

The Hub Model of Care

Two new coordinator roles streamline care at one cancer program



The U.S. healthcare system is often looked at as difficult to navigate and understand. It can seem even more so for someone with a cancer diagnosis, as this complex disease requires treatment from multiple specialties. Patients and families navigating the healthcare system during a cancer diagnosis may find the task overwhelming. With this understanding, Froedtert & the Medical College of Wisconsin, an academic medical center in Milwaukee, Wisconsin, wanted to make the process of seeking cancer care easier for patients, caregivers, families, referring providers, and cancer physicians who provide care within the healthcare organization.

In the Beginning...

The genesis to improve care processes and the patient experience started back in the 1990s. Leadership within the Froedtert & the Medical College Cancer Center sought a better way for patients and families to first enter and then successfully navigate the complex world of cancer treatment. The resulting vision: a cancer center that would be centered around patients—with a single entry point for all components of care. The second part of the vision is that truly exceptional multidisciplinary care could not happen without a comprehensive upfront process for getting patients into the system (with all of their records) and then connecting patients to the appropriate provider(s) to start their care as quickly as possible.

Getting Started

In late 2003 and early 2004 Froedtert & the Medical College began to flesh out the vision and plan for a new cancer center facility. Recognizing the importance of the patient voice, hospital leadership actively engaged the people who would use the space. Patients, families, and caregivers were asked what they liked about the existing clinics, and what they might like to see improved or changed in the design of the new cancer center. They shared that 1) they wanted simple, understandable directions to help them find various services and 2) they would like care areas and providers to be consolidated in a single location and efficiently coordinated.

Next, physicians were surveyed to learn what changes or processes would make their jobs easier so that they could provide

better care to patients. Physicians shared a need for reliable mechanisms to support care coordination, collaboration, and research. Hospital leadership also reached out to referring physicians who wanted simplified access to cancer services for their patients and timely communication during and after their care.

Hospital leadership then made site visits to other large U.S. cancer programs to learn from their best practices, as well as their challenges.

All of this input contributed to the decision to build a new facility where cancer patients could see all of their providers in one building and—more importantly—in one clinic. Care would be centered around patients, their needs, and their cancer type. The new facility's design would create an optimal healing environment built around a new model of care—the Hub (Figure 1, page 36).

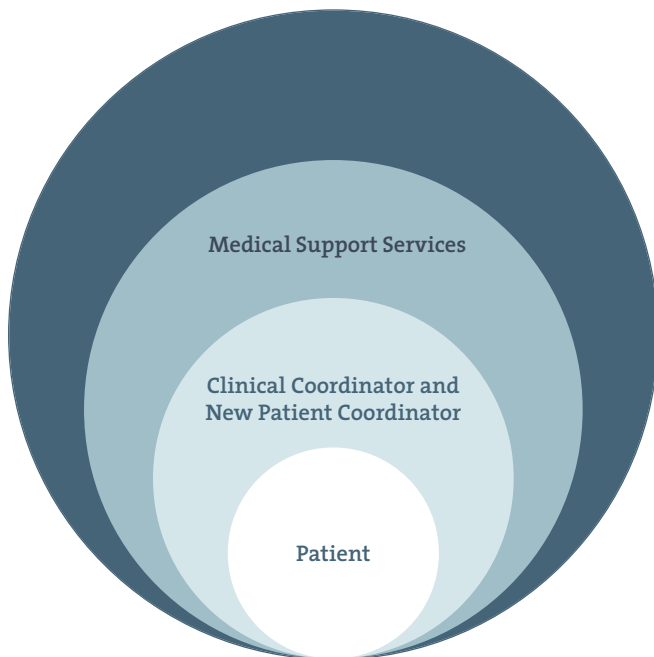
The Hub Model

In this model, patients are at the center, or “hub,” with all the services they need surrounding them. Providers are grouped into disease-site specific clinics—rather than by specialty. For example, the Breast Program includes breast experts in medical oncology, radiation oncology, surgical oncology, plastic surgery, radiology, pathology, pharmacy, and more—all working in one clinic at Froedtert & the Medical College Cancer Center. The same is true for all of the 13 disease-site-specific teams. Providers are also disease-site specific, specializing in one or two types of cancer. This specialization is a marketplace differentiator; patients cannot receive this level of expertise at every cancer treatment facility. Under the hub model, patients always visit the same clinic—regardless of the provider they are seeing. Patients see the same staff each time they visit the program, reducing anxiety and improving communication and care coordination.

The hub model brought together access and coordination services for patients with four objectives:

1. Integration of disease-site-specific services in one area
2. Establishment of a single point of entry for all cancer patients
3. Creation of access standards from time of referral to evaluation and time from evaluation to treatment
4. Improved communication with patients and referring providers.

Figure 1. Froedtert and the Medical College of Wisconsin Hub Model of Care



To fulfill those objectives, the Froedtert & the Medical College Cancer Center created two new positions: the new patient coordinator and the RN clinical coordinator. These coordinators are responsible for:

- Streamlining patient entry into the healthcare system
- Facilitating establishment of consensus-driven, evidence-based standards of care for each disease
- Ensuring consistency across programs
- Facilitating timely patient access to the appropriate provider
- Ensuring that all relevant records, imaging, and pathology slides are available prior to the evaluation
- Facilitating physician communication by capturing information about primary, referring, and consulting providers
- Managing data for reporting and quality and outcomes initiatives.

