Advances in medicine continue to develop, with incremental strides toward understanding what works best for different types of cancer, for different types of people and in the optimal timelines to proceed. Physicians constantly seek to better understand cancer, detect it earlier and treat the disease more effectively. By encouraging their focused pursuits in individual areas, and staying connected with their interdisciplinary team, we offer a strong, flexible and consistent cancer care experience.

When patients seek any cancer treatment at any Sentara facility, they enter a comprehensive network of cancer care. The strength of the network is created by the team approach of our nurses, physicians, therapists and specialists who work together for a common purpose. With advanced technology and leading-edge research, our network continually extends its reach, encompassing the latest options for our patients. Treating cancer is a challenging but necessary process, and together we offer patients and their families our commitment to care, comfort and recovery.

To our Patients, Colleagues and Community,

For someone dealing with cancer, every little thing can make a big difference. Their cancer is just “little cells,” but it can change their life in a big way. By recognizing that each member of the Sentara Cancer Network team makes a big impact with all of their contributions, we can celebrate the milestones and then prepare to press forward to bigger innovations.

Each year, we create a report to benchmark how far we have come. There are many achievements included among these pages. There are also reflections of the work ahead for us, in the next year and in the next decade.

Each success builds a foundation for confidence and the Sentara Cancer Network reputation. At the same time, our commitment to improvement contributes to future successes.

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The American College of Surgeons’ Commission on Cancer accreditation program focuses on the structure and services within a cancer program. The Sentara Cancer Network is the only program in Virginia to achieve multi-site accreditation as an Integrated Cancer Network Program.

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Only 18% of 432 cancer programs surveyed by the American College of Surgeons’ Commission on Cancer in 2012 received Outstanding Achievement Awards. The Sentara Cancer Network was one of only three Integrated Cancer Network Programs nationally to earn this award.
Among our many achievements in 2014, we are especially proud of the ways in which we help improve survivorship through early detection.

- More than 250 high-risk patients were screened through our Low-Dose CT lung screening program.
- As the pioneers in Hampton Roads with 3D Mammography (Tomosynthesis), we continued to expand this service to more women, for earlier detection of breast cancer.
- Our collaboration with Eastern Virginia Medical School continues to excel, along with the highly specialized quatermary level programs at Sentara Norfolk General Hospital. The Sentara - EVMS Comprehensive Head and Neck Center earned a spot on the top 50 programs in U.S. News and World Report’s annual rankings. This program is part of the ENT program at Sentara Norfolk General Hospital.
- We have now expanded the Heated Intraperitoneal Chemotherapy (HIPEC) program to the Sentara Norfolk General Hospital/EVMS campus as well as Sentara CarePlex Hospital. Having two sites for a service that has fewer than 70 nationwide reflects the exemplary level of care available with our network.

We are proud to be an integral part of the Hampton Roads community and excited to move together toward the future. On behalf of our colleagues throughout the Sentara Cancer Network, we present our cancer registry data.

Sincerely,

Richard A. Hoefer, DO, FACS
Surgical Oncologist
Medical Director, Sentara Cancer Network

James J. Schneider, MD, FACS
Surgical Oncologist
Network Physician Liaison, American College of Surgeons’ Commission on Cancer

Thomas A. Alberico, MD
Medical Oncologist
Chair, Sentara Cancer Network
Sentara Healthcare

Serving residents of Virginia and North Carolina, Sentara is one of the most progressive and integrated healthcare organizations in the nation.

Sentara includes 12 acute care hospitals and 2 specialty hospitals.
A healthcare system with many doors, but a shared commitment to quality care and creating an extraordinary healthcare experience.
Sentara Cancer Network
Hampton Roads, VA

17,854
Patients documented in registry since 1995
Accounting for 80,493 cancer primaries

14,131
Cases presented at Multidisciplinary Cancer Conferences since 2008

6,727
Patients added to the registry in 2013

11 Sites of diagnosis & treatment

The Sentara Cancer Network

- A continuum of care from prevention to survivorship, with comprehensive diagnosis, treatment and support
- A fully integrated network of hospitals throughout Hampton Roads
- Groundbreaking clinical expertise including clinical trials and integrative care
- Fellowship-trained Physicians and Oncology Certified Nurses and Nurse Navigators
- National accreditations from the American College of Surgeons’ Commission on Cancer, the National Accreditation Program for Breast Centers, the American College of Radiation Oncology and the American College of Radiology
- Advanced technology for clinical procedures
- Information technology that facilitates coordination of care
- Prospective tumor boards and cancer conferences
- Physicians in many specialties:
  - Colorectal Surgery
  - Dentistry
  - Dermatology
  - Gastroenterology
  - General Surgery
  - Gynecology
  - Hematology
  - Medical Oncology
  - Neurosurgery
  - Otolaryngology
  - Pain Management
  - Palliative Care
  - Pathology
  - Plastic Surgery
  - Pulmonology
  - Radiation Oncology
  - Radiology
  - Surgical Oncology
  - Thoracic Surgery
  - Urology
  - Pain Management
  - Palliative Care
  - Pathology
  - Plastic Surgery
  - Pulmonology
  - Radiation Oncology
  - Radiology
  - Surgical Oncology
  - Thoracic Surgery
  - Urology

lung, bronchus (small cell) 2%
uterus 2%
pancreas 3%
thyroid
non-Hodgkin’s lymphoma
kidney/renal pelvis
bladder
melanoma/skin
colon

www.sentara.com/cancer
National Accreditation & Experience

Elevating our standard of care

Cancer is a word that stimulates action – it’s time to do something! But there’s so much information out there and it can be hard for patients and their loved ones to navigate.

