World Class Cancer Care Close to Home

Catholic Health
Good Samaritan Hospital

2020 | Quality Report

Research Affiliate of
Roswell Park Cancer Institute

Table of Contents

Access to Leading Specialists in Our Community's Backyard

The Cancer Institute at Good Samaritan Hospital has always been known for its high-quality care. The Commission on Cancer has awarded Good Samaritan the prestigious Outstanding Achievement Award for 15 years, making the center one of only 8 in the nation with this honor. The three leading oncology practices in southwest Suffolk County — Hematology Oncology Consultants of Western Suffolk, South Bay Hematology & Oncology, PC, and Progressive Oncology, PC — all merged with the region's leading hospital to form the Cancer Institute. We have a truly excellent team of dedicated physicians and surgeons who, after closely collaborating for many years, now have physical space specifically dedicated to cancer care.

For our patients, this 25,000-square-foot center features 12 physician offices, 20 exam rooms, a 22-bay infusion center, pharmacy, laboratory, genetic counseling, social work, nutrition, research, and patient navigation all under one roof. By co-locating our seven medical oncologists in one convenient facility, we offer a multidisciplinary and comprehensive care model designed specifically to meet the needs of the patients on the south shore of Long Island.

This beautiful new space allows our patients to have an enhanced experience and our oncologists to better collaborate, transforming very good care to excellent care. At the Cancer Institute, our community comes together each day to support our survivors. Cancer treatment can be intense and span many years, requiring regular physician visits for treatment and checkups. Keeping patients close to home, family, and support networks lessens the burden that a cancer diagnosis brings. The Cancer Institute at Good Samaritan is fully committed to being the very best comprehensive community hospital cancer program anywhere.

For a virtual tour of our brand new, state-of-the-art facility and overview of services, please visit: www.goodsamcancerinstitute.org.

- 22 private infusion rooms
- Full service medical office space for our community's highly recognized oncologists and surgical specialists
- Patient navigation and coordination of cancer care
- Convenient and contemporary outpatient setting
- Integrated pharmacy and lab services on site
- Ease of access and parking

Catholic Health | ROSWELL PARK COMPREHENSIVE CANCER CENTER

CLINICAL RESEARCH

Shaping the Future of Health Care

Good Samaritan Hospital, a member of Catholic Health, is the center of choice for thousands of patients, offering comprehensive cancer services. The hospital's expert oncologists, surgeons, nurses and ancillary medical staff specialize in diagnosis and treatment of cancer.
At Good Samaritan, specialists care for the whole person — physically, emotionally and spiritually — to provide outstanding outcomes. Good Samaritan has earned the Outstanding Achievement Award from the American College of Surgeons' Commission on Cancer on five consecutive surveys, 15 years in a row.

Campus Transformation

The parable of the Good Samaritan, the ultimate story of a neighbor helping another, has been the foundation of Good Samaritan Hospital. It speaks to the mission of caring for and partnering with the neighbors of West Islip, as well as the rest of the south shore.

To be a reliable neighbor, Good Samaritan must continue to provide the highest level of health care, offer the communities on the south shore new award-winning programs and realign to become an increasing resilient facility when faced with powerful storms, natural disasters and other hazardous events. Sweeping changes in health care over the past ten years have prompted Good Samaritan to plan more than ten years forward to develop medical programs that can serve the needs of our community well into the future. An advanced medical center, breakthrough technology and state-of-the-art facility also provides the tools to continue to attract physicians, nurses and other health professionals to live and work here on Long Island.

To better shape the future of health care, Good Samaritan has developed plans for a Patient Care Pavilion providing health care solutions for the growing population on the south shore. This option was based off of data from a number of different sources, including a needs assessment that also identified many challenges related to the current campus facility, a long term and capacity analysis report from Kaufman Hall (a third party consultant specializing in health care) conceptualizing how a future health care facility should be structured, overall facility priorities, community needs and the current costs for construction. The total number of beds provided by Good Samaritan will not increase. Instead, it will remain 437 and stay current with the advancements in medical technology, insuring a wide variety of benefits to the residents of the south shore.

Mission

We, at Catholic Health Services, humbly join together to bring Christ's healing mission and the mission of mercy of the Catholic Church expressed in Catholic health care to our communities.

When you put humanity first, the honors are sure to follow.

"The future starts today, not tomorrow"

Pope John Paul II

The best medicine is rooted in something more than just the highest science. At Catholic Health, it's a culture that reveres your humanity as much as your physiology.

The Doctor by Luke Fildes

Historic Collection / Alamy Stock Photo

Dear Colleague,

At Good Samaritan Hospital, patients are our highest priority. Founded more than 50 years ago by the Daughters of Wisdom, Good Sam has served the community by offering the finest inpatient and outpatient services, along with free educational programs, health screenings and more. The not-for-profit hospital provides millions of dollars in charity care each year, in addition to funding scholarships for local youths and sustaining nearby health clinics for the medically underserved and financially distressed.

With the Joint Commission Gold Seal of Approval,™ recognition as a Comprehensive Stroke Center, Level II Trauma Verification by the American College of Surgeons and Center of Excellence designations for breast imaging and sleep apnea, Good Samaritan delivers advanced care to the region. The hospital has consistently earned accreditation with commendation in all eight areas and the Outstanding Achievement Award five consecutive times, 15 years in a row, from the American College of Surgeons Commission on Cancer. Also, Good Samaritan has three-year/full accreditation from the National Accreditation Program for Breast Centers and is the first facility in Suffolk County with 3-D digital tomosynthesis for improved breast cancer detection. Additionally, it was the first hospital on the south shore of Suffolk to offer da Vinci® robotic-assisted surgical services.

Our expert physicians, nurses, and other staff are committed to safeguarding your well-being. Please be assured that I wish you and yours the best of health.

Ruth E. Hennessey
President
Good Samaritan Hospital

Daniel Loen
Vice President, Cancer Service Line, Catholic Health

Dear Doctor,

At the Cancer Institute at Good Samaritan, our mission is to provide our patients with the highest quality cancer care in a sensitive, respectful, and compassionate manner. Supported by some of the most advanced technologies available anywhere and a state-of-the-art Cancer Institute, our physicians are focused on applying the tools of modern medicine to achieve the best possible outcomes for each patient with cancer in our community.

Cancer care is evolving rapidly. To remain at the forefront of medicine, Good Samaritan is heavily focused on continuously improving quality across all cancer-specific disease sites. In this publication, we provide information on patient outcomes and survival so that our referring physician community can see for themselves the quality of care we provide with our multidisciplinary disease-specific care model. In collaboration with Roswell Park Cancer Institute, we are expanding our clinical trial program to include cancer vaccines, immunotherapies, stereotactic radiation, and novel combinations. Finally, we emphasize patient-centered care including comprehensive supportive care, nursing excellence and patient education.

I sincerely hope that you find this information demonstrating the excellence of oncology care in your community useful.

With best personal regards,

Johnny Kao, MD
Chairman, Department of Radiation Oncology Director, Cancer Institute at Good Samaritan Hospital

John Loscalzo, MD
Chief, Division of Hematology and Medical Oncology

Bhoomi Mehrotra, MD
Director, Catholic Health Cancer Service Line

Statistics

Since opening its doors in 1959, Good Samaritan Hospital continues to serve its mission through growth and development, reaching milestones, and achieving great success in the battle against and treatment of disease, injury, and through protecting the sanctity of life.

Historical Timeline

1958

On March 20, 1958, the name Good Samaritan was chosen for the 175-bed, not-for-profit community hospital under construction on a 60-acre site overlooking the Great South Bay.

1959

May 18, 1959, Good Samaritan Hospital opened its doors for the first time.

50+ Years

The facility underwent six major expansions and renovations over 50+ years to accommodate the needs of the community, from inpatient care to surgical programs, radiology, pediatrics, teaching, mammography, pathology, emergency medicine, trauma, ambulatory surgery, pain management, cardiovascular, neurosurgery, maternal fetal medicine, and cancer care.

1995

The medical center's oncology services received a Comprehensive Cancer Program designation by the Commission on Cancer of the American College of Surgeons.

2005

The medical center was recognized by the American College of Surgeons with its Outstanding Achievement Award, making it one of only two hospitals in New York to receive this honor.

2009

The Women's Imaging Center was the first comprehensive and only breast care facility on Long Island to be accredited by the American College of Radiology for excellence in the performance of all types of stereotactic and ultrasound-guided biopsies. It was also the first facility to acquire 3-D digital breast tomosynthesis for breast cancer diagnosis.

2016

Good Samaritan Hospital began implementing its infusion program.

2019

Good Samaritan Hospital opened its state-of-the art Cancer Institute.

2019

Good Samaritan Hospital debuts the Varian Edge™ radiosurgery suite.

2025

Good Samaritan Hospital opens Patient Care Pavilion.

Varian Edge® Radiosurgery Suite

As part of Good Samaritan's ongoing commitment to clinical excellence, the Varian Edge™ radiosurgery suite represents the most advanced radiosurgery technology available. The Edge® Radiosurgery System offers sub-millimeter pinpoint accuracy featuring a 6-degree of freedom robotic couch combined with extra-fine 2.5 mm high-definition multileaf collimator leaves for beam shaping.

As of 2020, Good Samaritan is one of only two centers on Long Island to offer this cutting-edge technology. The Edge,® equipped with cone beam CT and optical surface monitoring, enables high precision, frameless stereotactic radiosurgery to allow physicians to precisely target tumor cells while delivering high doses in a small number of treatments.

2019 Key Statistics

437
Acute Care Beds

24,000
Acute Inpatient Discharges (incl. newborn)

2,200
Newborn Deliveries

88,886
Emergency Treatments

18,000
Ambulatory Surgeries

550
Neurovascular Biplane Cases

328
Open Heart Procedures

85
Transcatheter Aortic Valve Replacements

4,800
Cardiac Catheterizations

1,300
Cardiac Angioplasties

3,784
Employees

1,329
Physicians

932
Nurses

26,642
Hospital Admissions

Meet Our Team

Medical Oncology & Hematology

John Loscalzo, MD
Chief of Medical Oncology & Hematology

Education:
Fellowship— North Shore University Hospital, Manhasset
Residency (Asst. Chief)— North Shore University Hospital, Manhasset; Memorial Sloan Kettering Cancer Center, New York; Cornell University College, Cornell, NY

Office Info:
Cancer Institute
111 Beach Drive
West Islip, NY 11795
(631) 417-8600

Kathy Deng, MD

Education:
Fellowship— North Shore LIJ Monter Cancer Center, New Hyde Park
Residency— Saint Luke's Roosevelt Hospital Center, New York
Medical School— New York Medical College, Valhalla

Mary Puccio, MD

Education:
Fellowship— Winthrop University Hospital, Mineola
Residency— Winthrop University Hospital
Medical School— New York Medical College, Valhalla

Ashish Sangal, MD
Director of Clinical Research & Thoracic Oncology

Education:
Fellowship & Residency— Brookdale University Hospital, Brooklyn
Medical School— Coimbatore Medical College, Dr. MGR University, Tamil Nadu, India

Sudha Mukhi, MD

Education:
Fellowship— SUNY Stony Brook/VA Hospital, Northport; Long Island Jewish Hospital
Residency & Internship— Bronx Lebanon Hospital, Bronx
Medical School— Lady Harding's Medical College, New Delhi, India

Hasan Rizvi, MD

Education:
Fellowship— St. Elizabeth Medical Center, Brighton, MA; Winthrop University Hospital, Mineola
Residency— James J Peters VA Medical Center, Bronx, NY; Ellis Hospital, Schenectady, NY
Medical School— Dow Medical University, Karachi, Pakistan

Emmanuel L. Sygaco, MD

Education:
Fellowship— SUNY Stony Brook
Residency— Metropolitan Hospital Center, New York
Medical School— Cebu Doctors College, Cebu City 6000

Radiation Oncology

Johnny Kao, MD
Director, Cancer Institute at Good Samaritan Hospital
Chair of Radiation Oncology

Education:
Residency— University of Chicago Hospitals, Chicago, IL
Medical School— Mount Sinai Hospital, New York

Office Info:
1000 Montauk Hwy
West Islip, NY 11795
(631) 376-4444

Head & Neck Surgery

Arnbjorn Toset, MD

Education:
Fellowship— Memorial Sloan Kettering Cancer Center, New York
Residency— North Shore University Hospital, Manhasset; Yale New Haven Hospital, New Haven, CT
Medical School— Medical University of Warsaw, Warsaw

Office Info:
786 Montauk Highway
West Islip, NY 11795
(631) 669-3700

Breast & General* Surgery

***General surgery includes: Breast, Colorectal, Gastrointestinal, Hepatobiliary, Laparoscopic, Bariatric, Endocrinology and Oncology**

John Francfort, MD
Chair of Surgery

Education:
Fellowship— Northwestern Memorial Hospital, Chicago, IL
Residency— Hospital of the University of Pennsylvania, Philadelphia, PA
Medical School— UMDNJ – NJ Medical School, Newark, NJ

Office Info:
580 Union Blvd
West islip, NY 11795
(631) 321-6801

Anthony Capizzi, MD
Associate Chair of Surgery

Education:
Residency— Montefiore Hospital, Pittsburg, PA
Medical School— New York Medical College, Valhalla, NY

Office Info:
786 Montauk Highway
West Islip, NY 11795
(631) 669-3700

Brad Cohen, MD
Chair of Breast Leadership Committee

Education:
Fellowship— Memorial Sloan Kettering Cancer Center, NY
Residency— Lenox Hill Hospital
Medical School— Mount Sinai School of Medicine, Elmhurst

Office Info:
15 Park Avenue
Bay Shore, NY 11706
(631) 581-4400

Sophia Fu, MD
Director of Breast Surgery

Education:
Fellowship— University of Iowa's Holden Comprehensive Cancer Center
Residency— SUNY Downstate Medical Center, Brooklyn
Medical School— New York Medical College, New York

Office Info:
Cancer Institute
111 Beach Drive
West Islip, NY 11795
(631) 417-8600

Urologic Oncologist/ Men's Health

Christopher Atalla, DO

Education:
Fellowship— Minnesota Urology, MN
Residency— Detroit Medical Center, Detroit, MI
Medical School— New York College of Osteopathic Medicine of NYIT, Old Westbury

Office Info:
332 East Main Street
Bay Shore, NY 11706
(631) 665-3737

Hepatobiliary Surgery

John Hsu, MD

Education:
Fellowship— Hospital of the University of Pennsylvania, Philadelphia, PA; Abdominal transplant and hepatobiliary surgery
Residency— Truman Medical Center, Kansas City, MO
Medical School— University of Kansas, Kansas City, KS

Office Info:
580 Union Blvd.
West Islip, NY 11795
(631) 321-6801

"Our specialists care for the whole person—physically, emotionally and spiritually—to provide outstanding outcomes."

Johnny Kao, MD, Chair, Cancer Institute at Good Samaritan Hospital

Symptom Management & Supportive Care

Pedro H. Calves, MD

Education:
Fellowship— UMDNJ – Cooper Hospital University Medical Center, Critical Care Medicine; NUMC, Pulmonary Medicine
Residency— Nassau University Medical Center, Internal Medicine
Medical School— SUNY Upstate Medical Center
Master's Degree— Population Health Management from Johns Hopkins University

Office Info:
Cancer Institute
111 Beach Drive
West Islip, NY 11795
(631) 828-7417

Emily Copel, DO

Education:
Fellowship— Hospice and Palliative Care Medicine, Jamaica Hospital, Jamaica, NY
Residency— Family Medicine, Good Samaritan Hospital
Medical School— New York College of Osteopathic Medicine; board-certified in Family Medicine and Hospice and Palliative Care Medicine, Medical School New York College of Osteopathic Medicine
Internship— Traditional Osteopathic, Southampton Hospital, Southampton, NY

Office Info:
Cancer Institute
111 Beach Drive
West Islip, NY 11795
(631) 417-8600

Interventional Pulmonology

Sharad Chandrika, MD

Education:
Fellowship— Pulmonary, Norwalk Hospital; Critical Care, Yale New Haven Hospital; Interventional Pulmonary, Johns Hopkins University
Medical School— MBBS, Dr. MGR Medical University, Chennai, India

Office Info:
Cancer Institute
111 Beach Drive
West Islip, NY 11795
(631) 417-8600

Gynecologic Oncology

Pankaj Singhal, MD
Chair of Obstetrics, Gynecology and Women's Health

Education:
Fellowship— Roswell Park Cancer Institute, Buffalo, NY
Residency— UMDNJ – NJ Medical School, Newark, NJ
Medical School— Madras Medical College, Park Town

Office Info:
661 Deer Park Avenue, Babylon, NY 11702

Neurosurgery

Office Info: 1175 Montauk Highway, Suite 6. West Islip, NY 11795
(631) 422-5371

Borimir Darakchiev, MD

Education:
Fellowship— University of Cincinnati College of Medicine, Cincinnati, OH, Mayfield Clinic and Spine Institute, Cincinnati, OH & Ramat-Marpe Hospital
Residency— University of Cincinnati College of Medicine
Medical School— Higher Medical Institute, Varna

Symeon Missios, MD

Education:
Fellowship— Thomas Jefferson Hospital, Philadelphia, PA; Cleveland Clinic, Cleveland, OH
Residency— Dartmouth-Hitchcock Medical Center, Lebanon, NH
Medical School— Dean's Medal, Dartmouth Medical School, Hanover, NH

Thoracic Surgery

Office Info: Cancer Institute, 111 Beach Drive, West Islip, NY 11795
Dr. Brevetti: (631) 353-0909 **Dr. Genovesi:** (917) 715-3192

Gregory R. Brevetti, MD

Education:
Residency— University of Iowa, Hospitals and Clinics; University of California-San Francisco, Cardiothoracic Surgery Residency
Medical School— SUNY Health Science Center, Brooklyn

Mark H. Genovesi, MD

Education:
Residency— Maimonides Medical Center, Brooklyn; SUNY Health Science Center, Brooklyn NY, Cardiothoracic Surgery Residency SUNY HSC
Medical School— SUNY HSC

Pathology

William Engellenner, MD
Chairman, Laboratory Services

Radiology

Brian Webber, DO
Chairman of Radiology
Department of Imaging Services

Alan Boykin, MD
Director, Interventional Radiology

Bernard Koliskor, MD
Interventional Radiologist

Nursing

Gara Edelstein, RN, MSN
Chief Nursing Officer

Nutrition

Elizabeth Miller MS, RD, CDN, CSO
Oncology Dietitian

Genetic Counseling

Jessica Kenney, MS, CGC
Manager, Clinical Genetic Counseling

Social Worker

Delaney H. Wahib, LMSW

Supportive Services

Deacon Richard Becker, MS, MA, BCC
Director of Pastoral Care and Ethics

Bonnie J. Veraszto, MS, PT
Rehabilitation

Financial Counseling

Barbara Delledonne

Patient Safety & Quality

Vincent Angeloro, BS, DC, CPHQ
Vice President, Quality Management and Accreditation

Navigators

Bonnie Edsall

Brenda Ragone

Janeen Spada

Quality Improvement Program

The Cancer Institute's Quality Improvement Program is accountable to physicians and hospital leadership to ensure high-quality, evidence-based patient care. At Good Samaritan, care delivery is most effectively improved by continuously assessing and analyzing the structure, function, and outcomes of our care and service systems to inform future improvements.

National Designations and Accreditations

- **Joint Commission**
- **American College of Surgeons Commission on Cancer**
- **Outstanding Achievement Award**
  One of only eight cancer programs in the nation to receive this honor for five consecutive surveys, easily placing our center within the top 1% of cancer programs.
- **NAPBC**
- **Press Ganey**
- **American College of Radiology**
- **American College of Surgeons Level II Trauma Center for both Adults and Pediatrics**

Brain

The Brain Tumor Center at Good Samaritan Hospital offers a multidisciplinary approach, developing treatment plans for patients with benign and malignant tumors of the brain and spine.

As a highly specialized center, the Brain Tumor Center offers resources not typically available at community hospitals and serves as a referral center throughout the region. As a high volume brain tumor center, our fellowship-trained neurosurgeons are both highly experienced and technically skilled resulting in excellent outcomes.

Operating rooms are equipped with the latest tools allowing us to perform procedures in the safest and most efficient manner possible. We utilize the most advanced BrainLAB intraoperative neuronavigation platform for all our surgical approaches, which incorporates advanced magnetic resonance imaging modalities, such as white matter tractography and functional imaging, into the navigation software.

The neuromonitoring team provides constant vigilance during all resections and are capable of advanced monitoring techniques such as electrocorticography, and cortical and subcortical mapping. A Zeiss operating microscope complements the comprehensive set of tools and is utilized intraoperatively with BrainLAB neuronaviation to extract tumors using minimally invasive brain surgery with optimal sparing of blood vessels, nerve fibers and functional brain circuits.

Postoperatively, patients are monitored in a dedicated, five-bed Neuro-Intensive Care Unit and cared for by board certified neurointensivists, nursing staff and personnel certified in the neurosciences to enhance specialized care for brain tumor patients. The neuro-endovascular suite further supplements brain and spine tumor care by allowing for pre-surgical embolization for select patients.