These two new staff members work together with the multidisciplinary care team in each disease-site-specific program. The end goal of the hub model of care is to create, measure, improve, and maintain an infrastructure to support patients and providers in the provision of high-quality cancer care.

New Patient Coordinators

The new patient coordinator is the first line of contact for new patients who need to be seen in the cancer center; they are the “voice” of the cancer center. New patient coordinators are primarily responsible for managing the intake and triage of new cancer patients within one or two specific multidisciplinary programs. They work behind the scenes, gathering all the necessary information, including records, imaging, and pathology slides so that patients can be seen with all of the necessary medical information in a timely manner. This facilitation helps ensure that a treatment plan is developed and initiated as quickly as possible. New patient coordinators set up all the initial consults with surgery, radiation oncology, medical oncology, and other relevant specialists, as well as coordinating additional tests and referrals between providers.

New patient coordinators also begin entering patient information into the cancer center’s database, which is used as a tool to help measure outcomes and efficiency.

New patient coordinators handle all of the legwork so patients do not need to worry about issues like “*What kinds of information will my doctor need to look at?*” or “*I forgot to bring my CT scan from two years ago. Will my doctor need to see that?*” Patients only need to be concerned with coming to the appointment and taking care of themselves. This intake process is just as beneficial to providers, as they have all the information they need to make treatment decisions—not dealing with incomplete records that may require bringing the patient back in one or two weeks. Cancer treatment can start sooner because all of the information is available at the first appointment.

The job description for the new patient coordinator was written to identify staff with a slightly higher level of education compared to most scheduling positions within the healthcare system. An associate’s degree is required for the position, but a bachelor’s degree is preferred. New patient coordinators do not need to have a medical background. The most important qualities are excellent customer service skills, exceptional communication skills, and the ability to multitask. New patient coordinators are expected to call every new patient back by the end of the day—so no one is waiting overnight to start the intake process. There is also a very quick turnaround time for getting patients into the cancer center. The goal is that each new patient is seen within five business days of their initial contact with the cancer center. To meet this goal, new patient coordinators must work quickly and efficiently to talk with patients, gather their records and imaging, make sure no information is missing, and then assemble information for the provider who will be seeing the patient.

New patient coordinators receive training tailored to their disease-specific clinic. They spend two weeks with the lead new patient coordinator going through an extensive orientation and



shadowing opportunities so that they understand the general workflow for the position. After those two weeks, new staff are then transitioned into their disease-specific program where they:

- Observe the clinic’s intake process
- Familiarize themselves with the clinic flow
- Get to know the staff and providers
- Gain additional understanding and knowledge of the disease process.

New patient coordinators shadow all of the different disciplines, including medical oncology, radiation oncology, surgery, and any other providers that work with their disease-specific clinic. New patient coordinators are able to observe surgeries, procedures, radiation treatments, chemotherapy infusions, radiology exams, and consult and follow-up appointments. They are also expected to attend tumor boards or cancer conferences. These opportunities increase the new patient coordinators’ knowledge of the disease and clinic processes so that they can share that information with patients coming into the cancer center.

Since new patient coordinators are not nurses, each one is paired with a clinical coordinator who is a registered nurse that can address any medical questions or concerns the patient may have prior to coming to the cancer center. This pairing is a unique way of helping new patients prior to their arrival at the cancer

center, as well as helping ensure that patients have a great experience once they begin treatment.

Clinical Coordinators

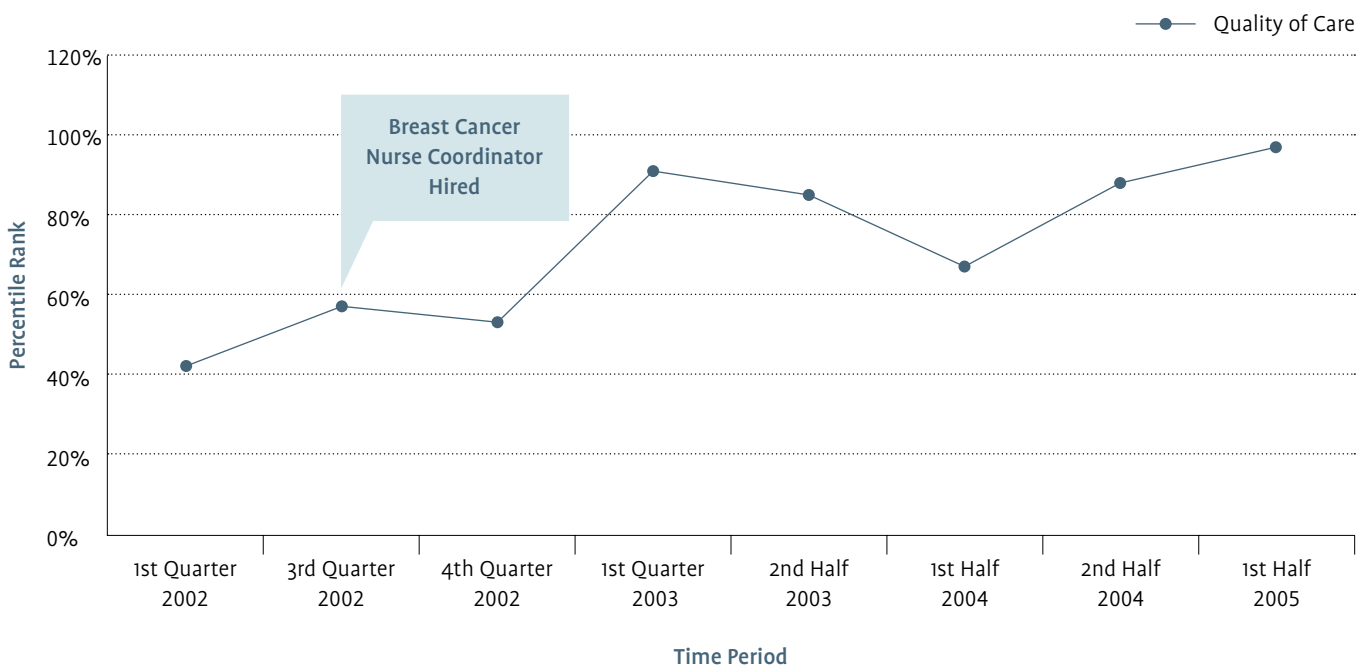
These staff members are nurses (RNs) who partner with new patient coordinators. Clinical coordinators facilitate the development of a multidisciplinary care process with new patient coordinators. This new staff role works to:

