. One concern was that having chemotherapy provided in the Infusion Center by nurses from multiple practices with varying nursing styles and practice protocols would

result in a chaotic environment that would be unappealing to patients and providers.

After much discussion and many problem-solving sessions, the decision was made to create a separate independent organization that would provide the nursing care in the Infusion Center. This "one nursing pool" model would provide chemotherapy with nurses employed not by the individual practices but by a single independent entity responsible for the provision of services in the Infusion Center. In our case, the hospital and the physicians practicing in the cancer center owned this separate entity. The final step was allocating the cost of the nursing pool among the various participants.

As employees of an independent entity accountable to the cancer center as a whole, the nurses would be able to provide a seamless continuum of care to all patients, regardless of which physician made the referral. This approach would allow for consistency, maximization of staff usage, increased productivity, and increased quality efforts in the delivery of care.

Because various independent physician practices would be operating within the cancer center, and each would be using the centralized infusion area, establishing practice standards for the Infusion Center was crucial. One key issue was the nurse-to-patient ratio. Extensive research revealed that no national or local "recognized" ratios were available. A review of the ratios employed in the practices that would be using the Infusion Center staff yielded dissimilar results. We conducted informal research on the ratios used by other local medical oncology practices and hospitals. These ratios ranged from a low of 6 patients to 1 nurse to a high of 20 patients to 1 nurse. (This disparity results from the fact that some practices and hospitals used productivity measures that count injections and chemotherapy agent delivery with equal weighting.) To write the initial contracts of staff that would be employed by this separate entity, a commonly agreed upon ratio was necessary. When one of the stakeholders refused to change from his 6 to 1 ratio, it was decided that separate contracts holding measurements for ratios to within "reasonable and prudent" numbers would be written.

Continued research on the ratio of patient-to-nurse has found that the local and national average is a "mean" ratio of 14:1. Still, this number includes locations where pharmacists mix the anticancer agents and use "assistors" in the delivery of chemotherapy agents and other infusion agents. In such locations, medical assistants, physician assistants, and nurse coordinators do some of the front-end work away from the "chair-side" nurse.

Other Considerations

Organizations considering setting up a new model of care similar to Van Elslander Cancer Center need to do some careful planning beforehand.

First, have a thorough understanding of each party's goals and expectations. Early in the planning process, the parties should establish what is "sacred" to them. For example, our physicians did not want the centralized infusion area (staffed by one nursing pool and employed by a separate, independent entity) to become a vehicle for the hospital. Traditionally, St. John Hospital had not provided medical oncology services or chemotherapy, and the physicians did not want this new model to result in a

Treating the Whole Patient

by Amanda Patton

In 2004 the Van Elslander Cancer Center celebrates its third anniversary. *Oncology Issues* asked Administrative Director Donna Handley to provide an update on the cancer center's programs.

Handley notes that for a variety of reasons, the center no longer employs the one nursing pool model of care for the central infusion area. The model was creative and offered many positives including economies of scale and excellent opportunities for establishing and measuring standards of care, and may be used again at some future date, Handley said.

The Van Elslander Cancer Center's commitment to treating the whole patient in an environment promoting health and healing of mind, body, and spirit continues. The center employs some innovative approaches to putting the patient first. For example, patient support groups meet in a private

area of the cancer center's infusion area. This works well for patients, said Handley. "They don't have to come back for separate patient support group and caregiver group meetings. It's easily accessible and [allows] patients to make good use of their time," she said. A virtual tour of the cancer center and its state-of-the-art centralized infusion area is available at www.vanelslandercancercenter.org.

Handley praises her support staff's efforts to reach out to patients, "Every new patient gets an invitation or an appointment at our wellness workshop." This free service provides patients with information on alternative integrated healthcare offered at the center's Healing Arts Center. The Healing Arts Center has a full menu of classes to reduce stress and promote healing including yoga, Tai Chi, meditation, and more and offers free demos.

Staff dietitians take an

"out-of-the-box" approach to teaching nutrition by preparing a lunch for participants while teaching the benefits of good nutrition and living with cancer. And the Van Elslander Cancer Center has a music therapist who Handley said, "has added a dimension of care that is very unique." The music therapist is very popular in the pediatric area, but also has been beneficial in the radiation oncology area, helping patients cope with claustrophobic sensations while undergoing treatment. Additional supportive services including chair massages and reflexology are offered in the infusion area.

The cancer center offers free valet parking, which Handley points out can be invaluable for those patients who come to the center every day for weeks. "The hospital has been phenomenally supportive," Handley said. "I think these services are so critical to the quality of a program." ❏

Amanda Patton is associate editor at the Association of Community Cancer Centers in Rockville, Md.

competing medical oncology/chemotherapy practice. From the hospital's perspective, it wanted to protect its historical business lines.

To resolve this issue, we developed an operating agreement that documented in writing how each party would conduct business in the cancer center. Our operating agreement established communication links between all of the cancer center members by creating a Cancer Program Policy Board consisting of representatives of various members of private practice physician offices who were located within the Van Elslander Cancer Center. A written operating agreement should establish basic goals for the cancer center, including accreditation, clinical research, quality assurance, and utilization management activities.

Planning and building a new cancer center also requires a careful and systematic legal review. Hospital-physician relationships are highly regulated by local, state, and federal government. All relationships between the hospital and the physicians must meet the applicable safe harbors under the anti-kickback statute and exceptions under the Stark law. Plus, physicians who work at the cancer center must also meet the internal legal requirements applicable to their private practices.

One key legal issue included establishing fair market value for the rent of the cancer center and for the Infusion Center, which could include the provision of equipment and pharmacy services by the hospital.

Both the hospital and the physicians must carefully review the billing requirements in structuring this rela-

tionship. For example, a key question for the hospital is whether it can treat services provided in the cancer center as outpatient hospital services.

Most important, the relationship must have ongoing legal review to assure continued compliance with the legal requirements. You need look only to Rapid City Regional Hospital's \$6 million payment for violation of federal false claim laws to appreciate the danger of not carefully reviewing and documenting the relationship between the hospital and the physician tenants of the cancer center.

When establishing a new cancer center and/or a "new method" of care delivery, do not underestimate the importance of communication. An environment in which open, respectful communication is encouraged, as well as expected, was critical in the planning, building, and opening of our new cancer center. As with any relationship, this arrangement is one that will continue to evolve as new rules, new players, and new technology and knowledge are discovered. The parties involved must be willing to be flexible and to adapt to these changes. ❏

Roxanne L. Clark, MPA, FAAMA, is executive director of the Genesys Hurley Cancer Institute in Flint, Mich. Arthur F. deVaux, JD, is shareholder, Hall, Render, Killian, Health & Lyman, in Warren, Mich. J. Scott Nystrom, MD, is chief financial officer at Great Lakes Cancer Management Specialists in Detroit, Mich., and senior consultant at Tufts New England Medical Center in Boston, Mass.