2019 – 2020 Quality Metrics for Surgical Care and Patient Outcomes for Brain Tumor Surgery

Compared to published 2016 NSQIP benchmarks for Neurosurgery

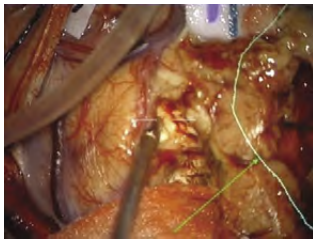
Intervention	% Occurrence	% Expected
Readmission	**13%**	9%
Return to the OR	**0%**	9%
Surgical site infections	**0%**	1%
Length of stay	**Median: 4 days**	--

Stereotactic Radiosurgery Program

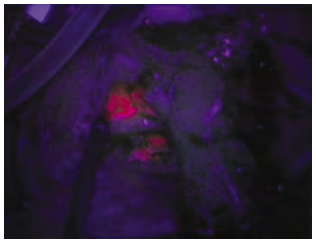
The Cancer Institute's Brain Tumor Center offers a state-of-the-art Stereotactic Radiosurgery Program using the Varian Edge™ radiosurgery system equipped with Hyperarc technology. Using advanced planning techniques, we succussefully treat patients with both benign and malignant brain tumors, using more focused plans to spare the brain from excessive scatter radiation.

Flourescence-guided Brain Tumor Surgery

The latest addition to our armamentarium of surgical tools is the implementation of 5-ALA based fluorescence-guided surgery for brain tumor patients. The high tumor selectivity of accumulation of fluorescent molecules after systemic administration of 5-ALA enables intraoperative fluorescence guidance, which is unimpaired by brain shift. Paired with an operating microscope with a specially designed UV light filter, the fluorescence can be visualized and in term, complete resection of enhancing tumors can now be more easily achieved, improving prognosis in patients. 5-ALA based fluorescence guidance offers a valuable new tool for the management of patients with malignant gliomas.



Above is an intraoperative image of a brain tumor resection of a patient who received 5-ALA viewed with direct light.



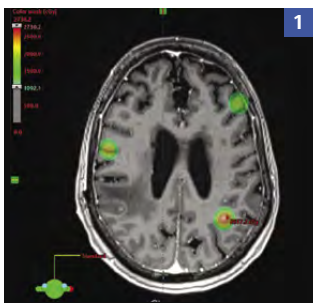
The same image to the left is shown below under UV light view. The tumor residual is visualized as a pink fluorescent light region.

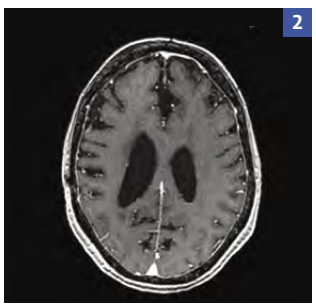
HyperArc™ High-Definition Radiotherapy

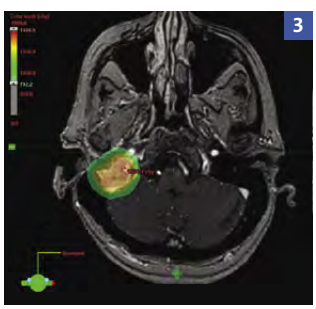
In collaboration with our neurosurgeons, we are pleased to offer HyperArc™ high-definition radiotherapy using the Varian Edge™ Radiosurgery System. This cutting-edge technology represents a significant advancement in the management of brain tumors and allows the real-time tracking of the brain tumor during treatment delivery. This fully automated robotic treatment improves delivery to safely, accurately, and comfortably treat multiple brain tumors without the need for an invasive headframe. HyperArc radiosurgery allows our radiation oncologists and neurosurgeons to effectively treat multiple brain tumors up to 95% faster than older platforms such as GammaKnife and Cyberknife — often with reduced dose to normal brain.

As the first center to implement HyperArc™ in New York State, our Institue has trained physicians from around the world on the safe and effective use of novel HyperArc™ technology.

A recent webinar can be viewed with free registration at: myvarian.com/s/webinars?lang=en by performing a keyword search for Good Samaritan.







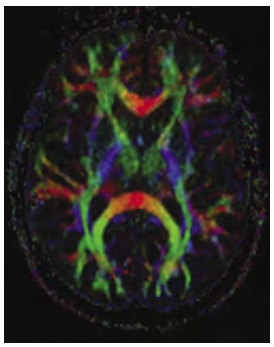
1. Dose distribution of HyperArc™ radiosurgery on the Varian Edge™ for multiple brain metastases.

2. Post-treatment MRI demonstrating complete response of multiple brain metastases treated with HyperArc™ radiosurgery.

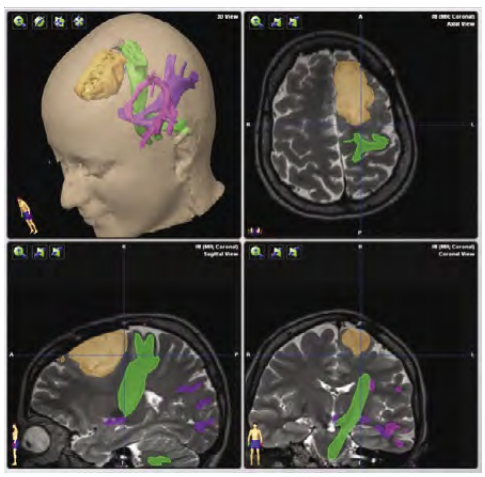
3. Single fraction HyperArc™ radiosurgery for a glomus tumor of the skull base.

Advanced MRI: Diffusion Tensor Imaging MRI

High quality MRI is central to the accurate diagnosis and treatment of brain tumors. Standard MRI sequences include T1 and T2-weighted sequences, contrast enhancement with gadolinium, and fluid attenuated inversion recovery sequence. Advanced forms of MRI include functional imaging with diffusion-weighted MRI, dynamic contrast enhancement, perfusion MRI, and MR spectroscopy. Diffusion tensor imaging MRI is an advanced MRI modality that can assist with neurosurgical planning.



Neuronavigation planing combining the information from MRI and DTI imaging. In orange is the contoured frontal brain tumor. In green the motor tract is highlighted. The speech fiber tracts are shown in pink and in purple are the optic radiation fibers.



Diffusion Tensor Imaging MRI assesses the direction and motion of water molecules within white matter fibers and providers the ability to visualize subcortical white matter. This technique allows the visualization of white matter tracts in 3-D and their relationships with like a brain tumors and it can provide information that may lead to improved extent of resection and decreased morbidity.

Brain Tumor Research

For patients with multiple brain metastases, conventional whole brain radiotherapy was a standard treatment for more than 50 years. An early attempt to reduce toxicity using intensity modulated radiation therapy was developed at Good Samaritan in 2015 to reduce radiation dose to the uninvolved brain and scalp. This study demonstrated that the reduction in scalp dose correlated with reduced hair loss.

Technol Cancer Res Treat. 2015 Oct;14(5):547-55. doi: 10.7785/tcrt.2012.500426. Epub 2014 Nov 26.

Tumor Directed, Scalp Sparing Intensity Modulated Whole Brain Radiotherapy for Brain Metastases.

Kao J[1], Darakchiev B[2], Conboy L[3], Ogurek S[3], Sharma N[3], Ron X[3], Pettit J[3].

Author information

1 Good Samaritan Hospital Medical Center, Department of Radiation Oncology, West Islip, NY, USA Johnny.kao@chsli.org.
2 Good Samaritan Hospital Medical Center, Department of Neurosurgery, West Islip, NY, USA.
3 Good Samaritan Hospital Medical Center, Department of Radiation Oncology, West Islip, NY, USA.

From 2015 to 2020, the use of whole brain radiation has markedly declined. Stereotactic radiotherapy is now used in patients with up to 20 low volume brain metastases. When whole brain radiation is needed, hippocampal, and normal brain and scalp sparing is now routinely performed.

Personalizing Treatment for Patients with Distant Metastases, Including Brain Metastases

PLoS One. 2015 Apr 20;10(4):e0124329. doi: 10.1371/journal.pone.0124329. eCollection 2015.

Clinical Predictors of Survival for Patients with Stage IV Cancer Referred to Radiation Oncology

Johnny Kao [1], Kenneth D Gold [2], Gina Zarrilli [3], Emily Copel [3], Andrew J Silverman [1], Shanta S Ramsaran, David Yens [4], Samuel Ryu [5]

Affiliations

1 Good Samaritan Hospital Medical Center, Department of Radiation Oncology, West Islip, New York, United States of America.
2 Good Samaritan Hospital Medical Center, Division of Hematology and Medical Oncology, West Islip, New York, United States of America.
3 Good Samaritan Hospital Medical Center, Division of Palliative Medicine, West Islip, New York, United States of America.
4 New York College of Osteopathic Medicine, Dept of Educational Development and Assessment, Old Westbury, New York, United States of America.
5 Stony Brook University Medicine, Department of Radiation Oncology, Stony Brook, New York, United States of America.

Physicians at Good Samaritan Hospital developed and validated the NEAT model, to predict overall survival for adult patients with distant metastases based on the number of tumors, ECOE performance statistics, albumin levels and tumor type, referred to radiation oncology. Importantly, the presence of brain metastases was not an independent predictor of worse survival on multivariate analysis. Although most systemic agents fail to adequately cross the blood-brain barrier, these data suggests that the improved treatment of brain metastases with surgery and radiation eliminated what was previously considered a highly negative prognostic factor.

Clinical Trials

In the near future, we anticipate opening NRG–BN007, a randomized phase II/III open-label study of ipilimumab and nivolumab vs. temozolomide in patients with newly diagnosed MGMT unmethylated glioblastoma. Mary Puccio, MD, will serve as the local principal investigator on this trial funded by the National Cancer Institute.

Breast

Good Samaritan's Breast Health Center was created in 1993 in response to community concerns and the hospital's commitment to women and their health care needs. It is the first comprehensive, patient-focused program on Long Island and offers a dynamic multidisciplinary team approach to breast health and breast disease. The Breast Health Center has since evolved into a Long Island destination for nationally accredited, university-level screening, diagnostic, and therapeutic services in a comfortable community setting.

At the Breast Health Center, we developed a culture of attention to detail, innovation and continuous improvement to remain at the forefront of women's health. The Breast Health Center offers comprehensive care, including advanced imaging and biopsy techniques, leading-edge breast surgery and reconstruction, radiation, chemotherapy, hormonal therapy, genetic counseling, and support services that allows patients to remain close to home for the same high-level care they could find in a city environment.

Weekly Breast Tumor Board

The Good Samaritan Breast Tumor Board meets every Friday morning for a prospective multidisciplinary conference to discuss newly diagnosed patients prior to surgery. Led by Bradley Cohen, MD, Chair of the Breast Leadership Committee, John Francfort, MD, Chairman of the Department of Surgery, Anthony Capizzi, MD, Vice-Chairman of the Department of Surgery, and Sophia Fu, MD, Director of Breast Surgery, the breast tumor board is the beating heart of our multidisciplinary approach. At this conference, radiologists, breast surgeons, oncologists, pathologists, genetic counselors, plastic surgeons, and breast navigators collaborate on patient care. Taken together, we have one of the most experienced and best teams on Long Island.

Case discussions typically start with the breast surgeon presenting the clinical history followed by presentations of the imaging findings by the breast radiologist and biopsy results by the pathologist. A treatment plan is developed through a collaboration between breast surgery, medical oncology and radiation oncology. With early detection, innovative technology, and advanced diagnostic and treatment services, more women are surviving breast cancer today. The Breast Health Center continues to grow and adapt to meet the needs of our community.

Alice Kim, MD
Director of Breast Radiology

Sophia Fu, MD, MS
Director of Breast Surgery

Anthony Capizzi, MD
Associate Director of Surgery

John Francfort, MD
Chair of Surgery

Bradley Cohen, MD, FACS
Chair of Breast Leadership Program

Our Approach

Led by fellowship-trained breast surgeons, our program offers comprehensive services from screening, risk assessment, genetic counseling, breast navigation, and long-term survivorship care. In 2009, Good Samaritan's Breast Health Center became the second facility in New York State to receive full accreditation from the National Accreditation Program for Breast Centers (NAPBC). NAPBC accreditation, administered by the American College of Surgeons (ACS).

This prestigious designation is given only to those facilities that have voluntarily committed to provide the highest level of breast care and who undergo a rigorous evaluation process and review of their performance. Reaccredited in 2012, 2015, and again in 2018, our center earned the highest scores from the NAPBC for best outcomes in prevention, early detection, treatment, and survivorship, as well as for providing individualized supportive services for women at all stages of breast cancer.

Stephen Harris, MD, Chief of Plastic Surgery, Anne Green, MD, and Bradley Cohen, MD

The Women's Imaging Center

Most patients enter the Breast Health Center through the Women's Imaging Center at Good Samaritan. Alice Kim, MD, Medical Director and Breast Imaging Specialist at the Women's Imaging Center, leads a staff of dedicated breast radiologists and specialized technologists who perform nearly 30,000 procedures each year. The Women's Imaging Center is an American College of Radiology (ACR) accredited Breast Imaging Center of Excellence and has achieved ACR accreditation in mammography, stereotactic breast biopsy, breast MRI, and breast ultrasound.

Highlighting our culture of innovation to improve outcomes, the Women's Imaging Center participated in an early trial of digital mammography, was among the first on Long Island to receive ACR accreditation for breast MRI, was the first center in Suffolk County to perform digital tomosynthesis, and was the first center to introduce a prone 3-D breast biopsy table.

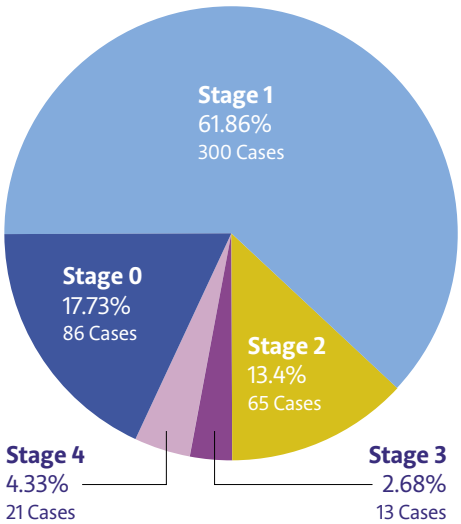
Coordination with primary care physicians and gynecologists is a hallmark of the Women's Imaging Center. When biopsy results indicate atypia or cancer, the referring provider is notified immediately, the findings are shared with the patient, and a strategy for further management is developed and coordinated by our nurse navigators.

> "The care and compassion at the Women's Imaging Center is second-to-none with an individualized focus on the patient."

Alice Kim, MD, Medical Director and Breast Imaging Specialist at the Women's Imaging Center

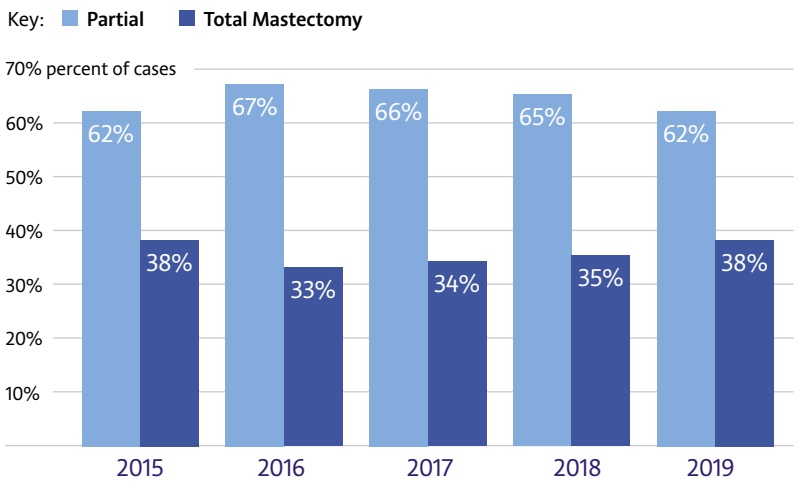
With early detection, innovative technology, and advanced diagnostic & treatment services, more women are surviving breast cancer today.

Summary AJCC Stage Group Breast Cancer 2018 and 2019



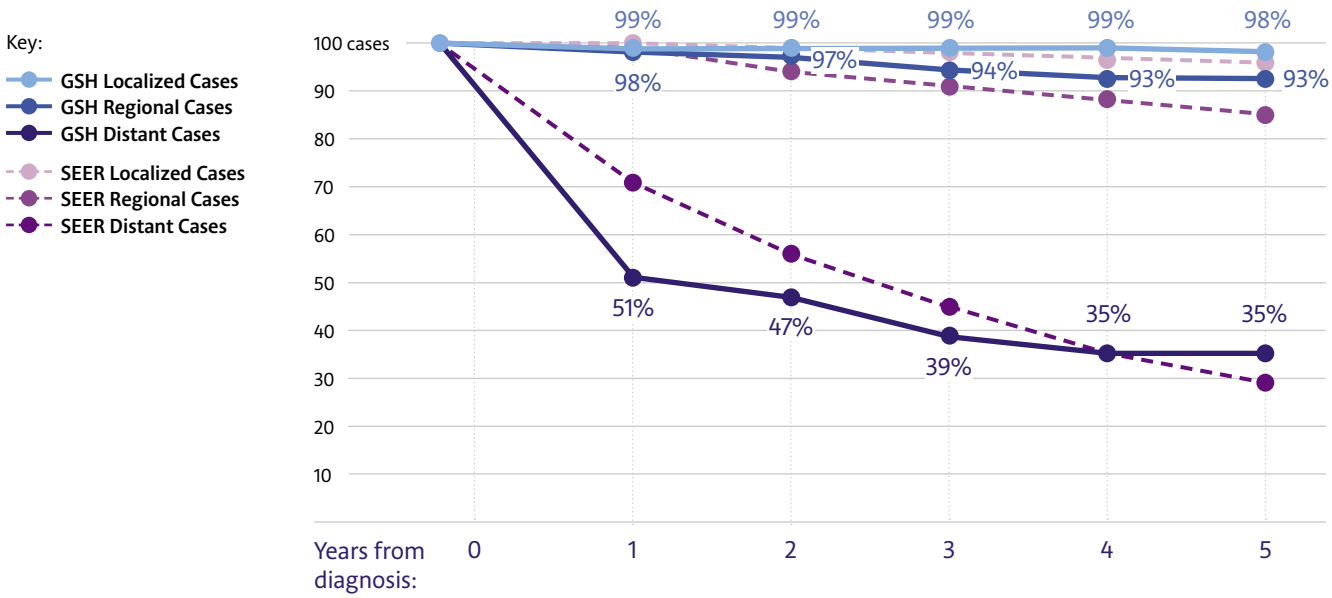
GSHMC Breast Cancer 2015 – 2019 Partial vs Total Mastectomy: Stage 0, 1, 2

Target rate 50% partial mastectomy



Five-Year Breast Cancer Specific Survival by Stage, Cases Diagnosed (2008 – 2016)

Comparing 5-year cancer-specific survival by extent of disease for Good Samaritan vs. national averages (SEER)



High Risk Breast Cancer

In partnership with our breast health program and our Women's Imaging Center, the genetic counseling department has worked collaboratively in recent years to develop a High-Risk Breast Cancer Assessment program, which was implemented in early 2020 on a trial basis. Developing a high-risk breast cancer assessment program is something our breast team is passionate about. All women are at risk for breast cancer for which routine annual screening mammograms are important; however, some women may be at higher risk for which routine screening is not enough.

Each week, a random sample of women under the age of 65 and who are present for screening mammograms are chosen to complete a High-Risk Assessment Form. This form is tailored to include individual metrics such as age, height, weight, hormonal history, previous breast cancer risk factors, personal and family history of Hereditary Breast and Ovarian Cancer (HBOC)-related cancers, any other personal or family history of cancers, and whether they or any relatives have had genetic testing.

The genetic counseling team then performs a risk assessment calculation with a validated model, such as Tyrer Cuzick or BRCAPro, to determine lifetime breast cancer risk. If women are deemed to be at high risk based on the calculation, the genetic counselors work with the radiologists to have an addendum added to their mammogram report indicating such, with the recommendation for breast MRI. A letter is also sent to the provider who ordered the mammogram, as well as the patient, so that all are informed of the risk and the recommendations. If a woman is deemed to be at indeterminate risk but has reported concerning family history of cancer for which a genetic evaluation is necessary, then she and her physicians are sent a letter indicating such. To date, we have identified 11% of our trial population to be at high risk with breast MRI being recommended. We hope to continue to grow this program in the future.

Breast Surgery

At Good Samaritan and beyond, outcomes for breast cancer survivors continue to improve, including a decline in breast cancer related-death by more than 44% in Suffolk County since 1991. Importantly, there is a trend toward less and less radical surgical approaches, with excellent techniques for breast conserving surgery, including SAVI SCOUT® localization, intraoperative ultrasound-guidance, and oncoplastic reconstruction to achieve high cure rates with an optimal cosmetic outcome. For mastectomy patients, there is greater adoption of nipple and skin-sparing procedures. Finally, the majority of patients qualify for sentinel lymph node biopsy instead of complete axillary lymph node dissection to reduce the risk of lymphedema.

