



CAMC Cancer Center celebrates 10 years

2025 CAMC CANCER SERVICES REPORT



**Charleston Area
Medical Center**

 **Vandalia Health**

2025 CAMC Cancer Services Report

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CAMC: Over 75 years of prov



The CAMC Cancer Center is accredited by the QOPI Certification Program (QCP™), an affiliate of the American Society of Clinical Oncology (ASCO). The Quality Oncology Practice Initiative (QOPI) was designed by the American Society of Clinical Oncology (ASCO) in recognition of the importance of integrating continuous quality improvement into patient-centered clinical practice. This voluntary program allows facilities to monitor quality initiatives against benchmarks established through ASCO's member oncologists and quality experts using clinical guidelines and published standards.

Having first achieved QOPI certification in December 2012, the CAMC Cancer Center remains the first and only QOPI-accredited center in the state.

CAMC has a long history of providing outstanding cancer care in West Virginia. CAMC's cancer services have been accredited since 1956 and offer the highest trained, nationally-certified health care professionals in the region.

Accredited by the DNV, the American College of Surgeons (ACS) Commission on Cancer (CoC) Accreditation Program and the Accreditation Committee of the College of American Pathologists (CAP), the CAMC Cancer Center provides personalized cancer care, access to innovative clinical cancer research trials and

hematological care for a diversity of benign and malignant conditions.

The Center also houses the CAMC Breast Center, where breast surgeons, nurse navigators, genetic counselors and radiologists who are experts in breast diseases provide the highest level of care for patients with breast cancer.

Most of the Cancer Center's nurses are certified in oncology. The Center has a multidisciplinary CARE Team that includes a social worker, psychologist, dietician, financial navigators, patient navigators and pastoral care. The Center also offers a boutique for cancer patients needing assistance with wigs, hair care and other products, as well as an outpatient pharmacy for patients' medication needs.

There are two board-certified oncology pharmacists. CAMC's outpatient pharmacy at the Cancer Center, is URAC and ASHP accredited. This dual specialty pharmacy accreditation is only achieved by providing the highest level of patient care, including enhanced patient monitoring, detailed follow up assessments and extensive, detailed reporting. These recognitions will allow the pharmacy to access an even greater variety of specialty medications to provide care for more patients with a broader scope of disease states.

Providing accredited cancer care



CAMC's commitment to cancer care also extends throughout the community. CAMC's Teays Valley Cancer Center offers hematology/oncology services and infusion for patients in Putnam County and surrounding communities. The CAMC Cancer Center – Beckley's primary treatment modes are chemotherapy and radiation therapy. Additional services include a superficial treatment unit, high-dose radiation brachytherapy, 3D treatments. The diagnostic component of the center provides radiologic services and laboratory testing. Radiology services include PET/CT scanning, mammography, bone density and radiographic X-rays, all of which are digital.

CAMC offers specialized care to patients diagnosed with cancer of the female reproductive system through our gynecology office. And CAMC's clinical cancer research activities have been central to providing state-of-the-art cancer care opportunities for our patients for more than 25 years.

Physicians from the Cancer Center help educate internal medicine residents. Trainees also can work with Cancer Center staff physicians on research projects leading to academic presentations/publications that are integral to their training requirements.

The CAMC Hematology-Oncology Fellowship Program combines hematology and medical oncology over a three-year comprehensive clinical training program, administered by the Department of Internal Medicine and accredited by the Accreditation Council for Graduate Medical Education. It provides diagnosis-specific subspecialties, which include breast, gastrointestinal, genitourinary, gynecologic oncology, hematologic malignancies, lung and head and neck cancers.

EXECUTIVE DIRECTOR

In 2025, CAMC hired a new executive director for cancer services. **Bev Farmer**, RN, OCN, spent 19 years as director of the CAMC Cancer Center. She has been an Oncology nurse for 32 years.

Farmer began her nursing career in 1985 and has worked at ARH South Williamson, Ky, Logan Regional Medical Center and Williamson Memorial Hospital and CAMC in various roles.

She earned an Associate Degree in Nursing from Southern WV Community and Technical College, a Bachelor of Science in Nursing from Chamberlin College of Nursing and is certified through the Oncology Nursing Society.



CAMC Cancer Center



The West Virginia Oncology Society 2025 Spring Conference took place on April 18. WVOS was founded in 2008 and is now the largest professional organization for oncology in WV, with members consisting of oncologists, advanced practice providers, pharmacists and other multidisciplinary care providers involved in cancer treatments and care. WVOS is a State Affiliate of the American Society of Clinical Oncology and is managed by the Association of Cancer Care Centers. The WVOS mission is to improve patient outcomes and cancer treatments in our state.

CAMC, celebrated the 10th anniversary of the state-of-the-art Cancer Center in September. CAMC employees contributed about \$650,000 and the community gave about \$14.5 million toward the \$50 million project. The Cancer Center provides comprehensive care – from the latest, most advanced technology to support services for patients and their loved ones through their entire cancer journey. Treatment areas are equipped with multiple chairs to allow communal therapy sessions as well as space for family and friends to sit privately with patients during therapy. A 2nd-floor outdoor terrace allows patients to receive therapy while enjoying the sun or soothing breezes.

The Cancer Center is for adult medical oncology and hematology care.

CANCER GENETICS RISK ASSESSMENT

Some patients have an increased risk of developing cancer due to their family history. It is estimated that approximately 5–10% of cancers are linked to a hereditary genetic predisposition. To help identify these individuals, the cancer center has implemented a Genetic Cancer Risk

Assessment program in collaboration with Ambry Genetics. This program evaluates both personal and family history to determine each patient's risk for hereditary cancers.

Genetic testing is offered to patients who meet the National Comprehensive Cancer Network (NCCN) criteria for hereditary cancer testing. In addition, genetic counseling is available to patients before and after testing, as needed, to support informed decision-making and ensure appropriate follow-up care.

GENETIC COUNSELING

Tamam Khalaf is a trained genetic counselor at the CAMC Cancer Center working closely with patients evaluating family history, genetic testing results and lifestyle factors to provide a comprehensive risk assessment. Khalaf has a bachelor's degree from the University of Toronto in biochemistry and Masters in Genetic and Genomic Counseling from Cardiff University in the United Kingdom. She is president of the Arab Society of Genetic Counselors.

PSYCHOLOGIST

Sarah A. Setran, PsyD, received her doctorate from Marshall University and completed a clinical Psychology internship at UCCS Aging Center Lane Center for Academic Health Sciences Building. Dr. Setran is certified by the National Register of Health Service Providers in Psychology.

PRETREATMENT/POSTTREATMENT/SURVIVORSHIP CLINIC

The goal of the clinic is to schedule patient's beginning treatment related to their cancer diagnosis to discuss treatment plans, as well as evaluate any barriers (financial, psychological, physical, etc.) that may prevent the patient from receiving treatment. The clinic also sees patients who are completing treatment and prepares the patient for life after cancer. A survivorship plan of care is designed specifically for each patient and provides the patient with the information regarding their treatment and plans for follow up and testing in the future. This information is also shared with the patient's primary provider.

WALK-IN CLINIC

The Cancer Center's walk-in clinic features quick, convenient access for nonemergency care. Staffed by medical providers who specialize in cancer care the clinic treats walk-ins (no appointment or referral required) who are existing patients in active treatment. Physicians are supported by eight advanced practice professionals. The clinic is at the Cancer Center, Monday through Friday, 8 a.m. to 3 p.m. For more information, call **304-388-8380**.

THE CANCER CENTER:

- Provides infusion for an average of 65–75 patients daily.
- Gynecology oncology office, located in Charleston, offers specialized care to patients diagnosed with cancer of the female reproductive system.
- Features most nurses certified in oncology.
- Has two board certified oncology pharmacists with an additional three pharmacists.
- Physicians help educate internal medicine residents of the West Virginia University School of Medicine Charleston-Division. Trainees also can work with Cancer Center staff physicians on research projects leading to academic presentations/publications integral to their training requirements. An oncology fellowship program is in the planning stages.
- The resource room, located on the first floor of the cancer center, houses our CARE Team, which includes a social worker, psychologist, dietician, financial navigators, patient navigators and pastoral care.
- The boutique, located on the first floor, offers wigs, hair care and other products to cancer patients being treated at the CAMC Cancer Center.
- The outpatient pharmacy, located on the first floor, is open to the public. Hours of operation are 8 a.m. – 6 p.m. Monday through Friday.

SICKLE CELL CLINIC PROVIDES SPECIALIZED, ONGOING CARE FOR PATIENTS

CAMC's outpatient Sickle Cell Clinic is dedicated to treatment and management of the disease in both adult and pediatric patients. The clinic provides ongoing care for patients with individualized treatment plans, including rapid access to infusion care services for blood infusion and transfusion therapies. It also provides patient education, coaching and support, and easy access to other hospital services for any complications that may arise.

PROJECT ECHO

The CAMC Cancer Center has conducted Project Echo sessions on topics applicable to breast cancer survivorship. Project ECHO links expert specialist teams at an academic hub, such as CAMC, with primary care clinicians in local communities. Together, they manage patient cases so that patients get the care they need. Although the ECHO model makes use of telecommunications technology, it is different from telemedicine.

For more information, log on to camc.org/Cancer.





Medicine in Motion

CAMC Mobile Medical Fleet expanded in late 2024 to include lung screenings and mammograms.

In 2025, The CAMC Mobile Lung CT Screening Unit and CAMC Mobile Mammography Unit visited several locations around West Virginia to offer screenings to eligible patients closer to their homes.

Stops included public events for awareness such as the Oak Leaf Festival in Oak Hill as well as dedicated stops at Toyota Motors Manufacturing and CAMC Primary Care facilities.

The CAMC Mobile Medical Fleet is staffed by experts and equipped with the same state-of-the-art digital imaging technology as you would get at a CAMC imaging facility for quick, convenient and accurate screenings.





CAMC Cancer Center – Beckley

Local dignitaries joined staff at the CAMC Cancer Center - Beckley to unveil a new mobile PET/CT scanner.

In 2024, CAMC welcomed the Carl Larson Cancer Center, located in Beckley, to CAMC Health System and Vandalia Health.

The practice is made up of three physicians, 11 advanced practice professionals who have provided high quality oncology services for decades and support staff.

The practice was created in the mid-1980s. It provides hematology, oncology, chemotherapy, radiation therapy, diagnostic laboratory and diagnostic imaging services.

Primary treatment modes are chemotherapy and radiation therapy. Additional services include a superficial treatment unit, high-dose radiation brachytherapy and 3D treatments.

The diagnostic component of the center provides radiologic services and laboratory testing. Radiology services include CT scanning, mammography, bone density and radiographic X-rays, all of which are digital.

The laboratory is licensed by both the Commission on Office Laboratory Accreditation and CLIA Program (part of the Centers for Medicare & Medicaid Services).

The location is now named the CAMC Cancer Center - Beckley as part of CAMC Health System. CAMC will work with the physicians, providers and staff to expand services available to the community and provide additional capacity for procedures.

CANCER CENTER UNVEILS LATEST IMAGING TECHNOLOGY

As part of an ongoing effort to offer its patients the most cutting-edge medical imaging technology available, the CAMC Cancer Center - Beckley cut the ribbon on a new mobile Positron Emission Tomography Computed Tomography (PET/CT) scanner.

This enables the Center to identify the smallest lesions early because of the high resolution and image quality, which supports an accurate diagnosis and more personalized treatment options to our patients.

This is a significant milestone for the center and a testament to the incredible hard work and dedication of its entire staff. The unit will be in service Mondays, Tuesdays and Fridays.

NEW INFUSION CHAIRS

CAMC Cancer Center in Beckley received 18 new state-of-the-art infusion chairs.

