

# World-class cancer care

Avera Cancer Institute offers comprehensive care, right here at home

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BY DONNA FARRIS, AVERA MCKENNAN WRITER/EDITOR

One out of every two men, and one of every three women will be diagnosed with cancer at some point during their lifetimes. Those who are not cancer survivors themselves have someone very close to them who is.

“More people are surviving cancer than ever before, yet as the second leading cause of death in America, cancer is still a formidable enemy,” said Dr. David Kapaska, regional president and CEO of Avera McKennan Hospital & University Health Center.

“Cancer care is changing. Treatments are becoming more varied and complex, and technology is advancing. Additional programs are needed to see patients through the transition from cancer patient to cancer survivor. For all these reasons, we felt the time was right to make a significant investment in cancer treatment.”

The Avera Cancer Institute, completed in November 2010, is a local and regional destination for cancer care, with outcomes that meet or exceed those of national cancer centers, evidence-based treatment protocols and the most advanced technology.

“When planning began three years ago for the new Avera Cancer Institute, ‘world class’ became our vision,” Dr. Kapaska said. “We believed that people of our region deserved world-class cancer care in or near their home community, so that traveling hundreds of miles away from home would be simply unnecessary.”

The previous Avera Cancer Institute, built in 1990, was the region’s first comprehensive cancer center of its kind. But in the past two decades, as Avera McKennan’s cancer program has grown, new specialists have been added to the cancer care team, and Avera has placed a growing emphasis on survivorship care and holistic care.



The National Cancer Institute estimates that 11.4 million Americans who have a history of cancer are living today. Some are cancer free; others have ongoing treatment of their disease.

“Our care goals are first to prevent cancer, to cure the disease for those who have cancer, to help cancer patients cope through treatment, and then help rebuild their lives,” said Dr. Addison

Tolentino, oncologist with Avera Medical Group Oncology and Hematology. “There are a lot of programs we wanted to implement that our former building did not allow.”

Planning resulted in a unique and comprehensive healing environment with care for the whole person – body, mind and spirit – through all phases of cancer care, from prevention and

## Care for the whole person

The Avera Cancer Institute is home to the region’s largest Integrative Medicine program. While a new term in the medical realm, some 80 percent of cancer patients are already seeking out therapies that complement traditional treatments.

“Integrative Medicine is seen by patients and practitioners alike as an important aspect of cancer care,” said Dr. Stephen Medlin, hematologist with Avera Medical Group Hematology and Bone Marrow Transplant. These therapies include massage, acupuncture, aromatherapy, movement, nutrition counseling and the “Arts in Healing.”

Goals are to relieve symptoms such as pain or nausea, promote relaxation and foster better health and well-being during cancer treatment.

Acupuncture, for example, as an ancient healing art is used for a wide range of conditions, such as pain, headaches, nausea and more. These services will be provided by Avera family practitioner Dawn Flickema, MD, who is completing certification in medical acupuncture.

During aromatherapy, patients are given essential oils to smell, including ginger, peppermint, lavender, frankincense and mandarin. Smelling these oils is known to help relieve pain, nausea, insomnia and anxiety.

Through the “Arts in Healing” program, patients may listen to music, journal, paint or do pottery or beadwork to help them express themselves, and just focus on an activity that brings them joy and relaxation. “Arts in Healing” has a studio on the third floor of the ACI, as well as “art carts” in infusion areas. The Avera Cancer Institute has received a grant through the LIVESTRONG Foundation to help develop this program through Artists in Residence.

Movement therapies such as tai chi and qigong promote deep breathing, relaxation and a sense of well-being.

Integrative Medicine is a collaboration of evidence-based medicine and healing therapies. Medical treatment is still critical in cancer care, Dr. Medlin said. “We as physicians have a responsibility to help our patients choose therapies that can help them succeed,” he added.

“Our patients are eager to find things they can do to help in their healing and easily incorporate into their daily lives,” said Julie Dixen, ACI outpatient cancer program manager.