Luckily, Sentara Cancer Network has the people with the skills to make customized recommendations and provide excellent care to cancer patients. These passionate people know many ways to help patients figure out their best options. Dedicated teams, including highly skilled physicians, work relentlessly to offer their experience for every patient.

A multi-site network offers connected and comprehensive coverage for our patients. The Sentara Cancer Network sets an example of this approach with teams that span seven hospitals, with multiple outpatient settings, a medical school and the Sentara Medical Group.

Our network also connects with independent physician practices and services to serve the needs of our patients. Each facility’s data offers real-time comparison to benchmark our successes and compare ourselves with national standards. We transcend the concept of “cancer center” by constantly communicating, sharing best practices and collaborating for the sake of our patients.

Sentara Healthcare strives to be “Always Improving,” and that means that our network vigilantly focuses on quality improvement. We’ve earned national accreditations but we also go beyond them. We continue to create and promote a culture of excellence that attracts and retains experts in cancer care and research. As one of the largest accredited networks in the nation, the Sentara Cancer Network leads by creating a challenging and progressive environment for physicians, nurses and clinical leaders. Together, we are constantly inspiring each other to exceed national benchmarks and set new goals for the care of our patients.

As a community-based, not-for-profit organization, our physicians and clinicians are involved in direct patient care every day. Together, the teams lead innovation and quality improvement while seeing patients in clinics, diagnostic centers, operating rooms and radiation therapy centers. Together, we’ve created a cycle of excellence that benefits the community, the health of our patients and serves our mission.

2013 Sentara Cancer Network Top 15 Analytic Cancer Sites
Overview of the Sentara Cancer Network

A Network of Strength and Agility

We are proud that the Sentara Cancer Network is the first system in Virginia to be accredited as a Network Cancer Program by the American College of Surgeons’ Commission on Cancer. We earned this certification through a proven track record of quality and advanced care.

It’s more than just treating cancer, it’s also detecting it earlier, too. Medical advances help physicians and specialists better understand cancer, to find it sooner and to treat it more effectively. Clinical trials bring new options to our patients and drive many innovative treatments forward.

The Sentara Cancer Network has been at the forefront of making these cancer advances available in Hampton Roads. Highly skilled physicians and staff, advanced technology and treatments, and a focus on quality protocols and best practices have resulted in accomplishments such as further reduction in the mortality rate for complex surgical procedures of lung lobectomy and pancreatic resection and a multi-year trend in the reduction of re-excision rates for breast cancer patients.

Quality Highlights

Multidisciplinary cancer conferences, where physicians from across medical disciplines contribute their specialized expertise.

A coordinated cancer registry compiles data from multiple sites of care within the Sentara Cancer Network.

6 Comprehensive Breast Centers with National Accreditation Program for Breast Centers status

1st System in Virginia to be accredited as a Network Cancer Program by the American College of Surgeons’ Commission on Cancer.
Looking Ahead

Future-focused

While this report shares 2013 data, our focus is already far into the future. As a transformation of care happens throughout all of healthcare, the Sentara Cancer Network will be at the leading edge of cancer care, delivering the right care at the right place and time. We will build upon the skills, technology and experience that have formed the network to find more ways to customize treatment for individuals, to be accessible to our at-risk populations, to translate more clinical research into our care and to continue the mission of improving health every day.

A relentless pursuit of better, faster, more effective cancer treatment inspires us to do more, to make a difference for our patients today and to improve the future of cancer care.
Clinical Firsts through the Years

Advanced Technology

Committed to early adoption

We’ve committed to offering the latest technology to our patients, so the Sentara Cancer Network often leads the way in implementing new technology and techniques. The Sentara Cancer Network investment in advanced technology solidifies the commitment that Sentara has to give back and address the greatest healthcare needs in our communities. Technology improves care, and we make sure to provide it first and start evolving our care to deliver the best available.

Our investment in technology brings rewarding results with improvement in survival rates that surpass national averages, thanks to the tools we’ve chosen and the team behind them. In the past year, the Sentara Cancer Network introduced 3D Mammography – or Tomosynthesis -- to the Hampton Roads community. This revolutionary advance in breast imaging has been proven to increase early detection rates by 35 percent, as reported in the June 2013 issue of the American Journal of Roentgenology.

Because of the groundbreaking success in early detection, Sentara invested in making the 3D technology available at eight locations throughout Hampton Roads to give more women access close to home. The addition of 3D Mammography should strengthen the network’s early detection rates that have already been exceeding the national average when compared to the National Cancer Database (see Figure A).

Advanced technology has historically been a cornerstone of the Sentara Cancer Network, from the early adoption of innovative radiation therapies at our hospitals more than 20 years ago to the more recent arrival of CyberKnife® robotic radiosurgery, Intraoperative Radiation Therapy, daVinci® robotic surgery and HIPEC® (Heated Intraperitoneal Chemotherapy).
Early Diagnosis
Technology Leads to Better Outcomes

2009 – 2012

(Percent of Breast Cancer patients diagnosed at Stage 0/1)

A higher number is better.

Technology in the right hands

Technology without wisdom and experience will not produce the same achievements. Our commitment to offering the latest cancer technology and equipment means that we pair those with experienced cancer physicians, surgeons and technicians. Our proven outcomes result from highly skilled physicians who use the technology with evidence-based best practices.

For example, head and neck cancer teams at our quaternary facility, Sentara Norfolk General Hospital, use the daVinci surgical system to perform TransOral Robotic Surgery, a significantly less invasive treatment for cancers in the voice box, throat and tongue. Surgeons use the advanced components of the daVinci robotic surgery system, and patients benefit with less trauma, faster recovery, shorter hospital stays and fewer scars.