The upgraded chairs, designed with built-in heat and massage functions, are already enhancing the patient experience by providing exceptional comfort during infusion treatments, which can often last up to six hours.

The chairs were made possible thanks to a generous \$150,000 donation from the Norma Mae Huggins Cancer Endowment.



Comprehensive Assistance to Resources and Education (CARE) Team 2025

Members of the Cancer Center participated in the annual Run for Your Life run/walk on June 7. More than 430 participants raised over \$111,000 to support colorectal cancer screening and education.

Located on the first floor of the CAMC Cancer Center in the Patient Resource Center (PRC), the CARE team is a multi-disciplinary team consisting of nurse navigation, financial navigation, social work, psychology, chaplaincy and nutrition.

The team addresses patient stressors and barriers which may interfere with their cancer treatment and care. Many times, patients are overcome with financial hardships, emotional concerns and a vast amount of other social stressors that may affect their ability to obtain cancer treatment. With the help of our financial navigators, social workers, psychologist and chaplain assistance to aid and resources can be provided to eliminate these barriers to care. Patients can also obtain free information on their specific disease in the PRC.

Nurse navigation and dietitian services provide detailed clinical assistance, tools and resources to aid cancer patients before, during and after cancer treatment.

CAMC Cancer Center's treatment clinic helps recently diagnosed cancer patients navigate their treatment journey. The clinic allows newly diagnosed patients to meet the many members of their care team in a single visit. Two separate visit types (pre- and post-treatment) are available to assist patients with any specific barrier to care as well as tailored educational needs.

Patients receive a survivorship care plan (SCP) and the visit includes education on how to optimize patients' health and quality of life. A copy of the SCP is provided to the patient's primary care provider (PCP) for coordinated patient-

centered care. The patient is scheduled for six to eight weeks anticipated post-treatment completion, which allows enough time for the patient to have any completed scans and follow-up appointments with the medical oncologist. Survivorship care plans are completed by the nurse navigator. The nurse navigator participates in the visit to identify patient needs and concerns experienced after treatment completion. The SCP is compiled using documentation within the EHR and use of secondary software which includes the patients' questionnaire responses. The result is a SCP that provides educational content addressing the specific needs of the patient, follow-up and screening schedule recommendations and access to resources for optimizing their ongoing survivorship needs.

Referrals are provided for supportive services, including physical therapy, survivorship support groups, nutrition, and any other concerns that may affect coping with cancer survivorship.

For more information, log on to camc.org/Care-Team.

In their own words: Maximina Pate

**"The main thing I've learned is to
keep looking forward."**



Maximina Pate was diagnosed with fallopian cancer in the fall of 2017. Since then, she's experienced surgeries, chemotherapy and radiation treatments. Her faith, husband and an infectious positive attitude have guided her journey to healing.

Maximina tells her story, in her own words.

"I barrel race horses and us horse women are a little bit different; we're always hurting somewhere because of what we do. I was working my horse through the barrels when I felt a pain in my left side. I thought I pulled a muscle

It hurt all summer, and I was suffering a lot of fatigue. Later that fall, I was lying on the couch watching television when my husband Richard noticed a lump on my stomach.

A few days later my gynecologist examined me and immediately got an ultrasound scan scheduled.

My gynecologist recommended doctor (Stephen) Bush (II). He said, "I would send my wife my mother or my daughter to him." He said, "you can go anywhere you want to go but this man is really the man." Within two days we were here in Charleston to see Dr. Bush.

In January 2018, Dr. Bush removed the mass.

Dr. Bush recommended that I start chemotherapy and so I did six treatments. I didn't lose my hair and I still rode horses though I didn't barrel race that first time.

After the treatments he couldn't find the mass and said it was gone.

However, about three years later, 2021, it came back.

I did another round of chemotherapy and then Dr. Bush put me on Elahere which had just come out. Elahere did a great job and he said I was the first patient here to try Elahere.

During the years I've been dealing with cancer, I've also experienced some side effects especially with my eyes due to the treatments. I've made a few ER trips to Women and Children's Hospital and had two hospital stays.



But I've never let cancer control me. That's how I live every day. I may have cancer, but it does not have me.

Continuing my journey, I completed radiation treatments in the summer of 2025. Doctor (Lloyd) Farinash is a wonderful doctor. He felt confident he could use radiation safely while protecting nearby organs.

Dr. Bush is fantastic and nurses and staff at Women and Children's Hospital are excellent.

I've been blessed. I wake up every morning and I thank the Lord for all my blessings and ask him to give me strength and guidance. Remember, you're never alone, the Lord's always with you.

You must stay strong. This is just the bump in the road. The main thing I've learned is to keep looking forward.



Gynecologic Oncology

CAMC Gynecologic Oncology provides a patient and family centered approach to treating gynecologic malignancies such as ovarian, uterine, cervical and vulvar/vaginal cancers. We also manage many complex benign gynecologic conditions. Our goal is to provide the highest quality cancer care for gynecologic malignancies to patients in southern West Virginia and the surrounding communities. This includes access to both national cooperative groups and industry sponsored clinical trials. We also offer the most up to date minimally invasive and robotic surgical techniques available.

Gynecologic oncology is a small field with only about 50 new graduates a year. We are lucky to have two full time gynecologic oncologists and a nurse practitioner on staff. Our service continues to grow and draws patients from the tri-state area. This is one of the busiest and most experienced gynecologic oncology departments in the state. A gynecologic oncologist is an obstetrician/gynecologist who completed additional training to specialize in the diagnosis and treatment of women with cancer of the reproductive organs. This includes cancer

of the ovary, uterus (endometrial), cervix, vagina, vulva, as well as trophoblastic disease, and complex benign gynecologic conditions.

We offer a twice monthly Gynecologic Oncology Tumor Board conference to review many of our cancer treatment plans in concert with a radiologist, radiation oncologist, gynecologic pathologist, as well as other specialties as needed.

Michael Schiano, MD, is an ABOG board certified gynecologic oncologist having nearly 30 years of clinical practice and research experience. Dr. Schiano completed his residency in obstetrics and gynecology at the San Antonio Uniformed Services Health Education Consortium and his gynecologic oncology fellowship at the University of Miami. Dr. Schiano is also an associate clinical professor for the WVU/CAMC Division School of Medicine and provides clinical/surgical training for resident physicians from the CAMC obstetric gynecology residency training program. Dr. Schiano and his team's dedication to the education of future specialists and the multidisciplinary



approach to female cancer care helps to insure optimal outcomes for women in our community.

Dr. Schiano has won many teaching awards and is particularly adept at complex gynecologic surgery both cancerous and benign. He is actively involved in many research projects. Dr. Schiano has multiple publications in peer reviewed medical journals. Dr. Schiano's experience is invaluable to our patients.

Stephen Bush II, MD, was born and raised in Charleston, West Virginia. He completed his undergraduate degree in biochemistry as well as medical school at West Virginia University. He completed a residency in obstetrics and gynecology as well as a pelvic surgery fellowship at the Medical College of Georgia. Dr. Bush completed a 3-year gynecologic oncology fellowship at the University of South Florida and Moffitt Cancer Center in Tampa, Florida. He is board certified in Obstetrics/Gynecology and Gynecologic Oncology.

Dr. Bush is the one of the few gynecologic oncologists in the region who offers the full spectrum of minimally invasive gynecologic surgery options including robotic surgery, laparoscopic surgery, single incisions laparoscopic surgery, vaginal surgery, reduced port techniques, VNOTES, and contained specimen extraction for large uteri.

Dr. Bush has approximately 30 manuscripts published in peer-reviewed medical journals as well as numerous presentations at national and international conferences. He was awarded the Gynecologic Oncology Group Foundation New Investigator Award in 2019. He has been an invited speaker on minimally invasive techniques and trains other surgeons on advanced laparoscopic

techniques. He was one of the first surgeons in the U.S. to perform a VNOTES hysterectomy. Dr. Bush is a highly skilled surgeon with expertise in both robotic and laparoscopic surgery for complex gynecological conditions including cancer. Dr. Bush is PI on numerous cooperative group clinical trials available at CAMC Cancer Center for ovarian cancer, endometrial cancer and cervical cancer patients.

He has served as a National Board Examiner by the American Board of Obstetricians and Gynecologists for the certification exam in Obstetrics and Gynecology and participates in many national committees including NRG Oncology Ovarian Cancer subcommittee, NRG Oncology Cervical Cancer subcommittee and the Coding Committee for the Society of Gynecologic Oncologists.

Krista Ellison, FNP, has significant experience caring for gynecologic oncology patients. Before graduating from nurse practitioner school she was a nurse on the gynecology floor at CAMC Women and Children's Hospital caring for many of our patients after surgery.

She also was a nurse in the gynecologic oncology office. This gives her a unique understanding of what our patients will experience during and after chemotherapy and surgery care for their needs.

Gynecologic Oncology surgery at CAMC is done at both CAMC Women and Children's Hospital and CAMC Memorial Hospital. Both offer the DaVinci Xi robotic platform. Chemotherapy is administered at the CAMC Cancer Center.



Radiation Oncology Services



Radiation Oncology Services at Charleston Area Medical Center is a department of CAMC in strategic partnership with Akumin, a national leader in comprehensive outpatient radiology and oncology solutions, offering advanced diagnostic imaging and radiation therapy services across hundreds of community-based clinics in the United States, and Charleston Radiation Therapy Consultants, our trusted local physician group. Together as CAMC Radiation Oncology Services, we offer the most comprehensive range of state-of-the-art treatment technologies in the region, designed to treat nearly every type and stage of cancer, as well as certain non-cancerous conditions.

These include:

- Radiopharmaceuticals – including Pluvicto, Lutathera, Xofigo, and Iodine-131
- Stereotactic Radiosurgery & Stereotactic Body Radiation Therapy (SRS/SBRT)
- Low-Dose Radiation Therapy (LDRT) for Osteoarthritis (new – innovative use of radiation to reduce pain and inflammation)
- Intensity Modulated Radiation Therapy (IMRT)
- 3D Conformal Radiation Therapy

- 4D CT-based Treatment Planning
- Image Guided Radiation Therapy (IGRT)
- High Dose Rate (HDR) Brachytherapy

We deliver on average 14,000 treatments per year, reflecting steady growth and increased access for patients across West Virginia and the surrounding region.

Patient satisfaction is a true hallmark of our program, and we are proud to maintain a 99% Net Promoter Score, with nearly every patient rating their experience as excellent.

LOW-DOSE RADIATION THERAPY (LDRT) FOR OSTEOARTHRITIS

In addition to cancer care, CAMC Radiation Oncology now offers Low-Dose Radiation Therapy (LDRT) for the treatment of osteoarthritis and certain other degenerative joint conditions.

LDRT uses carefully targeted, very low doses of radiation to reduce inflammation and relieve pain in affected joints. Unlike traditional radiation oncology, the goal is not to destroy cancer cells but to improve quality of life for patients suffering from chronic, often debilitating joint pain.

Clinical studies and international experience have shown that LDRT can provide significant and long-lasting symptom relief, especially for patients who:

- Have not responded well to standard therapies such as medication, physical therapy, or injections
- Are not candidates for surgery due to age, medical conditions, or other factors
- Are seeking a non-invasive alternative to joint replacement

This innovative treatment highlights CAMC's commitment not only to cancer patients, but also to broader applications of radiation therapy that improve quality of life in our community.

OUR PHYSICIANS

At CAMC Radiation Oncology, our physician team combines deep experience with fresh expertise to deliver the highest level of cancer care to our patients and community.

Longstanding leaders **Lloyd Farinash, MD** and **Prem Raja, MD** continue to provide trusted, compassionate care, while we are proud to welcome **Hayley Stowe, MD** and **Michael Young, MD** as the newest members of our

team. Together, these four radiation oncologists bring a wealth of knowledge, skill and dedication to advancing patient outcomes, ensuring every individual we serve receives personalized, state-of-the-art treatment close to home.