- Improve and enhance communication among the multidisciplinary team
- Continually improve quality by working with the team to define the standard of care for every situation based on evidence
- Consistently measure results and improve outcomes.

As part of this process clinical coordinators work with physicians and other clinicians to establish evidence-based protocols for each type of cancer.

Clinical coordinators also organize, participate in, monitor, and report on quality improvement activities to ensure cost-effective, timely, and high-quality cancer care. They work with new patient coordinators to ensure that new patients coming to the cancer center are seen in a timely manner, by the appropriate providers, and with as much medical information available as possible.

Figure 2. Breast Program, “Quality of Care” Ranking



Clinical coordinators provide the cancer patient and their family support and education to help them navigate the healthcare system. Often they work with patients before their first appointment to answer questions and ease some of their fears.

Clinical coordinators are either bachelor's or master's prepared nurses who have expertise in an area of oncology, chronic disease, case management, and/or quality care. They are experienced nurses who are able to communicate well with patients, families, and providers. The clinical nurse coordinator role is different from the typical nursing role, as they are not in clinic face-to-face with patients. Instead, they work behind the scenes, ensuring care coordination for each patient and the delivery of care at the highest possible level.

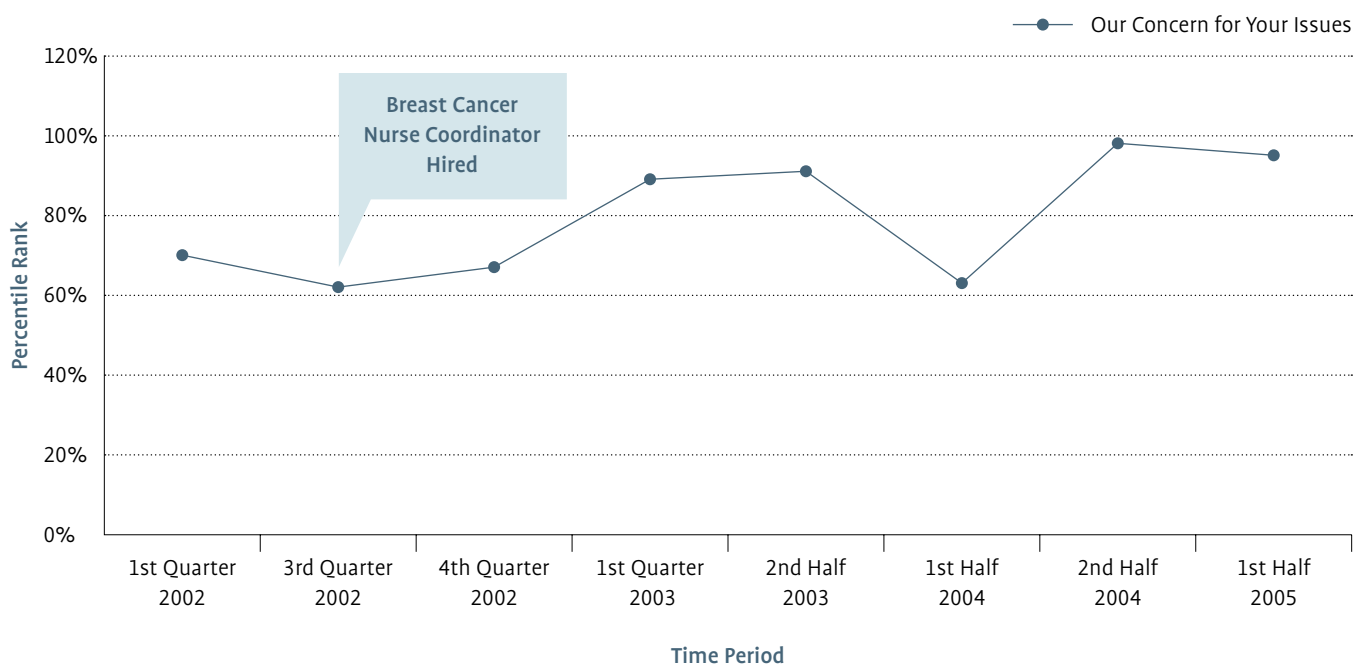
Clinical coordinators are not typical navigators. Froedtert & the Medical College Cancer Center is set up so that the coordinators do not “hold the hand” of every new patient that moves through the system. Instead, disease-site-specific clinics are arranged to help move patients through without gaps in care and everyone has a part to play in navigating patients at the cancer center. New patient coordinators and clinical coordinators get new patients into the healthcare system quickly, with all of the correct information, and seen by the appropriate provider. Once the patient has been seen in consult, the clinic nurses—who are also disease-site specific—navigate patients through that phase of their treatment.