Advances in Breast Surgery

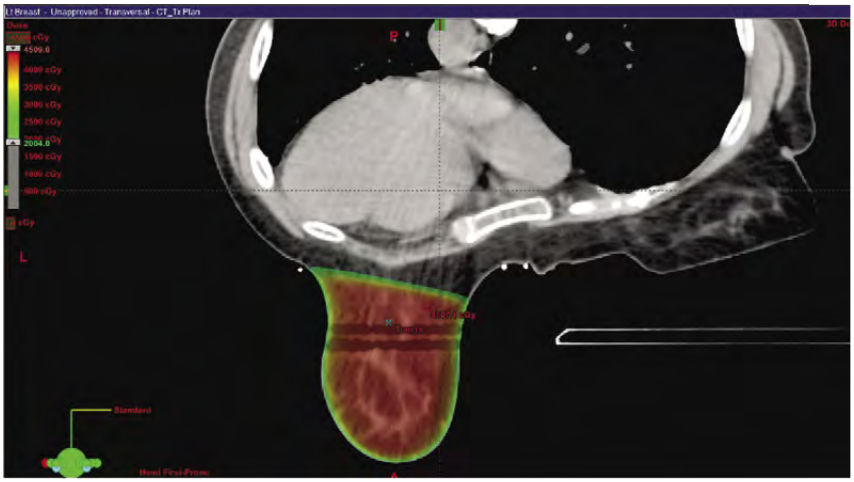
Sophia Fu, MD, Director of Breast Surgery, has implemented a number of important technical advances to maintain Good Samaritan's position at the forefront of breast surgery. In addition to expanding oncoplastic surgery, Dr. Fu is leading the Enhanced Recovery after Surgery Program for breast cancer survivors. Dr. Fu is an early adopter of reverse axillary mapping that holds promise to reduce the risk of lymphedema in patients requiring axillary lymph node dissection. Finally, Dr. Fu is leading Good Samaritan's participation in breast surgery clinical trials through the Alliance for Clinical Trials in Oncology.

Breast Reconstruction

The Breast Health Center has been at the forefront of breast reconstruction surgery thanks to a team of plastic surgeons that have trained at elite institutions, including Harvard Medical School. Breast reconstruction techniques at Good Samaritan include implant-based options, with direct-to-implant and pre-pectoral implant reconstruction, and autologous techniques with microsurgery. The adoption of SPY Elite Fluorescence angiography has enabled surgeons to perform implants in front of the pectoralis major muscle, resulting in less discomfort after surgery, more rapid recovery, and potentially better aesthetic outcome.

Radiation Therapy for Breast Cancer

Following successful surgery, radiation therapy has been shown to improve overall survival for women with breast cancer undergoing breast conservation surgery and for patients undergoing mastectomy with positive lymph nodes. Due to recent advances in radiation technique, breast radiation has never been safer, more effective, and more convenient. A recent study demonstrated that breast conserving surgery followed by radiation had 99% success in preventing local recurrence in the breast.



Radiation dose distribution from prone breast irradiation. Note relative sparing of the heart and lung by using gravity to pull the breast away from the thorax.

Advances in Breast Radiation Therapy

The standard regimen is six-and-a-half weeks of daily radiation; clearly a proven approach that has stood the test of time. More than half of patients with early stage breast cancer qualify for a shorter one- to four-week course of treatment that appears to be equally safe and effective. When possible, we try to place our patients in the prone position, using gravity to pull the breast away from the body. This technique makes breast radiation even safer by further reducing radiation dose to heart, lung, and skin.

AlignRT®

AlignRT® is a system that tracks a patient's position before and during radiation therapy to improve treatment accuracy. Using 3-D stereo camera units, AlignRT® tracks the skin surface in real time to compare the current location to ideal position with submillimeter accuracy. AlignRT® has been shown to facilitate Deep Inspiration Breath Hold (DIBH) to reduce heart dose for patients with left breast cancer.

"Led by fellowship-trained breast surgeons, our program offers comprehensive services from screening, risk assessment, genetic counseling, breast navigation, and long-term survivorship care."

Sophia Fu, MD, MS

Breast Oncology

There has been significant progress in systemic therapies that have improved survival in coordination with surgery and radiation, for early stage breast cancer and as the primary treatment for metastatic breast cancer.

There are four subtypes of breast cancer, divided by whether the tumors respond to the female hormone estrogen and a protein signal called Her-2/neu. Based on this information, drug development can be specifically targeted. As a result, there has been recent progress for all different subtypes of breast cancer.

The most common type of breast cancer that is estrogen positive and Her-2/neu negative. For many of these patients, there is a genetic test that analyzes a small piece of tumor to predict its biological behavior. For many patients, we conclude that chemotherapy is not necessary and that patients can be treated successfully with just hormone-blocking pills. For advanced estrogen positive tumors, we sometimes add drugs that target enzymes that are important in cell division.

A historically aggressive subtype of breast cancer are those that are driven by the Her-2/neu protein. A recent study demonstrated that 99% of patients with stage I Her-2/neu positive breast cancer remained free of relapse with a combination of successful breast surgery, radiation to the breast, and drugs targeting the Her-2/neu protein and chemotherapy.

For the aggressive triple negative subtype, combination chemotherapy is recommended, increasingly in combination with immunotherapy. Patient consults and treatments are performed at the state-of-the-art Cancer Institute under the care of board-certified medical oncologists who have a special interest in breast cancer.

Research and Innovation

As the leading breast center on the south shore of Long Island, Good Samaritan has extensive experience in the diagnosis and management of benign and malignant breast tumors, comparable to some of the most prestigious academic medical centers in the country. Our multidisciplinary group recently published a large experience of 93 consecutive patients with pure atypical lobular hyperplasia diagnosed on needle biopsy. Only five patients were upgraded to DCIS or invasive cancer at the time of excisional biopsy, demonstrating the expertise of our team of breast radiologists, pathologists, surgeons and oncologists.

› Breast Cancer Res Treat. 2020 Oct;183(3):771-774. doi: 10.1007/s10549-020-05799-9. Epub 2020 Jul 23.

Atypical lobular hyperplasia on core needle biopsy: contemporary results from a large community hospital breast program

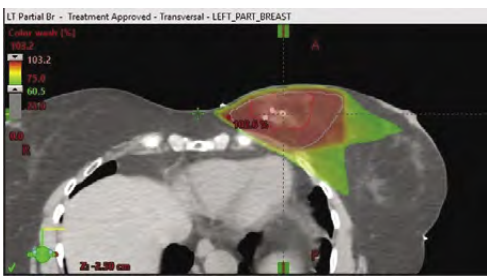
Dean Lumley [1], Deidre Stokes [1], Pawel Karwowski [2], Bonnie Edsall [2 3], John Francfort [4], Bradley Cohen [4], Anthony Capizzi [4], Zhi-Wei Ma [5], Anne Green [3], Johnny Kao [6]

Affiliations

1 College of Osteopathic Medicine, New York Institute of Technology, 101 Northern Boulevard, Glen Head, NY, 11545, USA.
2 Department of Radiation Oncology, Good Samaritan Hospital Medical Center, 1000 Montauk Highway, West Islip, NY, 11795, USA.
3 Charles E. DeClerk Department of Imaging Services, Good Samaritan Hospital Medical Center, 1000 Montauk Highway, West Islip, NY, 11795, USA.
4 Department of Surgery, Good Samaritan Hospital Medical Center, 1000 Montauk Highway, Wes Islip, NY, 11795, USA.
5 Department of Pathology, Good Samaritan Hospital Medical Center, 1000 Montauk Highway, West Islip, NY, 11795, USA.
6 Department of Radiation Oncology, Good Samaritan Hospital Medical Center, 1000 Montauk Highway, West Islip, NY, 11795, USA. johnny.kao@chsli.org.

Five Fraction Partial Breast Irradiation for Early Breast Cancer

Led by Andrew Wong, MD, researchers at Good Samaritan and St. Catherine of Siena Hospital are currently investigating the safety and efficacy of a convenient five fraction regimen of partial breast irradiation. In an IRB-approved phase II trial, we are utilizing a dose of more than 30 Gy in 5 fractions using the Varian Edge™ radiosurgery system for breast cancer patients who underwent oncoplastic surgery with placement of implantable markers to accurately delineate the tumor bed. This ongoing clinical trial has accrued more than 20 patients over two years.



Radiation dose distribution for a patient treated on the IRB-approved five-fraction partial breast radiation trial.

An Expert Partner in the Fight Against Breast Cancer

SINCE ITS FOUNDING, THE **BREAST HEALTH CENTER AT GOOD SAMARITAN HOSPITAL MEDICAL CENTER**, A MEMBER OF CATHOLIC HEALTH SERVICES, HAS SERVED AS A COMPREHENSIVE RESOURCE FOR WOMEN WHO ARE DEALING WITH BREAST CANCER.

**Statistics from the American Cancer Society and the CDC's Division of Cancer Prevention and Control*

BY THE NUMBERS

245,000
American women diagnosed with breast cancer annually

41,000
Women in the U.S. who die from breast cancer every year

3.1 million
Breast cancer survivors in the U.S.*

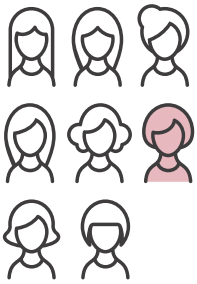
MULTIDISCIPLINARY EXPERTISE

The experienced team at the Breast Health Center includes breast surgeons, plastic and reconstructive surgeons, radiologists who specialize in women's imaging, pathologists, medical and radiation oncologists, genetic counselors, social workers, nutritionists and breast oncology nurse navigators.

Some of the advanced technologies they employ are:

- 3D digital tomosynthesis
- Diagnostic and screening mammography
- Diagnostic digital 4D ultrasound
- Galactography
- High-resolution ultrasound with breast elastography
- Ultrasound-guided fine needle and core biopsies
- Stereotactic core biopsies
- Breast MRI/MRI biopsies
- Screening for hereditary cancer risk

NAPBC® NATIONAL ACCREDITATION PROGRAM FOR BREAST CENTERS ACCREDITED BREAST CENTER
A QUALITY PROGRAM of the AMERICAN COLLEGE OF SURGEONS



1 in 8
One in eight American women develops breast cancer at some point in her life.*

HIGH-LEVEL CARE

The Breast Health Center and other oncology services at Good Samaritan are consistently recognized for technologically sophisticated, patient-centered care:

- Since earning a full, three-year accreditation from the National Accreditation Program for Breast Centers in 2009, the Breast Health Center has gained reaccreditation three consecutive times. The center earned the highest scores for outcomes in prevention, early detection, treatment and survivorship and for individualized support services.
- Good Samaritan's Women's Imaging Center is an American College of Radiology-designated Breast Imaging Center of Excellence.
- The Cancer Institute at Good Samaritan has earned the Outstanding Achievement Award (above) from the American College of Surgeons Commission on Cancer in 5 consecutive surveys over 15 years.

Commission on Cancer® ACCREDITED PROGRAM
A QUALITY PROGRAM OF THE AMERICAN COLLEGE OF SURGEONS

Gastrointestinal

Good Samaritan provides comprehensive evaluation and treatment for gastrointestinal cancers including colorectal, anal, liver, bile duct, pancreatic, small intestine, gastric and esophageal tumors.

Island Digestive Health Center, of which Catholic Health is a co-owner, is a state-of-the-art, AAAHC accredited, outpatient ambulatory surgical facility utilizing CO2 for colonoscopy and dedicated to bringing advanced endoscopy procedures to the community.

Liver and Bile Duct Tumors

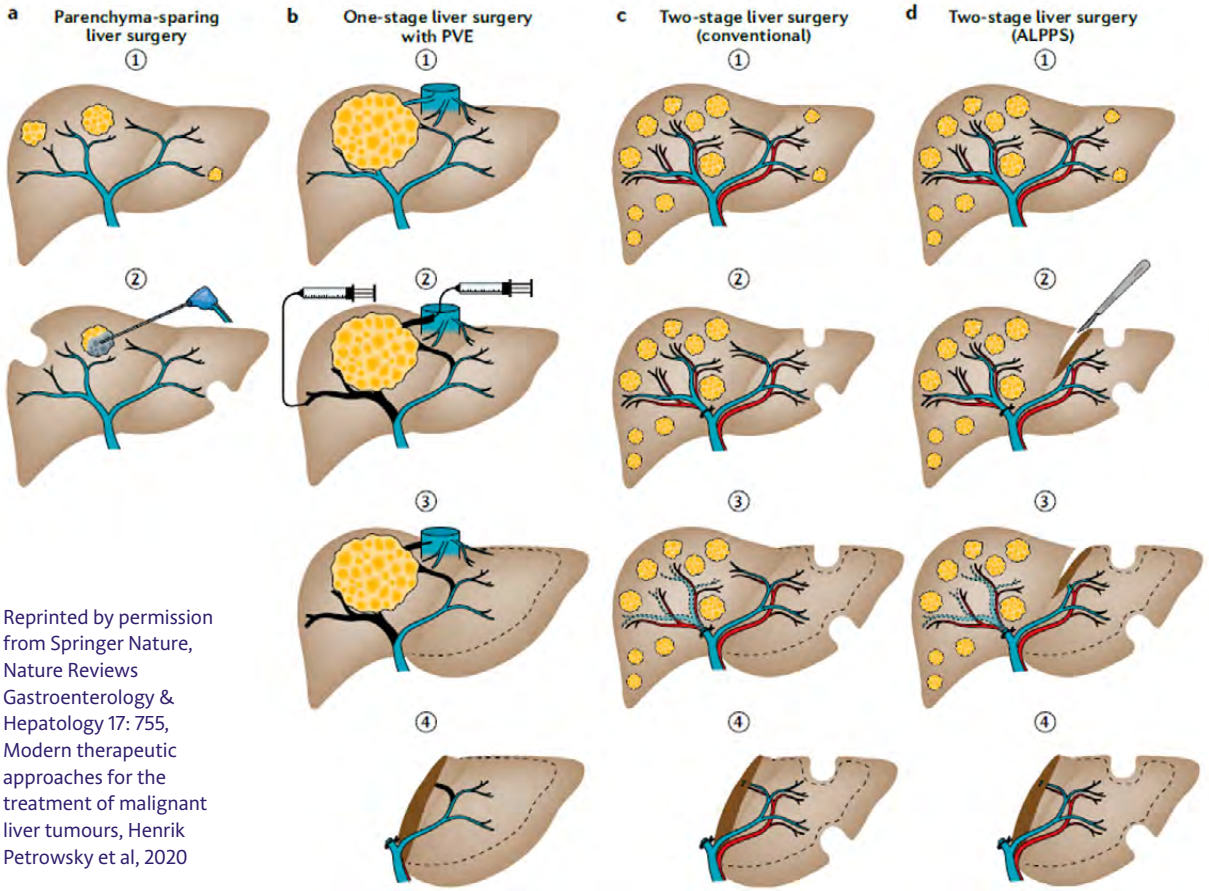
Led by John Hsu, MD, a fellowship-trained transplant surgeon, Good Samaritan has achieved excellent outcomes in liver surgery. For inoperable patients, we offer multidisciplinary care involving interventional radiology, medical oncology, and radiation oncology.

2017 – 2019 Quality Metrics for Surgical Care and Patient Outcomes for Hepatectomy

Compared to published 2016 NSQIP benchmarks for Hepatectomy

Intervention	% Occurrence	% Expected
Morbidity	**14%**	15%
Pneumonia	**0%**	3%
Surgical site infections	**0%**	7%
Length of stay	**Median: 6 days**	--
Readmissions	**0%**	9%
Liver failure	**0%**	3%

Types of Liver Surgery Available at Good Samaritan Hospital



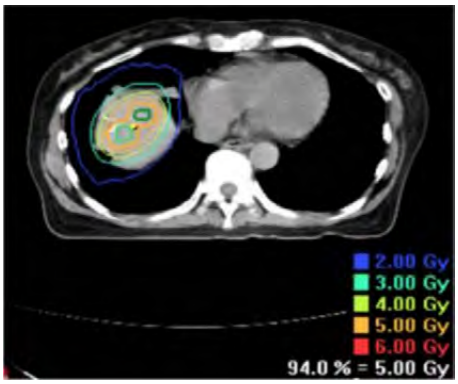
Reprinted by permission from Springer Nature, Nature Reviews Gastroenterology & Hepatology 17: 755, Modern therapeutic approaches for the treatment of malignant liver tumours, Henrik Petrowsky et al, 2020

Interventional Radiology Suite

A newly built interventional radiology suite, equipped with cone beam CT, allows for significant expansion of interventional oncology programs including cryotherapy, microwave ablation, chemoembolization, and radioembolization to benefit liver tumor patients. The interventional radiology program is led by Alan Boykin, MD, and Bernard Koliskor, MD, who work closely with the liver surgical team.

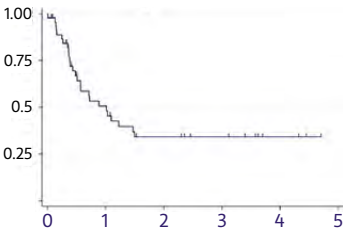
Stereotactic Radiation for Liver Metastases

In 2014, researchers at Good Samaritan Hospital and Mount Sinai demonstrated that 1/3 of patients with limited metastatic disease remained alive and free of cancer several years following a pioneering phase I/II trial of involved site radiotherapy 40 to 50 Gy, in 10 fractions, with concurrent systemic therapy. Image-guided radiation therapy to all areas of known disease was both feasible and well-tolerated. The example shown here is a patient with pancreatic cancer with three liver metastases who went into complete remission after successful treatment of her liver metastases with radiation therapy and sunitinib.



Radiation dose distribution for 2 liver metastases from pancreatic cancer. This patient achieved long-term clinical, radiographic and biochemical remission. Reproduced with permission from Kao, Target Oncol 9:145, 2014

Long-term Progression-free Survival for Patients with Oligometastases Treated with Curative Intent Radiotherapy Combined with Systemic Therapy



Target Oncol. 2014 Jun;9(2):145-53. doi: 10.1007/s11523-013-0280-y. Epub 2013 May 10.

Concurrent sunitinib and stereotactic body radiotherapy for patients with oligometastases: final report of a prospective clinical trial.

Kao J[1], Chen CT, Tong CC, Packer SH, Schwartz M, Chen SH, Sung MW.

Author information

1 Department of Radiation Oncology, Good Samaritan Hospital Medical Center, 1000 Montauk Highway, West Islip, NY, 11795, USA. johnny.kao@chsli.org.

Ablative Radiotherapy for Oligometastases, Including Liver Metastases

More recently, confirmatory multi-institutional analyzes and multiple randomized trials have demonstrated that involved site radiation improves disease-free survival and overall survival compared to systemic therapy alone for patients with limited metastatic disease.

PLoS One. 2018 Apr 12;13(4):e0195149. doi: 10.1371/journal.pone.0195149. eCollection 2018.

Classification for long-term survival in oligometastatic patients treated with ablative radiotherapy: A multi-institutional pooled analysis.

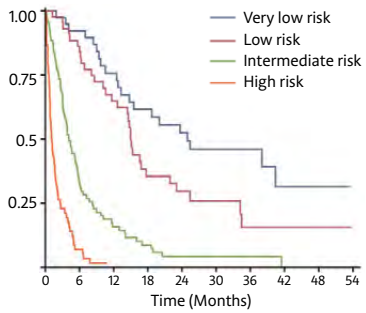
Hong JC[1], Ayala-Peacock DN[2], Lee J[3], Blackstock AW[4], Okunieff P[5], Sung MW[6], Weichselbaum RR[7], Kao J[8], Urbanic JJ[9], Milano MT[10], Chmura SJ[7], Salama JK[1].

Author information

1 Department of Radiation Oncology, Duke University, Durham, NC, United States of America.
2 Department of Radiation Oncology, Vanderbilt University, Nashville, TN, United States of America.
3 Memorial & St. Elizabeth's Cancer Treatment Center, Swansea, IL, United States of America.
4 Department of Radiation Oncology, Wake Forest University, Winston-Salem, NC, United States of America.
5 Department of Radiation Oncology, University of Florida, Gainesville, FL, United States of America.
6 Division of Hematology and Medical Oncology, Mount Sinai School of Medicine, New York, NY, United States of America.
7 Department of Radiation and Cellular Oncology, University of Chicago, Chicago, IL, United States of America.
8 Department of Radiation Oncology, Good Samaritan Hospital Medical Center, West Islip, NY, United States of America.
9 Department of Radiation Medicine and Applied Sciences, University of California, San Diego, La Jolla, CA, United States
10 Department of Radiation Oncology, University of Rochester Medical Center, Rochester, NY, United States of America.

The NEAT Model to Predict Survival for Patients with Metastatic Cancer

Our researchers at Good Samaritan have subsequently developed predictive models to better select patients with metastatic disease for either treatment intensification or palliative care.



Survival probability
NEAT Predictive Model for survival in patients with metastatic cancer was developed and validated at Good Samaritan Hospital. Reproduced with permission from: Zucker, Cancer Res Treat 50: 1433, 2018

The NEAT Model

Proposed framework to individualize radiation oncology management and palliative care recommendations based upon predicted outcome.

NEAT Group	Median Survival (months)	RT Plan	Palliative Care Referral	RT Follow-up
Very Favorable	31	High dose (stereotactic RT)	Optional but suggested	Yes
Favorable	14	High dose (stereotactic RT) or standard dose (10 to 15 fractions)	Yes, to improve QOL and possibly survival	Yes
Standard	4	Low dose (5 to 10 fractions)	Yes, to address symptoms, initiate end of life planning and for possible QOL advantage	As needed
Unfavorable	1	No RT or single fraction	Yes, hospice strongly considered	No

Colon and Rectal Cancer

Led by fellowship-trained colorectal surgeons and highly-accomplished general surgeons, Good Samaritan has achieved excellent outcomes for colon and rectal cancers and was recognized as high-performing by *US News and World Report* in 2020. Colorectal cancer death rates declined more than 40% in Suffolk County since 1991, primarily due to the increased acceptance of routine screening colonoscopy to diagnose and treat precancerous polyps. High volume colorectal cancer centers, such as Good Samaritan Hospital, are strongly linked to a lower rate of complications. To further improve quality, colorectal surgeons at Good Samaritan have implemented a bundle to prevent surgical site infections and have developed an enhanced recovery after surgery protocol.