HAYLEY BEACHER STOWE, MD

Dr. Stowe joined CAMC after completing her residency in radiation oncology at Washington University in St. Louis, Barnes-Jewish Hospital, where she also earned a Master of Science in clinical investigations and served as chief resident. She has published extensively, served on national committees, and is a member of both ASTRO and the American Board of Radiology. Her clinical focus includes lung, breast and central nervous system cancers. She also has a strong passion for improving access to care and reducing the financial burdens of treatment.

MICHAEL DANIEL YOUNG, MD

Dr. Young completed his residency in radiation oncology at UNC-Chapel Hill, where he also served as chief resident. He has authored multiple research papers and book chapters on pediatric and adult radiation oncology and is particularly interested in patient safety and improving quality of life during treatment. His clinical interests include pediatrics, lymphoma and benign conditions such as arthritis, AVMs and keloids.

Together with our established providers, Dr. Stowe and Dr. Young bring new energy, expertise, and compassionate care to our patients and their families.

RESEARCH, EDUCATION AND INNOVATION

CAMC Radiation Oncology is committed to advancing cancer care through research, education, and innovation. As an affiliate of the Radiation Therapy Oncology Group (RTOG), we provide access to clinical trials for eligible patients, ensuring they benefit from the latest treatment options. Our physicians also serve as assistant clinical professors with the West Virginia University School of Medicine, helping train the next generation of medical professionals through elective rotations and resident education. Beyond cancer care, we are expanding the role of radiation therapy with innovative treatments such as Low-Dose Radiation Therapy (LDRT) for osteoarthritis, reflecting our dedication to improving both outcomes and quality of life for patients across our region.



Urology Services

The CAMC urology department continues to grow and expand urologic services in West Virginia. CAMC Urology remains a leader in urologic cancer care in this region with three fellowship-trained urologic oncologists who work closely with medical oncology and radiation oncology to provide state of the art medical care.

Our multidisciplinary approach to cancer care is coordinated through the CAMC Genitourinary Tumor Board consisting of medical oncology, pathology, radiation oncology, radiology, urology and other specialties. Bi-weekly the CAMC Genitourinary Tumor Board meets to create a multidisciplinary treatment plan for our patients to ensure best outcomes. All treatment is initially based on the National Comprehensive Cancer Network guidelines then adapted to the specific characteristic of each patient. Our multidisciplinary approach is facilitated by CAMC's standalone state-of-the-art cancer center.

Some of the most modern techniques and services are being offered at CAMC including:

PROSTATE CANCER

- Now offering Exosome DX urine screening and Prostate Health Index blood screening for prostate cancer
- All Prostate Biopsies now performed as Transperineal Prostate Needle Biopsy – a technique that virtually eliminates infection from prostate biopsy and improves prostate cancer detection
- 3 Tesla Multi-Parametric MRI of Prostate – most advanced imaging modality for localized prostate cancer detection
- MRI/US Fusion Transperineal Prostate Needle Biopsy – Uronav Software allowing direct biopsy of prostate cancer lesion seen on MRI making biopsy much more accurate
- Multiple Experts in Robotic (Minimally Invasive) Prostate Surgery with same day discharge encouraged
- Stereotactic radiation is available which decreases the number of visits necessary to receive radiation treatment

- Barrigel, a gel developed to protect the intestine near the prostate for the patient receiving radiation therapy for their prostate cancer
- Genetic testing (Prolaris, Oncotype DX, Decipher) for improved management of prostate cancer
- Robust Active Surveillance program avoiding unnecessary treatment in low-risk prostate cancer
- Now offering High Intensity Focused Ultrasound (HIFU) program to limit toxicity while treating prostate cancer

BLADDER CANCER

- Cysview Bladder Cancer tool for diagnosis and treatment – technique using fluorescent technology to improve bladder cancer detection
- Use of Gemcitabine and Docetaxel as intravesical chemotherapy to reduce recurrence of certain bladder cancers – adjunct to current use of BCG, Mitomycin, Valrubicin
- Bladder Sparing Trimodal Therapy for Muscle Invasive Bladder Cancer
- Robotic (Minimally Invasive) Surgery for Muscle Invasive Bladder Cancer

KIDNEY CANCER

- Minimally invasive robotic partial and radical nephrectomy including robotic retroperitoneal approach
- Firefly technology for immunofluorescence to improve surgery capabilities
- Intraoperative laparoscopic ultrasound technology for improved outcomes with robotic partial nephrectomies
- Advanced genetic counseling and testing for hereditary cancers through Ambry Genetics
- Robust active surveillance program for small renal masses avoiding surgical risks in appropriate candidates
- Ablation therapy options available by our trained Interventional Radiologist

Academically, CAMC has an ACGME accredited urology residency with 10 total residents working to make the patient experience better with more attention during their hospital stay. Multiple academic research projects and clinical trials are being completed at CAMC.

CAMC CANCER CENTER ENROLLS FIRST PATIENT IN STRIKE TRIAL STUDYING ADVANCED KIDNEY CANCER TREATMENT

Kok H. Chan, MD, a hematology and oncology physician at Vandalia Health CAMC Cancer Center, has enrolled the first patient in the United States in the STRIKE Trial, a phase III study evaluating a new treatment approach for patients with renal cell carcinoma, a type of kidney cancer.

The STRIKE Trial, launched in March 2025, investigates whether adding the targeted therapy tivozanib to the standard immunotherapy (pembrolizumab) treatment after the surgical removal of all known sites of kidney cancer can help prevent recurrence and extend survival in patients. The trial will compare this new approach to the current standard of care — pembrolizumab alone.

The STRIKE Trial will enroll more than 1,000 patients in the U.S. diagnosed with renal cell carcinoma, the most common type of kidney cancer. Kidney cancer ranks among the top 10 most common cancers in both men and women in the U.S.

The study is conducted by the Alliance for Clinical Trials in Oncology and sponsored by the National Cancer Institute and National Institutes of Health.

CAMC Cancer Center's participation in the study is supported by the CAMC Institute for Academic Medicine Clinical Trials Center and Cancer Research Center. For over 25 years, these centers have been dedicated to advancing medical research, education and treatment.



The Breast Center

The CAMC Breast Center takes a multifaceted approach to breast health, from routine screenings and diagnosis to innovative treatments and supportive care. It was the first of its kind in the state and the first to be fully accredited by the American College of Surgeons.

The Breast Center team treats the largest number of patients with breast cancer in West Virginia. Board certified surgeons specialize in all aspects of breast health. Experienced radiologists use the latest, most advanced technologies to diagnose a full range of breast diseases.

Experienced nurses and technologists working with you for better health and outcomes. Navigators, working behind the scenes, help guide, manage and enhance your experience.

The CAMC Breast Center is a comprehensive system that cares for patients from screening to survivorship using the skills of a multidisciplinary team of experts on a routine basis.

We recognize the need to have as many tools as possible to find cancers early. The Breast Center recently began offering Screening Whole Breast Ultrasound to patients who are at higher risk for breast cancer due to dense breast tissue.

OTHER BREAST CENTER SERVICES INCLUDE:

- 3-D mammography (known as digital tomosynthesis)
- Breast ultrasound
- Minimally-invasive breast biopsies
- Rapid diagnostic program and rapid consultation program
- Multidisciplinary care from breast specialists, surgeons, medical and radiation oncologists
- Nurse navigators to provide care coordination
- Bone density screenings
- Pelvic ultrasounds
- Genetic Evaluation and Testing

Samantha D. Gilman, APRN-CNP, joined the Breast Center in 2025. She received BSN at the University of Kentucky, an MSN for APRN, WHNP at Frontier Nursing University

and board certification through the NCC. Gilman's nursing background includes working in women's health care for 11 years in obstetrics and gynecology. Her clinical interest includes genetic screening and counseling for cancer and starting a high-risk breast cancer clinic where high risk patients will be screened and monitored using NCCN guidelines.

The Breast Center is located on the third floor of the CAMC Cancer Center at 3415 MacCorkle Ave., SE in Charleston. Office hours are Monday through Friday from 7 a.m. to 4:30 p.m. Please schedule an appointment for any of our imaging services by calling **304-388-9677**.

For referrals/appointments to see a breast surgeon regarding breast health issues, please call **304-388-2872**. For more information, call **304-388-2861** or visit camc.org/BreastCenter.

BREAST CANCER MULTIDISCIPLINARY CLINIC

When you're diagnosed with breast cancer, you need quick and convenient access to skilled and experienced specialists who will help guide you through your diagnosis, treatment and recovery.

At CAMC, our breast cancer multidisciplinary clinic was designed to provide patients with comprehensive, coordinated care from a team of experts who work together to plan and implement your treatment.

In a single-day visit, you will be seen and evaluated by multiple specialists involved in your care. This team-approach allows for efficient, collaborative treatment and ensures a personalized plan of care specific to your type of cancer and individual needs.

Your team of physicians can include your breast surgeon, medical oncologist, radiation oncologist, plastic surgeon, genetic specialist and your nurse navigators. Working with you and your family, we will help you navigate the course of your treatment and recovery – every step of the way.

The clinic operates out of the Breast Center located on the third floor of the CAMC Cancer Center. If you receive a positive breast biopsy, talk to your doctor about a referral to the CAMC Breast Cancer Multidisciplinary Clinic. For more information go to camc.org/locations/camc-breast-center or call **304-388-2872**.



The 12th annual West Virginia Breast Health Conference was held March 7. CAMC experts focused on the most current topics affecting the diagnosis and treatment of breast diseases and described the current and future care of breast disorders. The program included discussions on genetics, radiology issues, breast imaging, grafting and nerve regeneration, innovations in diagnosis and pathology and immunotherapy.



Thoracic and Esophageal Surgery

CAMC Thoracic and Esophageal Surgery is home to advanced robotic and minimally invasive surgical techniques. Our highly trained specialists and team of experts provide comprehensive care and effective cancer treatments.

Argenis Herrera, MD, specializes in thoracic surgery and esophageal surgery. Dr. Herrera completed a general surgery residency at St. Vincent Hospital and a cardiothoracic surgery residency at the University of Pittsburgh Medical Center. Dr. Herrera also completed a minimally invasive thoracic surgery fellowship at the University of Pittsburgh Medical Center and a thoracic surgical oncology fellowship at Moffitt Cancer Center. He is certified by the American Board of Thoracic Surgery and American Board of Surgery.

Sandeep S. Kashyap, MD, specializes in thoracic surgery. Dr. Kashyap completed a general surgery residency at Waterbury Hospital/Quinnipiac University, a fellowship in cardiothoracic surgery at Indiana University School of Medicine and a minimally invasive thoracic surgery fellowship at Brigham and Women's Hospital/Harvard Medical School. He is certified by the American Board of Surgery.

LUNG CANCER TREATMENT

Lung cancer is the most common cause of cancer-related deaths in the world. Unfortunately, West Virginia has one of the highest incidence rates and worst outcomes for the disease.

