The Future of Cancer Care?

We’re helping to define it at Froedtert & The Medical College of Wisconsin.

By Mary Horowitz, MD, MS
Chief of Hematology and Oncology, Medical College of Wisconsin Hematologist/oncologist
Chief Scientific Director, Center for International Blood and Marrow Transplant Research

What is the future of cancer care? The best way to answer that question may be to look at the past. There was a time when general internists took care of all our medical problems, whether it was heart disease, cancer or the common cold. As knowledge increased, physicians began to specialize. People with malignant diseases increasingly sought out oncologists – physicians with expertise in the growing field of cancer medicine.

In just the last 10 years, our knowledge of cancer has absolutely exploded. Today, it is impossible for general oncologists to be knowledgeable in every single area of cancer; hence, expertise is becoming more specialized. We know more about the many types of cancer and how to treat them. We know that some cancers we used to think of as single diseases, such as breast cancer, colon cancer and leukemia are actually collections of various types of cancer that require different treatments. And we know much more about how to treat these unique cancers with new drugs, new surgical interventions and new ways to deliver radiation therapy.

This is the future of cancer care – a rapid increase in knowledge, new tools for treating and beating malignant disease, and care delivered by cancer physicians who have a highly specialized focus. It’s a future we are helping to define at the Froedtert & The Medical College of Wisconsin Clinical Cancer Center.

A Center of Discovery

Scientific research is a critical element of progress. Many people don’t realize our Clinical Cancer Center is a center of scientific investigation on par with national-caliber research institutes. In the last three years, our clinical and research faculty has grown dramatically. Recent recruits include surgical oncologists of international distinction, laboratory scientists who are among the most respected researchers in the field, and medical oncologists who are leading national initiatives to find new and better treatments.

Today, Medical College of Wisconsin researchers are helping us develop a better understanding of what causes normal cells to become cancer cells. In the near future, their work will help scientists develop drugs that target the molecular abnormalities of cancer cells – and leave healthy cells untouched.

Other investigators are focusing on cancer prevention. Their research will someday help us use natural compounds to prevent dangerous pre-cancers from progressing to malignant disease. High-risk individuals who choose to participate in genetic screening programs will be able to use simple regimens to avoid deadly cancers and difficult treatments.

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Nationally Recognized

Froedtert Hospital ranks as a regional high performer in cancer, as well as six other specialties (cardiology and heart surgery; geriatrics; gynecology; neurology and neurosurgery; orthopaedics; and urology). Froedtert is the only adult hospital in Milwaukee to be nationally ranked, placing it among the top 50 hospitals in the nation. Froedtert Hospital also ranks as the top hospital in metropolitan Milwaukee.
Our physicians are also deeply involved in investigating promising new therapies in the clinical setting. In 2012, we are expanding our clinical trials program, enabling more patients to access innovative therapies. The survival rate for breast cancer has increased dramatically over the last two decades, thanks to our and others’ tenacity in systematically testing new therapies. Through our strong and growing clinical trials program, we are helping define the treatments that will improve outcomes for all cancers in the decades ahead.

A Patient-centered Model of Care

Because the journey through diagnosis and treatment to survivorship can be challenging, many patients today experience cancer as a relay race through a maze of caregivers. Cancer is a complicated disease, and most patients require several different kinds of treatment. At Froedtert & The Medical College of Wisconsin, we offer a highly coordinated approach in a state-of-the-art, compassionate environment.

Our innovative hub model puts the patient at the center of care. Each patient’s team includes surgical oncologists, hematologist/oncologists, radiation oncologists, radiologists and other significant clinical experts who specialize in their specific cancer. All of these physicians see patients in the Clinical Cancer Center, so patients don’t have to visit multiple locations to receive care from different specialists. The single location also makes it easier for physicians to work together and ensure that care progresses smoothly. The hub model not only provides the best possible experience for patients, it ensures that all patients receive optimal treatment.

At the Clinical Cancer Center, patients are treated by physicians who are specialists in their particular disease. For instance, our gynecologic oncologists provide the most current treatment strategies for ovarian cancer. Urologic, medical and radiation oncologists in our Prostate and Urologic Cancer Program offer the latest therapies for prostate, bladder and kidney disease. Similarly, a multidisciplinary team specializing in breast cancer offers personalized therapies for each woman’s type of breast cancer. This is important, because every disease has its own, subtle nuances.
Their causes are different, and treatments are complex and specific. Specialization ensures patients receive the most advanced care possible.

As we get better at treating cancer, more people need support moving from cancer patient to cancer survivor. While our nurse navigators guide patients through the details of cancer care, our psychological support team helps them cope with the emotional issues of a cancer diagnosis. Our palliative care team has been recognized nationally for excellent care – not just for end-of-life issues, but for providing comprehensive support for people with serious illnesses. Many more resources are available through our Jeffrey C. Siegel Quality of Life Center. At the Clinical Cancer Center, we are committed to our patients’ quality of life with a plethora of survivor-directed resources. (See page 20 for more on cancer survivorship.)

One of the biggest challenges of the coming years will be making sure patient care keeps up with the pace of progress. At Froedtert & The Medical College, we’re aware that a diagnosis of cancer has a huge personal impact. We are ahead of the curve and prepared for the future.

Here and Now

Cancer is a serious illness; yet cancer medicine has made incredible progress in just the last few years. At Froedtert & The Medical College of Wisconsin, our focus is on translating progress into clinical care, so that every cancer patient has access to the most effective treatment available.

Innovative therapies, focused expertise, multidisciplinary teams and an emphasis on the whole person. Cancer experts working together to deliver the best care possible, with a commitment to making the best care even better. It’s defining the future of cancer care – and it’s what we offer our patients here and now at the Clinical Cancer Center.

Mary Horowitz, MD, MS, is an internationally respected authority on blood and marrow transplantation. She is also chief scientific director of the Center for International Blood and Marrow Transplant Research. Dr. Horowitz is chief of Hematology and Oncology, and holds the Robert A. Uihlein, Jr. Chair in Hematologic Research at The Medical College of Wisconsin. She practices at the Froedtert & The Medical College of Wisconsin Clinical Cancer Center.

In Good Company

Recognized Among 70 Hospitals with Great Oncology Programs

In January 2012, Becker’s Hospital Review, a publication of ASC Communications, named Froedtert & The Medical College of Wisconsin among “70 Hospitals with Great Oncology Programs.” To be recognized, hospitals must be on the cutting edge of cancer treatment, prevention and research. They must also demonstrate continual innovation in treatments and services, patient-centered care, and achievement of clinical milestones and groundbreaking discoveries. The 70 hospitals chosen have been recognized for excellence in oncology by reputable health care rating resources, including U.S. News & World Report, the National Cancer Institute and others. Froedtert & The Medical College are in good company: other cancer facilities recognized by Becker’s include the University of Texas MD Anderson Cancer Center (Houston), the Dana-Farber Cancer Institute (Boston) and Johns Hopkins Medicine (Baltimore).
Adaptive Radiation Therapy

Real-time Planning Helps Physicians Target Changing Cancers

Radiation therapy depends on careful planning. Physicians use advanced imaging and sophisticated calculations to develop treatment plans that precisely target tumors. But what happens when the target area changes during treatment? The Radiation Oncology team at Froedtert & The Medical College of Wisconsin is leading national efforts to find a solution.