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diagnosis, to treatment, to Integrative Medicine to survivorship care.

The ACI is housed in a five-story, 260,000-square-foot facility – the largest building project in Avera history. The Prairie Center, which also houses the Avera Surgery Center, is a \$93 million investment in a healthier future for residents of this region.

## A regional leader

Avera McKennan has been a regional leader in cancer care for nearly three decades. The hospital's first inpatient oncology unit was opened in 1982. In 1986, it was the first cancer program in the state to be accredited as a Comprehensive Community Cancer Center by the American College of Surgeons Commission on Cancer. Avera McKennan then opened the region's first free-standing comprehensive cancer center in 1990. South Dakota's only bone marrow transplant program was added in 1996. In 2009, the Avera Cancer Institute received the prestigious Outstanding Achievement Award from the Commission on Cancer, given only to facilities that meet the highest standard of care for cancer patients.

The Avera Cancer Institute remains on the cutting edge with other firsts:

- The region's first and only ARTISTE™ linear accelerator by Siemens, representing versatile, adaptive and highly-advanced radiation technology.
- The region's first and only IORT (Intra-Operative Radiation Therapy) in which radiation is applied directly to tumors during surgery. IORT is being used on a research basis for breast cancer treatment, and has other applications, including the treatment of advanced pelvic and abdominal tumors, sarcoma and colorectal cancers.
- The region's only dedicated Brachytherapy Suite, in which all phases of this therapy can be performed in one setting, making treatment more accurate and more convenient and private for the patient.

"The next generation of cancer treatment is beginning to emerge," said Kris Gaster, assistant vice president of Outpatient Cancer Clinics. Some of these treatments include targeted drug therapies,



## Green: More than Avera's corporate color

Avera has gone green – not just as a corporate color, but in a commitment to protect the environment, said Richard Molseed, senior vice president for Environmental Services at Avera McKennan.

The building is designed as a "green" building to promote healing, and to do no harm to patients, the community or environment. The Prairie Center is approved to receive three Green Globes through the Green Globes® assessment and rating system, which rates environmental performance and sustainability of commercial buildings. The Prairie Center is breaking new ground as a "green" building in South Dakota:

- Designed to conserve energy and water, the ACI is the first project in South Dakota to utilize Xcel Energy's Energy Design Assistance® program, saving an average of 28 to 30 percent over energy code.
- The Trane Company, manufacturer of heating and cooling systems, has determined that this is one of the most energy efficient buildings with the highest air quality of its kind in America, and will use the ACI as a case study in design and "green" applications.

### Other "clean" and "green" aspects of the Prairie Center include:

- A passive solar design with south-side glass. Window mullions are engineered to maximize passive solar gain in the winter, and minimize it in the summer.
- Interior lighting plan to maximize sunlight and reduce electricity use
- Landscaping designed for minimal watering
- A rooftop garden to reduce the "heat island" effect caused by heat absorption by a rooftop and cut cooling costs, for savings of an estimated 7 percent
- Recycling, use of recycled building materials and reduction of construction waste
- Use of carefully selected sustainable and green materials
- Purchasing of construction materials locally to save transportation costs
- Indoor air quality measures, including filtering air and exposing air to UV light to kill airborne bacteria
- Careful selection of building materials that do not contain toxins known to contribute to cancer and other illnesses. This includes use of no-VOC paints, adhesives and fabrics.
- 7,500 square feet of indoor gardens, including trees, plants, grasses and indoor ponds and waterfalls, that aid in balancing indoor humidity and air quality.
- Acoustic environment to maximize an indoor healing environment free of disruptive levels of noise

"There is no one big feature that makes this building green. It's the summation of a lot of little things that add up to a big impact in terms of conserving our natural resources and protecting our environment," Molseed said.

vaccine therapies, DNA profiling, gene therapy, and further advances in radiation therapy. "Staying at the cutting edge of cancer care requires a new state-of-the-art facility that accommodates all aspects of cancer care."