We’ve also led patient care with inoperable liver cancer to TheraSphere®, a targeted radiation therapy that destroys cancerous cells yet preserves healthy ones, and we’ve offered patients with brain and spine tumors CyberKnife robotic radiosurgery, which pinpoints malfunctioning cells with sub-millimeter accuracy and precision.
Pancreatic Resection Mortality
Lower is better.

Breast Re-Excision Rate
Goal: < 25% (Sentara)  Source: Sentara Cancer Registry

The Sentara Cancer Network set its own goal for clean surgical margins at < 25%. Continuous improvement has led to a significantly reduced rate of 14% in 2013.

Proven Outcomes
Evidence-based, Nationally connected

As part of Sentara Healthcare, the practice of evidence-based medicine is organically part of our culture for oncology as well. Throughout the Sentara Cancer Network, proof of performance is benchmarked, internally and nationally. The collection of data helps lead to better outcomes throughout the network, as well as the shared details that add to the transparency of the process. Contributing to national data collection is an accomplishment in itself, because only a fraction of hospitals participate. It can be a daunting and complex task, but we are committed to contributing to national efforts to fight cancer. We are held to the highest standards in delivering cancer care to our community.

In addition to meeting the requirements of the national accrediting bodies, the Sentara Cancer Network follows rigorous and constant quality improvement processes of its own, and then voluntarily makes this data transparent. Shown here (Figures A and B) are two complex surgical procedures and a high volume surgical procedure (Figure C) that have been tracked and studied for several years.
Cancer Conferences

Focusing the best and brightest on your case

Our Sentara Cancer Network physicians take a collaborative approach. Regularly scheduled cancer conferences bring together multidisciplinary teams to focus on the best treatment plan for the patient. A group of trained professionals from across the region reviews the patient’s cases, looking critically at the diagnostic test results and the patients’ medical history. Together they assess the treatment options, and rely on their collective experience to determine the best course of treatment. This means that a customized and multi-faceted solution may be found more quickly. Of particular note, the Head and Neck Cancer Conference (photograph below) presents 100 percent of patient cases prospectively for review and collaboration.

In many cases, they meet formally in weekly cancer conferences—much more often than they are required to do by the Commission on Cancer. Our providers continually learn from past patients and each other—and immediately put their new knowledge to work for new patients.

Sentara Cancer Network includes these types of cancer conferences:

- Breast Cancer
- Cancer Grand Rounds
- General Cancer
- GI & Lung
- Gynecologic Cancer
- Head and Neck Cancer
- Hematology
- Liver Cancer
- Neuro-oncology
- Pancreatic Cancer
- Thoracic
- Urology
Prevention and Education

Reducing the Incidence of Cancer

Prevention of cancer is an area where research is beginning to illuminate some of the factors that are in our control. As the region's preferred provider of cancer care, the Sentara Cancer Network sincerely and passionately leads the charge for cancer education in the community. We share thousands of awareness and prevention messages with thousands of Hampton Roads residents. Over time, we’ve refined outreach efforts to ensure that awareness and screening information is delivered to the population that needs it most. We work smart, to find the most effective ways to impact outcomes with early intervention.

Community Outreach Programs:
- Get Pink with Sentara
- Don’t Sit on Colon Cancer
- Get Off Your Butt! Smoking Cessation Program
- High-Risk Programs

Screening Programs

Know Now, So We Can Act Now

Screening is a key part of catching cancer in the early stages, but many people find the process confusing or they are fearful of the results. To encourage screening, the Sentara Cancer Network must also provide education and make screenings as accessible and effective as possible.

Key Screening Programs:
- Breast Cancer Screening
- Lung Cancer Screening
- Oral and Thyroid Cancer Screening
- Prostate Cancer Screening
- Skin Cancer Screening
Cancer Research

Improving the standards of care

The Sentara Cancer Network is at the forefront of advances in evidence-based medicine and offers patients access to a wide selection of clinical trials focused on cancers of the breast, prostate, pancreas, head and neck, brain, colon, liver and lung. In 2013 Sentara was accepted as main members of the Alliance for Clinical Trials in Oncology and the National Research Group (NRG). Both of these prestigious organizations oversee the implementation of clinical trials, funded by the National Cancer Institute, at institutions across the USA. As members of the Alliance Sentara stands alongside, amongst others, top-ranked hospitals for cancer including Memorial Sloan Kettering Cancer Center, MD Anderson Cancer Center, the Mayo and Cleveland Clinics and Duke University. Trials include the use of the new ‘da Vinci Robot’ to offer minimally invasive surgery to patients with head and neck cancer, a therapeutic approach to shrink a type of cancer in the breast (ductal carcinoma in situ, DCIS), as well as new approaches to the use of radiation therapy.

The inquisitive minds of our physicians augment national clinical trials with local investigator initiated studies to improve the standards of care offered to patients locally. Heated Intraperitoneal Chemoperfusion for patients with a variety of cancers is being studied in a longitudinal manner to look at health-related outcomes, the impact of this surgery on quality of life and cancer survival. A new study focused on the use of Fluorescein to map out brain tumors during surgery is exploring the impact on tumor resection with the aim of developing better treatment protocols and improving prognosis. As an early adopter of new advances in technology Sentara is examining with a fine lens the impact of 3D Mammography (Tomosynthesis) across its network. The Sentara Cancer Network and the Cancer Research Team are committed to exploring advances in approaches to treating patients with cancer as well as the adoption of evidence-based medicine.

Clinical Trials in 2014 included:

- Efficacy and safety trials for investigational biologics
- Combination trials for oncology drugs
- Radiation therapy research trials
- Adjuvant and maintenance drug trials
- Postoperative oncology options
- Retrospective chart reviews
Sharing Expertise

Experts from throughout the Sentara Cancer Network frequently share their research and expertise with colleagues and medical students.