“Tumors can shrink significantly during treatment,” said Christopher Schultz, MD, Medical College of Wisconsin radiation oncologist. “After a few weeks, a tumor may not be the size and shape it was at the start. Nearby lymph nodes may also shrink and patients may lose weight.” These changes can cause healthy tissues to move into the target field. For example, radiation intended to treat a tongue cancer may now threaten major salivary glands or the voice box. “The risk is that normal tissues will also get a high dose of radiation intended for the tumor,” Dr. Schultz said.

Recreating a treatment plan from scratch can take days. The alternative is adaptive radiation therapy (ART) – the use of daily computed tomography (CT) imaging and innovative software to make fast, precise adjustments.

“ART is ‘real-time’ treatment planning that lets us adapt dose coverage to the characteristics of the tumor weekly or even daily,” Dr. Schultz said. “Avoiding critical structures ultimately leads to fewer long-term side effects.”

For example, ART can be important for patients with prostate cancer. “The shape of the prostate may change daily based on the amount of pressure from the rectum and bladder,” said Colleen Lawton, MD, Medical College of Wisconsin radiation oncologist. “If the difference from the original scan is small, we reposition the patient. Without ART, if the difference is big, treatment would have to be rescheduled to allow creation of a new plan.”

ART ensures optimal treatment is delivered, which is better for the patient. Allen Li, PhD, Medical College of Wisconsin medical physicist, helped develop several tools that shave hours off the planning process. “In the case of prostate cancer, we can generate an adaptive plan in 10 minutes – while the patient is on the table,” Dr. Li said.

Only a handful of cancer centers worldwide offer adaptive radiation therapy to patients. Medical College of Wisconsin radiation oncologists and medical physicists have published extensively on ART, and frequently present their findings at national and international cancer conferences.

What’s Next: Biologically Based Adaptive Radiation

Adaptive radiation planning relies on anatomical information supplied by CT scans. “In the future, we will incorporate metabolic and physiologic information from PET (positron emission tomography) scans or advanced MRI,” Dr. Schultz said. “This information will let us see which part of a tumor is dying – and adjust treatment to give a higher dose to resistant areas, leading to individualized therapy. Ultimately, we’ll be able to provide better outcomes for patients.”

Honored Among the Best

Thousands of physicians in the nation are surveyed annually to identify the most skilled specialists treating complex medical conditions. Overall, the list includes more physicians from The Medical College of Wisconsin than any other group, practice or institution in Wisconsin. A total of 270 Medical College of Wisconsin physicians who practice at Froedtert were nominated by peers as Best Doctors in America®.
What would happen if you were diagnosed with multiple myeloma? Treatments exist for this rare blood cell cancer, but cures are elusive. Still, new options are out there. Some myeloma patients are eligible to receive a promising new drug known simply as “MLN9708.” Since it is an investigational drug, MLN9708 is only available through a clinical trial taking place at a small number of medical centers nationwide – including Froedtert & The Medical College of Wisconsin.

“Part of being an academic medical center is that we have a broader array of clinical trials to offer patients,” said James Thomas, MD, PhD, Medical College of Wisconsin hematologist/oncologist. A clinical trial is a carefully conducted test of a new treatment within a patient population. “Trials give eligible patients the opportunity to receive the most promising new therapies, including medications that might be available long before they have approval from the U.S. Food and Drug Administration.” Each trial has strict eligibility requirements. The investigator who runs the trial ensures that patients meet these requirements before enrolling them. Because the ultimate goal of a clinical trial is learning, patients may receive standard therapy plus the investigational therapy, or standard therapy plus a placebo.

For patients with rare or advanced cancers, clinical trials may represent the only option. “When patients have exhausted standard treatment options, we can often provide them with additional possibilities through clinical trials,” Dr. Thomas said.

Our growing clinical trials program makes the newest therapies available.
Step by Step

New discoveries and treatment concepts must clear many hurdles before they become part of patient care. Pre-clinical evaluation is extensive, and clinical testing itself is a methodical process that moves forward in distinct phases.

“In a phase I drug trial, for example, we are trying to determine a number of things, including what dose is tolerated by patients and what its side effects might be,” Dr. Thomas said. Phase I trial groups are small and can include patients with different kinds of cancer.

“In a phase II trial, we treat people with a specific kind of cancer to see how active the drug might be,” Dr. Thomas said. “Here, we want to see if the treatment leads to an improved outcome, like shrinking the tumor.” Phase II trials can involve as few as 30 and as many as 200 patients. Early phase drug trials are usually only available at an academic medical center.

The next step for therapies with a record of safety and effectiveness in early trials is validation in a larger, phase III study. “In phase III, the new therapy is compared to the existing standard of care to see which one is better,” Dr. Thomas said. “These trials often involve thousands of patients, are conducted on a national level and take several years to complete.”

Not all clinical trials focus on new drugs. Trials now under way at the Clinical Cancer Center are examining ways to combine standard drugs, deliver radiation therapy and plan the best treatments. “Some are large national trials spearheaded by cooperative research groups. Others are large investigations sponsored by industry,” Dr. Thomas said. “And some clinical trials are unique to our institution – clinical studies developed by our own faculty.”

For example, a team of medical, surgical and radiation oncologists at the Clinical Cancer Center has developed a phase II clinical trial for patients with pancreatic cancer. The researchers are using genetic analysis to identify the unique molecular characterization of each patient’s tumor. They then use this “genetic fingerprint” to determine which drug therapy patients should receive before surgery.

“This is one of the first instances of using personalized medicine for treating this deadliest of all cancers,” Dr. Thomas said. “It’s an example of doctors from different disciplines working together and using the latest in molecular oncology to try to improve outcomes for patients.”

Gearing Up for Rapid Growth

Research activity at the Clinical Cancer Center has increased in recent years, and it will expand even more in the months ahead. Several moves are now under way to accommodate the growth.

One initiative is the development of a Cancer Translational Research Unit (TRU), a special nursing unit in the Day Hospital devoted to caring for patients in phase I and II trials. (The Day Hospital provides a comfortable outpatient environment for patients needing chemotherapy, blood products or other infused treatments or advanced services that might otherwise require hospitalization. It’s open seven days per week, 365 days per year for patient convenience and quality of care.) “The TRU will be staffed by specially trained research nurses,” Dr. Thomas said. “Nursing is key to a successful early phase trials program. These nurses will provide a high level of monitoring and be very involved as members of the clinical research team.”

Specialized Oncology Nurses Make a Difference

At Froedtert & The Medical College of Wisconsin, patients count on receiving highly specialized care from an entire team of oncology experts.

Oncology certified nurses are important members of this team, and the hospital was recently honored with the national Oncology Nursing Certification Corporation Employer Recognition Award. The award recognizes Froedtert Hospital’s sustained support of specialty certification in oncology nursing.

“Nursing certification is a key part of Froedtert’s professional practice,” said Julie Griffie, RN, MSN, ACNS-BC, AOCN. Griffie is a clinical nurse specialist and manager of the nursing practice at the Clinical Cancer Center.

“To meet our cancer patients’ complex needs, we encourage nurses in our inpatient oncology areas and the Clinical Cancer Center to become oncology certified, and we support their efforts,” Griffie said. “Having oncology certified nurses on board assures patients that their nurses have the knowledge to provide effective care for the complicated problems associated with a cancer diagnosis.”
The TRU will attract even more opportunities for partnering with industry to offer clinical trials to patients at the Clinical Cancer Center. Dr. Thomas expects the unit to be operational within the coming year: “It will be one of the few dedicated early phase clinical trial units in the country.”