Eliminating Colon Surgical Site Infections

As part of our journey toward Zero Harm for patients, Good Samaritan has embarked on an initiative to help eliminate surgical site infections after colon surgery. Health care providers utilize a "colon bundle," which is a checklist of items that should be performed before, during, and after colon surgery.

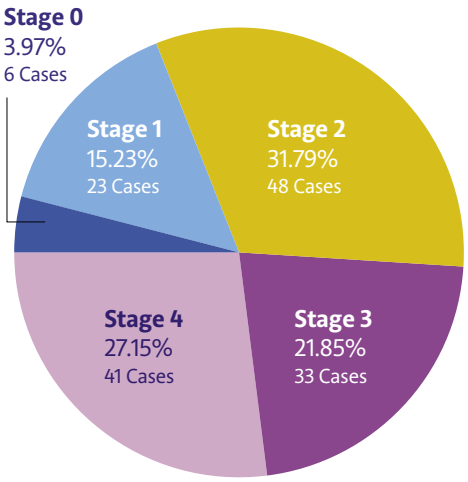
In 2016, a care team was created to educate providers on bundle parameters, develop workflows in the electronic health record to facilitate implementation of the items on the checklist, and monitor physician-specific compliance with bundle elements. The work effort yielded a 72% decrease in the number of colon infections from pre-intervention through the following two years. The team continues to work on ensuring all best practices are in place to help providers reduce the number of infections and achieve Zero Harm.

2019 – 2020 Quality Metrics for Surgical Care and Patient Outcomes for Colon Cancer Patients Undergoing Colectomy

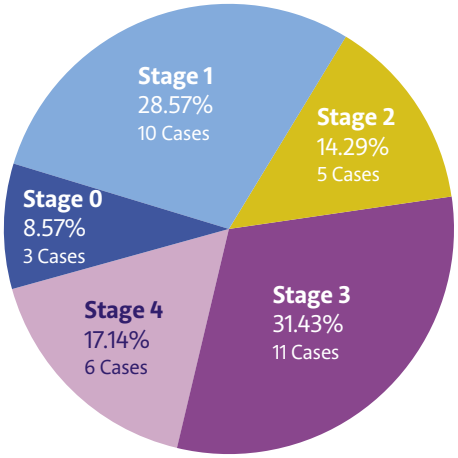
Compared to published 2016 NSQIP benchmarks for colectomy.

Intervention	% Occurrence	% Expected
Serious morbidity 01/20 to 06/20	**12.5%**	14%
Serious morbidity 07/19 to 12/19	**11.8%**	14%
Surgical site infections 01/20 to 06/20	**6.3%**	12%
Surgical site infections 07/19 to 12/19	**11.8%**	12%

Summary AJCC Stage Group Colon Cancer 2018 – 2019

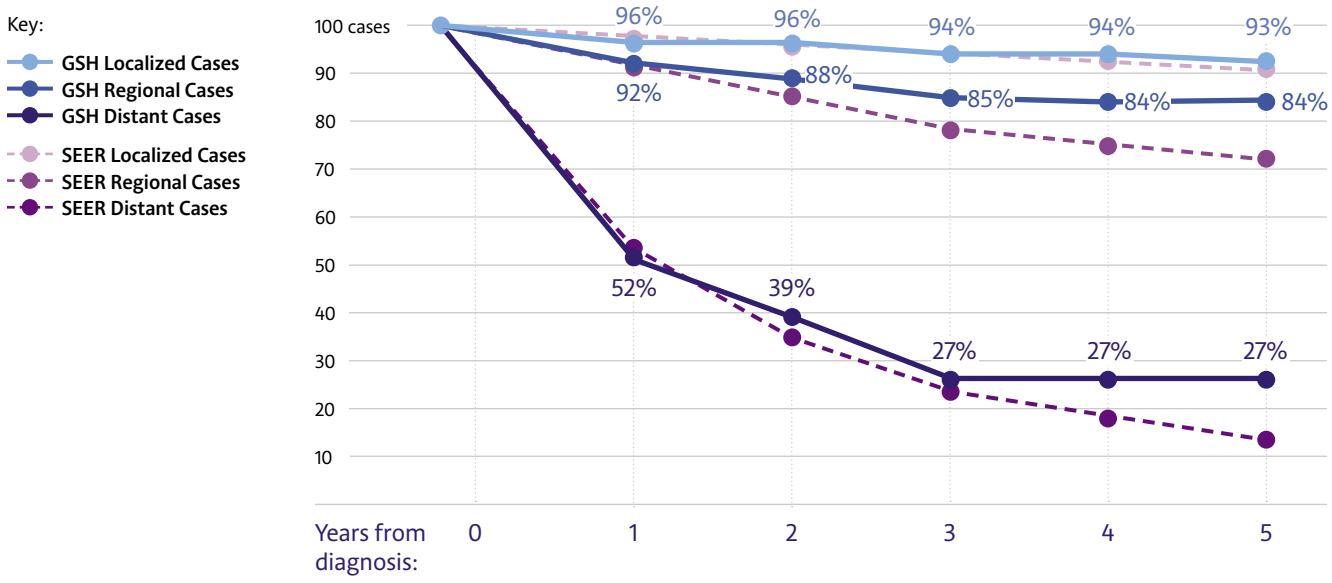


Summary AJCC Stage Group Rectal Cancer 2018 – 2019



Five-Year Colon Cancer Specific Survival by Stage, Cases Diagnosed (2008 – 2016)

Comparing 5-year cancer-specific survival by extent of disease for Good Samaritan vs. national averages (SEER)



"Led by fellowship-trained colorectal surgeons and highly-accomplished general surgeons, Good Samaritan has achieved excellent outcomes for colon and rectal cancers and was recognized as high-performing by *US News and World Report* in 2020."

John Francfort, MD, Chair of Surgery

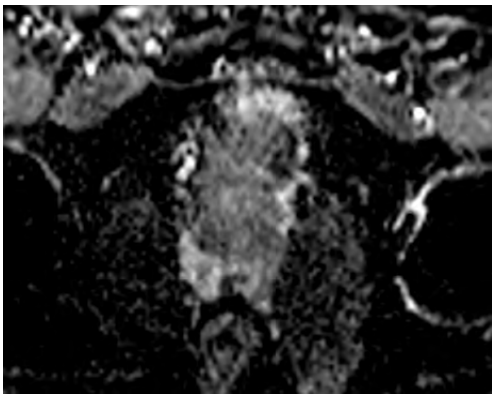
Genitourinary

The comprehensive prostate program at Good Samaritan Hospital is led by Christopher Atalla, DO, and an outstanding team of highly skilled urologists at Suffolk Urology Associates including Edward Loizides, MD, Daniel Kim, MD, and Aaron Woodall, MD. Deaths from prostate cancer have decreased by 45% in Suffolk County over the past 25 years due to the success of PSA screening and improved treatment.

Multiparametric MRI and Ultrasound-Guided Prostate Biopsy

The Cancer Institute at Good Samaritan is proud to offer comprehensive care for prostate patients. Multiparametric MRI fusion biopsy is the latest and most cutting-edge method of diagnosing prostate cancer. By fusing images from an MRI in real time with ultrasound guidance, this procedure can increase the detection of prostate cancer over standard 12 core prostate biopsy. This procedure is only available at a select few institutions and is now provided through Good Samaritan's rapidly growing urologic oncology program.

Multiparametric prostate MRI T2 sequence shows a focal nodule in the posterior prostate



Multiparametric prostate MRI shows restricted diffusion on the apparent diffusion coefficient map

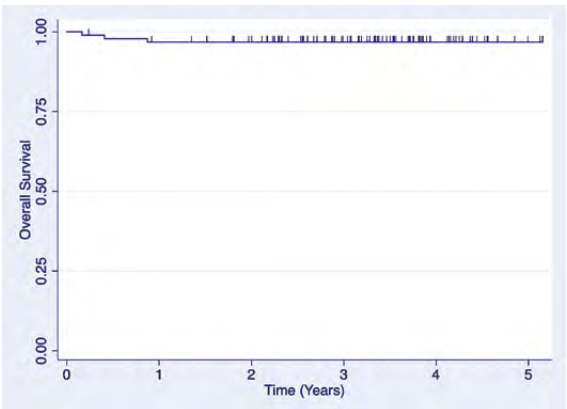
Active Surveillance

In addition to the diagnosis and treatment of prostate cancer, the urologic oncology program Good Samaritan Hospital has extensive experience with active surveillance for selected patients with low-risk prostate cancer. Active surveillance is a protocol that allows patients to forgo treatment of low-risk prostate cancer under the proper surveillance of a trained urologist. This affords patients the ability to maintain certain qualities of life that may be affected by other treatment options.

Robotic-assisted Radical Prostatectomy

When treatment is necessary, robotic-assisted radical prostatectomy requires the skill of a highly-trained surgeon with a high volume of experience in order to achieve excellent outcomes not only oncologically, but for quality of life, maintaining erectile function and urinary continence. Dr. Atalla not only has the skill and experience to perform this highly specialized operation, but is also the only surgeon on Long Island's south shore to offer this operation. At Good Samaritan, 100% of prostatectomies are performed via robot-assisted approach.

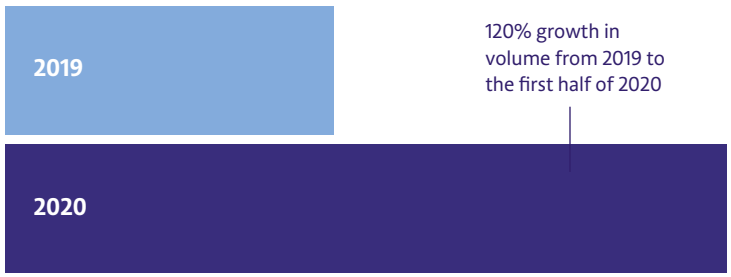
Five year overall survival for prostate cancer patients
Treated at Good Samaritan Hospital from 2015 to 2017



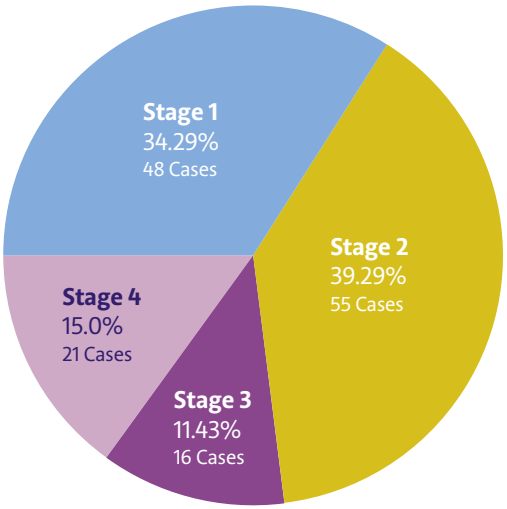
Systemic Therapy for Advanced and Metastatic Prostate Cancer

For patients with advanced prostate cancer, the Cancer Institute offers newer systemic therapies, including 10 new FDA approved treatments for metastatic prostate cancer that have been shown to improve survival.

Prostatectomy Volume

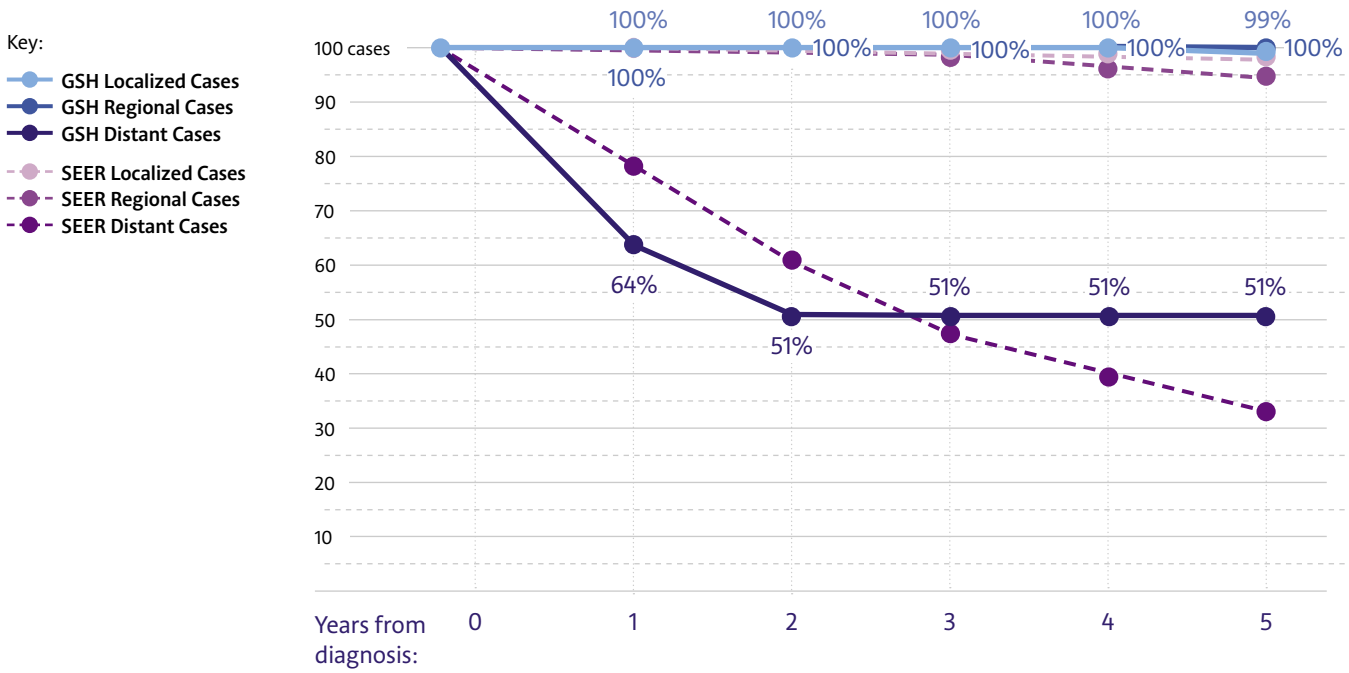


Summary AJCC Stage Group Prostate Cancer 2018 – 2019



Five-Year Prostate Cancer Specific Survival by Stage, Cases Diagnosed (2008 - 2016)

Comparing 5-year cancer-specific survival by extent of disease for Good Samaritan vs. national averages (SEER)



Prostatectomy Assessment and Competency Evaluation (PACE)

Intraoperative Measures			
		2019	Jan - Jun 2020
Operative Time (mins)	Median	283	276
Estimated Blood Loss (ml)	Median	50	50
Length of Stay (days)	Median	2	2
Conversions from Robot-Assisted to Open	N	0	0

Reference: Hussein, J Urol 197: 1237, 2017

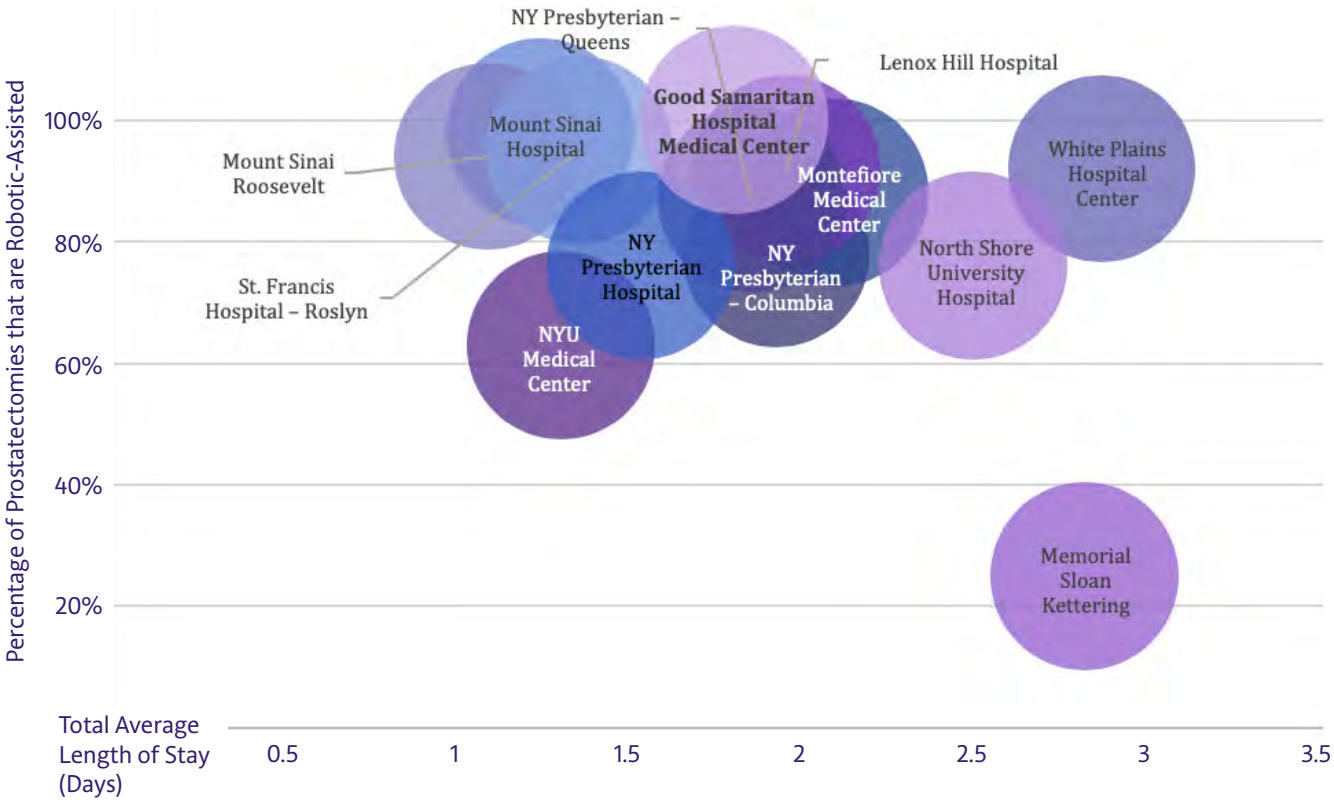
2019 – 2020 Quality Metrics for Surgical Care and Patient Outcomes for Prostatectomy

Compared to published 2016 NSQIP benchmarks for prostatectomy.

Intervention	% Occurrence	% Expected
Readmission	5%	4%
Surgical site infections	0%	1%
Urinary tract infections	0%	2%

Radical Prostatectomies in Southern New York State (Robotic vs. Non-Robotic)

This data is a comparison of Good Samaritan data from 2019 – 2020 compared to the most recently published New York State SPARCS (Statewide Planning and Research Cooperative System) data from 2015.



MRI-Guided IMRT

For patients who wish to pursue a non-surgical approach, Good Samaritan radiation oncologists have pioneered the use of a novel non-invasive multiparametric MRI-guided radiation therapy technique on the Varian Edge™ to achieve excellent oncologic outcomes while reducing radiation dose to the rectum and bladder. Our team has published data demonstrating high rates of PSA control, and reduced risk of rectal bleeding and late urinary toxicity in two recent peer-reviewed publications.

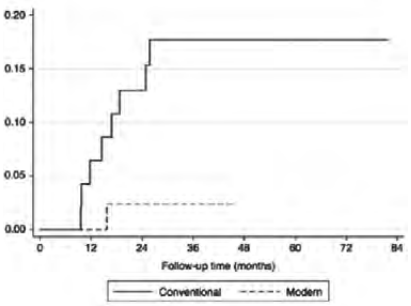
MRI-guided Radiation Therapy for Prostate Cancer

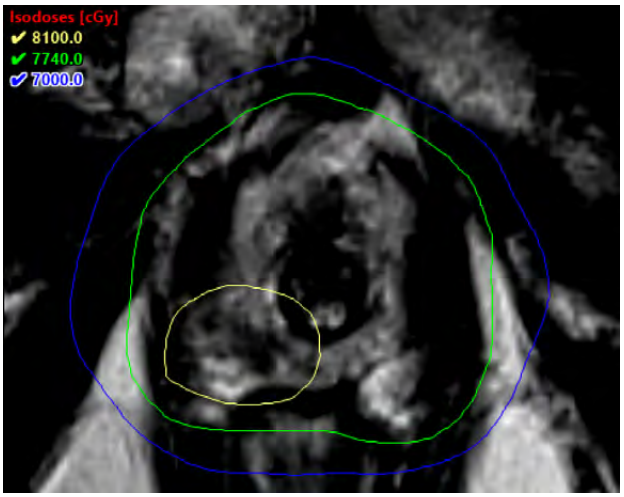
At Good Samaritan, multiparametric prostate MRI is routinely used to accurately target the entire prostate and boost any nodules within. Instead of delivering a uniform dose to the whole prostate as in the past, we can concentrate a higher radiation dose tumor seen on MRI while reducing dose to the remainder of surrounding tissue and organs. Patients are treated with state-of-the-art Varian Edge™ equipped with a robotic treatment table, conebeam CT, and high definition multileaf collimators to ensure accurate targeting of the prostate. Planning directives are systematically utilized to ensure that doses to the rectum, bladder, femoral heads, penile bulb, and bowel are limited to safe levels. These safety elements resulted in a 44% reduction in volume of rectum receiving 70 Gy and a 57% decrease in volume of bladder receiving 70 Gy.

We showed that the new MRI-guided radiation technique developed at Good Samaritan reduced the risk of rectal bleeding to 3% compared to 13% when patients were treated with conventional IMRT that are still utilized at many other centers. More than 95% of patients treated with the newer technique had their PSA levels successfully controlled.