Academic Publications and Presentations

Here is a summary of publications and presentations from our physicians, researchers and clinicians.


Rashidi A, Fisher SI. BRCA-2-associated therapy-related acute myeloid leukemia. Medical Oncology (MEDO) #MEDO-D-14-02076R1. Accepted for publication on Nov. 13, 2014.


Retrouvey M, Patel, Z (faculty mentor Shaves SI) USPSTF CT Lung Cancer Screening Recommendations: Community Awareness and Perceptions. J Amer Coll Radi. Accepted for publication.


Physicians in the Sentara Cancer Network are among the first in the Hampton Roads region offering patients this new outpatient procedure called electromagnetic navigational bronchoscopy. Using this new system, Sentara pulmonologists thread a catheter through a patient’s nose and airways to reach some of the deepest tissue of the lungs.

Once the questionable tissue is found in the lung, doctors rely on the fast work of specialized pathologists within the Sentara Cancer Network working in the procedure room. Within minutes, the diagnosis is known, whether the spot on the lung is cancer or not. Previously, patients would have needed one or more procedures to learn of their condition and options, including major surgery to remove a portion of the lung, traditional bronchoscopy which does not reach areas deep in the lung, needle biopsy or watchful waiting.

Navigational Bronchoscopy

Using this new navigation tool (much like a GPS system) doctors at Sentara are provided a road map to better find, diagnose and mark spots on the lung for precision treatment later.

Diagnostic Testing

Mammography

Digital and 3D Mammography at our imaging centers and comprehensive breast centers provide an opportunity to increase rates of early detection. Mammography is considered an invaluable tool against breast cancer and the addition of 3D Tomosynthesis not only helps find cancer earlier, it also reduces inconclusive findings and the need for additional call-backs. In addition to 15 locations throughout Hampton Roads, a mobile mammogram van also makes it easy for women to schedule a convenient visit, often right at their workplace.

Breast-Specific Gamma Imaging

While mammography remains the primary method of early detection, diagnostic challenges can occur due to the complexity of the breast tissue. Breast-specific gamma imaging (BSGI) aids in diagnosis when a mammogram is inconclusive and reveals important information that can help your doctor more accurately determine if an area of concern is cancerous. During the procedure images are taken using a gamma camera, showing the metabolic activity of breast lesions. The high-resolution camera creates pictures so doctors can see cancers as small as 3 millimeters. It can detect early stage cancers, see lesions even in dense tissue, and provide multiple angle views. The result is quicker and more accurate detection of breast cancer than with mammography alone.
This technological breakthrough is helping patients with lung and lymph node tumors to be more accurately diagnosed so treatment can begin sooner. The physician uses a bronchoscope equipped with an ultrasound device that is threaded through the patient’s nose or mouth into the airways of the lungs.

The same technology is used for endorectal ultrasounds, to help diagnose pelvic and colorectal cancers. No incisions are needed and the minimally invasive procedure helps doctors see and stage cancers prior to surgery.

Doctors are able to see “real-time” ultrasound images that guide them to where to take the biopsy that tests for cancer as well as other diseases. Patients receive only conscious sedation for this outpatient procedure, making it a good choice for patients at high risk for invasive diagnostic surgery.
Hyperthermic Intraperitoneal Chemotherapy

The Sentara Cancer Network provides this complex option at two of the fewer than 70 locations in the United States.

Now at Sentara CarePlex Hospital and Sentara Norfolk General Hospital

When cancers are confined to the peritoneal cavity, Hyperthermic Intraperitoneal Chemotherapy (HIPEC) becomes an option for some patients. HIPEC treatment attacks abdominal cancers that remain after surgery. High doses of chemotherapy enable physicians to concentrate the solution locally within the abdomen, minimizing side effects and improving the absorption. Complex and advanced abdominal cancers are difficult for physicians to treat because cancer cells are woven through the thin membranes of the peritoneum that wraps around the abdomen and internal organs. These microscopic cancer cells are often left behind during surgical procedures that remove abdominal tumors. Patients can receive HIPEC treatment as a palliative measure to help control disease and prevent fluid collection. HIPEC can also be used as a preventive measure.

What types of cancer does HIPEC treat?
- Colorectal cancer
- Ovarian cancer
- Mesothelioma
- Pseudomyxoma peritonei
- Appendiceal cancer
- Stomach cancer
- Low grade sarcoma
- Peritoneal inclusion cysts

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- Low grade sarcoma
- Peritoneal inclusion cysts

Surgery

Skilled Surgical Teams

Proven outcomes come from specialized surgeons with vast experience and the right technological advances. A breadth and depth of surgical specialties lies within the Sentara Cancer Network. The procedures listed below are offered at all hospitals in the network unless noted otherwise. The value of the network collaboration is that complex, high-end procedures can be piloted at one location for best practices and evidence-based outcomes.

Transanal Endoscopic Microsurgery

Sentara CarePlex Hospital

The Sentara Cancer Network was the first in Hampton Roads to offer the innovative Transanal Endoscopic Microsurgery (TEM) that offers a quicker recovery, with less scarring and fewer complications. This minimally invasive surgical procedure uses a natural orifice (opening in the body) to remove select rectal tumors that traditionally would require a more involved and invasive surgery.

Minimally Invasive Esophagectomy

Sentara Leigh Hospital

This leading-edge minimally invasive technique for removing esophageal cancer (esophagectomy) gives patients significant advantages over traditional open esophagectomy. This procedure requires surgeons specially trained in advanced laparoscopic and thoracoscopic techniques. The Sentara Cancer Network uses this approach that results in potentially less blood loss, fewer blood transfusions, shorter hospital stays and quicker recovery.