Recently, research staff throughout the Clinical Cancer Center came together in a newly created Cancer Clinical Trials Office. “Previously, our research coordinators were spread out in different departments – surgery, radiation, medicine, etcetera,” Dr. Thomas said. “Now, they’re all consolidated in one unit. Bringing staff together is more efficient, and it will improve coordination of our clinical research efforts.”

The expanding clinical trials program will emphasize early phase trials developed by Medical College of Wisconsin faculty. “Since 2010, we have recruited 25 new faculty members, all of them involved in research,” Dr. Thomas said. He anticipates that the number of clinical trials available at the Clinical Cancer Center will increase by about 50 percent over the next few years.

This mirrors recent growth in the numbers of patients seeking care at Froedtert & The Medical College. “Close to 4,000 new cancer patients come here each year, many of them seeking clinical trials,” Dr. Thomas said. “We have grown faster than expected, and have become a major regional resource for patients with cancer.”

Partners in Progress

The chance to receive promising new therapies is not the only reason to take part in clinical research. “Patients in Wisconsin and beyond become involved in the hopes of finding better therapies for their cancer. What they may not realize is that they are also our partners in the search for new cancer treatments,” Dr. Thomas said. “We are making progress, but only 3 percent of adult cancer patients in the United States participate in clinical trials,” he said. “The more people that can become involved, the faster we can develop new therapies and improve outcomes for people with cancer in the future.”

WHAT’S NEXT: National Cancer Institute Designation

Nationwide, there are currently 66 National Cancer Institute-designated cancer centers. According to Dr. Thomas, The Medical College of Wisconsin Cancer Center – which includes the Froedtert & The Medical College of Wisconsin Clinical Cancer Center – is working to achieve NCI designation in the coming years. “The growth in our clinical research enterprise is very much a part of that plan.”

Good Science is Ethical Science

Clinical research is critical in moving cancer care to a new level, and research involves not only investigations in the laboratory, but testing cancer treatments with patients.

In bringing new and possibly better options to patients, safety must be carefully considered along with progress. At Froedtert & The Medical College of Wisconsin, we are committed to ensuring our patients remain safe and informed as they experience treatment. That commitment earned a special national accreditation from the Association for the Accreditation of Human Research Protections Programs: we have demonstrated that we provide safeguards surpassing the threshold of U.S. federal requirements.

Good science is ethical science: in our quest to find treatments that cure cancer, our patients’ safety and well-being comes first. “This accreditation confirms Froedtert & The Medical College use the highest recognized research standards. We do sound, compliant, ethical research and will continue to do so,” said James Thomas, MD, PhD, Medical College of Wisconsin hematologist/oncologist.
The Promise of Minimally Invasive Cancer Therapy

Expertise and options are the keys to getting the right procedure

Removing liver tumors through a few small incisions in the abdomen. Operating on complex throat cancers through the mouth. Extracting lung malignancies through the ribs.

Not long ago, minimally invasive procedures like these were unimaginable. Most cancer resections involved major surgery. Today, dozens of minimally invasive therapies allow physicians to go after cancer while reducing the impact of treatment on patients. The benefits may include less pain, fewer side effects and a faster return to normal life.

“Minimally invasive therapy is where cancer care has been headed for the past decade,” said William See, MD, Medical College of Wisconsin urologic oncologist and chair of Urology. “The field has developed rapidly and is still evolving. Many techniques hold out great promise – and probably yet unrealized potential.”

Innovative Instruments

Minimally invasive surgeries are performed through one or more small incisions, often only a half inch long. (Traditional “open” surgery may require an incision of 4 inches, 8 inches or longer.) Special laparoscopic instruments inserted through these small incisions allow surgeons to view organ structures, excise tumor tissue and perform reconstructions. Some laparoscopic procedures can be performed through natural orifices such as the urethra or the vagina. In many cases, specialists can use innovative catheter and needle-based tools to deliver cancer therapies.

Much of the attention in minimally invasive cancer care is now focused on the da Vinci Robotic Surgical System®. The da Vinci system combines laparoscopic instruments with improved visualization and precise robotic movements. Robotic technology allows surgeons to operate in confined body cavities that can be difficult to reach with conventional laparoscopic equipment.

While new technology offers amazing capabilities, the skill of the surgeon is critical. “In the hands of Tiger Woods, a golf club is a fine instrument. In my hands, it’s a weapon,” Dr. See observed. “The same could be said of robotic surgical technology or any minimally invasive instrument. Patient outcomes correlate with training, experience and the number of procedures the surgeon has performed.”

A Complete Portfolio

Physicians at the Froedtert & The Medical College of Wisconsin Clinical Cancer Center work in multidisciplinary teams that focus on treating specific types of cancer. This allows physicians to offer patients the full range of treatment options, including minimally invasive therapies.
“Our goal is to match the intervention to the specific needs of each patient,” Dr. See said. Critical issues include tumor size and location, the patient’s past surgical history, and his or her current health. “In many cases, a minimally invasive approach is perfect.” In other cases, open surgery is required.

The key to the best outcomes is unbiased access to all potential therapies. Prostate cancer patients, for example, should work with a team that offers open and robotic prostatectomy, as well as non-surgical treatments such as radiation therapy or radiation plus chemotherapy.

“At the Clinical Cancer Center, our team-based approach allows us to match patient needs to the available portfolio of therapeutic interventions – whether it is minimally invasive surgery, open surgery, drug or hormone therapy, radiation or an interventional radiology treatment,” Dr. See said.

**The Goal**

Minimally invasive therapy is not appropriate for everyone, but its availability assures patients they’ll be offered the best, most current approach for their cancer. In the end, the aim of all cancer care – whether standard or minimally invasive – is to provide patients with the greatest chance of a cure with the least burden of therapy. “It’s a custom-fit process,” Dr. See said. “Our goal is to provide the right intervention, at the right time, to the right patient.”

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**Colon Cancer: Most in U.S. Miss Out on Minimally Invasive Option**

“The vast majority of patients with colon cancer can be treated laparoscopically,” said Kirk Ludwig, MD, Medical College of Wisconsin colorectal surgeon and chief of Colorectal Surgery. “However, nationwide, less than 20 percent of colon cancer patients are offered a minimally invasive option.”

Clinical studies show laparoscopic colon surgery is equal to traditional open surgery in controlling cancer. “Here at the Clinical Cancer Center, almost all our colon cancer patients receive a minimally invasive procedure,” Dr. Ludwig said. “The benefits are clear in terms of shorter hospital stay, quicker recovery and fewer complications.”

Rectal cancers are more difficult to treat using minimally invasive laparoscopic techniques, but some patients are good candidates for this approach. According to Dr. Ludwig, while many tumors in the rectum can be treated laparoscopically, recommendations as to which approach is best are individualized based on the patient’s anatomy and the exact location of the tumor.

A small number of rectal cancer patients are candidates for an even less invasive approach. “About 5 to 10 percent of rectal tumors can be treated using transanal techniques,” Dr. Ludwig said. “These procedures are performed through the anus, so there is no pain, and little, if any recovery time. Eligibility depends on tumor type, size and staging. In some cases, radiation and chemotherapy can shrink rectal tumors so they can be taken out transanally.”