## Innovative design

The innovative and unique design of the Avera Cancer Institute is the result of site visits to nationally-known community cancer centers and months of focus group meetings.

Patients communicated that they wanted to come to one place for all their care, rather than going from building



to building.

They wanted a healing environment, incorporating the beauty of nature both indoors and out.

"The best thing about being involved with this process is helping to make things better for the next person who battles cancer," said Janice O'Connor, breast cancer survivor and focus group member.

Incorporating nature is refreshing and inspiring. "It's life," O'Connor

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said. The building has 7,500 square feet of indoor gardens, as well as two indoor waterfalls.

Physicians were also involved every step of the way. "Our physicians are very compassionate and patient-focused," Gaster said. "They see the patient as a whole person, rather than a diagnosis. They have a very high standard of care, and their patients always come first."

Privacy during chemotherapy infusion came to the forefront at patient focus groups. While patients experience camaraderie in the same room with others going through chemotherapy, many prefer to have infusions alone, or with a few family members or friends present. The Avera Cancer Institute is one of very few cancer centers in the nation offering private infusion suites which can be made to be semi-private, compared to the norm of group infusion centers.

This concept allows patients to be alone if they choose, or in the company of others by opening sliding doors between suites. Many suites overlook the indoor atrium, fulfilling another patient desire for scenic, natural views.

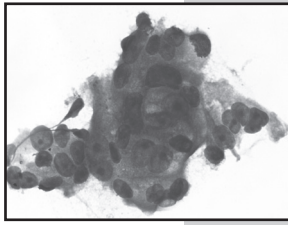
Suites are equipped with a custom-built infusion chair, designed by Avera staff, for optimal patient comfort.

While the ACI is patient-centered down to the last detail, it is also efficient for staff. In clinic space, the ACI features Avera's signature design for staff efficiency and patient privacy. "The space is designed to help us work more efficiently and spend more time with our patients, rather than patients spending more time in the waiting room," Dr. Tolentino said.

## World-class facility

All under one roof, the ACI includes space for physician clinics, chemotherapy, radiation therapy, diagnostic imaging, lab draws, research, a breast health center, Integrative Medicine and support services.

With a "Prairie Wind" design theme, the building features natural daylight, stone, wood and green areas. Public



## Facts to know about cancer

Not just one disease but a group of many diseases, cancer begins as a single abnormal cell in a breast, a lung, a lymph node. That cell divides and multiples and may spread to other sites in the body. Left uncontrolled, it can result in severe illness and death.

Cancer may be caused by external factors, such as tobacco use, or inherited genes. At present, there is no cure for cancer. The best strategies against cancer are prevention and early detection, although medical science is continually finding new and better ways to treat cancer with surgery, chemotherapy, radiation therapy, hormone therapy and other means.

For men, the top three cancers nationwide are prostate, lung and colorectal. Top three cancers for women are breast, lung and colorectal. Lung cancer is the leading cause of cancer deaths in both men and women, followed by prostate in men and breast in women. For both genders, colorectal cancer is the third leading cause of cancer deaths.

Consider these cancer facts and figures:

- In South Dakota, four people die of cancer each day. This year, 4,200 cases will be diagnosed in the state.
- In this country, someone is diagnosed with cancer every 30 seconds.
  - About 1.52 million cancer cases were diagnosed in the United States in 2010. That doesn't count for basal cell and squamous skin cancers, which account for another 2 million cases.
  - Cancer causes nearly 570,000 deaths per year, or one in four deaths.
  - Due to prevention, early detection and improved treatments, cancer incidence rates and death rates per 100,000 population are falling. Yet new cancer cases have risen 20 percent over the last decade due to our increasing population and aging population.
  - The Avera Cancer Institute added over 1,400 new cancer cases to its registry last year. Top types are breast, lung, colorectal, prostate, lymphoma and skin (melanoma).