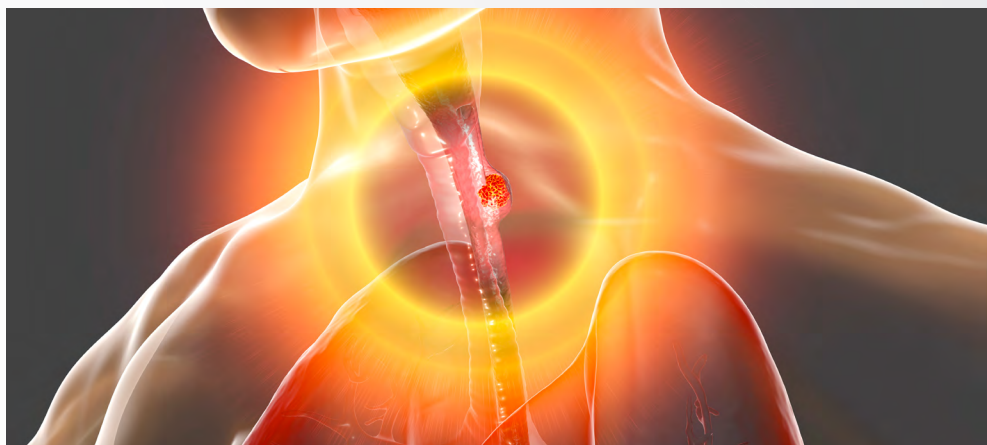
Among all the interventions to tackle lung cancer, early detection has been proven to be the most effective.

CAMC has a robust lung cancer screening and intervention program. Patients with suspicious lung nodules are seen in the lung nodule clinic and using the state-of-the-art robotic navigation system, physicians can biopsy these nodules by passing a robotic catheter through the patient's windpipe in the outpatient setting.

If lung cancer is found, he may perform a robotic lung cancer resection program where we can remove early-stage lung cancer from patients who have severe COPD with oxygen at home.



The CAMC Institute for Academic Medicine presented a free Mini Medical School for the Public Aug. 28 at the CAMC Center for Learning and Research. The topic was Understanding Cancer: Diagnosis, Treatment and Support Strategies. Speakers included Argenis Herrera, MD, Sandeep Kashyap, MD, and the nurse navigator team from the CAMC Cancer Center.



ESOPHAGEAL CANCER TREATMENT

Esophageal cancer is the sixth most common cause of cancer related deaths in USA and significantly more common in middle aged males.

Esophageal cancer is more like the progression of a chronic disease. Uncontrolled reflux leads to precancerous conditions which leads to esophageal cancer. Barrett's esophagus is a condition in which the flat pink lining of the swallowing tube connects the mouth to the stomach becomes damaged by acid reflux.

If patients are in the early stages of esophageal cancer, an endoscopic resection may be performed rather than an esophagectomy. But if the patient has a more advanced disease, CAMC has an outstanding, multidisciplinary team providing chemotherapy and radiation therapy followed by a robotic esophagectomy. The advance gastroenterologist performs endoscopic ultrasound for accurate staging of esophageal cancer to help guide the appropriate treatment.

CAMC was the first center in West Virginia to provide robotic esophagectomy for esophageal cancer.





Interventional Radiology

CAMC SPECIALISTS ON THE CUTTING EDGE OF MINIMALLY INVASIVE PROCEDURES



Amy R. Deipolyi, MD, PhD, FSIR is an interventional radiologist within the department of surgery. She earned her medical and graduate degrees at the University of California San Francisco and completed her residency and fellowship at the Massachusetts General Hospital in Boston. Before coming to Charleston, she worked for two years at NYU and five years at Memorial Sloan Kettering Cancer Center in New York City and specializes in interventional oncology and portal intervention.



Michael V. Korona, Jr., MD, FACR is an interventional radiologist within the department of surgery. He earned his medical degree from the University of Virginia. His residency and fellowship were completed at the George Washington University Hospital in Washington, DC. Dr. Korona provided interventional radiology services to the greater Huntington, WV, area for 28 years before moving his practice to CAMC.

A new combined interventional CT/angiography suite is now in use at General Hospital, with a peri-procedural workup and recovery unit. This expansion allows more patients to receive care in Interventional Radiology and bring much needed access to patients at that hospital, including advanced drainage procedures and portal interventions.

DEVELOPMENT OF ADVANCED PRACTICE PROVIDER SERVICE LINE

The CAMC IR team has founded a new advanced practice provider service line which include nurse practitioners and physician assistants, who are being trained to perform low risk image-guided interventions including bone marrow biopsy, thyroid biopsy, paracentesis, and thoracentesis. The program is mean to provide more rapid access to basic procedures that have delayed discharge or access to definitive treatments.

INTRODUCTION OF NEW IMAGE-GUIDED PROCEDURES AND PROCEDURE ADJUNCTS

CAMC IR physicians have introduced cryoablation of primary breast cancer for patients who are not surgical candidates, who decline surgery, or who require palliation for painful lesions. This is an outpatient procedure that can be performed with local anesthesia. Cryoablation can also be used in the treatment of painful bone and soft tissue

metastases. The entire suite of interventional oncology procedures is available at CAMC, such as transarterial therapies (radioembolization and chemoembolization) and percutaneous thermal ablation of renal, pulmonary and hepatic tumors.

Additionally, the team offers percutaneous endoscopy in the treatment of gallstones, for patients who are not surgical candidates for cholecystectomy. This procedure complements the IR hepatobiliary program, which includes complete biliary drainage and stenting and portal intervention. In addition to transjugular intrahepatic portosystemic shunt (TIPS) creation, the CAMC IR team performs local embolotherapies for variceal bleeding due to gastric, peri-stomal, rectal, and other types of varices.

CAMC IR physicians recently began a program of offering deep sedation for image-guided procedures, primarily utilizing ketamine and midazolam. This is anticipated to increase patient comfort and improve patient experience, while reducing unnecessary utilization of anesthesiology services.

RESEARCH

Impact of Genetic Mutations on Response and Time to Progression After Radioembolization of Breast Cancer Liver Metastasis

DAANA BAJNAUTH, AMY R. DEIPOLYI, MD, PHD, FSIR,
FRANK ANNIE, PHD, YOLANDA BRYCE, MD

Purpose: To evaluate the association between specific genetic mutations and clinical outcomes, including response rate and time to progression, in patients with breast cancer liver metastasis treated with Y-90 radioembolization.

Materials and Methods: This is a retrospective, single-institution study. 110 female patients with biopsy-proven breast cancer liver metastasis who underwent Y-90 radioembolization were included in this study. Genomic profiling was conducted using the MSK-IMPACT platform. Data was collected from electronic medical records (EMR) and Picture Archiving and Communication System (PACS) for patient demographics and treatment responses. Treatment responses were categorized as complete, partial, none, or progression. For patients with an initial response to treatment, both complete and partial, statistical analysis was performed to assess the correlation between genetic mutations and time to progression. Overall median survival using Kaplan Meier estimation was also performed and correlated to genetic mutations within the patient cohort. 17 patients died before progression could be assessed, and 6 patients have not

yet been evaluated post-procedure.

Results: The overall median survival for the cohort was 32.8 months. Patients with the ERBB2 mutation showed the longest median survival (70.2 months), while those with the RAD21 mutation had the shortest median survival (25.5 months). KDM5C and CBFB mutations were associated with the highest response rates (100%, $p = 0.00346$ and $p = 0.01462$, respectively), while the H3C13 mutation was associated with the lowest response rate (0%, $p = 0.00222$). For patients with an initial response to therapy, the median time to progression was 32.8 months. The H3F3B mutation was associated with the longest time to progression (105 months), while the RUNX1 mutation was associated with the shortest time to progression (1.4 months).

Conclusion: Specific genetic mutations are associated with survival, response rates, and time to progression in breast cancer patients with liver metastasis treated with Y-90 radioembolization. This study underscores the significant potential genetic profiling can have in guiding individualized treatment plans and improving patient outcomes.



Chemoembolization versus Radioembolization for Breast Cancer Liver Metastasis: Retrospective Multi-Institution Observational Study

AMY R. DEIPOLYI, MD, PHD, FSIR, FRANK ANNIE, PHD, YOLANDA BRYCE, MD

Purpose: To compare survival after chemoembolization (TACE) versus radioembolization (TARE) combined with immunotherapy or chemotherapy for breast cancer liver metastasis.

Materials and Methods: The multi-institution TriNetX database of anonymized data gleaned from medical records was queried using CPT and ICD-10 codes to identify patients with metastatic breast cancer who underwent TACE or TARE from January 2016 – July 2024. A total of 418 patients were included, with TARE in 334 and TACE in 84. Embolotherapy administration was assessed as following first-, second-, or third-line systemic therapy regimens, and as a combination with either chemotherapy or immunotherapy. Overall survival (OS) probabilities were assessed by Kaplan Meier analysis. Propensity score matching (PSM) analysis accounting for hormone receptor status and line of therapy was used to compare matched cohort of patients who received immunotherapy/TARE to patients who received chemotherapy/TARE, immunotherapy/TACE, and chemotherapy/TACE on survival during the study period.

Results: TARE and TACE patients were similar in age (70 v. 71 y; $P=0.287$), performance status score (0.9 v. 0.6; $P=0.15$), and ER+ status (39 v. 35%; $P=0.704$). TARE patients were less likely to be PR+ (3 v. 12%; $P=0.001$) and HER2+ (2 v. 12%; $P=0.001$). Embolotherapy was administered in combination with systemic chemotherapy or immunotherapy in 398 patients, with 64 receiving chemotherapy/TACE, 254 chemotherapy/TACE, 69 immunotherapy/TARE, and 11 immunotherapy/TACE. Embolotherapy was administered after first ($n=226$), second ($n=135$), and third ($n=37$) line therapy with no difference in the distribution of first-, second-, and third-line administration between TARE and TACE groups ($P=0.25$). Median OS, adjusted by PSM analysis, was significantly longer in patients who received immunotherapy/TARE (38 months), compared to immunotherapy/TACE (36 months; $P=0.03$), chemotherapy/TARE (33 months; $P=0.05$), and chemotherapy/TACE (30 months; $P=0.04$). Three-year survival was highest after immunotherapy/TARE (52%), followed by immunotherapy/TACE (48%), chemotherapy/TARE (45%), and chemotherapy/TACE (40%).

Conclusion: Patients who underwent TARE for breast cancer liver metastasis had better survival compared to patients who underwent TACE. Combining TARE with immunotherapy yielded the best survival rates. Findings suggest further investigation of immunotherapy/TARE combinatorial therapy for breast cancer patients who have failed systemic regimens.





Plastic and Reconstructive Surgery

CAMC Plastic Surgery is one of the largest divisions of its kind in the state of West Virginia. We provide our patients with the most up-to-date and highest quality of care. We see more than 7,000 patients a year in our outpatient clinics and perform more than 1,600 major operations annually.

Our specialists provide a broad range of reconstructive services related to oncological care including breast reconstruction, post-colorectal and gynecologic reconstruction, and soft tissue reconstruction after resection of malignancies, e.g., melanoma, sarcoma and other skin cancers. We have many well-trained and experienced surgeons able to provide the patients of West Virginia the best reconstruction options available.

The goal of reconstruction is to return the patient to their pre-cancer form and provide them with a sense of well-being and confidence.

BREAST RECONSTRUCTION

Reconstructive plastic surgery for breast cancer is performed to replace skin, breast tissue, and the nipple removed during mastectomy. Factors contributing to the amount of tissue removed include the size, and location of the original tumor, and its proximity to the armpit (called the axilla), where the lymph glands are located.

Options for reconstruction include both autologous (i.e., the patient's own tissue) tissue flap transfer and/or prosthetic implant-based reconstruction with the goal to restore symmetry between the two breasts.

IS RECONSTRUCTION RIGHT FOR ME?

The choice that is right for one woman won't necessarily be right for another. That's because the long-term prospects of living without a breast or part of a breast affect every woman differently.

After your mastectomy, you might choose to wear external breast forms or pads or make no attempt to alter your appearance. On the other hand, you might choose breast reconstruction, using either breast implants or your own tissue.

Improvements in plastic surgery techniques offer better results today than ever before and make breast reconstruction an option for most women undergoing a mastectomy.

Many women believe that breast reconstruction not only improves physical appearance, but many scientific studies have demonstrated psychological benefits as well. It's thought to promote a sense of wellness for the woman and her family.