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**WHAT’S NEXT: Robotic Surgery for Rectal Cancers**

“The major change on the horizon is our use of robotic techniques to treat rectal tumors,” Dr. Ludwig said. “Robotic technology allows for more precise surgery in a very small space, which may facilitate surgery in the depths of the pelvis.”
Endometrial Cancer: “We Treat Almost All Robotically”

“During the last several years, minimally invasive procedures have become the mainstay for many gynecologic cancers,” said Janet Rader, MD, FACOG, Medical College of Wisconsin gynecologic oncologist and chair of Obstetrics and Gynecology. The trend has had a major impact on patient quality of life. “Women who come to us are often apprehensive,” Dr. Rader said. “Following surgery, many are surprised and pleased, because they feel better than anticipated.”

Some of the biggest changes have come for women with endometrial cancer, which arises in the lining of the uterus. “We now treat almost all endometrial cancers robotically,” Dr. Rader said. “The da Vinci Surgical System® is a wonderful tool for invasive cancers where we need to do a hysterectomy with removal of lymph nodes.”

Most pre-cancers and early gynecologic cancers can be treated with minimally invasive techniques. Ovarian cancers, which frequently present with large, widespread tumors, usually require open surgery. However, women who are at very high risk of developing ovarian cancer may choose to have their ovaries removed as a preventive measure. “We can treat these women laparoscopically,” Dr. Rader said, “and the surgery can be done as an outpatient procedure.”

“We can provide some treatments using standard laparoscopy, while others may need other forms of treatment such as chemotherapy and radiation. Gynecologic oncologists at Froedtert & The Medical College of Wisconsin focus on providing patients with the best treatment for their specific disease,” Dr. Rader said.

WHAT’S NEXT: Defining the Best Options

In the coming years, gynecologic oncologists will continue to explore minimally invasive therapies. According to Dr. Rader, randomized clinical trials will give physicians a better understanding of which patients will benefit most from traditional surgeries, laparoscopic interventions and robotic surgical procedures.

Laser Surgery Reduces Impact of Throat, Mouth Cancers

“Cancers of the throat and mouth involve the structures important for speaking, breathing and swallowing,” said Becky Massey, MD, Medical College of Wisconsin head and neck oncologist. “Anything we can do to decrease the impact of treatment on those structures is really important to our patients’ quality of life.”

New endoscopic laser technology allows many patients with laryngeal cancer to receive treatment without a major open procedure. Using rigid and flexible instruments inserted through the mouth, surgeons remove many early stage tumors, while sparing healthy tissues.

The difference can be dramatic. “Complicated reconstructions used to be the norm, using tissue from legs or arms to rebuild the tongue or throat around the voice box,” Dr. Massey said. “With endoscopic laser surgery, many patients heal on their own without reconstruction.”

Patients with tongue or tonsil cancers can also benefit. “Just five or 10 years ago, we often had to divide the jaw bone to access the back of the tongue. Now, laser microsurgery allows us to treat these cancers through the mouth.”

One of the biggest benefits of laser surgery is that it can be repeated. “In the past, if laryngeal cancer came back after radiation or chemotherapy, the next step was almost always removal of the whole voice box,” Dr. Massey said. “Laser surgery allows us to keep removing small cancers that recur without a laryngectomy.”

WHAT’S NEXT: More Patients Eligible

“As endoscopic technology improves, we will be able to remove larger tumors with less and less impact on patients,” Dr. Massey said. “Robotic techniques will allow us to operate in smaller spaces of the head and neck where we now have less access.”
World-class Team in Laparoscopic Liver Surgery

At Froedtert & The Medical College of Wisconsin, patients with liver cancer have access to a team of internationally known liver surgeons who have pioneered minimally invasive cancer surgery. T. Clark Gamblin, MD, MS, Medical College of Wisconsin surgical oncologist and chief of Surgical Oncology, wrote some of the earliest papers on laparoscopic liver surgery, and has taught the procedure on five continents.

“Minimally invasive surgery for liver cancer – as well as for small pancreatic tumors and early gallbladder cancers – offers patients faster recovery and less post-operative pain,” Dr. Gamblin said. Candidates are carefully selected based on the location, size and extent of their disease.

“Approximately 15 to 20 percent of liver patients are eligible for a minimally invasive approach.”

The liver team includes the robotic approach in its arsenal of minimally invasive options, even partnering with colorectal surgeons to treat liver metastases and primary colon cancer during the same operation.

Liver tumors that cannot be removed safely with surgery can often be treated with minimally invasive ablation techniques – using probes that destroy cancer cells with heat or cold energy. “The newest technology for liver cancer is microwave ablation, which involves a shorter time for the ablation,” Dr. Gamblin said. “We have completed almost 100 cases and are very pleased with the results for our patients.”

WHAT’S NEXT: Minimally Invasive Isolated Liver Perfusion

Froedtert & The Medical College of Wisconsin are among just four centers in the United States that offer isolated liver perfusion (ILP), a method for delivering high doses of heated chemotherapy to the liver. Currently, ILP requires major open surgery. But a system recently approved in Europe could soon allow U.S. surgeons to perform ILP using catheters and other minimally invasive tools.

Interventional Radiology Delivers Innovative Therapies

Interventional radiologists specialize in using minimally invasive, image-guided technology. They play a key role in cancer care, because they are often able to deliver drugs and other therapies directly to tumors. These therapies usually have fast recovery times and preserve quality of life.

“Chemoembolization, used to treat a variety of liver tumors, is evolving and improving,” said William Rilling, MD, FSIR, Medical College of Wisconsin vascular and interventional radiologist. “We now use a catheter to deposit small beads loaded with large doses of chemotherapy directly at the site of the tumor.” A similar therapy called radioembolization uses beads impregnated with a radioactive substance. “A couple of years ago, we usually provided these therapies for patients who weren’t helped by chemotherapy and had no other options,” Dr. Rilling said. “Now, we integrate them earlier in the disease course.”

Combined therapies may also provide benefits. In a current clinical trial, patients with metastatic colon cancer receive chemoembolization or radioembolization between cycles of standard chemotherapy. A similar trial is available for patients with primary liver cancer. “We hope to use the strengths of both treatments for difficult diseases,” Dr. Rilling said.

In early studies, liver metastases from colon cancer responded to combined therapy at a higher rate than to chemo alone – about 90 percent versus 50 percent. “If that result holds up in larger studies, it will be a significant advancement.”

WHAT’S NEXT: Irreversible Electroporation

For years, interventional radiologists have treated liver, kidney and other tumors using cold energy (cryoablation) and heat energy (radiofrequency and microwave ablation). Now, U.S. researchers are studying minimally invasive irreversible electroporation (IRE). “IRE probes deliver an electrical current that disrupts cancer cell membranes, causing cell death,” Dr. Rilling said. “We hope IRE will some day be used to treat organs like the pancreas where we can’t use heat or cold ablation.”
“Pushing the Envelope” on Lung, Esophageal Surgery

Less than a decade ago, most lung cancer surgeries were major open-chest operations. In 2006, thoracic surgeons at Froedtert & The Medical College of Wisconsin began performing lung cancer procedures using video-assisted thoracic surgery (VATS).