When a patient needs to see a new provider in consult, the new patient coordinator gets involved again, scheduling the consult and ensuring that all of the necessary information is available for the new specialist. Then, the clinic nurses step back in to navigate the patients through the next phase of treatment. Treatment transitions can be stressful for patients, so their new patient coordinator and clinical coordinator are always available, especially at those transition points so patients can contact them for assistance. Both coordinators’ job—at any point in the process—is to get the patient to the right providers, at the right time, with all of the correct information.

A Single Point of Entry

A key element of the hub model was one phone number for patients and referring providers—no matter what type of service was needed in the cancer center. To implement a single point of entry into the healthcare system, Froedtert & the Medical College Cancer Center established an 800 number that is answered by specially trained staff. These staff members triage all incoming calls to the appropriate new patient coordinator based on the type of cancer the patient has or is suspected of having. Since new patient coordinators and clinical coordinators are disease-site specific, call center staff must gather some information to ensure that patients are connected to the appropriate program.

Figure 3. Breast Program, “Our Concern for Your Issues” Ranking



The expertise of the new patient coordinators has allowed specialization of the intake process for each disease-site-specific program...

Early in the process, call center staff learned that many patients do not fully understand metastatic disease and the fact that cancers can move to other areas of the body. Now, calls from patients with certain types of cancer trigger call center staff to ask additional questions to make sure patients are connected to the correct new patient coordinator. For example, if a patient mentions bone cancer, liver cancer, brain cancer, or lung cancer, call center staff ask additional questions to fully understand that patient’s situation. Figure 8, page 43, is a flowchart that illustrates how call staff responds to each new patient call. In the unlikely event that patients are inadvertently put through to the wrong hub program, staff work together behind the scenes so that the patient is not inconvenienced or impacted by having to talk to numerous staff.

Once call center staff connects the patient to the new patient coordinator, this disease-site-specific expert knows exactly what questions to ask, what history is critical for the treating provider to know, and which records and imaging scans are most important to gather for the patient’s initial consult. Every cancer is different, just like every patient with cancer is different, so new patient

coordinators know the diseases they work with, as well as the providers on that team and their preferences. The expertise of the new patient coordinators has allowed specialization of the intake process for each disease-site-specific program versus using a call center approach in which staff just pick up the next call in queue—no matter the diagnosis.

Piloting the Hub Model

The Froedtert & the Medical College Cancer Center made the decision to pilot its hub model in the breast program. In mid-2002 a breast clinical coordinator was hired, quickly resulting in a significant increase in the breast program’s Press Ganey patient satisfaction scores. In 2004 the breast program hired a new patient coordinator, and patient satisfaction scores continued to soar. These data supported the value and benefit of the two new staffing positions.

Specifically, the breast program’s percentile rank for “overall score” increased from the low 30th percentile in 2002 (prior to the hiring of the clinical coordinator) to the high 50th percentile by mid-2003, and then to 93 percent by 2005.

The “quality of care” percentile ranking went from 57 percent in the 3rd quarter of 2002 to 91 percent in the first quarter of 2003, and then to 97 percent in the first half of 2005 (Figure 2, page 37). The breast program’s “our concern for your issues”