The decision, however, is a personal one and is often not easy to make.

IS THIS CONSIDERED COSMETIC SURGERY?

Restoring the breast is NOT considered cosmetic surgery. Operations performed to restore anatomy and symmetry, like breast reconstruction after a mastectomy, are considered reconstructive surgery.

WHEN IS THE BEST TIME TO HAVE RECONSTRUCTION?

Timing of reconstructive surgery is based on the woman's desires, other medical conditions and cancer treatment. Whenever possible, plastic surgeons encourage women to begin breast reconstruction at the same time they are having their mastectomy. For many women, immediate reconstruction reduces the trauma of having a breast removed, as well as the expense and discomfort of undergoing two major operations.

It is also possible to perform the reconstruction months or years after a mastectomy. If chemotherapy or radiation treatments have been started, reconstruction may need to be postponed until those treatments are completed.

The surgical team can help you decide the best timing and options for reconstruction.

DOES INSURANCE COVER BREAST RECONSTRUCTION?

Yes. Federal law has mandated that insurance companies cover patients undergoing reconstructive breast cancer surgery or after risk reducing breast surgery (lumpectomy). Since breast reconstruction after mastectomy is part of the treatment of a disease and not cosmetic surgery, according to the American Medical Association, health insurance companies are required to pay the cost of any reconstruction surgery or any surgery on the contralateral breast such as breast lift, reduction or augmentation if needed to achieve symmetry.

MEET OUR PROVIDERS:

Jack Burns, II, MD, completed a plastic surgery residency at the University of Kentucky. Dr. Burns is certified by the American Board of Plastic Surgery.

Sarah R. Goldsberry-Long, MD, completed a plastic surgery residency and a microsurgery fellowship at the University of Washington and is certified by the American Board of Plastic Surgery.

David Hayes, MD, received his medical degree from the West Virginia University School of Medicine. He completed a general surgery residency at CAMC and a plastic surgery fellowship at University of Illinois College of Medicine at Chicago. Dr. Hayes is certified by the American Board of Plastic Surgery.

Justin McKinney, DO, completed a general surgery residency at St. Joseph's Hospital and Medical Center and a plastic surgery fellowship at St Barnabas Hospital. Dr. McKinney is certified by the American Osteopathic Board of Surgery.

Kari Hunter, PA-C received her master's degree in physician assistant studies from the University of Charleston.

Alexis Kitzmiller, FNP-BC received her BSN at the University of Charleston and her MSN-FNP at Marshall University.

Lindsay Stahlman, APRN-CNP received her bachelor's degree in nursing from the University of Charleston and her family nurse practitioner degree from the University of Cincinnati.

Mackenzie Summers received her master's degree in physician assistant studies from the University of Kentucky.

Our providers are available and happy to meet with you to discuss any questions or concerns you might have regarding reconstructive surgery. Contact our office for an appointment at **304-388-1930**.





Hemophilia Treatment Center

The CAMC Hemophilia Treatment Center (HTC) is a comprehensive program funded in part through two federal grants for the diagnosis, treatment and prevention of bleeding disorders. People throughout the life span are seen who have a congenital bleeding disorder such as hemophilia, von Willebrand disease, and other bleeding disorders along with congenital clotting disorders such as factor V Leiden.

CAMC is part of the Mid-Atlantic/Region 3 federally funded hemophilia treatment centers. The comprehensive team includes a hematologist, nurse, social worker and physical therapist. Collaboration between providers such as orthopedic surgeons, dental providers and the patient/family provides education of bleeding disorders, home infusion teaching and support. This collaboration begins at birth or with a new diagnosis of a bleeding or clotting disorder.

An educational program is offered to schools, preschools, and daycares that have children who have been diagnosed with a congenital bleeding disorder. A Point of Care muscular/skeletal ultrasound (MSKUS) evaluation is offered during clinic appointments. This allows us to enhance patient education, improve patient outcomes along with containing costs associated with unnecessary factor product and expensive imaging studies like MRIs. This is

the gold standard for joint evaluations by providing better visualization of the joints through ultrasounds.

In collaboration with the WV State Chapter of the National Hemophilia Foundation, the WV Oral Health Coalition and the CAMC HTC, a program is available for all patients needing dental care with local dentists who have knowledge of bleeding disorders. Financial assistance for dental care is available through the state chapter.

Each quarter, CAMC HTC and the FamilyCare Health Center mobile dental unit collaborate to provide dental services for patients who have a congenital bleeding disorder. Patients are seen in the hemophilia clinic and also by a dentist/dental hygienist on the same day.

In 2021, the Hemophilia Treatment Center moved into a new location and dedicated space at the Medical Staff Office Building at CAMC Memorial Hospital.

The annual Camp Hemovon is available for children ages 7-17 years old who have a congenital bleeding disorder.

Research studies are also available for eligible patients. Education and outreach for patients and their family members who have a bleeding disorder are focuses of the HTC.



Head and Neck Surgical Oncology and Reconstruction

According to the CDC, West Virginia has one of the highest rates of head and neck cancer in the country. Head and neck cancer can have a profound effect on an individual's ability to breathe, speak, eat, and swallow. Additionally, it may affect appearance and how patients interact with their loved ones.

Our group is dedicated to the comprehensive surgical management of head and neck cancers. This includes, but is not limited to, cancers of the oral cavity, pharynx, larynx, nasal cavity/paranasal sinuses, salivary glands, thyroid/parathyroid, skull base and skin.

CAMCs Head and Neck Surgical Oncology and Reconstruction (HNSOR) team is the first group in southern West Virginia dedicated to the comprehensive surgical management of Head and Neck Cancer.

We are comprised of three fellowship-trained Head and Neck Surgical Oncologists from the departments of Otolaryngology and Oral/Maxillofacial Surgery.



Alba Sanjuan, MD, PhD, is originally from Spain. She completed an oral and maxillofacial surgery residency at the Hospital Universitario Reina Sofia, Cordoba (Spain) as well as head and neck oncologic surgery and microvascular reconstruction

fellowships at the University of Florida-Jacksonville and Ascension Macomb-Oakland Hospital. Some of her special interests within the spectrum of head and neck cancer surgeries include facial reconstructive procedures following Mohs surgeries, facial reanimation for facial nerve paralysis, and concurrent resection and free flap reconstruction of advanced oral cavity tumors.



Lindsey Stull, MD, is originally from Oklahoma City. She completed an otolaryngology-head and neck surgery residency at Mayo Clinic Arizona and a head and neck surgical oncology fellowship at the University of Oklahoma. She is certified by

the American Board of Otolaryngology - Head and Neck Surgery. Some of her special interests within the spectrum of head and neck cancer surgeries include minimally invasive transoral laser microsurgical resection of early stage oropharyngeal and laryngeal cancers, surgical treatment of advanced and recurrent thyroid cancers, and total laryngectomy for advanced laryngeal cancers.



Ashley Weyh, MPH, DMD, MD, completed both an oral and maxillofacial surgery residency and a fellowship in head and neck oncology and reconstructive surgery at the University of Florida Jacksonville and more recently was an assistant

professor at the University of Chicago Illinois. She is certified by the American Board of Oral & Maxillofacial Surgery. Some of her special interests within the spectrum of head and neck cancer surgeries include use of virtual surgical planning technology to preoperatively design a custom mandibular reconstruction using free flaps from the fibula or scapula, surgical treatment of tongue cancers, and research in optimization of postoperative care and clinical outcomes.

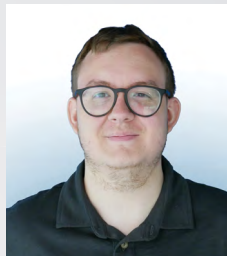
This expertise allows for a team-based approach to simultaneously address the ablative and complex reconstructive needs of the patient in a single operation, and to use cutting-edge technologies to improve the efficiency, oncologic outcomes, and functional outcomes for patients with a wide range of pathologies.



Sarah Buch, DMS, PA-C is a dedicated medical professional originally from Southern West Virginia. She completed her undergraduate studies at Wheeling Jesuit University before obtaining a master's in physician assistant studies from Alderson Broaddus University.

Furthering her commitment to the field, Sarah earned a Doctor of Medical Science degree from Lincoln Memorial University.

With a robust background in primary and urgent care as well as general and trauma surgery, Sarah now joins the team in Head and Neck Surgical Oncology and, among many other skills, has trained to assist our surgeons with complex microvascular anastomoses. Her comprehensive experience and advanced training have aided her in providing exceptional care in this critical area of medicine. She works with Dr. Sanjuan and Dr. Weyh in Maxillofacial Surgery.



Jeffrey Smythe, PA-C is originally from Texas, where he attended the University of Texas at Dallas for his undergraduate degree in Biochemistry. He later received his master's degree in physician assistant studies at Alderson Broaddus University. He has been a

key member of the head and neck cancer team for over three years, working with patients in the clinic as well as providing specialized assistance in complex surgeries and taking care of inpatients postoperatively. He often starts the process of evaluating new patients with examination and planning of testing, and he follows many patients to the important five-year mark post-treatment. He works with Dr. Stull in ENT.



Racheal Adkins, RN is our dedicated head and neck oncology nurse navigator. She guides patients through every step from the initial appointment to diagnosis and treatment, coordinating appointments and answering questions, as well as

assisting with our Multidisciplinary Head and Neck Tumor Board. This year, she applied for and received a \$10,000 grant from the CAMC Foundation for gas cards to help our patients with transportation to appointments and treatments. Racheal is often the head and neck oncology team member that patients interact with the most; she excels in problem-solving and is a great source of comfort and assistance for many of our patients.

In some cases, portions of a patient's face, mouth, tongue, and throat may need to be removed as part of their surgical treatment plan to remove a cancer. The HNSOR group uses the most up-to-date technology to successfully address the appearance and function of each individual patient with the goal of not only eliminating their cancer but restoring their quality of life.

For more information, contact the CAMC Facial Surgery Center at **304-388-3290** or CAMC Adult & Pediatric ENT at **304-388-2901**.



Gastroenterology

We use a patient-centered approach to diagnose and manage gastrointestinal malignancies and associated gastrointestinal conditions. Our advanced endoscopy unit is equipped with cutting-edge technology to provide our patients with the latest diagnostic and therapeutic options, and the best diagnostic approaches are complemented by a broad range of services to improve your overall health and promote wellness.

We provide a wide range of endoscopic procedures including endoscopic ultrasound for diagnosis and tissue acquisition for confirmation of pancreatobiliary cancers in the least invasive and safe manner. Our team is capable of debulking bile duct cancers using ablation techniques to enhance the latency of ducts in progressive malignancies. Close collaboration with the pathology department has helped us minimize the wait time for results of biopsies obtained from high-risk lesions suspicious for cancer. We practice a wellness-based approach to proper digestive health and improved quality of life. Our team is not only capable of diagnosing early stage esophageal and gastric cancers but also offers organ preserving endoscopic

treatment options for precancerous and early-stage cancers throughout the GI tract. We provide our patients with a close follow-up to ensure their well-being and cancer-free survival.

We offer endoscopic resection of large polyps of colon which helps prevent progression to cancer, without undergoing major surgical intervention. We have the opportunity to discuss our case in the Tumor Board conference to review many of our diagnostic and treatment plans in concert with a radiologist, surgical oncologist, radiation oncologist, GI pathologist, as well as other specialties as needed.

For patients with advanced stage cancers, our team offers endoluminal stenting of biliary tree, esophagus, duodenum and colon. We have capabilities to perform endoscopic gastrojejunostomy for patients with malignancy associated bowel obstruction. Percutaneous endoscopic gastrostomy and jejunostomy tube placement is offered to patients with limitations of oral intake to assist them with their nutritional requirements.