Probability of late grade ≥ 2 rectal bleeding

Reduced risk with the novel prostate IMRT approach developed at Good Samaritan





Radiation dose distribution by multiparametric prostate MRI. Reproduced with permission from Kao, Mol Clin Onc 7:252, 2017

Mol Clin Oncol. 2017 Aug;7(2):252-258. doi: 10.3892/mco.2017.1290. Epub 2017 Jun 8.

Effect of modern, high-quality prostate intensity-modulated radiation therapy on outcome: Evidence from a community radiation oncology program.

Kao J[1], Zucker A[1], Timmins J[1], Taramangalam S[1], Pettit J[1], Woodall AJ[2], Loizides E[2], Wong AT[1].

Author information

1 Department of Radiation Oncology, Good Samaritan Hospital

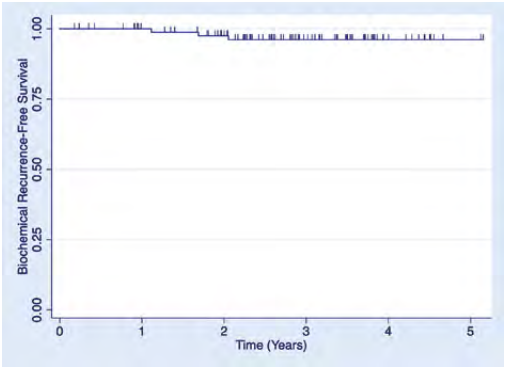
2 Division of Urology, Good Samaritan Hospital

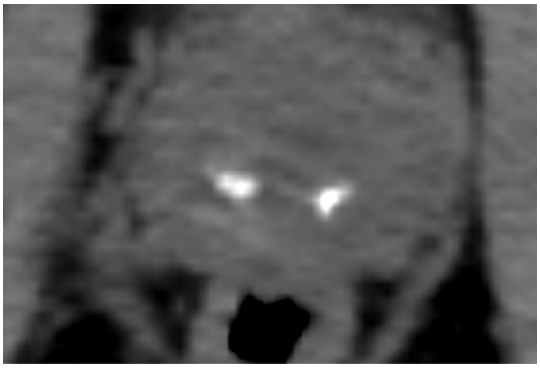
Non-Invasive Image Guided Radiation Therapy Using Prostatic Calcifications

Good Samaritan has developed a highly-effective, non-invasive image-guided radiation therapy technique using natural prostatic calcifications. Promising clinical outcomes using this novel approach were recently published in the *British Journal of Radiology.*

Five year biochemical control for patients with prostate cancer

Treated at Good Samaritan Hospital from 2015 to 2017





Prostatic calcifications are readily visualized on cone beam CT for the majority of patients treated at Good Samaritan and can be used as natural fiducials for non-invasive MRI-guided IMRT. Reproduced with permission from Kao, Br J Radiol 93: 2020 0571, 2020

Br J Radiol. 2020 Aug 26;20200571. doi: 10.1259/bjr.20200571. Online ahead of print.

Multiparametric prostate MRI-based intensity-modulated radiation therapy guided by prostatic calcifications

Johnny Kao [1], Pawel Karwowski [1], Jeffrey Pettit [1], Austin Kevin Barney [1], Christopher Atalla [2]

Affiliations

1 Department of Radiation Oncology, Good Samaritan Hospital
2 Division of Urology, Good Samaritan Hospital

RapidPlan Knowledge-Based Planning

Good Samaritan has been at the forefront of high quality radiation planning for many years. RapidPlan Knowledge-Based Planning offers machine learning capabilities to further improve treatment plan quality and consistency, particularly for prostate cancer.

"Instead of delivering a uniform dose to the whole prostate as in the past, we can concentrate a higher radiation dose tumor seen on MRI while reducing dose to the remainder of surrounding tissue and organs."

Johnny Kao, MD, Chair of Radiation Oncology

PSA Screening Controversy and Active Surveillance

PSA screening was unfairly criticized many years ago because it led to overtreatment of slow growing tumors. Although not perfect, PSA testing clearly reduces the risk of prostate cancer death. Men older than 50 years should speak to their physicians about getting the PSA test.

PSA testing has become increasingly useful. Good Samaritan urologists and radiation oncologists are highly selective, only treating aggressive prostate cancers. More men with non-aggressive forms of prostate cancer are routinely being offered close surveillance instead of immediate treatment to reduce side effects. Low risk patients typically have Gleason 6 prostate cancer with a PSA of less than 10 and a normal digital rectal examination. Multiparametric prostate MRI can provide further assurance that an aggressive tumor is not being missed. For low risk prostate cancer, treatment is not necessary unless the tumor progresses on repeat biopsy, there is a rapid PSA increase or changes on physical examination.

Some Straight Talk About Prostate Cancer

1. Some patients with prostate cancer—particularly older men—with less aggressive tumors can be followed with active surveillance. In other words, surgery or radiation therapy can safely be deferred until the need arises.

2. Many experts recommend surgery for younger patients. Other experts recommend radiation therapy due to a lower risk of urinary incontinence and impotence. This is a complex and controversial subject. Get a second opinion.

3. It was hoped that proton beam therapy would achieve better results with less toxicity than other forms of radiation therapy. This has not proved to be the case.

4. Cyberknife,™ a heavily marketed form of stereotactlc radiation therapy, is a five-day course of treatment. This can also be done with other manufacturers' equipment, including the Varian Edge™ and the Varian TrueBeam.®

5. One specific shortcoming of the Cyberknife™ approach is that it cannot "see" the prostate. To make up for this deficiency, metallic markers are implanted into the prostate transrectally. With newer radiation therapy machines, including the Varian Edge™ and the Varian TrueBeam,® the implantation of metallic markers is not necessary.

6. All treatments for prostate cancer entail the risk of side effects.

Minimally Invasive Robotic and Laparoscopic Nephrectomy for Kidney Cancer

Kidney surgeries have traditionally been performed using an open approach. Urologists at Good Samaritan have successfully utilized a minimally invasive laparoscopic nephrectomy. Since 2019, a robotic nephrectomy program was developed under the leadership of Christopher Atalla, MD.

While total nephrectomy is still necessary for large or central kidney tumors, robotic-assisted partial nephrectomy has become the gold standard for the treatment of small, peripheral renal masses. Robotic partial nephrectomy allows the surgeon to only remove the cancerous part of the kidney and leave the remaining healthy kidney intact. This leads to superior preservation of renal function compared to removing an entire kidney with equivalent cancer outcomes compared to radical nephrectomy.

As with other robotic-assisted surgeries this operation requires a highly skilled and experienced surgeon to perform. Dr. Atalla comes to us with extensive experience in this specialized operation. He uses intraoperative ultrasound guidance to identify the exact edges of the tumor to ensure that all the cancer is removed at the time of surgery. When performed robotically, patients will experience significantly less post-operative pain, less blood loss and significantly shorter length of stay.

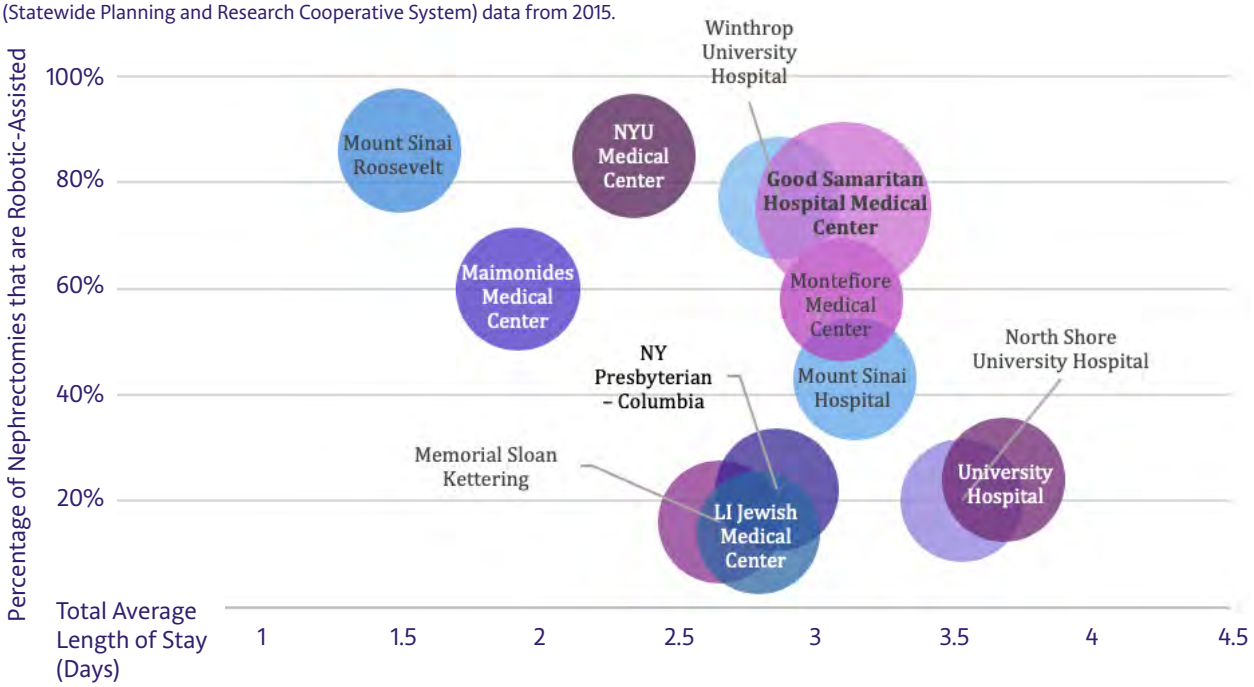
2019 – 2020 Quality Metrics for Surgical Care and Patient Outcomes for Partial and Radical Nephrectomy

Compared to published 2016 NSQIP benchmarks for nephrectomy

Intervention	% Occurrence	% Expected
Pneumonia	0%	1%
Readmission	6%	6%
Renal failure	0%	1%
Return to the OR	0%	2%
Sepsis	6%	1%
Surgical site infections	0%	2%
Unplanned intubation	0%	1%

Radical Nephrectomies in Southern New York State (Robotic vs. Non-Robotic)

This data is a comparison of Good Samaritan data from 2019 – 2020 compared to the most recently published New York State SPARCS (Statewide Planning and Research Cooperative System) data from 2015.



Gynecology

As the primary hub for gynecological oncologic care for Catholic Health, the Cancer Institute at Good Samaritan provides comprehensive services in the management of cancerous and precancerous diseases of the uterus, ovaries, fallopian tubes, cervix, vagina, and vulva.

Our multidisciplinary team includes experts in gynecologic oncology, minimally-invasive gynecologic surgery, urogynecology, medical oncology, radiation oncology, palliative care, genetics, and nutrition. At Good Samaritan Hospital, most gynecologic surgeries for cancer are performed with laparoscopic or robotic-assistance. Some of the outstanding features of our program are highlighted below.

da Vinci® Robotic-assisted Surgery System

Good Samaritan was the first hospital on the south shore of Suffolk County to offer da Vinci® Robotic-assisted surgery, providing the very highest level of patient safety and quality of care. The hospital's skilled surgeons use da Vinci® to improve clinical outcomes, decrease recovery time, and reduce risks and complications. This advanced, minimally invasive technology offers superior results in hysterectomies and other gynecologic surgeries. Patients are able to return to normal activities faster than with conventional surgery. da Vinci® provides excellent patient satisfaction and a proven track record of over 150,000 hysterectomies annually. Using da Vinci®, complex procedures are often performed through just a few tiny incisions and with less pain.

Infusion Center

Women who require chemotherapy or immunotherapy for the management of their gynecologic cancer receive treatment at our state-the-art infusion suite located within the Cancer Institute. This 22-bay unit is fully staffed by oncology certified nurses and nurse practitioners. Medications are mixed onsite within a dedicated pharmacy providing a quicker, more streamlined patient experience.

"Good Samaritan's commitment to women's health includes some of the region's best oncologic care."

Johnny Kao, MD

Radiation Therapy

Our team provides a full array of radiation treatment technologies including high dose-rate brachytherapy, intensity modulated radiation therapy, and extended field radiation therapy. We are excited to offer image-guided brachytherapy, which incorporates the use of advanced CT and MRI modalities to maximize tumor coverage and minimize exposure to nearby healthy tissues.

Minimally Invasive Gynecology Surgery Fellowship

As a teaching hospital, Good Samaritan proudly sponsors an ACGME-accredited residency program in obstetrics/gynecology and an AAGL-accredited fellowship program in minimally invasive gynecologic surgery. As one of the only community hospital-based ACGME-accredited gynecologic oncology fellowship training programs, Good Samaritan graduated a gynecology oncology fellow in 2020.

Residents and fellows work alongside our subspecialist experts to gain competency in managing precancerous and cancerous conditions. Our monthly multidisciplinary tumor board conference provides an educational forum for retrospective and prospective discussions of challenging cases.

Cervical Cancer

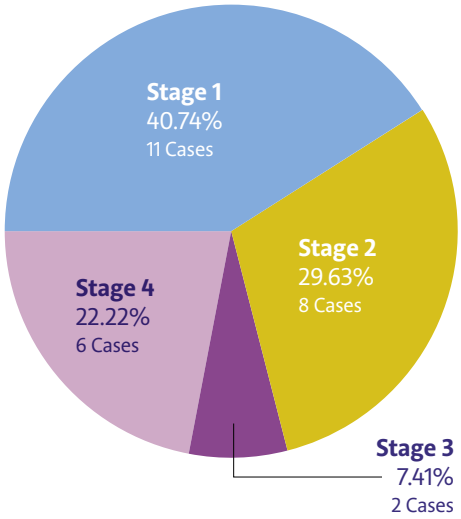
Approximately 14,000 women are diagnosed with cervical cancer each year in the United States. The human papilloma virus (HPV) is implicated in more than 99% of cases. Fortunately, the incidence of cervical cancer is declining due to the development of effective vaccination against HPV. Furthermore, improvements in screening and treatment of the disease have led to declining mortality rates.

Our team provides a full array of radiation treatment technologies including high dose-rate brachytherapy, intensity modulated radiation therapy, and extended field radiation therapy. We are excited to offer image-guided brachytherapy, which incorporates the use of advanced CT and MRI modalities to maximize tumor coverage and minimize exposure to nearby healthy tissues. Through a close collaboration with gynecologic oncology, our team is focused on delivering the best possible outcomes for our patients.

"Fortunately, the incidence of cervical cancer is declining due to the development of effective vaccination against HPV."

Johnny Kao, MD

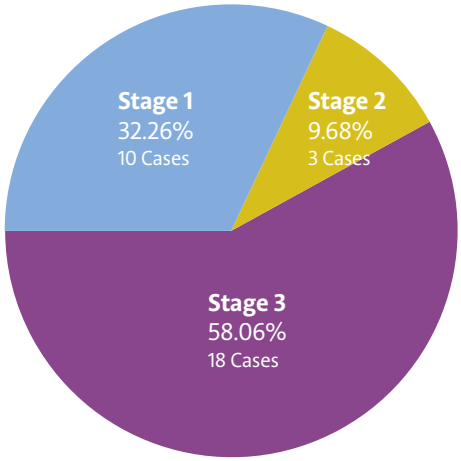
Summary AJCC Stage Group Cervical Cancer 2018 and 2019



Ovarian Cancer

Ovarian cancer is the second most common type of gynecologic cancer and is the leading cause of death due to gynecologic cancer. Symptoms of the disease are nonspecific and can include pain, bloating, and early satiety. Treatment typically includes maximal safe surgery often followed by chemotherapy.

Summary AJCC Stage Group Ovarian Cancer 2018 and 2019



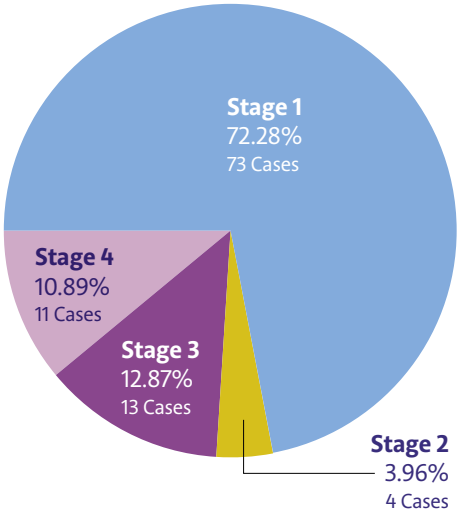
Research

Good Samaritan contributed to three multi-institutional studies that defined the optimal treatment combination for advanced and unfavorable forms of endometrial cancer. Optimal surgery followed by chemotherapy, radiation therapy, and further chemotherapy, achieved more promising outcomes than alternative strategies. First author Jennifer McEachron, MD, is a proud graduate of the Obstetrics and Gynecology Residency Program at Good Samaritan and is currently a fellow of Gynecologic Oncology at SUNY Downstate Medical Center. Dr. McEachron plans to return to Catholic Health as an attending gynecologic oncologist in the summer of 2021.

Endometrial and Uterine Cancer

Cancer of the uterus is the most common gynecologic malignancy in the United States with over 65,000 new cases per year. Most cases are diagnosed at an early stage where simple removal of the uterus can be curative. At Good Samaritan, most surgical treatments for endometrial cancer are performed with minimally invasive techniques with the da Vinci® Robotic-assisted Surgical System leading to fewer complications and faster recovery periods. Patients with more advanced stage disease may require a combined modality approach consisting of surgery, chemotherapy, and radiation.

Summary AJCC Stage Group Endometrium Uterine Cancer 2018 and 2019



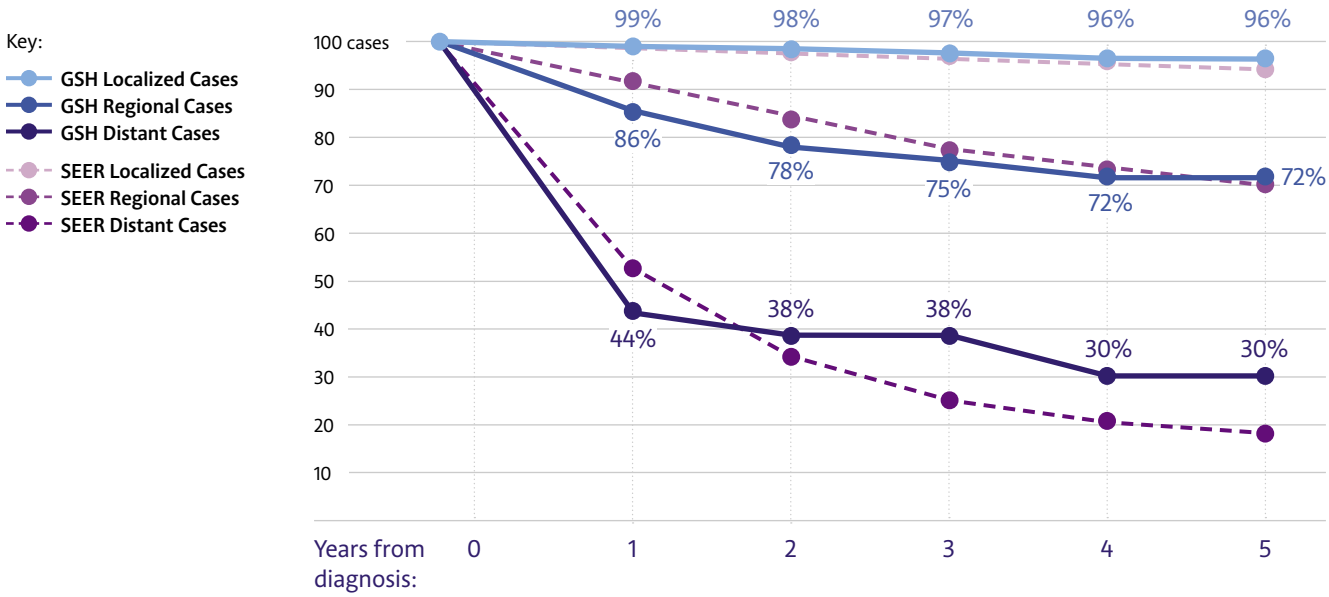
2019 – 2020 Quality Metrics for Surgical Care and Patient Outcomes for Hysterectomy for Endometrial Cancer

Data from hysterectomy for endometrial cancer from September 2019 to February 2020 compared to published 2016 NSQIP benchmarks for hysterectomy/myomectomy.

Intervention	% Occurrence	% Expected
Surgical site infections	0%	5%
Return to the operating room	0%	1%
Urinary tract infections	6%	4%
Readmission	0%	1%

Five-Year Endometrial Cancer Specific Survival by Stage, Cases Diagnosed (2008 – 16)

Comparing 5-year cancer-specific survival by extent of disease for Good Samaritan vs. national averages (SEER)



Head, Neck and Thyroid

Cancers of the head, neck, and thyroid are a heterogeneous group of diseases with varying behaviors; thus, diagnosis and management are complex endeavors best handled by an experienced multidisciplinary team.