Figure 4. Breast Program, “Ease of Making Appointments” Ranking

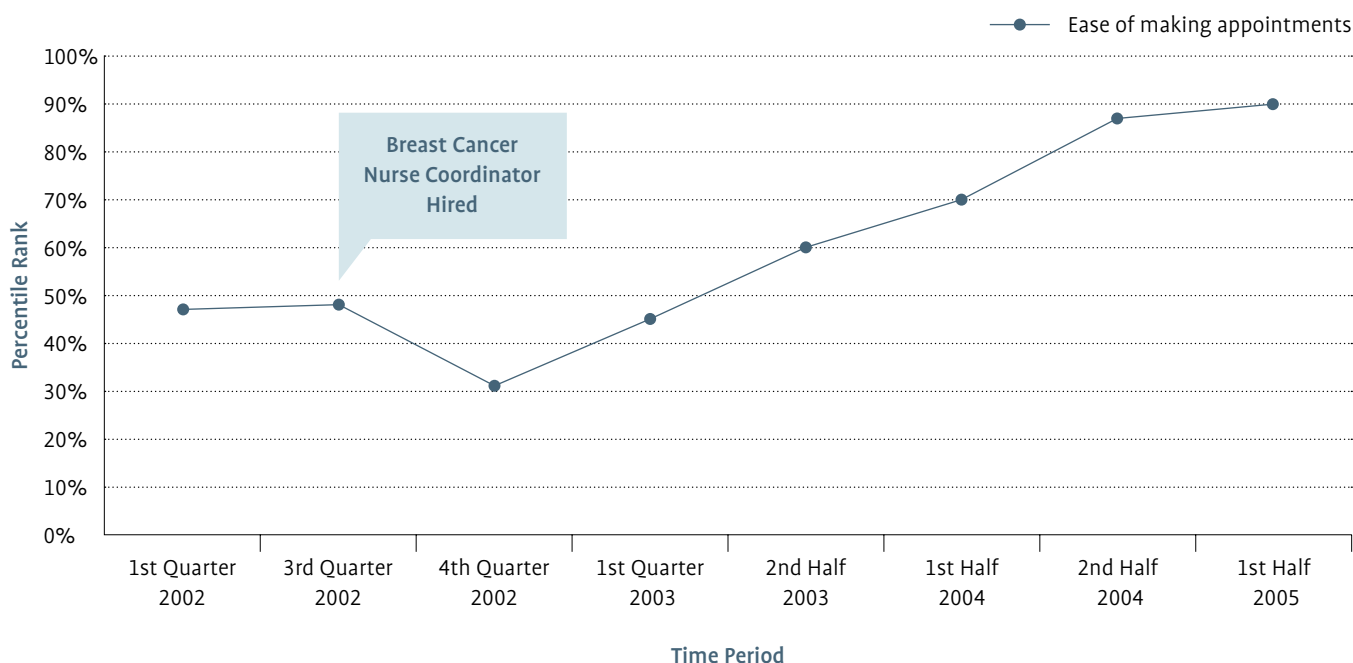


Figure 5. Breast Program, “Calendar Days from MRI Ordered to Performed” Ranking

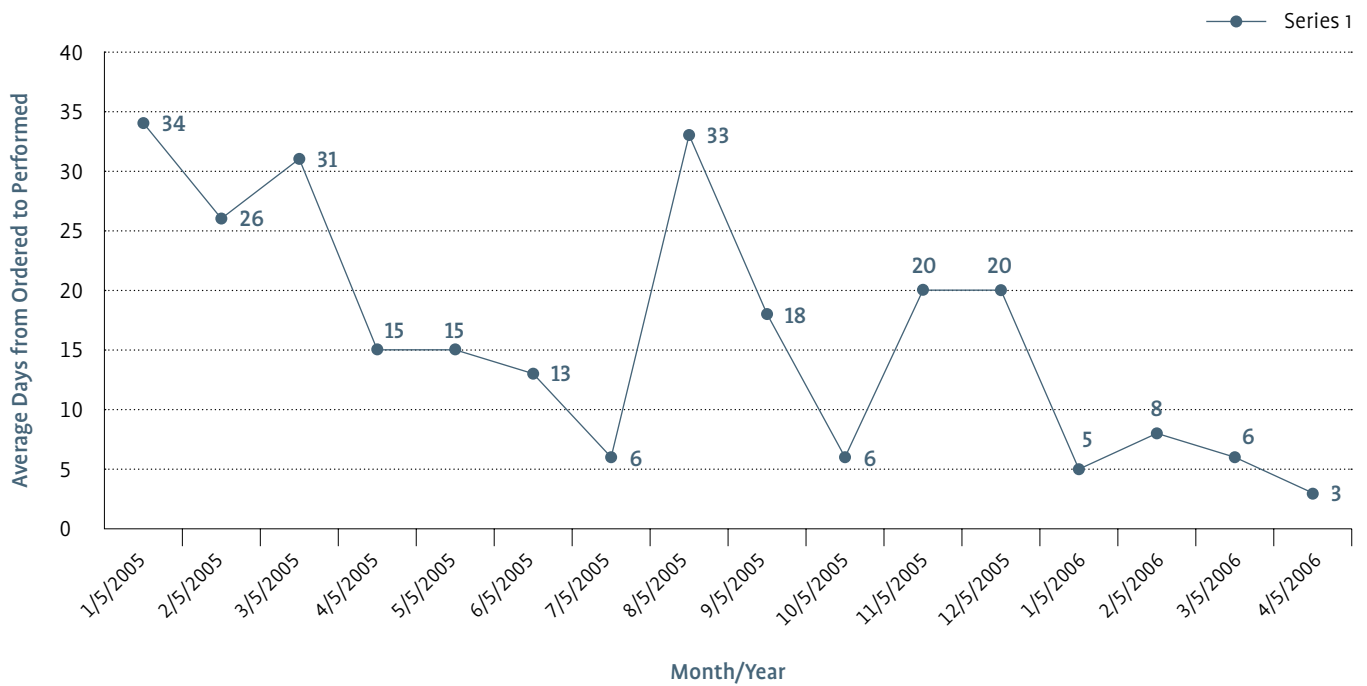
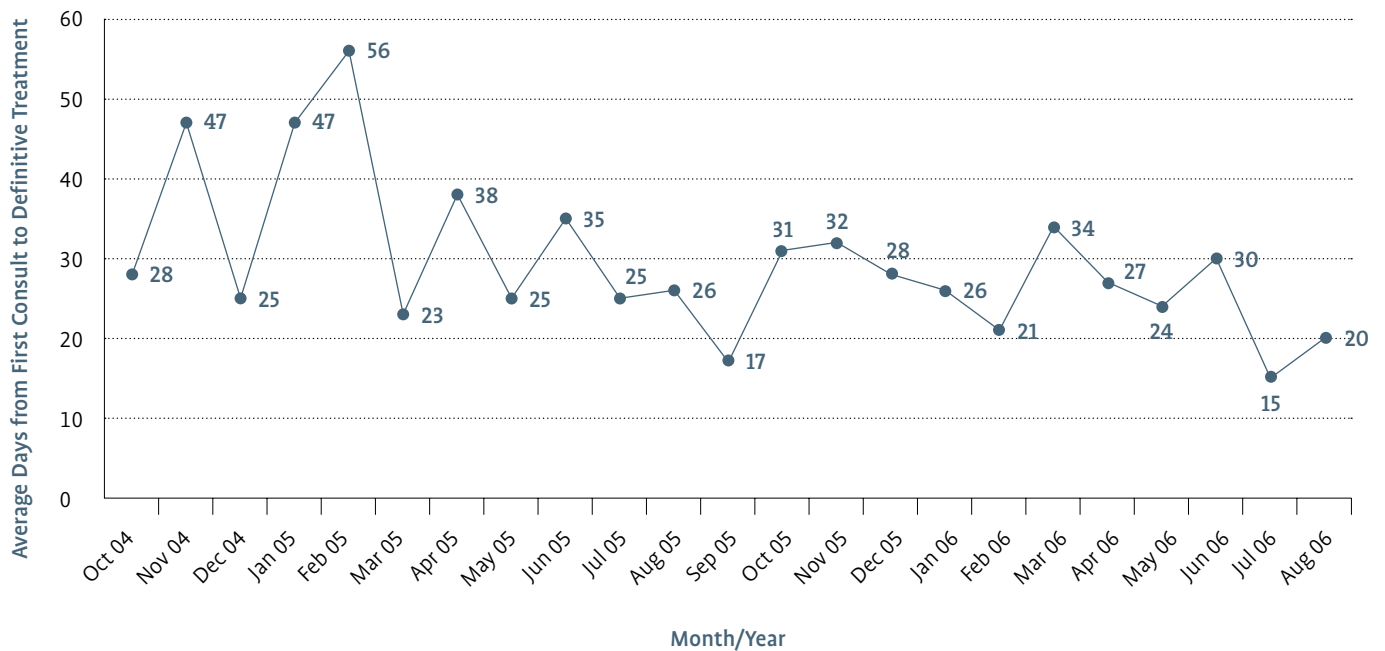