In addition to consultation in GI related cancer diagnosis and their management, we provide screenings and other endoscopic procedures, for patients with higher risk of developing cancer due to genetic predisposition or other reasons. We help our pancreatobiliary cancer patients by performing pain control procedures such as celiac nerve plexus block and neurolysis. We can also perform endoscopic ultrasound guided liver biopsies for evaluation of liver diseases.

Our center provides a calming environment where patients will be heard and not rushed through their office visit or endoscopic procedures. We answer their questions and engage our patients as an active participant in their health care. Patient education is an integral part of our program. Our service continues to grow and draws patients from the tri-state area. This is one of the busiest and most skilled advanced endoscopy centers in the region.

MEET OUR PROVIDERS:

Nadeem Anwar, MD

Muhammad Bashir, MD

Emily Battle, MD

Harleen Chela, MD

Cheryl Cox, MD

Ebubekir Daglilar, MD

Roberta Hunter, MD

Charles Rice Jr., MD

Veysel Tahan, MD

Contact our office for referrals at **304-351-1700** or visit camc.org/Gastroenterology for more information.

CAMC Gastroenterology, is located at 2930 Chesterfield Ave. in Charleston.





Children's Cancer Center

The CAMC Children's Cancer Center is accredited by the Children's Oncology Group (COG), a National Cancer Institute supported clinical trials group, which is the world's largest organization devoted exclusively to childhood and adolescent cancer research.

Comprehensive care is provided by a multidisciplinary team from CAMC and WVU Physicians of Charleston, which includes pediatric hematology/oncology physicians, a physician assistant, infusion center nurses, psychologist, chaplain, child life specialist, dietitian, social worker, physical therapist and a clinical research associate. The Center provides infusions of chemotherapy and other drugs to hematology/oncology patients, as well as infusion services for patients with other illnesses. These include blood or genetic disorders, gastrointestinal, immune and endocrine disorders.

THE CHILDREN'S CANCER CENTER TEAM INCLUDES:

Mohamad Badawi, MD, Associate Professor specializes in pediatrics and pediatric hematology/oncology. He completed a pediatrics residency at CAMC and a pediatric hematology/oncology fellowship at Cohen Children's Medical Center of New York. Dr. Badawi is certified by the American Board

of Pediatrics in Pediatrics and in the hematology oncology subspecialty. He is currently the primary investigator for the Children's Oncology Group in Charleston, WV and the director for the Hemophilia Treatment Center.

Sana Farooki, MD, Assistant Professor specializes in pediatric hematology/oncology. She completed a combined internal medicine-pediatrics residency at CAMC and a pediatric hematology/ oncology fellowship at Children's Mercy Hospital and a pediatric Bone Marrow Transplant and Cellular Therapy fellowship at Memorial Sloan Kettering, New York. Dr. Farooki is certified by the American Board of Pediatrics in Pediatrics with a subspecialty in pediatric hematology/ oncology. She is also certified by the American Board of Internal Medicine.

Katelyn Steigerwald, PA-C, specializes in pediatric hematology/oncology and pediatric cardiology. She completed PA school at Alderson Broaddus University in Philippi, WV. Katelyn is certified by the National Commission on Certification of Physician Assistants.

Kimberly Russell, LPN, serves as the primary clinical research associate (CRA) for our Children's Oncology Group (COG) trials. As the CRA, Russell works with the investigators to implement, communicate and coordinate protocol-required activities.



She also helps our young patients, and their families navigate through their clinical research journey. **Susan Smith**, RN, clinical research nurse, provides additional coordinator support. Both ladies have extensive experience across multiple specialties. **Megan Ware**, BBA, CCRP, and **Jongie Shelton**, BBA, are research assistants providing regulatory support with local and central Institutional Review Boards.

Under the leadership of **Lisa Luikart**, MBA, Clinical Research Operations Manager, and **Kristi Sutphin**, BBA, CCRC, Clinical Research System Director, the team is continuing to realize operational efficiencies and standardizations. We've reduced the time to open new trials from weeks to a few days. Our site has received COG accreditation for an additional three years – a testament to the diligence and excellence of this team. Together, our team has over seventy-five years of clinical research experience.

Melissa Appleton, RN, is a pediatric certified chemotherapy nurse with more than 20 years nursing experience and 12 years dedicated to the care of our pediatric cancer patients. She has been awarded the CAMC's Heart and Soul recognition.

Natalie Alltop, RN, is a pediatric certified chemotherapy nurse, with more than 15 years' nursing experience.

Linda Ankeney, LPN is a licensed practical nurse with more than 15 years' experience with our pediatric cancer patients.

Summer Ray, CLS, Women and Children's Hospital child life specialist, holds a degree in child development and family studies. Child life provides patients with developmentally appropriate education on their oncology diagnosis and helps to prepare and support patients through procedures and visits to the center. Child Life normalizes the hospital environment and helps promote positive coping through a patient's treatment journey.

Resource Center of Case Management provides social work needs for the children's cancer center. They do an initial psychosocial assessment with the family and offer support by providing financial applications to assist the family while in treatment.

Jennifer Adkinson, MSW, LCSW, is a licensed clinical social worker who provides mental health therapy to outpatients at the Family Resource Center. Prior to her therapy role, she spent five years as a hospital social worker at CAMC Women and Children's. She participates in weekly rounding for the Children's Cancer Center patients and follows them for mental health needs.

Kendra Dye, NRCMA, is a pediatric medical assistant. She has provided quality care for hematology/oncology patients for the past four years after completing her clinical experience at the CAMC Cancer Center.

Services provided by this center accommodate those pediatric patients receiving care in which inpatient hospitalization is not required. Care is based on a family centered approach.

The CAMC Children's Cancer Center started a dedicated cancer survivorship clinic. An oncologist, psychologist, dietitian, and other pediatric subspecialties are available on the third Friday of every month to help our cancer survivors.

INFUSION SERVICES AT THE CHILDREN'S CANCER CENTER INCLUDE:

- IV infusions of chemotherapy
- Blood product transfusions
- Administration of immune disorder solutions
- Enzyme replacement therapy
- IV antibiotic therapy
- Serial laboratory work
- Intramuscular (IM) injections
- Management of centrally placed lines/ports

The Children's Cancer Center has state-of-the-art equipment with each individual patient room providing comfortable recliners and a welcoming atmosphere allowing the experience of a home environment during their treatment. Activity offerings include games, televisions, DVDs and a playroom for each child battling cancer or other diseases. All the patient rooms are private, which allows for added safety and comfort for those who are sick or are immune compromised.

AREAS OF COG PEDIATRIC CANCER RESEARCH TRIALS CURRENTLY AVAILABLE INCLUDE:

- Leukemias
- Lymphomas
- Germ Cell Tumors
- Hodgkin's Lymphoma
- Neuroblastomas
- Langerhans
- Osteosarcomas
- Renal tumors, Wilms Tumors
- Sarcomas, Rhabdomyosarcoma
- Outcomes, Diagnostics, Biology, and Registries

Our goal is to provide family centered care. For more information, click here to visit the [CAMC Children's Cancer Center](#).





Inpatient Oncology Unit

The inpatient oncology unit at CAMC Memorial Hospital is designed for the unique needs of our oncology population.

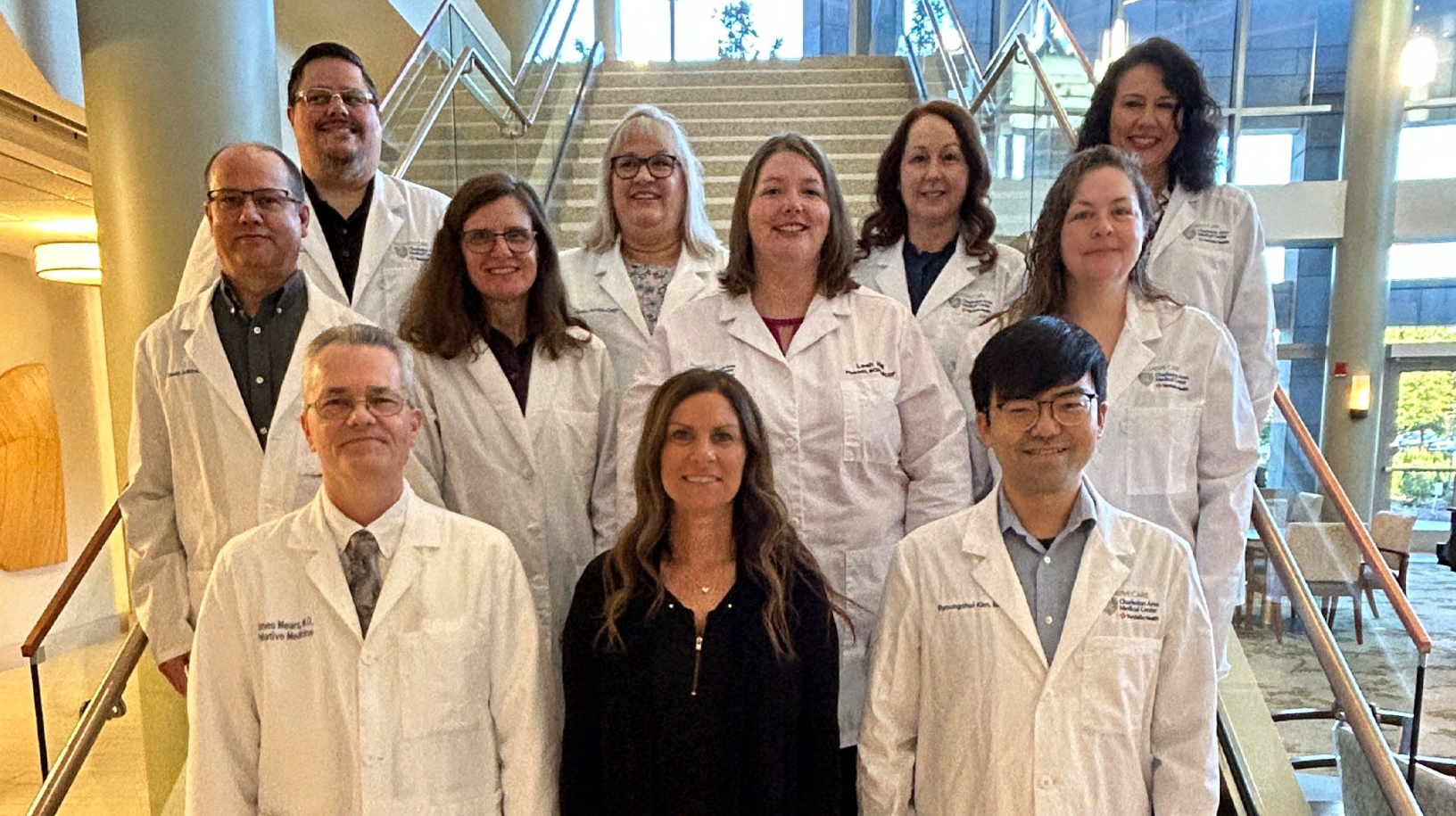
With 29 private rooms, this provides privacy and the convenience for participation of designated care partner to be actively involved in patient's plan of care.

The interdisciplinary care team works together to evaluate and direct the optimal course for the patients and their transition to home or ancillary facilities, with focus on symptom management and necessary in-home services that are available.

We recognize the importance of healing of the spirit and have provided for additional experiences such as arts and crafts, pet therapy and music therapy. We have a piano placed on our unit that anyone is welcome to use.

We strive to provide a healing atmosphere while assisting patients through a stressful and challenging time of their life.





Palliative care

Palliative care is a medical specialty which focuses on helping patients achieve the best possible quality of life when dealing with a serious illness. As such, the Palliative Care Team at CAMC helps cancer patients and their families cope with the multiple dimensions of their disease.