Video-Assisted Thoracic Surgery (VATS)

Sentara CarePlex Hospital, Sentara Leigh Hospital, Sentara Norfolk General Hospital and Sentara Virginia Beach General Hospital

Video-assisted thoracic surgery (VATS) is a surgical procedure of the chest that is performed with a thoracoscope (small video-scope) using small incisions. Surgeons can more easily remove masses close to the outside edges of the lung and test them for cancer, requiring a much smaller surgery than used in the past.
Da Vinci® Robotic Minimally Invasive Surgery
Sentara CarePlex Hospital, Sentara Leigh Hospital, Sentara Norfolk General Hospital

The da Vinci Prostatectomy surgical robot has revolutionized prostatectomy surgery by making it a more precise, minimally invasive procedure with excellent results. One of the most common treatments for prostate cancer, traditional radical prostatectomy, requires an 8- to 10-inch incision which results in substantial blood loss, a lengthy recovery and the risk of impotence and incontinence.

In contrast, the da Vinci robot empowers a surgeon to perform a very precise, nerve-sparing operation through several dime-sized incisions. With this minimally invasive surgery, the goal is to accomplish internal repair while leaving the body surface as natural as it was prior to surgery.

Advanced Breast Reconstruction
Sentara Princess Anne Hospital and Sentara Obici Hospital

Following breast cancer surgery and treatment, many women choose reconstructive surgery. The Sentara Cancer Network offers women many choices, including innovative procedures to reconstruct the breasts using tissue from the woman’s own body. As one of only a few centers in Virginia to offer the Deep Epigastric Perforator Flap method, surgeons in the Sentara Cancer Network use advanced microsurgery techniques to complete the reconstruction while also preserving the abdominal muscle.

TransOral Robotic Surgery (TORS)
Sentara Norfolk General Hospital

TransOral Robotic Surgery (TORS) uses the precision instruments and fiber-optic camera of the da Vinci robotic surgery system to access tumors through small incisions in the back of the mouth.

The da Vinci robotic surgery system makes it possible to see the area that needs surgery clearly and without making any external surgical cuts. Patients appreciate this because there is less scarring, a lower risk of infection and blood transfusion, easier swallowing afterwards and a quicker return to everyday living.
Radiation Oncology

Delivering Targeted Treatment

Radiation oncology in the Sentara Cancer Network provides a variety of both inpatient and outpatient radiation therapy services. Our team consists of radiation oncologists who prescribe the treatment regimens, which are then delivered by a collaborative team or staff. These staff members include medical physicists, dosimetrists, nurses and radiation therapists.

External Beam Radiation Therapy

Sentara CarePlex Hospital, Sentara Norfolk General Hospital, Sentara Obici Hospital, Virginia Beach General Hospital

This is a method for delivering a beam of high-energy X-rays to the location of the patient’s tumor. These X-rays can destroy the cancer cells and careful treatment planning allows the surrounding normal tissues to be spared. Ionizing radiation works by damaging the DNA of exposed tissue. To prevent non-cancerous tissue from being damaged, such as skin or organs which radiation must pass through, the radiation beams are shaped and aimed from several angles of exposure to intersect at the tumor. This strategy exposes the cancerous tumor to a much larger dose than the surrounding healthy tissue.

Brachytherapy/Radioactive Seed Implant Therapy

Sentara CarePlex Hospital, Sentara Norfolk General Hospital, Sentara Obici Hospital, Dorothy G. Hoefer Comprehensive Breast Center

Brachytherapy is a form of radiotherapy where a radioactive source is placed inside or next to the area requiring treatment or surgery.
**Stereotactic Radiosurgery**

*Sentara Norfolk General Hospital*

A minimally invasive form of surgical intervention which uses a three-dimensional coordinates system to locate small targets inside the body.

Using highly focused beams of ionizing radiation with high precision is a means to target tumors and other lesions that could be otherwise inaccessible or inadequate for open surgery.

**High-Dose Rate (HDR)**

*Sentara CarePlex Hospital, Sentara Norfolk General Hospital, Sentara Obici Hospital, Virginia Beach General Hospital*

People with certain types of skin cancers have a new radiation treatment option in their battle against this disease. A mobile high-dose rate iridium device (HDR unit) is making it easier for patients to receive this service. By using specially designed applicators in conjunction with the high-dose rate iridium devices (HDR), radiation oncologists can deliver high-dose radiation treatments directly to the skin. This applicator allows more precise treatment especially for curved or irregular surfaces including those on the face, arms and legs, while sparing surrounding healthy tissue.

**Accelerated Partial Breast Irradiation**

*Sentara CarePlex Hospital, Sentara Norfolk General Hospital, Sentara Obici Hospital*

Following a lumpectomy, an incision is made in the breast to insert a thin tube (catheter) with a small balloon attached. Once inside the lumpectomy cavity, the balloon is inflated with saline and remains in the breast during the five-day treatment.

The balloon and catheter are imaged and connected to the high-dose rate machine to deliver the radiation “seed” directly to the targeted site. The patient receives the therapy and is then free to resume normal activities. Once the five days of treatment are complete, the catheter and the balloon are removed.

**SIR-Spheres® and TheraSphere®**

*Sentara Norfolk General Hospital is the first hospital in the area to begin using Selective Internal Radiation (SIR) Spheres Therapy where microscopic radioactive resin beads are used to target advanced liver cancer. Imagine millions of microscopic radioactive resin beads (spheres) traveling through the bloodstream with one mission: to target and destroy liver cancer cells. That’s exactly what SIR-Spheres® Therapy is doing for patients with primary liver cancer and inoperable secondary liver cancer (spread from colorectal and other primary cancers).*

The injected spheres radiate the tumor, destroying the cancerous cells from the inside. SIR-Spheres® can safely deliver many times more radiation than conventional techniques.