“We can use VATS to remove a wedge of lung tissue through a single incision,” said William Tisol, MD, Medical College of Wisconsin thoracic surgeon. Patients are home within days. “Segmentectomy, lobectomy and even bilobectomy can be done using minimally invasive tools.”

“We start off assuming we can do these surgeries using a minimally invasive approach,” he said. “We push the envelope just a little as we carefully consider the best option for each patient. If we’re confident in a minimally invasive approach, we offer it.” According to Dr. Tisol, VATS is not practical for large tumors. Other possible contraindications include prior chest surgery or chest trauma.

Dr. Tisol and colleagues also offer a minimally invasive approach to esophageal cancer. Standard surgery to remove a cancerous esophagus requires large incisions in the neck and abdomen. Medical College of Wisconsin thoracic surgeons have performed more than 60 esophagectomies using transcervical endoscopic esophageal mobilization (TEEM), a procedure that allows the surgeon to mobilize the esophagus through a small neck incision. “This is a very new approach and not widely available,” Dr. Tisol said.

WHAT’S NEXT: Robotic Surgeries for Cancers in the Chest

“There has been some skepticism about using the surgical robot to operate on the chest,” Dr. Tisol said. “We chose to evaluate it on our own.” Medical College of Wisconsin thoracic surgeons have performed hundreds of robotic procedures, mainly to remove benign masses. “As robotic technology continues to improve, we will probably be able to use it for lung and maybe even esophageal cancer.”

Leader in Robotic Surgeries for Bladder, Kidney Cancers

Kenneth Jacobsohn, MD, Medical College of Wisconsin urologic surgeon and director of Minimally Invasive Urologic Surgery, is a leading provider of da Vinci robotic surgery for urologic cancers in the Midwest. He has performed more robotic kidney surgeries than any other physician in Wisconsin and more robotic bladder procedures than anyone in the region.

“Today at Froedtert & The Medical College, we use robotic tools for most kidney and bladder surgeries,” Dr. Jacobsohn said. Options include radical nephrectomy (removal of a kidney) and partial nephrectomy. “Partial nephrectomy is under-utilized in this country and in the world.”

Kidney patients who can’t have surgery can often be treated with cryoablation. “Using ultrasound or CT guidance, we insert a probe into the kidney and freeze the tumor,” Dr. Jacobsohn said. For muscle-invasive bladder cancer, robotic instruments can remove the entire bladder. “In appropriate patients, we create a ‘neo-bladder’ using a portion of the bowel,” Dr. Jacobsohn said. “An experienced surgeon can do this safely using minimally invasive technologies.”

Minimally invasive procedures involve less blood loss and less post-operative pain. “More than 80 percent of our kidney patients treated with robotic surgery go home after just one night,” Dr. Jacobsohn said. “Our hospital stay for bladder cancer patients is shorter compared to even a year ago.”

WHAT’S NEXT: Single-incision Robotic Surgery

Most robotically assisted surgeries require three to five small incisions. Advances in instrumentation may soon enable some cancer procedures to be performed through a single port. “A single-site platform is now available for non-cancer gallbladder surgery,” Dr. Jacobsohn said. “The technology needs to evolve more, but we hope the Food and Drug Administration will approve it for cancer surgeries.”
Patients Help Form a Cancer-free Future

Who doesn’t dream of a cancer-free future? Researchers and physicians at Froedtert & The Medical College of Wisconsin are working every day to bring that dream closer to fruition. Now, patients have a way to help.

Recently, a 1,400-square-foot tissue bank was opened to house blood and tissue samples for medical research that may lead to significant breakthroughs. “Essentially every advance we know of in cancer treatment today has been accomplished through studies done on tissues donated by patients,” said Saul Suster, MD, Medical College of Wisconsin pathologist and chairman of the Department of Pathology and Laboratory Medicine. “Any drug, any treatment we offer to patients is significantly based on results obtained from experiments and investigations carried out on frozen tissue.”

Patients at Froedtert & The Medical College of Wisconsin now have the opportunity to donate tissue that would normally be discarded. When a patient has surgery for cancer, any tissue removed is sent to the Pathology lab for analysis. After analysis is complete, the tissue is normally incinerated (a portion is retained in the clinical archive). The tissue bank gives patients the power to donate that tissue. “We offer patients a choice. We can discard what’s left, or donate it to science, with the hope that better treatments or information about diseases will help people in the future,” Dr. Suster said.

Patient privacy is strictly guarded. “Our most prized charge is to take every possible step to ensure the privacy of patients is protected,” Dr. Suster said. To accomplish this, information in the tissue bank is password-protected and access is limited to authorized staff. Certain agencies and people may see and share patient health information for research, such as the research sponsors, or the United States Food and Drug Administration. Health information is provided to these groups only when required by law or approved by the Institutional Review Board, which oversees research at Froedtert & The Medical College.

Careful handling and storage of the specimens also ensures they’re useful for scientific research. If tissue samples aren’t stored carefully, they may degrade, which could lead to improper or unreliable results if the tissues are used in a scientific experiment. Tissues samples are handled with the utmost care. “A research pathologist is dedicated exclusively to the task of assuring the quality of samples stored in our bank,” Dr. Suster said.

Tissue samples will be available to Medical College of Wisconsin researchers, many of whom are hard at work on projects related to cancer. In the future, access to the tissue bank may be granted to researchers outside the institution as well, but Dr. Suster said Medical College of Wisconsin investigators will always have priority use of the tissues.

Patients seem more than happy to support the effort. “The vast majority of our patients who have been approached and asked to contribute to the tissue bank have done so,” Dr. Suster said. Interested patients are asked to sign a consent that allows researchers to collect and bank tissues that would otherwise be discarded. Dr. Suster encourages all patients who have surgery at Froedtert & The Medical College to ask about tissue donation.

“We’ve found the majority of people in this community believe in helping others, showing solidarity and contributing,” Dr. Suster said. “This is a painless, easy way to do something good for yourself and others without cost to you.”

WHAT’S NEXT: Research Efforts Expand

Medical College of Wisconsin researchers currently receive between $15 million and $18 million annually from the National Cancer Institute to investigate possible causes and cures for cancer. The tissue bank will help expand research efforts in the future.
Today's cancer treatments, while effective, may cause lingering or very serious side effects, including nerve, kidney and heart damage. That's because normal cells are also subjected to the power meant to destroy cancer cells. Newer, targeted therapies aim to attack cancer cells while leaving normal cells relatively unscathed.

“As in real estate, in cancer chemotherapy, it’s location, location, location,” said Balaraman Kalyanaraman, PhD, researcher and chairman of Biophysics at The Medical College of Wisconsin. Dr. Kalyanaraman and Medical College of Wisconsin chemist Joy Joseph, PhD, have created customized antioxidant molecules that in early laboratory studies, target cells’ mitochondria to inhibit tumor production, enhance chemotherapy’s effectiveness and decrease oxidative damage to healthy cells.

How Antioxidants Protect Healthy Cells
Antioxidants (beta carotene, curcumin and other naturally occurring chemical compounds) protect the body by revving up our antioxidant machinery and detoxifying damaging molecules called free radicals. “We are constantly exposed to free radicals from pollution, chemicals, over-exposure to sunlight, and eating too much fat,” Dr. Kalyanaraman said. Free radicals react with lipids, protein and DNA, causing oxidative damage to cells. Antioxidants “mop up” the free radicals.