Figure 6. Breast Program, “Calendar Days from Consult to Start of Treatment” Ranking



ranking was 62 percent in the 3rd quarter of 2003, increasing to the high 80s in the first quarter of 2003, and then to the mid-90s in the 2nd half of 2004 (Figure 3, page 38). The “ease of making appointments” was in the high 40th percentile in the third quarter of 2002; by the 2nd half of 2003 it rose to 60 percent, and was at 90 percent by the first half of 2005 (Figure 4, page 39).

The breast program also saw significant improvements in other key rankings: the number of calendar days from an MRI being ordered to MRI being performed (Figure 5, above) and calendar days from consult to the start of first treatment (Figure 6, above). Although Froedtert & the Medical College Cancer Center now uses Avatar to measure patient satisfaction,

Figure 7. Thoracic Oncology Quality Study of the Thoracic Oncology Program at Froedtert Hospital and the Medical College of Wisconsin

Study Topic: Adherence to National Comprehensive Cancer Network (NCCN) Guidelines for Non-Small Cell Lung Cancer (NSCLC), American Society of Clinical Oncology (ASCO) Guidelines, and Froedtert Hospital and the Medical College of WI Thoracic Oncology (FMLH) HUB Program Standards.

Objective: To ensure patient treatment plans meet key standards established for quality patient care.

Measurement: Random sample of 30 of the 2007 analytic NSCLC cases who received their initial treatment at FMLH and had a hematology/oncology (H/O) consult as part of their care.

Method: Retrospective chart review. A total of 30 cases will be reviewed for 2007.

NSCLC Cases with Initial Therapy at Froedtert Hospital and the Medical College of Wisconsin

STANDARD	SOURCE	TOTAL	% COMPLIANT
Initial consult within 5 working days of first contact	FMLH		
Reviewed at tumor board	FMLH		
Initial consult note to include performance status and weight loss	NCCN		
CT of chest pre-treatment	NCCN		
PET scan pre-treatment	NCCN		
Imaging of brain (MRI preferred) for clinical Stage II and higher pre-treatment	NCCN		
Smoking cessation counseling	NCCN		
Lymph node sampling during surgery or pre-surgery	NCCN		
PFTs (pulmonary function tests) performed pre-surgery	NCCN		
Chemotherapy recommended for patients with curative resection for NSCLC with T3 or T4 tumor size or lymph node involvement (%)	ASCO		
Chemotherapy received by patients with NSCLC after, curative resection with T3 or T4 tumor size or lymph node involvement	ASCO		
Prior to H/O consult, CT of chest within 2 months (either performed or ordered)	FMLH-H/O		
If patient is post-surgical, new CT prior to H/O consult (either performed or ordered)	FMLH-H/O		
Prior to H/O consult, brain imaging (MRI preferred) within 3 months (either performed or ordered)	FMLH-H/O		
Prior to H/O consult, PET within 3 months (either performed or ordered)	FMLH-H/O		

scores have remained high since the implementation of these staffing positions.

In 2005—based on the success of the breast program pilot—Froedtert & the Medical College Cancer Center approved clinical coordinators and new patient coordinator positions for both the thoracic and prostate programs. Since then, the hub model has

grown to 11 clinical coordinators and 17 new patient coordinators across all 4 sites in the Froedtert & the Medical College of Wisconsin Cancer Network—although 14 of the new patient coordinators remain at the cancer center location on the academic medical center campus.

Quality Metrics & Reporting

Each disease-site-specific program monitors basic metrics that are measured across the entire cancer center, including:

- Turnaround time from first call or referral to initial consult
- Time from referral to subsequent specialist consult
- Patient satisfaction
- Retention of second opinions.