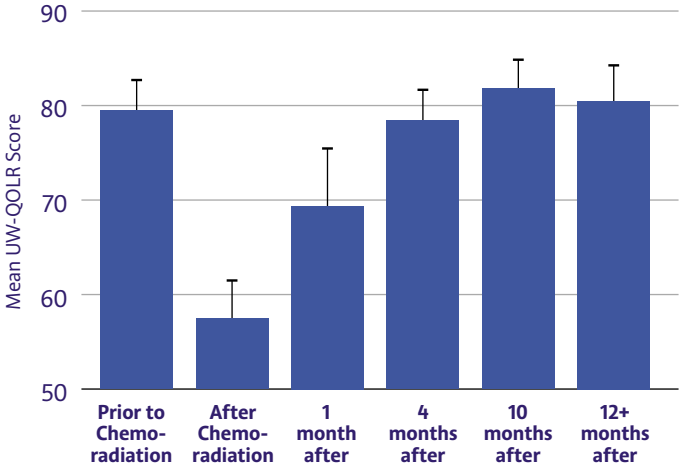
The Head, Neck, and Thyroid Center is led by Arnbjorn Toset, MD, a fellowship-trained head and neck surgeon, supported by a skilled and knowledgeable team of experts including plastic surgeons, medical oncologists, radiation oncologists, nutritionists, and speech and language pathologists. By individualizing patient care, our treatment team is able to achieve the best possible oncologic and functional results for each and every patient. Good Samaritan is the only hospital within the Catholic Health system equipped with the comprehensive services needed to optimally manage these cancers.

Arnbjorn Toset, MD
Head and Neck Surgery

When radiation therapy is needed, improvements in treatment delivery have permitted greater precision and accuracy than ever before. Intensity modulated radiation therapy (IMRT) can avoid delivering high radiation doses to nearby organs; thus substantially reducing the risk of dry mouth. With modern radiation therapy, less than 5% of patients develop osteonecrosis or require a long-term feeding tube. On average, patients recover their baseline quality of life within four months. At Good Samaritan, patients are treated on the state-of-the-art Varian TrueBeam™ linear accelerator equipped with a six-degree-of-freedom robotic couch and cone beam CT imaging. PET, MRI, and CT images are imported into the radiation planning software to assist with accurate delineation of the tumor. Physicists are directed to limit radiation dose to the mandible, salivary glands, and other adjacent critical structures while administering a curative dose to the tumor.

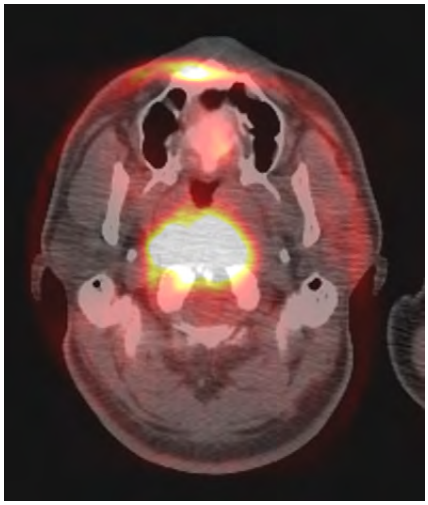
Recovery of patient reported function after chemoradiation

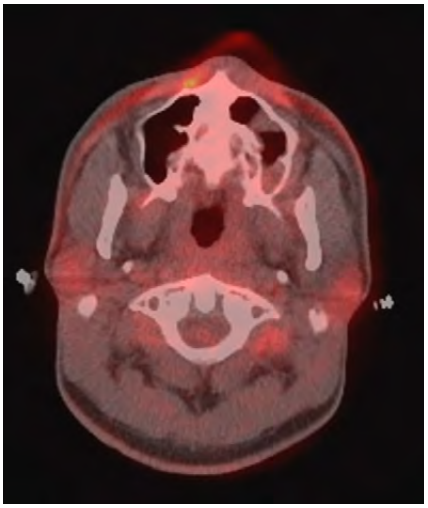
Using the validated University of Washington Quality of Life scores (reproduced with permission from Kao, Cancer 117: 318, 2011)



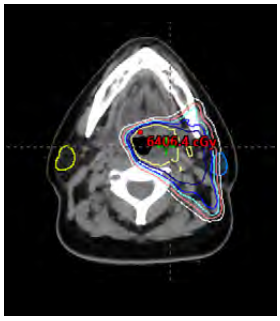
"At Good Samaritan, patients are treated on the state-of-the-art Varian TrueBeam™ linear accelerator equipped with a six-degree-of-freedom robotic couch and cone beam CT imaging."

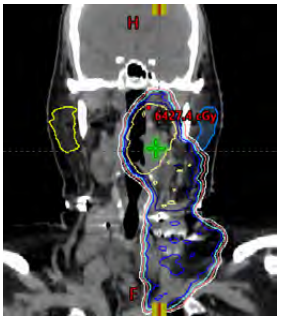
Johnny Kao, MD





This patient with an advanced nasopharyngeal cancer was treated with concurrent chemotherapy and intensity-modulated radiation therapy (IMRT). His pre-treatment PET/CT (a) demonstrated a large FDG-avid tumor in the nasoparhynx. His IMRT plan (b) concentrated the high radiation dose on the tumor and areas of subclinical spread while sparing the nearby critical structures including the brain, spinal cord, parotid glands, and oral cavity. His post-treatment PET/CT at 12 weeks (c) shows a complete response.





Clinical Trial > Cancer. 2011 Jan 15;117(2):318-26.
doi: 10.1002/cncr.25374. Epub 2010 Sep 9.

Phase 2 trial of concurrent 5-fluorouracil, hydroxyurea, cetuximab, and hyperfractionated intensity-modulated radiation therapy for locally advanced head and neck cancer

Johnny Kao [1], Eric M Genden, Vishal Gupta, Edelweiss L Policarpio, Ryan J Burri, Michael Rivera, Vivek Gurudutt, Peter M Som, Marita Teng, Stuart H Packer

This patient with a left-sided tonsillar cancer received postoperative IMRT. Radiation treatment was delivered to the left tonsillar bed and cervical lymph nodes while sparing the right neck.

Good Samaritan was the first hospital in Suffolk County to launch TrueBeam™ radiotherapy in 2014.

Systemic Therapy for Advanced Melanomas

The majority of skin cancers are found in the sun-exposed regions of the head and neck. The more common basal and squamous cell skin cancers are not life-threatening and are well-managed with Moh's surgery in the dermatology office and less commonly with radiation therapy.

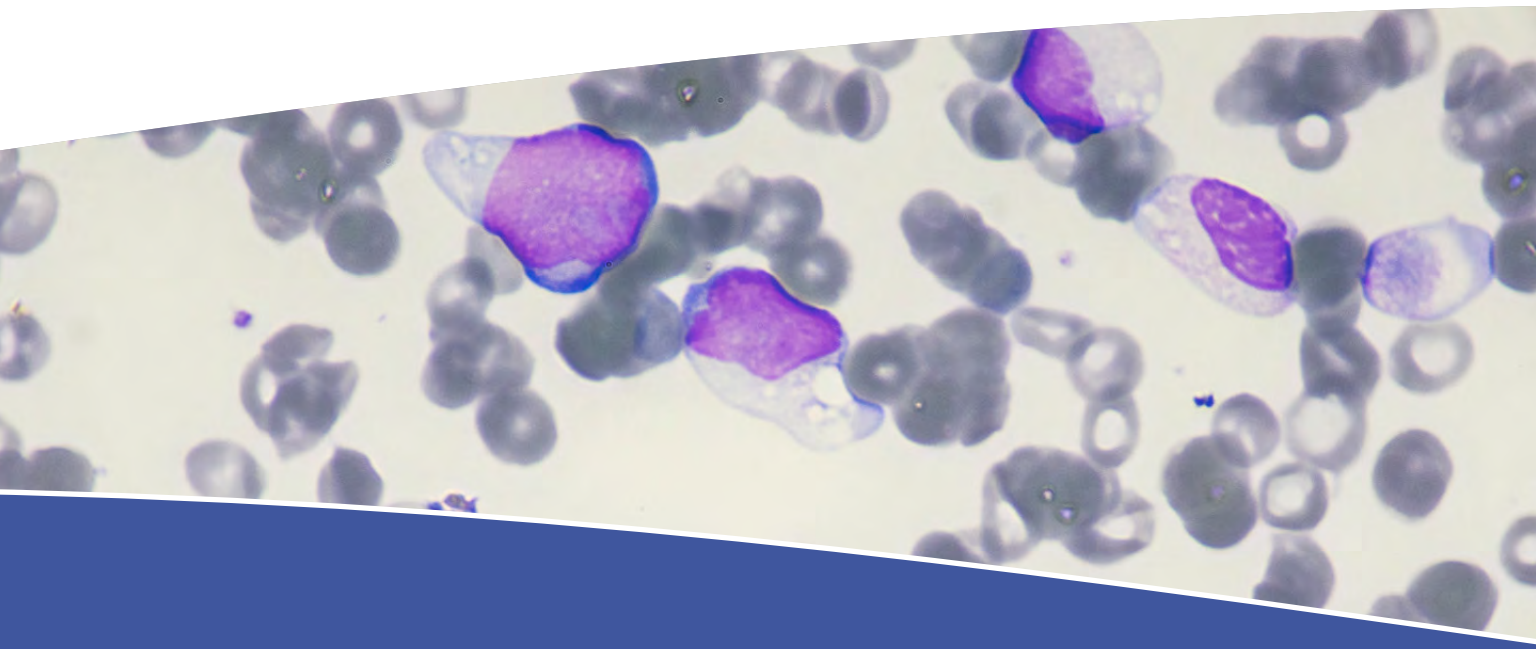
By contrast, melanomas can exhibit aggressive behavior. Localized melanomas require wide surgical margins, often with sentinel lymph node sampling under the care of a highly qualified surgeon. There have been significant advances in the treatment of metastatic melanoma primarily with immunotherapy and also with medications that block the BRAF protein. Particularly through combination therapy with PD-L1 inhibitors and CTLA4 inhibitors, some patients with metastatic melanoma can now achieve durable remissions. These treatments are routinely available at the Cancer Institute.

"There have been significant advances in the treatment of metastatic melanoma primarily with immunotherapy and also with medications that block the BRAF protein."

Arnbjorn Toset, MD

Hematologic Malignancies

Cancer Institute medical oncologists and hematologists are experts at treating a variety of benign and malignant hematologic conditions ranging from anemia and clotting disorders to hematologic malignancies. The most commonly encountered hematologic malignancies include non-Hodgkin lymphoma, multiple myeloma, and chronic lymphocytic leukemia.



Patients with hematological malignancies have benefited from recent advances in biologically targeted drug development. Chemotherapy in combination with the CD20 antibody Rituximab has improved outcomes for many patients with B-cell lymphoma. New combinations of drugs, including Velcade, Revlimid, and newer agents have improved long-term survival for multiple myeloma.

While many patients with chronic lymphocytic leukemia are initially observed, new agents including Ibrutinib have made treatment safer and more effective. For chronic myeloid leukemia, Gleevec and other tyrosine kinase inhibitors have dramatically improved prognosis and outcome.

Finally, select patients benefit from high dose chemotherapy with bone marrow transplantation and CAR-T therapy. For these patients, The Cancer Institute at Good Samaritan oncologists partner with local bone marrow transplantation centers.

"Recent advances in chemotherapy and other treatments have improved long-term survival rates."

John Loscalazo, MD
Chief of Hematology Oncology

Multiple Myeloma Five-Year Cause-Specific Survival by Stage, 2008 – 2016

Comparing 5-year cancer-specific survival for Good Samaritan vs. national averages (SEER)

Source	1 Year from Diagnosis	2 Years	3 Years	4 Years	5 Years
GSH	84%	76%	70%	70%	63%
SEER	84%	76%	70%	63%	58%

Thoracic

At the Cancer Institute at Good Samaritan, our multidisciplinary lung cancer experts work together with a synergy that comes from dedicating their time on a single goal—screening, early diagnosis and treating lung cancer patients.

We use a full range of advanced diagnostics and therapeutics and are dedicated to offering innovative, leading-edge treatment options, including minimally invasive surgical options, radiotherapy, immunotherapy, chemotherapy and targeted therapies and clinical trials.

Our focus on lung cancer enables the oncology team to stay up to date on new and emerging treatments and technologies, helping you make informed decisions about the options available to treat the disease and manage its side effects.

Clinical trials are an essential testing ground for measuring the effectiveness of drugs and other treatments. As part of our commitment to providing state-of-the-art lung cancer treatment options, we offer qualifying patients an opportunity to participate in ongoing clinical trials at our institute.

At Good Samaritan, pulmonology medicine services are provided by Amityville Pulmonology, a team of six passionate and experienced pulmonologists, led by Sam Davidoff, MD. Low dose CT screening has shown to improve all case mortality for patients 55 to 77 years old with significant smoking history. Edison Gavilanes, MD, leads the Good Samaritan lung cancer screening program.

Sharad Chandrika, MD, a John Hopkins trained interventional pulmonologist, leads the interventional pulmonology program. Dr. Chandrika provides our community with access to a complete range of advanced diagnostic and therapeutic procedures including navigational bronchoscopy, endobronchial ultrasound, bronchoscopic ablative procedures with or without stent placement for airway obstruction, endobronchial valve placement, medical thoracoscopy, and indwelling pleural catheter placement.

Led by Greg Brevetti, MD, and Mark Genovesi, MD, the team at Interboro Surgical Associates includes board-certified thoracic surgeons with extensive experience with thoracoscopic and robotic lung surgery. Both Dr. Brevetti and Dr. Genovesi are clinical assistant professors at NYU Grossman School of Medicine and bring academic level technical experience to the Good Samaritan lung cancer program.

"Lung cancer death rates declined over 30% in Suffolk County since 1991. While decreased smoking rates are the most important factor, there have been major advances in diagnosis and treatment."

Ashish Sangal, MD

Lung Team Providers

Ashish Sangal, MD
Thoracic

Sharad Chandrika, MD
Interventional Pulmonology

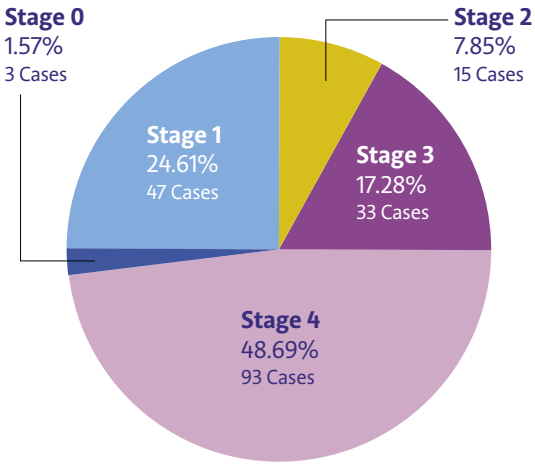
Johnny Kao, MD
Radiation Oncology

John Loscalzo, MD
Medical Oncology

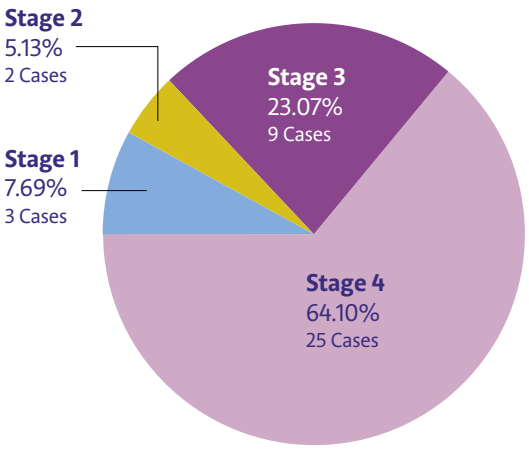
For patients requiring non-surgical therapy, recent research performed at Good Samaritan demonstrated that use of advanced techniques, including use of PET scans for accurate radiation planning, 4-D CT simulation to account for breathing motion, and use of the Varian Edge™ linear accelerator to avoid the esophagus, heart, and opposite lung, nearly doubled survival for locally advanced lung cancers treated with chemotherapy and radiation compared to standard treatment. Stereotactic body radiotherapy on the Varian Edge™ is a highly effective and well-tolerated option for patients with inoperable stage I lung cancer.

Increasingly, patients with advanced lung cancers are benefiting from immunotherapy that works by harnessing the immune system to fight cancer from within. Ashish Saghal, MD, Director of Thoracic Oncology, leads the cancer clinical trials program at the Cancer Institute at Good Samaritan.

Summary AJCC Stage Group Non-Small Cell Lung Cancer



Summary AJCC Stage Group Small Cell Lung Cancer



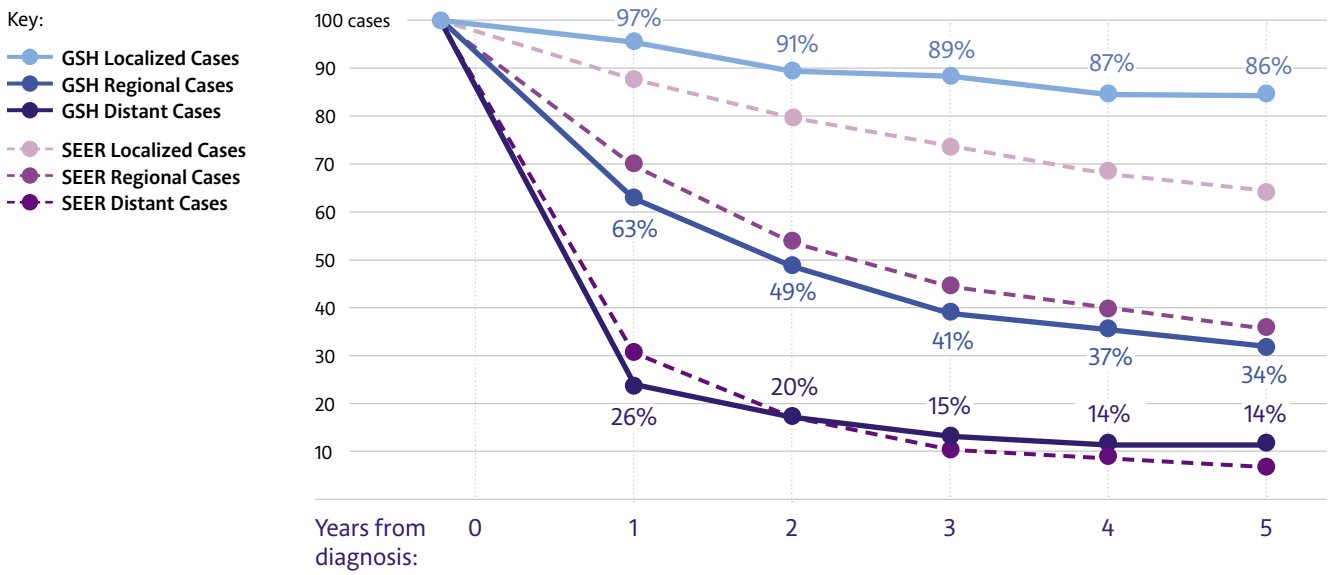
2019 – 2020 Quality Metrics for Surgical Care and Patient Outcomes for Thoracic Surgery

Compared to 2016 NSQIP benchmarks for thoracic surgery.

Intervention	% Occurrence	% Expected
Death	0%	1%
Pneumonia	8%	4%
Return to the OR	4%	4%
Unplanned intubation	4%	3%
Venous thromboembolism	4%	1%

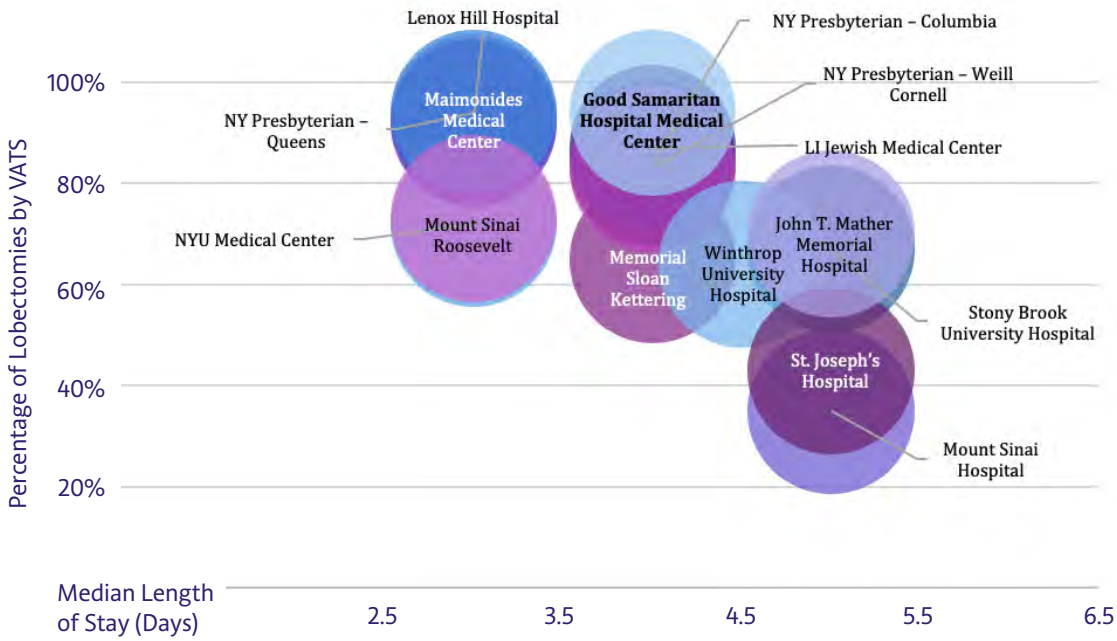
Five Year Non-Small Cell Lung Cancer Specific Survival, Cases Diagnosed (2008 – 2016)

Comparing 5-year cancer-specific survival by extent of disease for Good Samaritan vs. national averages (SEER)



Lung Lobectomies in Southern New York State (VATS vs. open)

This data is a comparison of Good Samaritan data from 2019 – 2020 compared to the most recently published New York State SPARCS (Statewide Planning and Research Cooperative System) data from 2015.