Since most antioxidants are found in fruits and vegetables, people who eat large quantities of these foods boost antioxidant levels. Custom-made antioxidants take it to a higher level: they seek out the cells’ mitochondria – the energy powerhouse – where they accumulate at concentrations up to 100 times greater than some naturally occurring antioxidants. And in early tests, researchers noticed the custom antioxidants did something more.

A Triple Whammy
“When researchers at Northwestern University treated colon cancer cells with the new antioxidants, they noticed a marked inhibition of cancer cell growth,” Dr. Kalyanaraman said. The exact mechanism keeping the cancer cells in check is unknown and Dr. Kalyanaraman’s team continues to investigate.

Intrigued, researchers next treated cancer cells with the custom antioxidants and traditional chemotherapy. “It’s a triple whammy: adding our antioxidants actually enhanced the efficacy of the drug. These antioxidants also mitigated its side effects and protected normal cells,” Dr. Kalyanaraman said.

His team has tested custom-made antioxidants against pancreatic, colon, breast and prostate cancer cells. “In these cells, growth can be inhibited by our mitochondria-targeted molecules,” he said. Someday, he hopes these antioxidants, in combination with conventional chemotherapy, will help humans beat cancer and metastasis with fewer side effects.

“What if anti-cancer therapies could destroy cancer cells – without harming the rest of the body? Customized Therapies May Bolster Cure and Quality of Life

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What if anti-cancer therapies could destroy cancer cells – without harming the rest of the body?
Understanding Cancer Screenings

The logic seems impeccable: catch cancer early, cure cancer. But the reality is much more complex.

When we screen for cancer, we are essentially looking for cancer in a patient who has no symptoms,” said Alonzo Walker, MD, Medical College of Wisconsin surgical oncologist and director of the Froedtert & The Medical College of Wisconsin Breast Cancer Program. How far should doctors go to detect cancer in an otherwise healthy patient?

That question has raised much controversy in recent years. In 2009, women around the nation expressed their confusion and in some cases, outrage when the U.S. Preventive Services Task Force (USPSTF) recommended low-risk women wait until age 50 to begin annual breast cancer screening with mammography. Most recently, the USPSTF advised against routine PSA (prostate specific antigen) prostate cancer screening for healthy men at low risk. Some men and women who faithfully scheduled annual PSA tests and mammograms now wonder what to do. Schedule screenings as usual, or hold off in accordance with the recommendations?

At Froedtert & The Medical College of Wisconsin, physicians, nurses and other providers work to help individuals and communities understand and appreciate the role of cancer screening.

Risk vs. Benefit

While screening tests can indicate cancer, a diagnosis must be validated with a biopsy and a pathology analysis. A woman who has a concerning mammogram is almost always scheduled for additional testing, including a probable breast biopsy. Likewise, a man with an abnormal PSA test result may be scheduled for a biopsy. Biopsies, like any other invasive medical procedure, involve certain risks, including infection and bleeding. If cancer cells are found, discussion immediately turns to consideration of treatment. Surgery, chemotherapy and radiation are all effective anti-cancer interventions, but each has potential side effects.

Most women and men agree the discomforts associated with treatment are more than worth it if early detection of cancer equals a longer, healthier life. But scientific research suggests that for some people, the risks of cancer screening outweigh the benefits. That’s why the USPSTF and others have revised cancer screening recommendations.
Individualized Input

It’s important to recognize that published cancer screening guidelines are just that: guidelines. Your personal physician should help you determine what cancer screening tests may be important for you given your age, sex, lifestyle and family and medical history. “There are different risk levels within groups that may be impacted by certain lifestyle or family history issues,” Dr. Walker said. “It’s really critical that you engage your own physician; have a conversation to determine what tests are most appropriate for you.”

While most patients begin that conversation with a primary care physician, some patients at high risk for cancer seek out the expertise of specialists at the Froedtert & The Medical College of Wisconsin Clinical Cancer Center. “Some patients want to talk to a specialist to get his or her viewpoint on the recommendations and to learn about our approach here,” Dr. Walker said. The Clinical Cancer Center includes a Cancer Genetics Screening Program for patients with a strong family history of cancer, a Breast Cancer High Risk Assessment service, which helps women determine and manage their personal risk for breast cancer, as well as a High Risk Pancreatic Cancer Clinic for individuals who need a similar resource for pancreatic cancer.

Doctors and nurses from the Clinical Cancer Center also share the latest information about cancer screening with members of the community at outreach events, thereby making it possible for us to provide culturally sensitive breast health education to minority women.”

CURRENT RECOMMENDATIONS

Not sure what the current recommendations are? Here are the latest from the American Cancer Society and the USPSTF. The bottom line: These are guidelines only; a frank and early discussion with your physician is important to put in place a screening plan individualized to your own medical and family history.

Breast Cancer: The USPSTF recommends screening mammography every other year for women ages 50 to 74, while the American Cancer Society continues to recommend annual mammograms starting at age 40. Discuss your personal situation with a physician to determine a screening regimen that fits your needs.

Prostate Cancer: The American Cancer Society recommends that starting at age 50, men should talk to a doctor about the pros and cons of testing so they can decide if it’s right for them. African American men or those with a family history of prostate cancer before age 65 (father, brother), should discuss screening with a doctor at age 45. If men decide to be tested, they should have the PSA blood test with or without a rectal exam.

Colorectal Cancer: For most men and women, screening for colorectal cancer should begin at age 50. For those with a family history of colorectal cancer or polyps, screening may begin at an earlier age. Screening generally involves a colonoscopy, although there are other effective and non-invasive methods available. Talk with your primary care physician to determine when screening should begin, the appropriate interval between tests, and which screening test is most suitable.

Cervical Cancer: PAP tests remain the most effective method for finding abnormalities that should be assessed for cervical cancer. The American Cancer Society recommends beginning cervical cancer screening at age 21. Women ages 21-29 should have a PAP test every three years. Between ages 30 and 65, women should have a PAP test every three years, or a PAP plus an HPV test every five years. Women older than 65 who have followed the recommended screening schedule and have had normal PAP results – and those who have had a complete hysterectomy – do not need to be screened. Due to their personal health history, some women may need to have a different screening schedule for cervical cancer.

WHAT’S NEXT: Screenings Evolve and Improve

Expect the cancer screening recommendations to evolve and change in the years to come as scientists and physicians discover new screening methods. For example, stool DNA tests are currently being investigated as a possible screening for colon cancer.
Options Abound for Preserving Fertility in Men and Women

Cancer doesn’t have to mean infertility

ife-saving cancer treatments, particularly chemotherapy and radiation, can leave men and women infertile. However, advances – such as freezing eggs and performing in vitro fertilization (IVF) with even a few sperm – have made fertility after cancer a reality for more patients. Physicians and nurses at Froedtert & The Medical College of Wisconsin are educating patients about steps they can take now to preserve their future fertility.

A Team of Specialists
Specialists in the Froedtert & The Medical College of Wisconsin Reproductive Medicine Center work with cancer caregivers to offer options that include egg or embryo freezing or donation, ovarian tissue banking, sperm freezing and testicular tissue freezing.