Palliative care differs from hospice in that patients may continue receiving cancer treatments, such as chemotherapy and radiation therapy, while concurrently receiving palliative care, as opposed to hospice care in which patients who have a limited life expectancy shift the focus of their care to just managing symptoms rather than continuing cancer treatments. Attention in both focuses on improving quality of life and relief from pain and the symptoms that can interfere with daily life.

The CAMC Palliative Care Inpatient Team also provides assistance with goals of care clarification, discharge planning, advance care planning and completion of medical directives such as medical power of attorney documents and living wills. As part of the cancer team, palliative care specialists collaborate with the oncologists, supporting

curative treatment when possible or helping with other options when cure is no longer the goal of treatment.

Psychosocial, emotional, and spiritual needs are addressed by the palliative care team as well, and patients may be referred to other specialists to assist with managing those aspects of cancer care. When necessary, members of the team meet with patients and their families to discuss goals of care to align treatment with patient values and preferences.

The inpatient palliative care team consists of social workers, pharmacists, physicians, and nurse practitioners. Currently, the CAMC Palliative Care Team is available weekdays from 8 a.m. to 4 p.m. for inpatient consultations when patients are hospitalized.

Community palliative care is often available for patients in the surrounding area by nurse practitioners not affiliated with CAMC who perform house calls to address symptom management and discuss goals of care as well. Work is in progress to develop a palliative care clinic at the CAMC Cancer Center to meet the needs of patients on an outpatient basis.



Pathology

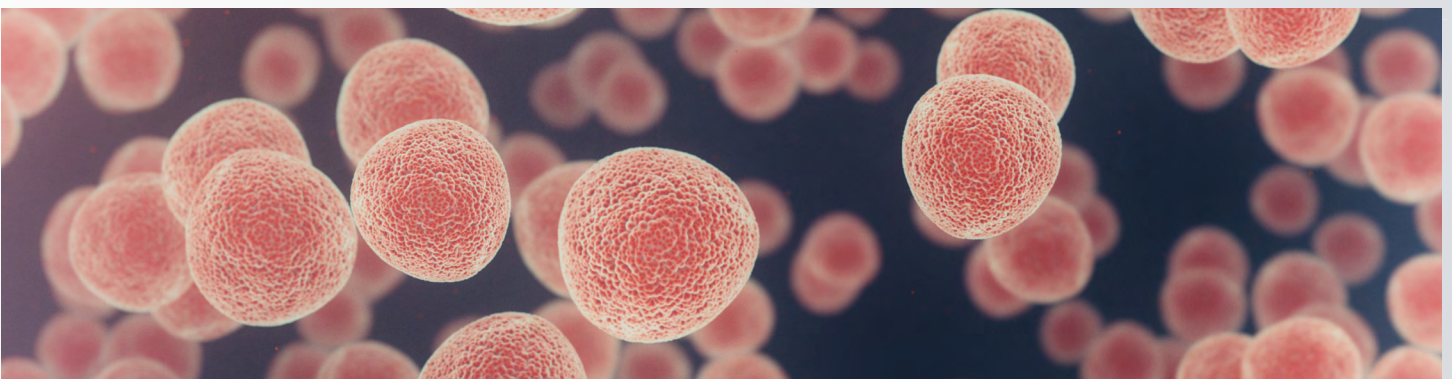
CAMC department of pathology laboratory medicine is accredited by the College of American Pathologists.

The department's 12 experienced pathologists actively participate in the cancer care at CAMC. The pathologists are all certified by the American Board of Pathology. Many of them hold subspecialty board certifications including hematopathology, neuropathology, cytopathology and transfusion medicine.

Several pathologists have specialty training and particular areas of expertise and interest in fine-needle aspiration, gynecologic oncology, breast pathology, gastrointestinal pathology and bone and soft tissue (orthopedic) pathology.

The department offers in-house ancillary diagnostic modalities: flow cytometry, immunohistochemistry and automated quantitative image analysis. The department has telepathology capability for intraoperative consultation between all four CAMC hospitals.

Pathologists participate in conferences and tumor boards including general and breast tumor board, urology tumor board, gynecology tumor board, gastrointestinal tumor board, thoracic tumor board, neuroscience rounds and orthopedic conference.





Surgery

Charleston Area Medical Center is fortunate to have a very experienced and well-trained group of surgeons that can effectively treat the cancer patients of the region.

The section of oncologic surgery has advanced steadily over the years, supported by a long history of cutting-edge approaches to the treatment of solid tumors.

Every week, surgeons treat patients with tumors of the breast, prostate, kidney, thyroid, colon, rectum, gynecologic, pancreas, liver, skin (including melanoma), esophagus, stomach, lung and many others.

A unique feature of the surgeons at CAMC is the collaborative effort put forth to ensure that the best care is provided for each patient. It is not unusual to have surgeons from different specialties or expertise to assist each other on some of the more complicated procedures when a multidisciplinary approach is needed. This teamwork approach assures the patient of better recovery and outcomes.



2025 Center for Cancer Research Status Report

CAMC has a long, accomplished history of research and academic excellence.

In July 2025, **James Campbell, II, MD**, was appointed as the new president of IAM, continuing the legacy of Sharon Hall, MSM, and Doug Knutson, MD. "As the new president of the CAMC Institute for Academic Medicine, I remain committed to supporting and driving oncology research endeavors forward on behalf of the community we serve. CAMC has over four decades experience of providing the latest care to our patients and I look forward, through research, to continue this proud heritage," shared Dr. Campbell. The team welcomes and looks forward to working alongside Dr. Campbell.

The CAMC Institute for Academic Medicine Center for Cancer Research continues to provide local access to relevant clinical trials, testing and treatments to the people of West Virginia. Our active clinical trial portfolio covers a broad range of malignancies. With the intent of preventing and treating these malignancies, we not only have ongoing internal investigations, but we also partner with major cancer institutions such as the National Institute of Health/ National Cancer Institute, Johns Hopkins, Cleveland Clinic, Duke, Ohio State and Sloan Kettering Cancer Centers.

CANCER RESEARCH CENTER AND CLINICAL TRIALS CENTER

Our highly experienced clinical investigators and team demonstrate a deep commitment to advancing research through clinical trials and academic endeavors. As investigators, they are responsible for leading and managing all aspects of research conducted at our site. Their duties associated with clinical research are vast and multifaceted, yet, patient safety, regulatory compliance and research integrity are paramount among their responsibilities.

The Cancer Research Center and Clinical Trials Center are solely dedicated to the support of clinical research. Teams of trained study coordinators and research assistants facilitate the execution of protocol activities with investigators' oversight.

Ahmed Khalid, MD, continues to serve as our lead investigator for adult oncology trials. He leads numerous

treatment and diagnostic trials covering multiple body systems.

Loay Al Asadi, MD, partners with CAMC's Clinical Trials Center and serves as the principal investigator for multiple industry-sponsored research trials for detection of lung cancer utilizing low-dose CT scans.

Mohamad Badawi, MD, serves as the head of the pediatric oncology research program and is CAMC's principal investigator with Children's Oncology Group. Dr. Badawi is also the director for the Hemophilia Treatment Center.

Stephen H. Bush, II, MD, leads the gynecologic oncology research program. He is the principal investigator for several NCI NCTN treatment trials. He is also participating in industry-sponsored treatment and diagnostic studies.

Kok Hoe Chan, MD, is the principal investigator for multiple trials spanning a broad range of disease categories, including several genitourinary studies. Dr. Chan enrolled the very first patient in the United States on A032201 – STRIKE, a phase III study evaluating a new treatment approach for renal cell carcinoma. He is also leading the medical oncology team as we expand into pharmaceutical industry trials.

Samuel Deem, DO, partners with CAMC's Clinical Trials Center and serves as the principal investigator for multiple industry-sponsored research trials for bladder and prostate cancers. Dr. Deem is the Program Director for the Urology Residency program.

Sana Farooki, MD, serves as an investigator for our pediatric oncology program. She has enrolled several patients in various COG studies.

Nathan Hale, DO, partners with CAMC's Clinical Trials Center and serves as an investigator for several industry-sponsored research trials for bladder and prostate cancers. He also serves on the Urology Residency faculty, mentoring residents and students.

Amir Kamran, MD, is the Director of the Hematology and Oncology Fellowship program. This three-year program is in its second year at CAMC. We currently have four fellows and plan to add two more in 2026. Research is a vital part of the fellowship curriculum and experience.

Anahat Kaur, MD, serves as the principal investigator for two gastroesophageal trials through NCI's National Cancer Trial Network (NCTN).

Michael G. Stencel, DO, partners with CAMC's Clinical Trials Center and serves as the principal investigator for several industry-sponsored research trials for bladder and prostate cancers.

Clinical trials have the potential for positively changing the treatment paradigm of cancer patients. The CAMC Cancer Research Center is committed to providing local access to cutting-edge clinical trials, which have the potential to positively change the paradigm of cancer treatment.

Under the leadership of **Kristi Sutphin**, BBA, CCRC, Systems Director for Clinical Trials, and **Lisa Luikart**, MBA, Clinical Research Operations Manager, the department is in a strong position to achieve its mission. Sutphin has successfully led the CAMC Clinical Trials Center for over 20 years, building a top-notch team that positively impacts patients across various disciplines, with participation in hundreds of clinical trials. Quality is of utmost importance. These ladies have more than 40 years of experience, primarily working with pharmaceutical and device industries. The team has navigated 10 FDA audits successfully throughout the years. At any given time, the Cancer Research Center manages over 80 ongoing trials, while the Clinical Trials Center manages over 50 ongoing sponsored pharmaceutical and device trials.

In the first year of this strategic plan cycle, several successes have been realized. The Cancer Research Center's team expanded, welcoming **Beth Whiting**, RN, MSN, as a clinical research nurse with extensive oncology experience, to the team during the summer of 2024. **Susan Smith**, RN, and **Kimberly Russell**, LPN, joined the team as clinical research nurses. Both ladies have extensive experience across multiple specialties. **Megan Ware**, BBA, CCRP and **Jongie Shelton**, BBA, are familiar faces, providing research regulatory support, including submissions to the CAMC and central Institutional Review Boards. The Cancer Research team has an impressive 80 years of combined experience. The department continues to invest heavily in training and development.

The Cancer Research Center has standardized and streamlined processes, improving efficiency and quality. As a result of these processes, NCTN trials to be fully opened for enrollment within a few days, instead of weeks or months. One example of the commitment to quality is the achievement of the Children's Oncology Group

Accreditation for an additional three-year period. The second year of operationalizing the long-awaited cancer research services strategic plan is underway. Direction and input of the various service lines within the cancer care delivery system provide better integration cancer research-related services for our patients and stakeholders.

Continued investment in opportunities available through our partnership with the National Cancer Institute's National Clinical Trials Network (formerly multiple NCI Cooperative Groups) grants access to a vast array of studies to screen, diagnose, treat, and prevent cancer for every body and organ system. The NCTN's uniform platforms and communication tools ease the administrative barriers to study operations.

Investigators voiced strong passion to bring additional industry-sponsored studies to the area, citing the desire to provide the latest treatments, which historically have only been available in a select few centers in the country. Enrollment continued throughout 2024 with Urology Oncology in the area of bladder cancer studying Cretostimogene, a drug that is significant for bladder cancer treatment due to its high complete response (CR) rate. The FDA's fast track and breakthrough therapy designations for Cretostimogene underscore its potential as a backbone therapy in bladder cancer treatment.

Stephen H. Bush, II, MD, is serving as clinical investigator on a trial evaluating efficacy and safety of new methods to identify malignant ovarian tumors in real time.

Mohammad Alamgir, MD, is the clinical investigator on a pharmaceutical trial testing a bispecific antibody for the treatment of lung cancer. Kok H. Chan, MD, is leading another pharmaceutical study testing a bispecific checkpoint inhibitor for gastric cancers. These trials are expected to open in the third quarter of 2025.