Lung Cancer Screening Program

Lung cancer remains the leading cause of cancer mortality in the United States. Former or current long-term smokers may be eligible to undergo lung cancer screening with low-dose CT scans. This approach has been demonstrated to reduce lung cancer mortality by catching tumors while still in early stage and highly treatable. These low dose CT scans are read carefully by our highly experienced team of subspecialty-trained diagnostic radiologists. Our lung screening nurse navigators help direct patients through the screening process and coordinate further testing, if needed.

Navigational Bronchoscopy

For patients with suspicious lung nodules or masses, a tissue biopsy is needed to establish a diagnosis. Not all lesions are located in areas accessible by traditional flexible bronchoscopy or transthoracic needle biopsy. In these instances, our specialists may employ the Medtronic SuperDimension™ Navigation System to perform electromagnetic navigational bronchoscopy. This advanced technology enables our team to biopsy lesions located in difficult-to-reach areas of the lung in a minimally-invasive fashion, permitting faster time to diagnosis while minimizing the risk of adverse events.

Multidisciplinary Management

Our team is comprised of specialists from pulmonology, interventional pulmonology, thoracic surgery, medical and radiation, pathology, and radiology. During our thoracic oncology tumor board conferences, our experts meet to prospectively discuss cases and formulate personalized treatment plans.

Radiation Therapy for Lung Cancer

Stereotactic Ablative Radiation Therapy (SABR) for Inoperable Stage I Lung Cancer

SABR is a highly advanced form of radiation therapy that delivers high doses of radiation to tumors in a few short sessions with limited side effects. SABR can be utilized to treat early stage lung cancer patients who are medically inoperable. At Good Samaritan, SABR is delivered using the state-of-the art Varian Edge™ radiosurgical platform with a six-dimensional robotic treatment couch, high definition micro-multileaf collimators, and onboard kV cone beam CT for image guidance.

Esophagus, Heart, and Contralateral Lung-Sparing IMRT for Locally Advanced Lung Cancer

At Good Samaritan, we developed a new approach to improving radiation treatment for advanced lung cancer that we call the Good Sam Quality System. PET is used to target the lung tumor and positive lymph nodes while sparing the normal esophagus, opposite lung, heart, and paying close attention to avoid healthy organs using high-precision radiation that accounts for breathing motion. We compared the outcomes of advanced lung cancer patients treated before and after implementation of the Good Sam Quality System and showed tremendous results with improved effectiveness, and decreased lung and esophageal toxicity. Compared to older techniques still used at other centers, the Good Sam Quality System results in a significant reduction in weight loss, rate of hospitalization for lung inflammation decreased by 70%, and most importantly, higher rates of long-term survival. Results were published in the peer reviewed journal Frontiers in Oncology

Front Oncol. 2015 Jun 23;5:127. doi: 10.3389/fonc.2015.00127. eCollection 2015.

Esophagus and Contralateral Lung-Sparing IMRT for Locally Advanced Lung Cancer in the Community Hospital Setting.

Kao J[1], Pettit J[1], Zahid S[1], Gold KD[2], Palatt T[3].

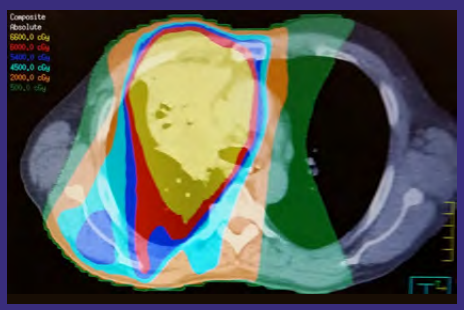
1 Department of Radiation Oncology, Good Samaritan Hospital Medical Center , West Islip, NY , USA.
2 Division of Hematology and Medical Oncology, Good Samaritan Hospital Medical Center , West Islip, NY , USA.
3 Department of Surgery, Good Samaritan Hospital Medical Center , West Islip, NY , USA.

Surgical Treatment

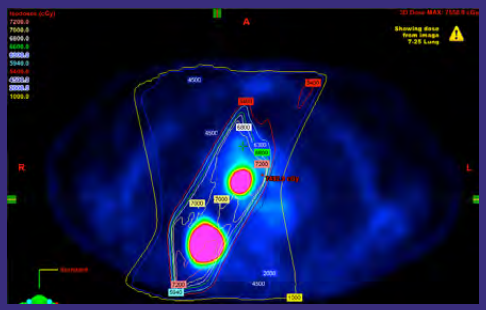
For patients who are candidates for surgical treatment of lung cancer, our board-certified thoracic surgeons utilize the latest, minimally-invasive techniques, including video-assisted thoracic surgery (VATS). Types of surgical treatment may include pneumonectomy, lobectomy, or segmentectomy. During a VATS procedure, surgeons are able to carefully visualize and remove tumors in the lung through several small incisions rather than one large one. Through these techniques, patients experience fewer side effects and have shorter recovery times. Post-op, patients recover while monitored in our beautiful 16-bed surgical intensive care unit staffed by highly skilled intensivists, nurses, and respiratory therapists.

Systemic Treatment

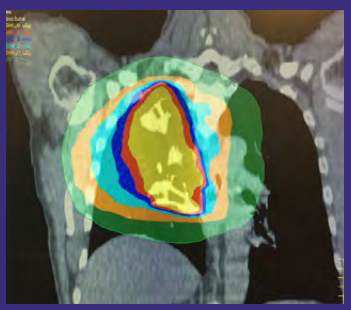
Patients with advanced stage lung cancers require multimodality care, including systemic therapies. Traditional chemotherapy remains an important backbone in the management of many advanced lung cancers. Advances in oncology research have led to the development of other effective therapies that have improved survival. Cancer genome sequencing has identified certain driver mutations in lung cancer that can be specifically targeted with drug therapy leading to high response rates and fewer side effects. Additionally, immunotherapy, which activates the body's own immune system to fight cancerous cells, has proven to be effective against both non-small cell and small cell types of lung cancer. Our expert medical oncologists are able to offer all these types of therapies at our Cancer Institute.



Radiation dose distribution superimposed on PET/CT for a patient with stage IIIA lung cancer treated with concurrent chemoradiation with curative intent sparing the esophagus and contralateral lung.



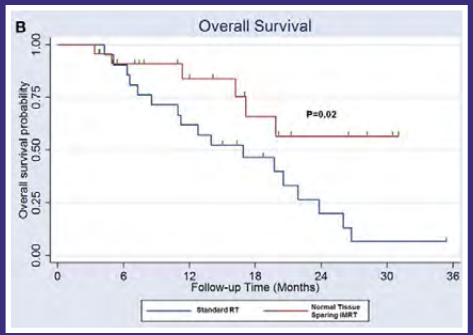
PET/CT-guided thoracic radiotherapy to achieve optimal sparing of the contralateral lung, heart, esophagus, and spinal cord.



Radiation dose distribution for a patient with stage IIIA lung cancer treated with concurrent chemoradiation with curative intent.

Normal Structures: (check all to be contoured)	Priority	Parameter	Goal
	1 or	Bio-NTCP (□□□=2.5) [Med Phys Consult]	<15% or
Lungs - GTVs	1 or	Mean	<15.0 Gy or
	1 or	V20.0 Gy	<35% or
	1 or	V5.0 Gy*	<65% or
Esophagus*	1 or	Max (0.1 cc)	<105% Rx or
	1 or	Mean	<34 Gy or
Heart/Pericardium	1 or	Max (0.1 cc)	<105% Rx or
	1 or	Mean	<30 Gy or
	1 or	V30.0 Gy	<50 % or
	1 or	V40.0 Gy	<35 % or
Spinal Canal	1 or	Max (0.1 cc)	<45.0 Gy or
Spinal Canal + 5 mm	1 or	Max (0.1 cc)	<50.0 Gy or
Brachial Plexus	1 or	Max (0.1 cc)	<60.0 Gy or

Implementation of checklists to ensure optimal sparing of organs at risk for curative-intent radiotherapy for locally advanced lung cancer.



Improved overall survival for patients treated with normal tissue sparing IMRT for locally advanced lung cancer treated at Good Samaritan Hospital compared to older techniques.

Reproduced with permission from Kao, Front Oncol 5:127, 2015

Research

Clinical Research Services

As a member of the Roswell Park Care Network and affiliate of the National Cancer Institute sponsored Alliance for Clinical Trials in Oncology, Good Samaritan participates in intervention studies that evaluates new cancer treatments, devices, diagnostic tools, and prevention strategies and their effect on patients. The Cancer Institute currently offers clinical trials developed by investigators at Alliance, Roswell Park Cancer Institute and Good Samaritan Hospital.

Clinical Cancer Research at Good Samaritan Hospital

Since 2012, the Department of Radiation Oncology has been active in research to improve outcomes for patients with cancer treated at Good Samaritan. This research has resulted in 14 peer-reviewed publications focused on advances in treating patients with prostate, breast, lung, and metastatic cancer. A special focus of research in the Department of Radiation Oncology is to develop advanced treatment techniques with superior outcomes that are often not available at competing facilities. An additional benefit of this research program is to meet accreditation requirements for the Committee on Cancer and the National Accreditation Program for Breast Centers. Amanda Zucker and Pawel Karwowski are local residents who worked in the Department of Radiation Oncology as clinical research assistants generously funded by the Good Samaritan Hospital Foundation. Both students gained valuable experience in clinical cancer research and subsequently gained acceptance into medical school.

Open or Pending Clinical Trials

A011401	Randomized Phase III Trial Evaluating the Role of Weight Loss in Adjuvant Treatment of Overweight and Obese Women with Early Breast Cancer.
AFT-25	Comparison of Operative to Monitoring and Endocrine Therapy (COMET) Trial for low Risk DCIS (COMET).
A221702	ARM: Axillary Reverse Mapping - A Prospective Trial to Study Rates of Lymphedema and Regional Recurrence after Sentinel Lymph Node Biopsy and Sentinel Lymph Node Biopsy followed by Axillary Lymph Node Dissection with and without Axillary Reverse Mapping.
NRG-BN007	A Randomized Phase II/III Open-Label Study of Ipilimumab and Nivolumab versus Temozolomide in Patients with Newly Diagnosed MGMT (Tumor O-6-Methylguanine DNA Methyltransferase) Unmethylated Glioblastoma.
A041702	A Randomized Phase III Study of Ibrutinib Plus Obinutuzumab versus Ibrutinib Plus Venetoclax and Obinutuzumab in Untreated Older Patients (>/= age 70 Years with Chronic Lymphocytic Leukemia (CLL).
EA9161	A Randomized Phase III Study of the addition of Venetoclax to Ibrutinib and Obinutuzumab versus Ibrutinib and Obinutuzumab in Untreated Younger Patients with Chronic Lymphocytic Leukemia (CLL).
A021502	Randomized Trial of Standard Chemotherapy Alone or Combined with Atezolizumab as Adjuvant Therapy for Patients with Stage III Colon Cancer and Deficient DNA Mismatch.
I-47217	Phase II Study of Targeting CD28 in Multiple Myeloma with Abatacept (CTLA4-Ig) to Overcome Resistance to Chemotherapy.
I-286816	A phase I/II Basket Trial of the EGF Vaccine CIMAvax in Combination with the Anti-PD1 Therapy in Patients with Advanced NSCLC or Squamous Head and Neck Cancer.
I-813720	Prospective Randomized Placebo-Controlled Trial of SurVaxM Plus Adjuvant Temozolomide for Newly Diagnosed Glioblastoma (SURVIVE).
GSH 18-002	Phase II Trial of Image-Guided Conformal Radiation Following Oncoplastic Surgery for Early Stage Breast Cancer.
I81318 ASTEROID	Assessing Single-Fraction SBRT versus Standard Palliative Radiation in Patients with Metastatic Disease.

Genetic Counseling

The Clinical Genetic Counseling department at Good Samaritan is well-established and robust, with board-certified genetic counselors servicing multiple specialties, including oncology. The program was largely built to service Good Samaritan's oncology population over a decade ago, with oncology being the leading service provision since the department's inception.

Good Samaritan has had the honor of receiving accreditations from the Commission on Cancer and the National Accreditation Program for Breast Centers (NAPBC). Therefore, the genetic counseling department works closely with the breast health team to ensure breast cancer patients are referred appropriately and timely and receive necessary genetic counseling and testing in accordance with accreditation standards.

Additionally, the genetic counseling department maintains a presence at the newly built Cancer Institute at Good Samaritan so that patients can receive comprehensive oncology services in one building. The genetic counseling department also ensures attendance at the majority of tumor board conferences as a way to identify those appropriate for a hereditary oncology genetic evaluation, as well as, to provide other care providers with education as to appropriate referral metrics in keeping with accreditation standards.

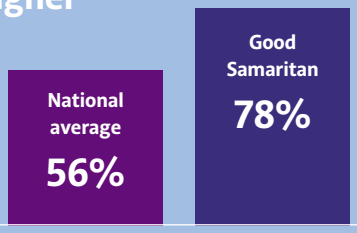
Standards and guidelines are updated periodically, therefore, it's important for the genetic counseling department to keep abreast of these changes in order to keep the rest of the oncology team updated and educated. In addition to working closely with the breast health team and other oncology providers at Good Samaritan, the genetic counseling department also has successfully established integral relationships with community providers that drive patients to seek care at our institution. The genetic counseling department continues to grow beyond its initial goal to secure its foothold in the community and ensure quality service for all patients and providers.

Nursing

At the heart of Good Samaritan are 932 registered nurses with over 40% having subspecialty certification.

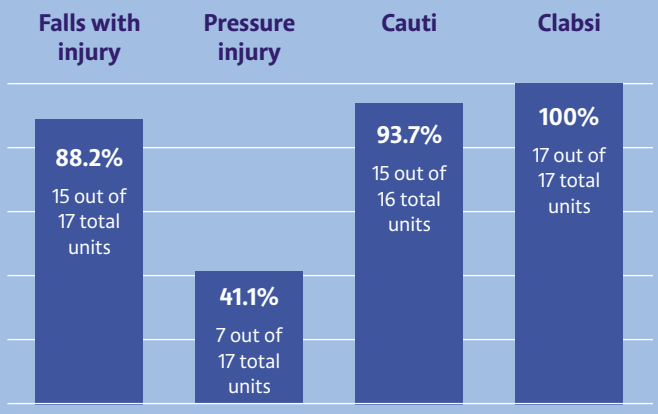
From our 2020 Magnet® Recognition Program submission, 59% of nursing units outperformed the National Database for Nursing Quality Indicators in the domains of Nursing Participation in Hospital Affairs, RN-to-RN Interaction, and Autonomy and Professional Development Access. Nursing tracks several nurse-sensitive indicators and patient satisfaction scores to measure performance outcomes compared to national benchmarks. The following graphs represent a summary of data reported to Magnet®. A majority of units outperform National Database Nurse Quality Indicator benchmarks for three of four key indicators. Likewise, over 70% of inpatient units outperform in the four patient satisfaction domains as reported by Press Ganey.

RN's with BSN Degree or Higher

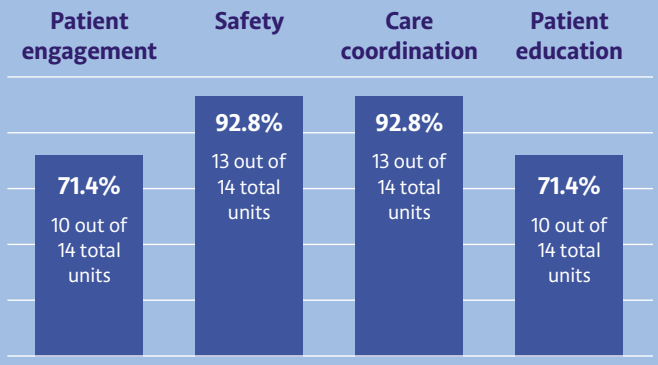


National average as reported by the American Association of the Colleges of Nursing

GSH Nurse-Sensitive Indicators Percentage of Units Outperforming



GSH Patient Satisfaction Percentage of Units Outperforming



Nutrition

Oncology Nutrition Services

The Cancer Institute at Good Samaritan offers a comprehensive nutrition service to all patients throughout their cancer care continuum. Our program recognizes the importance of optimal nutrition in cancer prevention, management of treatment side-effects, and long-term survivorship. Good nutrition is fundamental to meeting increased nutritional demands and maximizing the patient's ability to tolerate their complete treatment plan. The nutritional requirements of patients vary during different phases and our specialist oncology-certified dietitian tailors advice to the patient's individual needs at each stage.

Newly Diagnosed Patients

Following a cancer diagnosis, patients benefit from a detailed assessment of their nutritional status to identify areas of potential improvement prior to treatment. The dietitian evaluates current diet, reviews weight changes, delivers nutrition education, and makes individualized recommendations. Nutrition advice is also provided for other medical conditions, such as diabetes. For patients with a known treatment plan, the dietitian helps to prepare the patient by discussing potential side-effects which may affect nutritional status and giving practical suggestions for mitigation.

Patients Undergoing Cancer Treatment

The oncology dietitian monitors the patient's progress on a regular basis by following-up during scheduled infusion, radiation therapy, and medical oncology appointments. In this way, nutrition is integrated into the treatment plan and multidisciplinary care is achieved without the patient having to attend additional appointments. By improving a patient's diet, we aim to minimize side-effects of treatment, enhance quality of life, support maintenance of a healthy body weight, and assist the patient's caregivers in preparing meals that will benefit the patient most.

Our oncology dietitian has extensive experience in artificial nutrition support using enteral and parenteral nutrition. When a patient and their medical provider decide that one of these interventions is appropriate, the dietitian will carry out an assessment of needs, provide expert individualized advice, liaise with the chosen home care company, and closely monitor tolerance of the feeding regimen.

Nutrition Following Treatment

Once cancer treatment is completed, the dietitian meets with the patient to give evidence-based advice to promote a healthy lifestyle and reduce risk of cancer recurrence. We offer both individual sessions and a structured education group program. For patients choosing to end treatment and move into supportive care only, the dietitian can assist caregivers in providing nutrient-dense meals tailored to the patient's preferences and swallowing ability.

Connecting with the Nutrition Service

Our program is available to all patients receiving oncology-related treatment at The Cancer Institute at Good Samaritan. A validated screening process is in place in both our Radiation Oncology and Infusion Units, where oncology nurses assess risk of malnutrition on a weekly basis and refer at-risk patients to the nutrition service. Referrals are also made by oncologists, nurse practitioners, and other members of the multi-disciplinary team. In addition, patients and their caregivers often self-refer when they have nutrition-related questions. Our oncology dietitian, Beth Miller MS, RD, CSO, is based in the Cancer Institute full-time to ensure that all patients have the opportunity to benefit from an individualized nutrition plan throughout their cancer journey.

Pathology and Laboratory Medicine

The Department of Pathology and Laboratory Medicine at Good Samaritan Hospital is committed to providing high quality diagnostics, clinical laboratory, and transfusion support to our oncology patients. The department is broadly structured into the disciplines of surgical pathology, cytopathology, hematopathology, and clinical laboratory medicine, inclusive of clinical chemistry, hematology, microbiology, and transfusion services.

All pathologists staffing the anatomical and clinical pathology sections of the lab are board-certified and a majority possess advanced fellowship training in one or more subspecialty areas. The department operates 24/7 and performs approximately 4.5 million tests annually through both the hospital's onsite lab and a state-of-the-art offsite regional laboratory facility where anatomic pathology, microbiology, and molecular diagnostics are located. The regional lab also serves as a consolidated testing site for the Catholic Health system.

Our lab services are fully accredited by the New York State Department of Health and Joint Commission, and have active participation in ongoing quality initiatives of importance to our oncology program.

It is rather commonplace for oncology patients to seek second professional opinions regarding their care, including secondary review of pathology diagnostic information at external institutions. The pathology department carefully tracks all cases forwarded for secondary review and compares the external diagnosis with the initial diagnosis rendered at Good Sam. Any discrepant reports which have a potential impact on patient care are tracked and reconciled, either by amendment of the initial pathology report or through expert third party consultation. The national benchmark established by the College of American Pathologists (CAP) for cases requiring amendment is < 3%. As shown below, Good Samaritan has consistently exceeded the national benchmark. This performance is in large part attributed to the fact that all new suspicious and malignant diagnoses require secondary pathologist consensus prior to verification, as do all breast and prostate needle biopsies.

Year	Benchmark	Good Sam
2018	< 3%	**< 1%**
2019	< 3%	**< 1%**

Given potential patient management implications and known inter-laboratory variability in accuracy and quality of ancillary prognostic immunohistochemistry and fluorescence in-situ hybridization studies for breast and other cancers; the Department of Pathology strictly adheres to CAP guidelines around tissue processing and reporting. The Department also carefully tracks internal performance against several well established national benchmarks. This is critically important to providing clinicians and patients with highly accurate and actionable data for treatment decisions.