The goal of the Froedtert & the Medical College Cancer Center is to see patients within five business days. This goal is challenging—with patients coming from other healthcare systems, other states, and sometimes even other countries. If there are no openings in a five-day period, new patient coordinators and clinical coordinators work with providers to ensure patients are seen as soon as possible. “As soon as possible” sometimes means extending clinic times or opening up clinics on non-clinic days. This flexibility has been a huge satisfier for patients, as well as referring providers.

This metric has improved considerably since the addition of the new patient coordinator role. For example, many disease-site-specific programs had waits of 10 to 15 days. Today, some programs have appointment turnaround times of 2 to 3 days for new patients, while others are closer to the 5 day goal.

Each disease-site-specific program is then responsible for defining unique metrics or outcomes within its program. Clinical coordinators work with the multidisciplinary team to define those metrics and then report these back to the team throughout the year. Quality reports look at national standards and guidelines, as well as Froedtert & the Medical College Cancer Center standards. These quality reports are often one of the first places where the cancer care team can identify problems or an issue to work on for the following year.

For example, an early quality report in the head and neck program revealed that many patients did not have documentation of dental evaluation or referrals in their charts. When this issue was brought to the team’s attention, providers said that evaluations and referrals were a regular part of practice. Unfortunately, this information was not being documented in the patient chart. The clinical coordinator worked with the Epic team to add this line to the EMR templates so that providers would not miss this documentation going forward.

There was a similar example in the 2007 quality report from the lung cancer clinic. Specifically, looking at patient records, it appeared that providers had conducted smoking cessation discussions with only 11 percent of patients who were current smokers. However, the lung cancer team reported that almost all patients received education about smoking cessation; it was simply not being documented in the patient record. By the next year, that documentation glitch had been fixed and the 2008 lung cancer quality report revealed that 85 percent of patients had



documentation in their medical that they had discussed smoking cessation with their provider.

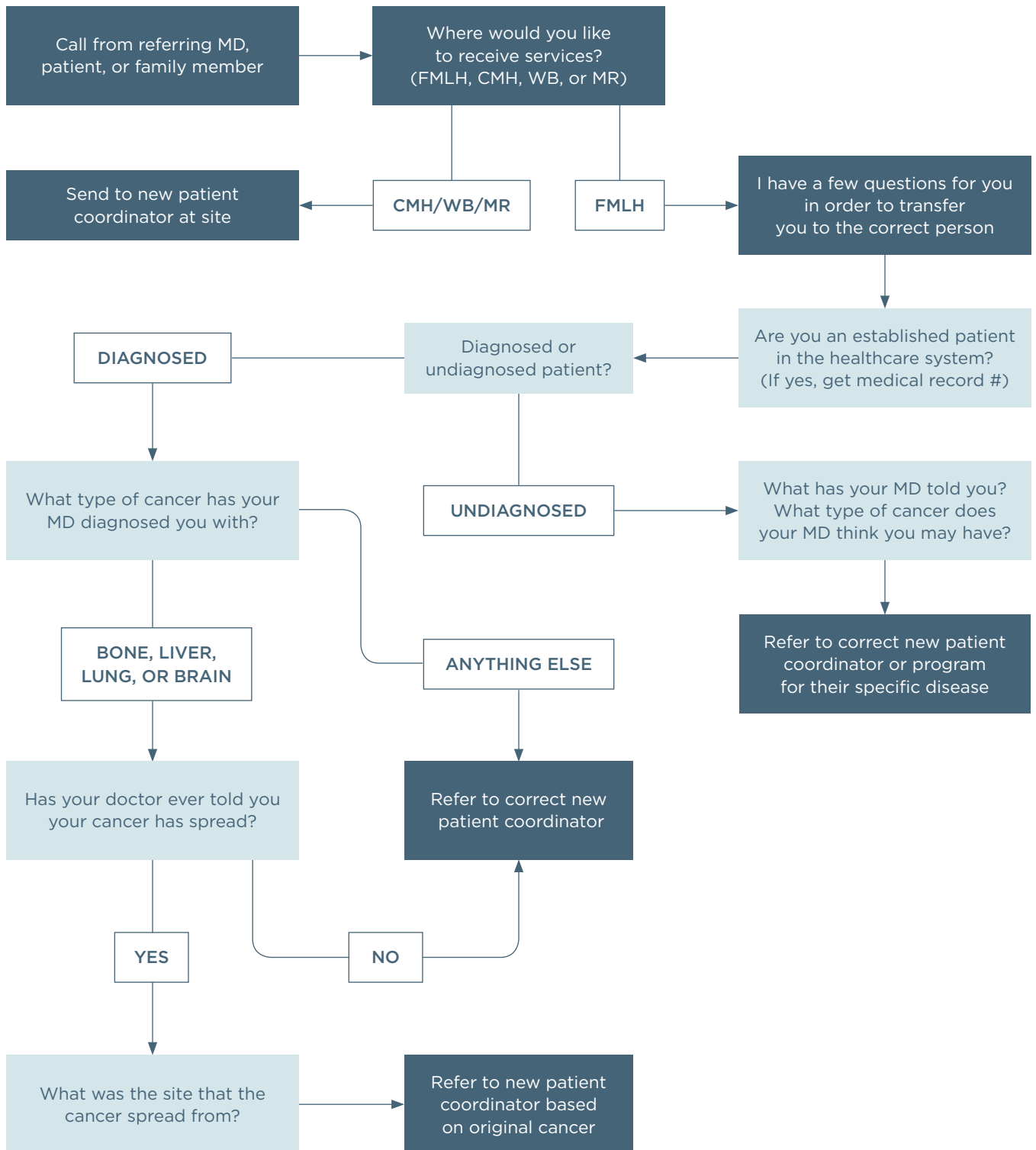
These examples are very basic, but serve to illustrate the importance of good documentation and the monitoring of standards to quality patient care. Figure 7, page 41, is an example of the template used for an early thoracic oncology quality study. Quality studies at Froedtert & the Medical College Cancer Center continue to evolve as new evidence and changes to national guidelines occur.