TheraSphere® is a similar therapy using microscopic glass microspheres to target liver tumors. This selective internal radiation therapy delivers radioactive glass beads directly to the liver tumor, for effective concentration of radiation and minimal impact to the surrounding non-targeted tissue. SIR-Spheres® and TheraSphere® treatments are a collaboration of experienced medical oncologists, radiation oncologists and interventional radiologists.
A Team Approach
At Sentara, you never fight cancer alone.

You’re always backed up by a comprehensive team working together for your best possible outcome.

Collaboration is the cornerstone of the Sentara Cancer Network. Board-certified and fellowship-trained medical professionals from throughout Hampton Roads share resources and knowledge to assist patients most effectively.

Centered Around the Patient
Cancer is primarily treated with medicine, with radiation and with surgery.

The team of cancer physicians that patients will see most frequently may include:

- Medical oncologists
- Radiation oncologists
- Surgical oncologists
- Oncology physicians who specialize in specific types of cancer

Our Cancer Team

Oncology Nurse Certified Nurses and Chemotherapy Trained Nurses
At Sentara, nurses demonstrate commitment and specialized knowledge in cancer patient care. The nurses of the cancer program place a strong emphasis on patient, family and community education. In addition, many seek certification through the Oncology Nursing Society. Oncology certification enhances professional practice and patient care. Certification validates an oncology nurse’s knowledge and skills while increasing self-confidence. Of particular note in 2014, our oncology nursing team developed an in-house chemotherapy/biotherapy provider course, including the use of the Sentara Simulation Center, so that more nurses have access to oncology specific training and skills development.

Infusion Specialists
Infusion specialists are trained personnel who assist in delivering medicines, equipment and nursing services to people who need intravenous (IV) fluids nutrition or treatments.

Radiation Therapists
Radiation therapists play an important role on the Sentara cancer care team. Working with a radiation oncologist, they help to develop a patient’s treatment plan, explain the plan to the patient, answer questions and administer the radiation using the appropriate equipment.

Nurse Navigators
Cancer care typically involves treatments from a wide range of doctors and specialists. Because we understand how overwhelming it can be, all of our hospitals offer patients a dedicated medical professional called a Cancer Nurse Navigator.

From diagnosis through survivorship, Cancer Nurse Navigators assess a patient’s needs, provide education about the disease and treatment and ensure the care is coordinated appropriately. Based on the needs of the patient, the navigator will help connect the patient with resources at Sentara and within the community. The navigator is a partner in care for the patient from diagnosis to treatment, then into survivorship.
Oncology Social Workers and Case Managers
Case managers review the needs of each patient and refer social issues and complicated discharge needs to a social worker, discharge planner or other Sentara Cancer Network or community resource.

Cancer Registry Department
The Cancer Registry Department plays an important role by maintaining cancer data for all patients diagnosed and/or treated within the Sentara Cancer Network. The department monitors incidence, mortality, cancer stage, treatments received, and also tracks follow-up for the life of the patient.

Nutritionists
Since nutrition is such an important part of the cancer patient’s care, registered dietitians are available at a number of our sites and in our hospitals for patients who are at risk. Cancer patients who stay well-nourished during their treatment period are better able to withstand the side effects of the treatment, whether it be chemotherapy, radiation, immunotherapy or surgery. The nutrition staff has a variety of teaching materials to offer cancer patients eating tips and recipes for better nutrition during cancer treatment.

Community Outreach
Community educators plan numerous seminars and events to help educate the public on the importance of prevention and early detection. They also plan and conduct screenings to aid in early diagnosis.

Genetic Counselors
People with accurate information about their genetic risks may be able to significantly reduce their risk of cancer. Sentara Cancer Genetics Services, offered through the physicians at Sentara Surgery Specialists, specializes in making cancer genetics understandable. Certified genetic counselors provide patients with the necessary information to make informed decisions about genetic testing and work with patients to develop personalized plans for screenings and prevention options.

The counselor and a physician review the results from genetic tests during a follow-up appointment. At that time, they will fully explain what the results mean and discuss a plan to carefully monitor the patient’s health based on their level of risk. In addition, the physician will review any medical management recommendations to include screenings, chemoprevention medications and preventive surgery.

Physical, Speech and Occupational Therapists
The physical, speech and occupational therapists that staff Sentara Therapy Services have special expertise in the care of patients with cancer. They work hard to provide therapy to both inpatients and outpatients and to improve patients’ sense of well-being during and after treatment. Through therapeutic exercise, neuromuscular training, patient and family education, and pulmonary rehabilitation, our therapists help patients decrease the burden of disease and its treatment, and achieve their highest level of functional independence.

Palliative Care Specialists
At Sentara, cancer patients and their families may request and benefit from a special program of support called palliative care. Palliative care is given to improve the quality of life for patients who have a life-threatening disease. Palliative care is used to treat disease symptoms, side effects caused by treatment, and psychological, social, and spiritual problems related to the disease. It is also called comfort care, supportive care and symptom management.