Medical College of Wisconsin obstetrician/gynecologists Paul Robb, MD, Estil Strawn, Jr., MD, and Medical College of Wisconsin urologist Jay Sandlow, MD, are experts in fertility preservation. They work with a multidisciplinary team to find the best option for each patient.

Preserving Fertility for Women
For certain women with gynecologic cancers, fertility-sparing surgery may be possible. For some early stage ovarian cancers, it is sometimes possible to remove only the affected ovary; the other is left intact, keeping natural fertility as an option. In another technique called ovary transposition, a woman’s ovaries may be surgically moved to shield them from radiation. A woman might also have her eggs harvested and frozen prior to treatment. Another option is fertilizing the eggs and freezing the embryos. While each of these methods can be successful, they are appropriate only for select patients.

Freezing Unfertilized Eggs
Historically, freezing a fertilized embryo has been easier and more effective than freezing eggs. Eggs contain more water, making them hard to freeze safely because ice crystals can form, destroying the cell’s structure. “Now, there is a newer technique of freezing called vitrification,” Dr. Robb said. “It works far better than the older methods.”

The ability to freeze eggs gives more women a path to fertility after cancer. Some women may not have a male partner available to donate sperm at the time of cancer treatment, or they may not want to create embryos to be frozen.

“In fact, we’ve started an egg bank using donated eggs that are available to any woman who is having difficulty using her own, whether due to previous cancer treatment, or other problems,” Dr. Robb said. “We can thaw a woman’s own or donor eggs, fertilize them with her partner’s or a donor’s sperm, and create embryos through in vitro fertilization.”

Amy Granlund, BS, clinic manager and embryologist, has extensive experience in andrology (male reproductive and sexual health), endocrinology and embryology.
Ovarian Tissue Banking

Harvesting eggs can take two to six weeks depending on where a woman is in her menstrual cycle, but sometimes chemotherapy or radiation can’t be delayed that long. In such cases, ovarian tissue banking may be considered. In this experimental treatment, physicians use minimally invasive surgery to remove a small amount of ovarian tissue or an entire ovary. The tissue or ovary is frozen and stored.

“After the patient has recovered from cancer, we re-implant the tissue, typically over the ovary that remains,” Dr. Robb said. “Eggs may develop and the woman could become pregnant through the natural release of an egg, or through IVF. We’re involved with the Oncofertility Consortium in Chicago, an organization that is actively researching this option, along with options for maturing eggs outside of the body.”

“It’s helpful for patients to meet with one of us to learn about fertility preservation even if they decide to do nothing,” Dr. Robb said. “Knowing comprehensive treatments are available can create a sense of peace.”

Preserving Male Fertility Through Cryopreservation

Because fertilization can now be achieved using just a few sperm, men also have more choices. Freezing sperm through cryopreservation before treatment begins is the best and least costly option. “It may be as simple as providing a semen specimen to our andrology lab for cryopreservation,” Dr. Sandlow said. “Or it may be an appointment to talk about options.”

While it may be possible to retrieve sperm after some cancer treatments, freezing sperm in advance is much more successful. When men or adolescents can’t produce a sample, sperm can often be retrieved surgically, then frozen for later use. This may work for men who cannot ejaculate or for men with very low sperm counts. “If a patient doesn’t have sperm in his semen, we have the unique expertise to retrieve it surgically or through needle aspiration before he starts cancer treatment,” Dr. Sandlow said.

Testicular Tissue Banking

In some cases, testicular tissue banking can work for men with no other options. An outpatient procedure, it involves surgically removing a small piece of testicular tissue, which is cut into several pieces and frozen.

Sperm can be retrieved later and used to fertilize eggs by intracytoplasmic sperm injection (ICSI), where a single sperm is injected into an egg to attempt fertilization. At the Reproductive Medicine Center, this procedure has produced fertilized embryos and successful pregnancies.

The next step? “A major advancement would involve removing testicular tissue, freezing it, then re-implanting it or growing immature germ cells in a dish,” Dr. Sandlow said. “We can’t do anything for young patients who don’t have mature sperm in their testicles yet. The future of fertility preservation on the male side is going to revolve around pre-pubescent and early adolescent patients.”

“While we’re getting better at curing diseases, the cure can leave our patients sterile,” Dr. Sandlow said. “I’m starting to see adult survivors of childhood malignancies who are asking if something can be done.”

WHAT’S NEXT: Tissue Banking

Tissue banking – ovarian and testicular – is a developing technique that may preserve fertility for women and men. Small samples of tissue are removed before cancer treatments begin and are frozen for later use. For women, ovarian tissue is re-implanted in the hope that eggs will eventually release naturally. For men, sperm can be retrieved and used in a specialized IVF procedure. Researchers are also examining an alternative to re-implanting ovarian tissue in which eggs would mature and be fertilized outside the body.
Embracing the Forward Journey: Cancer Survivorship

The Institute of Medicine (IOM) has named nine chronic conditions dominating the United States health care landscape – and cancer survivorship is one of them. An estimated 12 million people are survivors, living for years after cancer. But even the most resilient can face unique problems. Froedtert & The Medical College of Wisconsin have long considered a patient’s quality of life an important priority.

At the Clinical Cancer Center, survivorship resources are an integral part of care that revolves around the patient – a design called the hub concept. An experienced oncology nurse who specializes in a specific form of cancer works with clinic nurses and physicians to coordinate care for each patient. That coordination carries over to resources needed during and after treatment, including nutrition guidance, pain management, support groups, smoking cessation and financial counseling.

“The high level of support we offer is critical for cancer patients who often feel completely alone – overwhelmed by the diagnosis, well-meaning advice, tests, treatments and appointments,” said Kathy Myers, BSN, RN, clinical nurse coordinator for the Head and Neck Cancer Program. “We’ve offered survivorship support for years, but our centralized location for cancer care allows us to give survivorship resources an even higher focus.”

The IOM’s focus on survivorship as a chronic disease is a subtle, but important shift. “It brings awareness to the challenge of caring for cancer survivors by recognizing the short and long-term effects that become part of patients’ primary care priority,” Myers said.

“Planning for life after cancer begins before treatment. I can easily get our patients in touch with a fertility expert, genetics counselor, social worker or cancer dietitian,” she said. “We have occupational and physical therapy services, psych-oncology and child-life specialists, chaplains, exercise programs and many other resources right here.”

Care Plan Pilot Program

Another challenge for cancer survivors is tracking health information to guide future medical care. The IOM recommends cancer patients receive a survivorship care plan after cancer treatment ends. The plan should include a diagnosis summary, as well as information about: treatment and potential consequences, timing and content of follow-up visits, cancer prevention, employment and insurance rights, and support services.

Myers is directing a pilot program with head and neck cancer patients who have been treated with surgery, chemotherapy and/or radiation. She creates a survivorship care plan using a tool called Journey Forward™, supported by such organizations as the Oncology Nursing Society and the National Coalition for Cancer Survivorship.

“The care plan is a guide for the patient and his or her primary care team in transitioning back to normal life,” Myers said. “Having so many patient-centered resources available in a single location makes the Clinical Cancer Center unique in southeastern Wisconsin. Curing cancer is always our goal, but we keep survivorship in mind all along.”