Quality Assurance for Immunohistochemical Staining Performed at the Catholic Health Services of Long Island Regional Laboratory

Benchmark	RLS Percentage
Overall ER negativity rate for invasive breast carcinomas should be < 30%.	ER negative in 56/280 cases = 20%
About 80% of invasive carcinomas in women older than age 65 should be ER positive.	ER positive 117/136 cases = 86%
Nearly all low-grade breast carcinomas should be ER positive (≥ 95%).	ER positive 42/43 cases = 97.7%
Concordance between ER and PR IHC results and those of gene analysis should be ≥ 95%.	23/23 cases = 100%

Benchmark #1

Tumors that are ER positive is approx. 83%
Total invasive ER/PR cases: 663
Total ER positive: 539
81.3%
Total in-situ ER/PR cases: 179
Total ER positive: 146
81.6%

Benchmark #2

Tumors that are PR positive is approx. 65%
Total invasive ER/PR cases: 663
Total PR positive: 470
70.9%
Total in-situ ER/PR cases: 179
Total PR positive: 134
74.9%

Benchmark #3

In general, the proportion of invasive ER/PR negative cases should not exceed 30%
Total ER/PR cases: 663
Total negative cases: 113
17.0%

Benchmark #4

For women aged 65+, invasive ER/PR negative cases should not exceed 20%
Total cases (women 65 and older): 349
Of these, total negative cases: 44
12.6%

Benchmark #5

For low grade invasive carcinomas ER/PR negative cases should not exceed 5%
Total low grade invasive cases: 142
Of these, total negative cases: 1
0.7%

Benchmark #6

The Her2 neu gene is over-expressed in 15% of invasive breast tumors.

Total Her2 Cases	Total Her2 Positive	Percentage
Primary: 663	IHC 3+ = 76 IHC2+, FISH + = 30	16%
Repeat on excision: 112	5	4.5%
Metastatic: 66	13	19.7%

Benchmark #7

10-17%, 12-20% of invasive breast tumors yield triple negative results.
Total invasive cases: 663
Total triple negative cases: 86
13%

Benchmark #8

Gastroesophageal cancer tumors that over-express Her2 neu: Depending on series approx. 18.1-38.9%
Total gastric cases: 106
Total positive: 32
30.2%

Patient Safety and Quality

Catholic Health is deeply committed to sustaining a culture of safety at all times. To this end, Catholic Health is systematically advancing toward recognition as a High Reliability Organization (HRO) through initiatives including establishment of a Just Culture, GNOSIS Patient Safety and Risk Management Strategic Program, and the Zero Harm Campaign aimed to improve patient care.

Driven by Catholic Health's mission, we humbly join together to bring Christ's healing mission and the mission of mercy of the Catholic Church expressed in Catholic health care to our communities through our Core Values:

I-CARE: Integrity, Compassion, Accountability, Respect, and Excellence

At Catholic Health, we embody our mission and I-CARE values by placing the patient at the center of everything we do. Our Care Team is committed to providing safe, high-quality care to patients with **Integrity, Compassion, Accountability, Respect, and Excellence.**

With great honor, we open our healing arms and ask our patients to trust us with their health, as we welcome them into the Catholic Health community.

Every Patient ... Every Time

The Performance Improvement Committee (PIC)

Good Samaritan integrates performance improvement into all systems to provide reliably safe care delivery for nursing and medicine, infection control, care coordination, risk management, compliance, and quality control; thereby, facilitating the goals of continuous improvement and excellence.

The PIC receives and reviews regular reports on organization-wide quality assessment and performance improvement initiatives, and works to build the foundation for a strong culture of safety by creating an environment of trust, reporting, and improvement; promoting an ongoing learning environment wherein all staff and leaders are nurtured to continuously improve their knowledge and skills; and contribute to the growth of employee and customer engagement. The committee also reviews adverse events and patient occurrences, including the actions and follow-up in instances where the standard of care was not met, as well as patient satisfaction and complaints.

Oncology Leadership Group and Cancer Committee

Good Samaritan Hospital and Cancer Institute leadership meet 16 times annually to ensure appropriate resources are invested in building and maintaining the very best community cancer program anywhere. The Cancer Institute recently instituted a daily huddle on D Unit led by medical oncology and attended by radiation oncology, nursing, social work, patient navigation, nutrition, and care management to ensure that hospitalized patients with cancer receive optimal multidisciplinary care. Early data suggests this multidiscilipinary meeting has contributed to reduced time from discharge to outpatient medical oncology follow-up and improved patient satisfaction scores on the inpatient oncology unit. The Cancer Institute hosts seven multidisciplinary tumor boards that are enthusiastically supported by the physician community.

Reducing Hospital Acquired Infections

As part of the journey to High Reliability and Zero Harm, Good Samaritan Hospital implemented best practices to reduce the incidence of catheter associated urinary tract infections (CAUTIs), Clostridium difficile infection and central line-associated bloodstream infections (CLABSI). From 2015 to 2019, the incidence of CAUTIs decreased 80%, the incidence of C. difficile infections decreased 68% and CLABSI decreased 78%.

"Good Samaritan Hospital and Cancer Institute leadership meet 16 times annually to ensure appropriate resources are invested in building and maintaining the very best community cancer program anywhere."

Johnny Kao, MD

Radiology

The Role of Imaging Services in Oncology

The Department of Imaging Services is an integral component of the Cancer Institute. Diagnostic testing is performed for screening, workup of patient symptoms, staging evaluation, and assessment of response to treatment. Good Samaritan radiologists are board-certified with subspecialty fellowship training in neuroradiology, pediatric radiology, interventional radiology, MRI, musculoskeletal, breast, and body imaging. High-quality imaging enables image-guided biopsy, surgery, radiation therapy, and tumor ablation. To facilitate communication with oncologists, the Department of Radiology implemented structured reporting throughout recent years to include BIRADS for breast, PIRADS for prostate, Deauville criteria for lymphoma, and structured reporting for rectal cancer.

Computerized Tomography (CT) Scanning

CT scanning has been an important diagnostic tool for decades. As the only American College of Surgeons Verified Level II Trauma Center for both adults and pediatrics on the south shore of Long Island, Good Samaritan's Emergency Department is outfitted with the region's only Revolution 512-speed CT unit. This latest technology has allowed for significant radiation dose reduction without compromise to image quality.

Magnetic Resonance Imaging (MRI)

Good Samaritan has two state-of-the-art, high energy magnets—a 1.5 and 3.0 Tesla—to provide high-quality images. Advanced MRI protocols have been developed to allow for more accurate tumor imaging.

Nuclear Medicine and PET/CT

Nuclear medicine techniques are an integral part of lymphoscintigraphy, also known as sentinel lymph node biopsy, commonly used in breast cancer and melanoma. Radium-223 is a radiopharmaceutical effective in treatment for metastatic prostate cancer. Positron emission tomography (PET) combined with CT provides whole body anatomic and metabolic information in a single test and is valuable in diagnosis, treatment planning, restaging, and surveillance for cancer survivors.

4.5% **The rate of pneumothorax requiring chest tube placement after CT-guided lung biopsy at Good Sam from 08/19 to 07/20, comparing favorably to 8.0% reported by Memorial Sloan Kettering in 2016.**

Interventional Radiology

Good Sam debuted its brand new, state-of-the-art interventional radiology suite equipped with cone beam CT in 2020. Our experienced team includes fellowship-trained interventional radiologists, advanced practice providers, and well-educated nurses. Led by Alan Boykin, MD, and Bernard Koliskor, MD, the team collaborates with the oncology community in the diagnosis and treatment of cancer.

Tissue diagnosis is achieved through image-guided core biopsies of liver, lung, adrenal, renal, bone lesions, suspicious lymph nodes, and fine needle aspirations of thyroid nodules.

Pathologists are on-site for confirmation of tissue adequacy and performance of molecular testing on tissue specimens to assist in guiding newer therapeutic regimens and assessing prognosis.

Interventional oncology procedures performed at Good Samaritan include image-guided microwave and cryoablations of tumors and trans-arterial chemoembolization. A Y-90 radioembolization program is in development to provide another effective treatment option for the rapidly expanding hepatobiliary tumor program.

Pastoral Care

The pastoral/spiritual care staff at Good Samaritan is comprised of certified and ordained chaplains who meet both the spiritual and emotional needs of patients and their families. Our goal is to enhance the healing process by providing encouragement and support through prayerful presence and attentive listening. In addition, sacramental ministry is available to patients of the Roman Catholic tradition, as well as prayer and devotional materials for those of other religious traditions.

Statistic	2017	2018	2019
Pastoral care visits	44,392	34,951	27,113
Staff referrals	1,192	738	1,001
Anointing the sick	8,954	9,313	8,036
Masses	405	439	431

Patient Experience

"The Department of Radiation Oncology has consistently achieved >99% patient satisfaction over the past 7 years. More than 99% of radiation oncology patients recommend our treatment center to others in need of radiation treatment."

Johnny Kao, MD

Patient Navigation Services

The major focus of the Breast Health Center nursing staff continues to be the education and support of patients, families and friends. Good Samaritan provides personalized support by staff certified in cancer care and patient navigation. Patients with suspicious findings are referred to the navigator to ensure expedited diagnosis, treatment and quality care. The nurses provide care coordination throughout diagnosis, treatment and recovery. They are the liaison for both the patient and family to the multidisciplinary breast team. This program was specifically designed to help patients overcome barriers to cancer care and navigate the health care system in a compassionate, efficient and effective way. When faced with a diagnosis of cancer, patients are not alone. Good Samaritan is with them every step of the way.

Education and Support

To help protect women's health and provide informed decisions, Good Samaritan's Breast Health Center offers a comprehensive, patient-focused array of services. These include prevention, early detection and diagnosis, positive reinforcement through counseling and support, and effective treatment using the latest, advanced procedures and equipment in the battle against breast disease. Women who have been diagnosed with breast cancer can overcome their fears and work through their concerns through a wide range of counseling and support services. With continuing education of the team, as well as research and clinical trial enrollment, the Breast Health Center also educates the community through lectures, health fairs and screening events-all part of the comprehensive program.

Patient Satisfaction

In addition to having a relentless focus on delivering outstanding outcomes for our patients, the Department of Radiation Oncology fosters a healing environment for our patients. The Department of Radiation Oncology has consistently achieved >99% patient satisfaction over the past 7 years. More than 99% of radiation oncology patients recommend our treatment center to others in need of radiation treatment.

Radiation Oncology Patient Satisfaction Survey

Dear Patient,
At Good Samaritan Hospital, we strive to always provide the highest quality of care in a safe, professional and courteous manner. We greatly value your opinion and would like your feedback regarding your experience in our radiation oncology treatment center and how we can continue to meet your future health care needs. Please take a moment to answer the following questions. Your responses will remain strictly confidential and you may choose to remain anonymous.

	Always	Sometimes	Never
1. Were you satisfied with the consult process (incl. the time it took from initial contact to completion of the consult with the nurse and physician)?	☐	☐	☐
2. Did the staff's courtesy toward you meet your expectations?	☐	☐	☐
3. Was the information regarding what to expect during your visit(s) explained in a way that was clear and easy to understand?	☐	☐	☐
4. Were you satisfied with the level of concern shown for your comfort during your visit?	☐	☐	☐
5. Were you secure with the level of concern shown for your privacy during your radiation treatment?	☐	☐	☐
6. How satisfied were you with the physical appearance of our radiation oncology treatment center?	☐	☐	☐
7. Was a staff member available when you had questions or concerns?	☐	☐	☐
8. Were your discharge instructions explained to you in a manner that was clear and easy to understand?	☐	☐	☐
9. Would you recommend our radiation oncology treatment center to others in need of radiation therapy?	☐	☐	☐
10. Overall, did the quality of care you received in our radiation oncology treatment center meet your expectations?	☐	☐	☐
11. Were you satisfied with the availability of parking for our radiation oncology treatment center?	☐	☐	☐

12. How could we improve your experience during future visits to the radiation oncology department?

_____

_____

Thank you for taking the time to share your experience with us. Your feedback is important and vital to our mission to continue providing you with the high quality treatment and health care that you deserve.

(Optional) Name: _____

1000 Montauk Highway, West Islip, NY 11795 • (631) 376-4444 • www.good-samaritan-hospital.org

Rehabilitation

The rehabilitation team at Good Samaritan consists of physical therapists, occupational therapists, and speech and language pathologists. These team members play an important role in the care of a person with cancer. They provide several levels of interventional care, including preventive, restorative, supportive and palliative. This care is provided to inpatients at Good Sam, as well as outpatients at Catholic Health.

The overall goal of the rehabilitation team is to help patients achieve maximum independence in the performance of everyday activities. The clinical disciplines each have their own specialized approach to help improve a person's functional abilities.

- Physical therapists offer assessments and treatments in the areas of strength training, fatigue management training, balance training, lymphedema management, scar management, and functional task training.
- Occupational therapists offer assessments and treatments in the areas of cognitive training, fine motor skill training, hand therapy, splinting for upper extremity deficits, instruction and fitting for adaptive equipment, and visual training.
- Speech and language pathologists offer assessments and treatments to patients who have suffered swallowing and feeding difficulties, as well as speech impairments.

Outpatient Physical Therapy Services

Physical therapy in the outpatient setting can be an invaluable component in the care of patients with cancer. A physical therapist is trained to assist patients in restoring physical function and mobility, maintaining physical function, and promoting physical activity. Patients who are undergoing cancer treatments such as chemotherapy and radiation, recovering from cancer-related surgery, or struggling with various physical dysfunctions, can benefit from physical therapy. The outpatient setting is beneficial for patients who are at a stage in their cancer journey when they are ready to regain their prior independence and activity level. Physical therapists are experienced in treating patients with musculoskeletal issues such as shoulder tightness and pain following mastectomy, weakness and fatigue from radiation and chemotherapy, and balance disorders which can arise with brain cancer and chemo-induced neuropathy. Patients are often concerned that they should avoid exercise while recovering from cancer-related surgeries because they don't know how to begin or how to progress safely. Physical therapy is a safe and supportive environment for patients to work towards their goals and find enjoyment in their favorite activities again.

Among hospitalized brain tumor patients at Good Samaritan in 2019 and 2020, 96% underwent physical therapy and 55% underwent occupational therapy.

Supportive and Palliative Care

The Symptom Management and Supportive Care Service offers guidance and support to better understand complex medical information and personal choices for medical care at any stage of illness. An experienced team of specialists provides help physically, mentally, and spiritually, while supporting patient and family wishes.

The goal of the Symptom Management and Supportive Care Service is to relieve pain, symptoms, and stress, at any stage of serious illness, from diagnosis to advanced stage disease, and is often given alongside a curative treatment plan. Common symptoms addressed by supportive and palliative care include pain and other distressing symptoms from illness and treatment, like shortness of breath, fatigue, constipation, nausea, loss of appetite, and difficulty sleeping.

Earlier referral to supportive and palliative care holds promise to reduce the burden of cancer throughout the natural history of disease by placing the patient and family at the center of the multidisciplinary health care team, and improving patient outcomes in symptom management while reducing emergency room and inpatient hospital utilization. Specific high-value functions of palliative care include managing symptoms, strengthening coping, cultivating illness understanding, prognostic awareness, and establishing advanced directives.

Family Meetings

The patient/family meeting is an opportunity for patients and families to share concerns, ask questions, and provide information to help clarify their wishes for care. Enhancing communication among patients, families, and the health care team helps to ensure that individualized needs are fully met. The goal of the palliative care team is to support the patient and their loved ones through this journey.

Support Groups

Diagnosis of a serious illness is a major life-changing event. The patient, as well as loved ones, may be thrown into a whirlwind of emotions from fear or anger, to denial and overwhelming sadness. It is difficult enough to deal with the physical challenges of illness and treatment, but the emotional impact can be an even greater burden. Patients and loved ones need a “safe place” where they can share these feelings with others who truly understand. Support groups are designed to provide a confidential atmosphere where patients can discuss any stress with others experiencing a similar situation. Our specially trained social workers and pastoral care team are here to listen and support you and your family.

Outpatient Center

Providing symptom management and supportive care services in the community setting allows our team to address the varied needs of patients and families earlier in the course of illness. Our outpatient program specializes in managing symptoms associated with illness and/or treatments, while providing guidance and emotional support when making important medical decisions. Consultations are held in an office-based setting or in the home setting for patients homebound.

Quality Report Contributors

A special acknowledgement to our report contributors

Medical Editor-in-Chief
Johnny Kao, MD

Medical Editors
Bhoomi Mehrotra, MD
Ashish Sangal, MD

Cancer Registry Director
Mary Ellen Weber, MBA, CTR

Editor
Ashley Zimmerman

Cancer Service Line Project Manager
Michael Wolff, MS

Public and Community Relations
Justin Jaycon, MBA

Medical Contributors
Christopher Atalla, DO
Sharah Chadrika, MD
Bradley Cohen, MD
Borimir Darakchiev, MD
William Engellenner, MD
Sophia Fu, MD, MS
John Hsu, MD
Symeon Missios, MD
Brian Webber, DO
Andrew Wong, MD

Staff and Administrative Contributors
Vincent Angeloro, BS, DC, CPHQ
Deacon Richard Becker, MS, MA, BCC
Jill Bocchieri, PT
Ralph Corbino, MBA
Kathy DiBenedetto, RN
Bonnie Edsall, MS, BSN, RN, CBCN, CN-BN
Elizabeth Haag, RN
Jessica Kenney, MS, CGC
Elizabeth Miller, MS, RD, CSO
Lindsay Posillico, MPH
Bonnie Veraszto, PT

Vision

To be the preferred health care system on Long Island for patients, doctors, and staff.

Our Core Values, I-CARE:

Integrity, Compassion, Accountability, Respect, and Excellence.

Integrity: We are who we say we are and act in accordance with the splendor of truth of our Catholic moral teaching and our Catholic values.

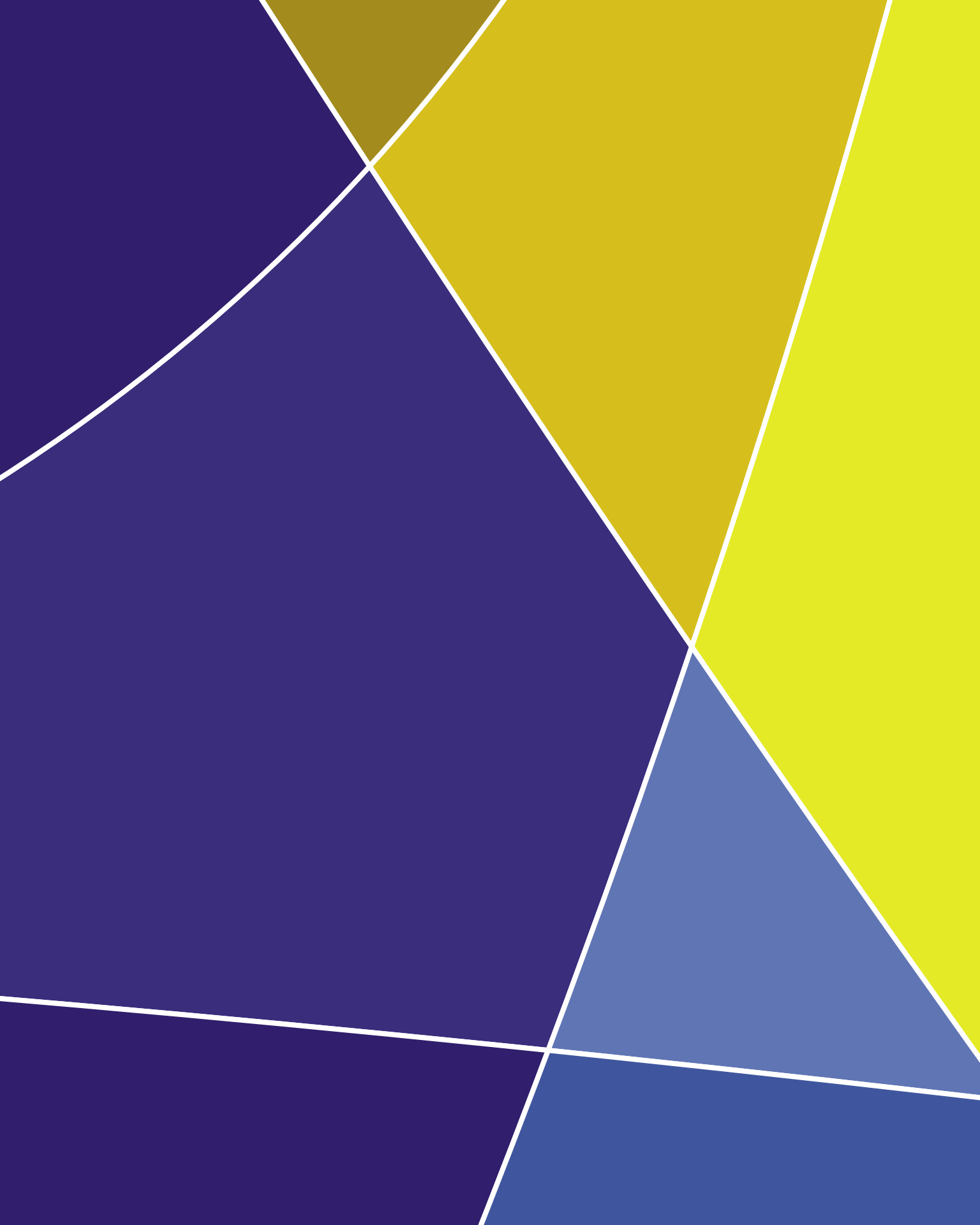
Compassion: We have compassion for our patients, see the suffering Christ in them, strive to alleviate suffering and serve the spiritual, physical and emotional needs of our patients.

Accountability: We take responsibility for our actions and their consequences.

Respect: We honor the sanctity of life at every stage of life and the dignity of every person, and incorporate all the principles of Catholic social teaching in our relationships and advocacy.

Excellence: We seek the glory of God in the compassionate service of our patients, and we strive to do the best that can be done, whatever our role.

Catholic Health
Good Samaritan Hospital



Catholic Health
Good Samaritan Hospital

1000 Montauk Hwy
West Islip, NY 11795
T (631) 376-3000

goodsamcancerinstitute.org

Follow Catholic Health