Home Care & Hospice Nurses and Staff
Sentara Home Care Services and Sentara Hospice offer an innovative and progressive range of services to patients and families who choose to receive medical/nursing care in the safe, nurturing confines of their home.
## Sentara Cancer Network Steering Committee

### Physicians
- Thomas Alberico, MD – Medical Oncology, Cancer Committee Chair
- James Schneider, MD – Surgical Oncology, Cancer Liaison Physician
- Victor Archie, MD – Radiation Oncology
- Donna Baldassare, MD – Hospice and Palliative Medicine
- Aaron Bleznak, MD – Sentara Medical Group Administration
- Bruce Booth, MD – Medical Oncology
- Eric Feliberti, MD – Surgical Oncology
- Mark Fleming, MD – Medical Oncology
- Richard Hoefer, DO – Surgical Oncology
- Donald Jenkins, MD – General Surgery
- Lester Johnson, MD – Radiology
- Song Kang, MD – Radiation Oncology
- Marc Silverberg, MD – Pathology
- Scott Williams, MD – Radiation Oncology
- Jason Wilson, MD – Surgical Oncology

### Administration & Operations
- Cynthia Allen – Vice President, Oncology Services
- Danene Abdallah, Hospice Care
- Jan Bennett – American Cancer Society
- Ron Bieszczad – Administration, SCH
- Jessa Blount – Genetics
- Joani Brough – Administration, SPAH
- Connie Bush – Community Outreach
- Janet Creef – Oncology Social Work
- Nicky Dozier – Clinical Research, VOA
- Don Durkee – Pharmacy
- Cindy Estes – Oncology Nursing
- Cynthia Freeman – Cancer Registry
- Michael Gentry – Corporate Vice President
- Vonia Ickes – Clinical Nutrition
- Joanne Inman – Administration, SVBGH
- Amy Johnson – Pastoral Care
- Brad Kirby – Administration, Sentara Cancer Network
- Kathleen Marcia – Cancer Registry
- Maureen McGrath – Administration, VOA
- Melody Null – Administration, Radiation Oncology
- Virginia Richards – Oncology Nurse Navigation
- Sylvia Richendollar – Administration, SNGH
- Terri Sim – Administration, SWRMC
- Meredith Strand – Administration, SNGH
- Jennifer Taylor – Oncology Nursing
- Rose West – Marketing
- Lynne Whitlock – Administration, SOH
- Alan Wilson – Physical Therapy
- Eric Young – Administration, SLH
### BREAST CANCER

- Thomas Alberico, MD – Medical Oncology
- Kelley Allison, MD – Breast Radiology
- Victor Archie, MD – Radiation Oncology
- Mary Blumberg, MD – Pathology
- Claire Carman, MD – Breast Surgery
- Thomas Clifford, MD – General Surgery
- Michael Danso, MD – Medical Oncology
- Lindy Dunn, MD – Breast Radiology
- Nina Fabiszewski, MD – Breast Radiology
- Eric Feliberti, MD – Surgical Oncology
- Richard Hoefer, DO – Surgical Oncology
- Keith Newbrough, MD – Breast Radiology
- John Plemmons, MD – Breast Radiology
- Jennifer Reed, MD – Breast Surgery
- Terryl Times, MD – General Surgery
- Mark Sinesi, MD – Radiation Oncology
- Scott Williams, MD – Radiation Oncology

### HEAD AND NECK CANCER

- Matthew Bak, MD – Otolaryngology
- Marshall Bonnie, DDS – Dentistry
- John Campbell, MD – Neuroradiology
- Edwin Crandley, MD – Radiation Oncology
- John Donnal, MD – Neuroradiology
- Klaus Guter, DDS – Oral and Maxillofacial Surgery
- Daniel Karakla, MD – Otolaryngology
- Karah Lanier, MD – Neuroradiology
- Erik Lappinen, MD – Radiation Oncology
- David Lieb, MD – Endocrinology
- Yoonah Kim, MD – Neuroradiology
- Dean McGaughey, III, MD – Medical Oncology
- Marc Silverberg, MD – Pathology
- Mark Sinesi, MD – Radiation Oncology
- Barry Strasnick, MD – Otolaryngology
- Jadeesh Ullal, MD – Endocrinology
- Vivian Wu, MD – Head and Neck Surgery

### PANCREATIC

- Stephen I. Fisher, MD – Pathology
- Scott Kruger, MD – Medical Oncology
- Dennis Rowley, MD – Pathology
- You J. Shen, MD – Pathology
- Stephanie A. Spingarn, MD – Pathology
- Wozhan Tang, MD – Pathology
- H. Raymond Tahhan, MD – Pathology

### COLON CANCER

- Celeste Bremer, MD – Medical Oncology
- David Chang, MD – Medical Oncology
- Suhas Deshmukh, MD – Gastroenterology
- Eric Feliberti, MD – Surgical Oncology
- Greg FitzHarris, MD – Colorectal Surgery
- Richard Hoefer, DO – Surgical Oncology
- David Johnson, MD – Gastroenterology
- Carlos J. Glanville Miranda, MD – Colorectal Surgery

### HEMATOLOGIC ONCOLOGY

- Burton Alexander, MD – Medical Oncology
- Daniel Atienza, MD – Medical Oncology
- Michele R. Bach, MD – Pathology

### THORACIC

- John Bowers, III, MD – Pulmonology
- Naga Chigurupati, MD – Pulmonology
- Jeffrey Forman, MD – Pulmonology
- Richard Hoefer, DO – Surgical Oncology
- Wilkes Hubbard, MD – Co-chair – Thoracic Surgery
- Mel Imad, MD – Pulmonology
- Steve Julian, MD – Administration

**Note:** The list continues with appointments for other specialties and departments, including Radiology, Surgery, and Administration.
2013

**SENTARA CANCER NETWORK PRIMARY SITE TABLE**

**NOTE:** The Sentara Cancer Network numbers will not be the sum of the individual facilities as some cases are shared between multiple facilities and are counted for each. Analytic cases are cases diagnosed and/or treated during the first course of treatment at the assigned institution. Total cases include cases that enter the institution for recurrences or later courses of treatment as well.