The Cancer Center Today

Froedtert & the Medical College of Wisconsin Cancer Center broke ground on its new building in 2006; construction was completed in 2008. Today the Froedtert & the Medical College Cancer Center building includes:

- 6 disease-site-specific clinics that house 13 disease-site-specific teams
- Day Hospital for chemotherapy and other infusions, open 365-days-a-year
- Education center for tumor boards/cancer conferences, support groups, and other education opportunities
- Outpatient pharmacy for prescription and OTC medications
- Laboratory with full hematology and chemistry capabilities
- Diagnostic imaging
- Breast Care Center
- Radiation oncology
- Procedure rooms
- Translational research unit specifically for cancer clinical trial patients
- Skin Cancer Center
- Small Stones Wellness Center, which offers resources for restoring and maintaining appearance
- Quality of Life Center, which houses support services for patients and their families
- Patient and Family Resource Library
- Walking track
- Bistro with healthy food choices and wireless access
- Meditation room
- Free underground or valet parking
- Three affiliated community sites that also house disease specialists as part of our Cancer Network.

Figure 8. Decision Tree for New Cancer Patients or Undiagnosed Patients with Suspicion of Cancer





Lessons Learned

The hub model and the new patient coordinator and clinical coordinator positions have been incredibly successful (as shown in the growth of the number of positions), improving both patient and provider satisfaction with the healthcare system. That said, there are some processes that Froedtert & Medical College Cancer Center planners might have done differently or changed along the way.


For example, new patient coordinators were initially called journey coordinators; however, this title gave patients the perception that a specific staff member would be assigned to the patient throughout their entire cancer journey. To correct that perception, the name was changed to new patient coordinator. It was a much better fit as these staff are only coordinating care for new patients.

A similar issue emerged with the clinical coordinators, which were initially called nurse navigators. Since the model of navigation at Froedtert & the Medical College Cancer Center emphasizes care coordination, with clinical coordinators most involved in the beginning of the patient's cancer journey—as well as coordination and quality of care behind the scenes—the name was changed to clinical coordinator very early on in the process.

The early success of the hub model of care, the new coordinator positions, the new building, and referring provider satisfaction, generated rapid growth in the volume of patients, leading to some space problems that the program had not anticipated so early on. When the facility was built, it was designed to accommodate growth through 2015. In 2012, cancer center leadership realized that more clinic and infusion space was needed quickly. In the fall of 2013, the fifth clinic quadrant opened and the disease-site-specific programs were able to spread out so there were more clinic rooms to see additional patients. The Day Hospital also expanded, adding more infusion spaces and opening its Translational Research Unit for patients participating in clinical trials including Phase I and II studies.

The specialization of the new patient coordinators created coverage challenges. When new patient coordinators are on vacation, sick, and/or move to a different position, their expertise is gone as well. To fix this issue, cancer center leaders created two coverage positions that would receive training on numerous disease-site programs. Coverage new patient coordinators work with their disease-site-specific programs on a regular basis and cover staff whenever necessary. Because coverage new patient coordinators have a broad level of expertise, they can also step in and help train new staff members. The new patient coordinator and clinical coordinator from the same disease-site specific team do not take vacation at the same time. This means there is always an expert coordinator available.

Measuring the benefits and return on investment (ROI) of the hub model of care and the coordinator positions is increasingly important. Quantifying the effectiveness of the program to show

patient and referring provider satisfaction and creating metrics for each disease-site-specific program are needed to demonstrate the programmatic benefits. This ROI has been somewhat difficult as the coordinator positions do not directly generate revenue. Instead, the benefits are downstream and have to do with patient, family, and referring provider satisfaction, which drives more patients to the organization, as well as the quality improvement efforts that lead to higher quality care and better patient outcomes. Executive leadership had to buy into the hub model of care and the coordinator positions for them to succeed; senior leaders needed to see the value in it as well and support requests for new positions when needed. Froedtert & the Medical College Cancer Center has been fortunate as the organization and senior leadership realized very early on how important the hub model of care and the coordinator roles are to the success of the cancer program. Indeed, they are the “secret sauce” that makes the whole program work. 

Kate Sweeney, RN, MS, ACNS-BC, AOCN, is a clinical nurse specialist who has expertise in care for people with serious chronic conditions, such as cancer and HIV. She joined Froedtert & the Medical College of Wisconsin Cancer Center in 2005 as the clinical coordinator for the Thoracic Oncology Clinic. In 2007 she took a position as the coordinator for all of the hub programs and the clinical coordinator and new patient coordinator positions. Since 2009 she has been the manager of Cancer Center Patient Support Services at the Froedtert & the Medical College of Wisconsin Cancer Network, which spans four sites for cancer care and an additional breast imaging location.

A special thanks to Sue Derus, Executive Director of Cancer Services at Froedtert & the Medical College of Wisconsin. Without her vision, this new building and model of care at Froedtert & the Medical College of Wisconsin Cancer Center would not be where it is today.