WHAT’S NEXT: Mapping Out Survival

In the future, more cancer patients will receive detailed survivorship care plans that will be shared with their primary care physicians when cancer treatment ends. “If a patient doesn’t have a primary care doctor, we’ll connect them with resources to help them find one. We’re highly invested not only in treating cancer patients, but helping them live well for years beyond diagnosis,” Myers said.
Bringing Home State-of-the-art Oncology

In 2010, Froedtert & The Medical College of Wisconsin launched a Cancer Network that offers specialty cancer care in Menomonee Falls and West Bend.

Working alongside community physicians, a range of Medical College of Wisconsin cancer specialists bring substantial expertise to patients at Froedtert Health Community Memorial Hospital and St. Joseph’s Hospital. Froedtert & The Medical College forms the backbone of the Cancer Network, supporting each location with access to the resources of a nationally known academic medical center, including highly specialized cancer treatments that aren’t readily available elsewhere. The premise of the Cancer Network is to deliver optimal cancer care to patients in their own communities – at hospitals they trust.

New Development – Expanded Clinical Trials

An important development is an expansion of clinical trials. While patients at Community Memorial and St. Joseph’s always had access to clinical trials, they were limited to trials available at specific locations.

“We’ve made it possible for patients to participate in select clinical trials from both Network locations, as well as Froedtert & The Medical College – without leaving their home communities,” said John Koenig, director of the Cancer Network. “This may translate to more options, especially for patients with rare or advanced cancers, or those who are no longer able to benefit from standard treatment options.”

The Cancer Network will continue to evolve, adding specialists, new facilities and advanced treatment technology.

Comforting Healing Environments

In 2011, Community Memorial Hospital transformed its Cancer Care Center with more exam rooms, private and semi-private chemotherapy areas and sophisticated radiation technology. The new cancer center makes it easier for cancer specialists to work together and deliver highly coordinated treatment. Later this year, several new Medical College of Wisconsin specialists are expected to join the team, including breast, colorectal and thoracic surgeons.

In July 2012, St. Joseph’s Hospital’s Kraemer Cancer Center will open a new facility that will consolidate cancer services on the hospital campus. It will bring additional specialties, including Medical College of Wisconsin breast and colorectal surgeons, a cancer survivor clinic, and image-guided radiation technology. Watch for more information on the grand opening event in August.

Cancer Network Specialties

Cancer Network services in Menomonee Falls include radiation oncology, hematology and oncology, gynecologic oncology, neuro-oncology and urologic oncology. In West Bend, specialties include radiation oncology, hematology and oncology, gynecologic, thoracic and urologic oncology, and plastic and reconstructive surgery. Patients at both hospitals are supported by certified oncology nurses, cancer genetic counselors, cancer dietitians and psych-oncology nurse specialists.
Future cancer cures come from clinical research such as studies conducted every day at Froedtert & The Medical College of Wisconsin. As the robust clinical research at our academic medical center brings us closer to curing cancer, donor generosity helps bring important clinical trials to our community. The latest donor-supported advancement in cancer research is the effort to create a Cancer Translational Research Unit (TRU) that will offer early phase clinical trials at the Clinical Cancer Center (see page 7).

“The new Cancer Translational Research Unit is an important step toward providing the best patient care possible,” said Bruce Block, attorney and shareholder of Reinhart Boerner Van Deuren s.c. “It’s not easy to find a funding source within conventional channels, so this is where philanthropy can really lead the charge and help an important initiative move forward.”

Block is chair of a steering committee formed by the Froedtert Hospital Foundation board of directors with the goal of raising $5.6 million to support the creation and operation of the TRU. Other members of the steering committee include: Norman Barrientos, Andrew Haag, David Marcus, Jeffrey Metz, Marcy Neuburg, MD, Kip Ritchie, John Rosenberg, Michael Schroeder and Tom Smallwood.

“Froedtert & The Medical College make up a very strong research and teaching medical center, so it’s a pleasure to get involved,” Block said. “It’s a high quality organization and always striving for continued national excellence.”
The TRU will offer early clinical trials (phases I and II). In phase I clinical trials, new drugs are tested for the first time in a small group of people to identify maximum tolerated dose and pinpoint side effects. Phase II trials involve a larger group of people and further evaluation of safety and dosage. Translational means bringing treatments from the lab to the patient’s bedside.

“The TRU will be a six- to eight-bed unit within our Day Hospital,” said Nora Sale, vice president and executive director of the Froedtert Hospital Foundation. (The Day Hospital provides a comfortable outpatient environment for patients needing chemotherapy, blood products or other infused treatments, or advanced services that might otherwise require hospitalization. It’s open seven days per week, 365 days per year for patient convenience and quality of care.) “An intensive scientific and care environment, the new unit will be equipped with the higher level of staffing required for early trials of investigational drugs,” Sale said.

The unit will be staffed by highly trained chemotherapy nurses working closely with investigators and members of a newly formed clinical trials office. The development of the cancer translational research unit and clinical trials office is led by James P. Thomas, MD, PhD, Medical College of Wisconsin hematologist/oncologist, whose own cancer research has led to two patents.

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“Cancer affects everybody, and research provides a brighter future.”

Betsy Trimble
Froedtert Hospital Foundation Board Member

Philanthropy’s Critical Role

Froedtert Hospital Foundation board member Betsy Trimble supports the TRU and what it means for the community. “Cancer affects everybody, and research provides a brighter future,” she said. “Early phase trials are the only chance some people have when conventional treatments aren’t working. This is what the Clinical Cancer Center offers, and philanthropy is critical to moving it forward for all of our sakes. Each gift has far-reaching implications.”

“Donor recognition will enhance this space,” Sale said. “We have opportunities to name the TRU and funds designated by donors. Funds can be created for as little as $20,000. They carry an individual’s name and the chance for a family to be involved in helping direct the program going forward. We’ve started receiving gifts, and are hosting a series of ‘salons,’ a way to bring interested parties together to learn more.”

Establishing a cancer translational research unit that offers early phase clinical trials is a step toward helping Froedtert & The Medical College become a National Cancer Institute (NCI) designated cancer center. “NCI recognition opens the doors for more research funding, access to trials and partnerships,” Sale said. “And that would be good for our community.”

Intensive remodeling begins this spring, with plans to open the translational research unit before the end of 2012.

For information about opportunities to support cancer research, call the Froedtert Hospital Foundation at 414-805-2699 or visit froedterthospitalfoundation.org.
If you (or a family member) are facing a cancer diagnosis, you already know how important it is to make the right decision about who treats you — and to become well-informed, so you can choose the most appropriate treatment options for your type of cancer and your individual situation. Below are questions you should ask your physicians to help ensure you are making the best choices at this important time.

1. What percentage of your practice is dedicated to cancer care?
2. What percentage of your practice is focused on my type of cancer?
3. Are you fellowship-trained in cancer care? Why is that important for my care?
4. How many of the treatments you’re recommending have you personally performed?
5. What are your results for this treatment in terms of cure?
6. What are your results for this treatment in terms of side effects?
7. How do your results compare to those obtained at national centers of excellence?
8. Are there treatments you don’t offer that would be relevant to my cancer (surgery, radiation, chemotherapy, clinical trials)?
9. How many papers have you published on my type of cancer?
10. Who are the nationally recognized experts in Wisconsin who treat this disease?
11. Will you refer me to the best possible specialist for my cancer?

If you have questions, would like a second opinion, or desire an appointment, please call the Froedtert & The Medical College of Wisconsin Clinical Cancer Center: 414-805-0505 or 866-680-0505.