Sources: American Cancer Society and National Cancer Institute

## World-class expertise

A state-of-the-art facility and advanced technology are only tools. What makes a cancer program outstanding is the experience, knowledge and expertise of its medical team. The Avera Cancer Institute's team of cancer experts study and collaborate to provide evidence-based treatment protocols. This results in outcomes which meet or exceed those of national cancer centers.

One example is bone marrow transplantation, started at McKennan in 1996, with expansion under the leadership of hematologist Dr. Kelly McCaul who joined Avera in 2000. The program is now three physicians strong, with Drs. McCaul, Stephen Medlin and Vinod Parameswaran. The Avera Cancer Institute, along with the Avera Transplant Institute offer the only bone marrow transplant program in the state and the wider region.

The program is fully accredited by FACT, the Foundation for the Accreditation of Cellular Therapy (FACT), for both autologous and allogeneic adult transplantation.



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areas include the Quarry Café with healthy menu offerings, a small stage for musical and drama performances, meeting rooms, retail store and wig salon. The interior design of the first floor reflects the landscape of South Dakota, with smooth finishes and urban style on the east side, and more rugged terrain on the west, culminating a section that resembles the Needles in the Black Hills. A circular meditation room is behind the western landscape, with a window that looks out through an indoor waterfall.

The building is home to an extensive original art collection, conveying images which inspire hope, dignity, courage and faith.

“We understand and respect the healing qualities of art,” Gaster said. “Offering an environment that promotes healing places our patients in the best positive position for healing – physically, emotionally and spiritually.”

The philosophical theme for the Avera Cancer Institute is “Life’s Transformation through Grace and Technology.”

“A cancer diagnosis is a life-transforming event,” Gaster said. “It creates such a crystallization of what is really important.”

Grace is delivered by God through family, friends, doctors, nurses and support staff, Gaster said. “Technology is the cutting-edge treatments that allow more and more people to survive cancer.”

## Toward a better future

In future years, the ACI will continue developing programs around specific diagnoses, similar to the current comprehensive breast cancer program.

“Each program will be unique, because each disease is unique,” Gaster said. Survivorship care will remain a priority.

Five-year survival rates for all types of cancer have improved from 50 percent in 1975 to 68 percent today, according to American Cancer Society statistics. For selected cancers, that rate is much higher. Breast cancer, for example, had a five-year survival rate of only 63 percent in the early 1960s. Today, it is 90 percent and up to 98 percent for cancers that are localized.

Bone marrow transplant was pioneered in the early 1950s and has become the standard of care for many disorders because it offers the highest survival rate overall, or disease-free survival, for cancers such as acute leukemia, multiple myeloma or lymphoma.

“Patients can receive care equivalent to any program in the nation with the same high outcomes, along with personalized care near home that result in a positive patient experience,” said Dr. McCaul. “We offer the same technology and expertise as anywhere else, yet we provide this care closer to home with the compassionate, personalized care that characterizes Avera.”



The Avera Cancer Institute is building tumor specific programs in breast and gastrointestinal cancers, as well as other cancers in the near future. These programs include patient navigators, who follow the patient through all aspects of cancer care, and multidisciplinary conferences. These conferences bring medical specialists together to discuss specific cancer cases and the best possible treatment plans for individual patients.

Such conferences are like a second opinion – as well as a third, fourth or fifth – with no additional office calls or charges for patients. “Cancer patients

gain the benefit of having everyone in the room focus on their case, with each specialist providing input and expertise,” said Kris Gaster, assistant vice president for Outpatient Cancer Clinics.

The ACI will continue its strong commitment to research, education and prevention in the fight against cancer.

“We hope that this building someday will be used for something other than cancer,” Gaster said.

Dr. Tolentino agreed. “The goal of the National Cancer Institute is to make cancer a chronic disease, like hypertension, rather than a deadly disease. That’s something that is achievable in the next decade.” The ultimate goal is a cure. “Already, there are cancers that are very curable,” Dr. Tolentino said.



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