Data Compiled by Sentara Cancer Network Registry Subcommittee:

- Tammy Berryhill, CTR
  Gynecology Oncology
- Karrie Brickhouse, CTR
  Hematology/Neuro-oncology
- Kristy Bridgeman
  Head and Neck/Skin
- Diana Coates
  Breast
- Rhonda Despinis
  Breast, Rapid Quality Reporting System
- Mary Seemueller
  Urology
- Cressetta Peterson
  Follow-up
- Cynthia Freeman, CTR
  Team Leader, Peninsula
- Holanda Harding
  Breast
- June Harlow
  Cancer Conferences/Follow-up
- Marlene Kelly
  Gastrointestinal
- Kathleen Marcia, CTR
  Team Leader, Southside
- Terry Reich
  Casefinding
- Lana Tyree, CTR
  Thoracic

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Commission on Cancer Quality Measures

To earn voluntary accreditation, a cancer program must be evaluated every three years and meet or exceed quality standards established by the Commission on Cancer. A new standard now requires accredited programs to reach specific performance levels on measuring quality for treating patients with breast, colon, and rectal cancers. These quality measures are defined by the Commission on Cancer and endorsed by the National Quality Forum. The Sentara Cancer Network tracked and monitored these measures before they were required by the Commission on Cancer. Multi-year performance is shared here.

Breast
Radiation therapy is administered within 1 year of diagnosis for women under the age of 70 receiving breast conservation surgery for breast cancer

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<th>Percentage</th>
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<td>2011</td>
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<td>92.7%</td>
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Combination chemotherapy is considered or administered within 4 months of diagnosis for women under 70 with T1cN0M0, or Stage II or III hormone receptor negative breast cancer

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<tr>
<td>2011</td>
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<td>2012</td>
<td>91.3%</td>
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<td>2012</td>
<td>90.7%</td>
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</table>

Tamoxifen or third generation aromatase inhibitor is considered or administered within 1 year of diagnosis for women with T1cN0M0, or Stage II or III hormone receptor positive breast cancer

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<thead>
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<td>2012</td>
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<tr>
<td>2012</td>
<td>87.5%</td>
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Data shown is for all hospitals that were accredited as the Sentara Cancer Network at the time the data was collected. For individual hospital data, please visit www.sentara.com/cancer.
Colon
At least 12 regional lymph nodes are removed and pathologically examined for resected colon cancer

Radiation therapy is considered or administered within 6 months (180 days) of diagnosis for patients under the age of 80 with clinical or pathologic AJCC T4N0M0 or Stage III receiving surgical resection for rectal cancer

Sentara Cancer Network
Virginia
All COC approved programs

Rectal
Adjuvant chemotherapy is considered or administered within 4 months of diagnosis for patients under the age of 80 with Stage III (lymph node positive) colon cancer

Radiation therapy is considered or administered within 6 months (180 days) of diagnosis for patients under the age of 80 with clinical or pathologic AJCC T4N0M0 or Stage III receiving surgical resection for rectal cancer

Sentara Cancer Network
Virginia
All COC approved programs
NAPBC Quality Measures

In compliance with Standard 6.1 of the National Accreditation Program for Breast Centers, the Sentara Cancer Network conducts and shares studies to measure quality and outcomes. The breast program leadership communicate the findings and discuss the outcomes and importance with the breast center staff, participants of the interdisciplinary conferences and the network steering committee.

The NAPBC has set a goal of at least 90% of cases. Needle Biopsy is performed prior to surgical treatment of Breast Cancer.

The NAPBC has set a goal of at least 50% of cases. Breast conservation rate for women with AJCC Stage 0, I, or II Breast Cancer.

Data shown is for Sentara Cancer Network. For individual hospital data, please visit www.sentara.com/cancer.
Established in 2004, the Commission on Cancer Outstanding Achievement Award is designed to recognize cancer programs that strive for excellence in providing quality care to cancer patients. A facility receives the OAA following the on-site evaluation by a physician surveyor during which the facility demonstrates a Commendation level of compliance with seven standards that represent the full scope of the cancer program and also receives a compliance rating for the remaining 29 standards.

The seven standards that form the basis of the OAA criteria are drawn from the following six areas of program activity:

- cancer committee leadership
- cancer data management
- clinical management
- research
- community outreach
- quality improvement

The Sentara Cancer Network exceeded the three-year accreditation standards of the American College of Surgeons’ Commission on Cancer and was honored with the Outstanding Achievement Award in both 2009 and 2012.
Resources for Clinicians

If you’re looking for expert help for a health concern, look to Sentara for assistance. At Sentara, you’ll find doctors who have advanced training and extensive experience in every healthcare discipline. Sentara Medical Group provides quality, innovation and personalized care across Hampton Roads.

Transferring a Patient

The Sentara Cancer Network represents a true collaboration in cancer care. Our experts work hard to provide helpful and thorough information – and deliver the right care at the right time and in the right place. For more information about cancer care at Sentara, call 888-220-2214. This toll-free number is your link to physician referral and all other cancer inquiries.

Continuing Medical Education

Sentara Healthcare Continuing Medical Education (CME) facilitates the development and provision of educational programs and materials of the highest quality. The overall purpose of Sentara CME is to provide educational opportunities for the physicians and other healthcare teams to enhance and improve knowledge, attitudes and skills in order to provide the highest quality patient care in the region.

Sentara Healthcare is one of two accredited bodies under Medical Society of Virginia that has been awarded accreditation with commendation. The Physician Education department oversees and assists in planning regularly scheduled series throughout the system, including computer-based training, conferences and maintenance of certification series, and is looking at how technology can be best used for future programs. Physician Education will continue to provide CME programs of the utmost quality to meet the ultimate goal of improving health every day.

Help is just one call away.

Call toll-free 888-220-2214 to speak with a cancer expert who will answer your questions and provide you with the resources you need for cancer prevention, detection, treatment and support.