Ahmed Khalid, MD, will be leading a study for first-line treatment of metastatic colorectal cancer, expected to open in the next few months. There are several additional trials currently being evaluated for thoracic oncology, breast cancer, non-small cell lung cancer and ovarian cancer among others. These are expected to open at the end of 2025 or in 2026. In late 2025 and throughout 2026, two additional trials using gene therapy treatment for bladder cancer will open under the direction of **Michael Stencel**, DO.

With a commitment to integration, visibility, and accessibility, Cancer Research team members attend all Tumor Board meetings, pediatric team meetings, and Cancer Committee. The team continues to build

relationships with Navigators, clinical, and non-clinical team members to further promote research and ensure quality. Trial offerings are tailored to meet the needs of our patient population.

OUTCOMES RESEARCH

CAMC Institute for Academic Medicine's Center for Health Services and Outcomes Research (CHSOR) was created in 1996 with the goals of improving health and care services, assuring training and continuous learning for health professionals, promoting a scientific basis for evaluation of innovations and practice in clinical and health services for ethical decision-making and policy determination. Outcomes Research facilitates supports partnerships with local investigators for research, education and community health development. The team is led by **Mary Emmett**, PhD, FACHE, Corporate Director and **Elaine Davis Mattox**, EdD, Director. As of the second quarter of 2025, the department is conducting 36 cancer-related studies, across multiple disciplines.

The Center for Academic Medicine's Center for Health Outcomes Research had a stellar impact on the field of oncology. 2024 was a record-setting year for this team's scholarly contributions to literature on national and international arenas. During 2024 and the first half of 2025, the team is credited with 55 oncology-related publications, 61 presentations and 27 posters.

RESEARCH AND ACCREDITATIONS

Research is a key element in the American College of Surgeons Commission on Cancer accreditation program. With cooperation of the Clinical Trials Center and the CAMC Outcomes Research department, the Cancer Research Center consistently met or exceeded the accrual goals required for the Academic Comprehensive Cancer Program. These department also contribute to the accreditation of the CAMC Breast Center through the American College of Surgeons.

HUMAN SUBJECTS PROTECTION AND INSTITUTIONAL REVIEW BOARD

It would be remiss to not take a moment to celebrate the extended accreditation of the CAMC Research Institute for Academic Medicine Institutional Review Boards by the Association for the Accreditation of Human Research Protection Programs (AAHRPP). **Michael Whitler**, Human Research Protection Program Manager, leads the team. He, along with **April White**, BS, Review Research Specialist

and **Emma Huffman**, MSc, HRPP/IRB Coordinator, work diligently to ensure research standards for quality and protection of research subjects. The reaccreditation period is for five years.

AAHRPP accreditation assures both internal and external customers, and most importantly, patients, that research is conducted and adhered to in the highest ethical standards and that patient safety and rights are top priority to our organization. When patients from our community participate in research here at CAMC, they can be confident that their well-being is safeguarded throughout the process," said **Dan Lucas**, PharmD, Corporate Director of Clinical Sciences Research.

The Cancer Research Center will continue to strive to expand trial options beyond treatment to include prevention, diagnostics, QOL, economic studies, and others. Most importantly, the team, working alongside oncology leadership, will strive to produce the best outcome for the patients served.



Cancer Registry

Cancer Registries have existed since 1913 to systematically collect diagnostic and treatment data on cancer patients. This data collection involves cancer occurrence type, extent, treatment, and outcomes as reported both nationally to the National Cancer Data Base (NCDB) and to the West Virginia state cancer registry. As an accredited cancer program with the Commission on Cancer (CoC), Charleston Area Medical Center (CAMC) is required to maintain a cancer data registry to collect information on all patients diagnosed and/or treated at a CAMC facility.

Since the NCDB was formed in 1989 physicians, researchers, facilities, and other interested parties have a means by which we can study the efficacy of cancer treatments for cancers diagnosed at varying stages of disease. A facility can compare performance with the other CoC accredited facilities to assist in evaluating and improving patient outcomes. A researcher can use this data to help identify when one treatment is more effective than another. Such as the case with the treatment of breast cancer when data showed that breast conserving therapies were as effective as the radical mastectomies performed in the past and resulted in major changes in how breast

cancer has been treated in recent years.

The following statistics may be of interest:

- CAMC has the highest volume for cancer care in West Virginia
- In 2024, CAMC accessioned 2764 new cancer patients into the registry. CAMC has a total of 77434 cancer cases in the cancer registry database. Of this total population 40289 patients have been diagnosed and/or treated since January 1, 2005.
- CAMC's follow-up rate of all patients in the registry is currently 98% well above the CoC's required standard of 80%. Likewise, CAMC's follow-up rate for patients diagnosed within the past five years is at 97% above the required 90% rate.
- Jennifer Butcher attended the West Virginia State Cancer Registrar's Annual Meeting on October 11, 2024, in Morgantown.
- Susan Thompson attended the National Cancer Registrars Association Annual Conference virtually on May 4, 2025, through May 6, 2025

- CAMC staff also receives training through monthly webinars from the NCRA and the North American Association of Central Cancer Registries (NAACCR).

The CoC requires personnel working in the cancer registry to obtain the Oncology Data Specialist (ODS-C) credential within three years. This standard was implemented on January 1, 2015. CAMC recognized the importance of having educated staff in the registrar role and began enrolling all registry staff in training programs well before the CoC made this requirement on January 1, 2015. All staff who abstract are credentialed.

Staff members include:

- Jennifer Butcher, ODS-C
- Melissa Roebuck, ODS-C
- Susan Thompson, ODS-C

CAMC hired three additional employees, Tessa Shrum, Elizabeth Cohen, Shannon Mazzie and Lisa Stevenson, to the cancer registry. Tessa, Elizabeth, and Shannon will be performing AA responsibilities, follow-up, case finding and various other duties. All three are interested in obtaining their ODS credential. Tessa has completed her course work and is currently completing her practicum to prepare her to

sit for the ODS exam soon.

Cancer registry data elements are nationally standardized and considered open source. Each of these measures were developed by the CoC with the exception that cancer registries would be used to collect the necessary data to assess and monitor concordance with the measures. Extensive assessment and validation of the measures were performed using cancer registry data reported to the National Cancer Database (NCDB).

All measures are designed to assess performance at the hospital or systems level and are not intended for application to individual physician performance.

In the Commission on Cancer (CoC) Optimal Resources for Cancer Care (2020 Standards), Standard 7.1 requires CoC-accredited cancer programs to treat cancer patients according to nationally accepted measures indicated by the CoC and included in the Rapid Cancer Reporting System (RCRS) tool. Standard 7.1 states that each calendar year, the expected performance rate is met for each of the selected Standards measures as defined by the CoC, and the cancer committee of each accredited program monitors them.

New quality measures were added in 2025.

THE RAPID CANCER REPORTING SYSTEM (RCRS)

The Rapid Cancer Reporting System (RCRS) is a voluntary program of the National Cancer Data Base (NCDB) that allows facilities to review and track performance on a more concurrent basis. CAMC chose to participate at the inception of RCRS because the Cancer Committee realized the potential value in being able to identify patients who may be nearing deadlines for evidence-based guidelines. The Cancer Registry submits data and monitors RCRS monthly to identify and alert providers to patients who are at risk for not receiving timely medical treatment.

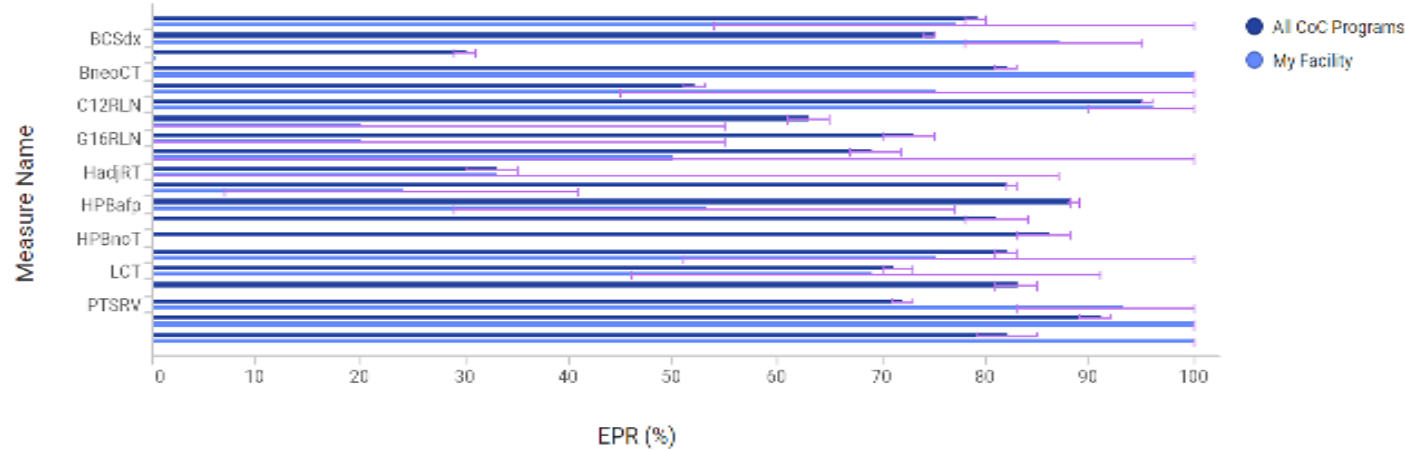
Rapid Cancer Reporting System (RCRS)

The following updates to the measure specifications were applied in: April 25, 2025		
Current Active Measures: BLCT1, BCSdx, BCSRT, BneoCT, BnoLN, CBRRT, ACT, C12RLN, G16RLN, GCTRT, HadJRT, Hp16, HPBafp, HPBCT, HPBnoT, KPN, LCT, MadJRx, PLSRV, RCRM, and RneorT		
Change	Measures affected	Description
New Breast Quality Measure	BnoLN	Added new breast new quality measure BnoLN: For patients age >= 70, grade 1-2, hormone receptor positive and HER2 negative invasive breast carcinoma with tumor size <=2cm and AJCC clinical N0, who underwent breast conserving surgery, a sentinel lymph node biopsy or axillary lymph node dissection was not performed.
		Result: The new BnoLN measure will display EPR results in RCRS QM and Comparison reports under the breast primary site.
New Head and Neck Quality Measure	Hp16	Added new head and neck quality measure Hp16: For patients with newly diagnosed oropharyngeal squamous cell carcinoma, p16 status by immunohistochemistry (IHC) is documented.
		Result: The new Hp16 measure will display EPR results in RCRS QM and Comparison reports under the head and neck primary site.
3 New Quality Measures for New Primary Site HPB	HPBafp	Added new HPB primary site and new quality measure HPBafp: For hepatocellular carcinoma of any stage, AFP (alpha fetoprotein) is obtained at diagnosis.
		Result: The new HPBafp measure will display EPR results in RCRS QM and Comparison reports for the new HPB primary site.
	HPBCT	Added new HPB primary site and new quality measure HPBCT: For patients with stage I or II cholangiocarcinoma (BTC) or pancreatic ductal adenocarcinoma (PDAC), who had upfront curative surgery, adjuvant chemotherapy is initiated within 180 days, or recommended.
		Result: The new HPBCT measure will display EPR results in RCRS QM and Comparison reports for the new HPB primary site.
	HPBnoT	Added new HPB primary site and new quality measure HPBnoT: For patients with stage I or II cholangiocarcinoma (BTC) or pancreatic ductal adenocarcinoma (PDAC), who underwent curative surgery, should have no residual tumor after resection of the primary.
		Result: The new HPBnoT measure will display EPR results in RCRS QM and Comparison reports for the new HPB primary site.

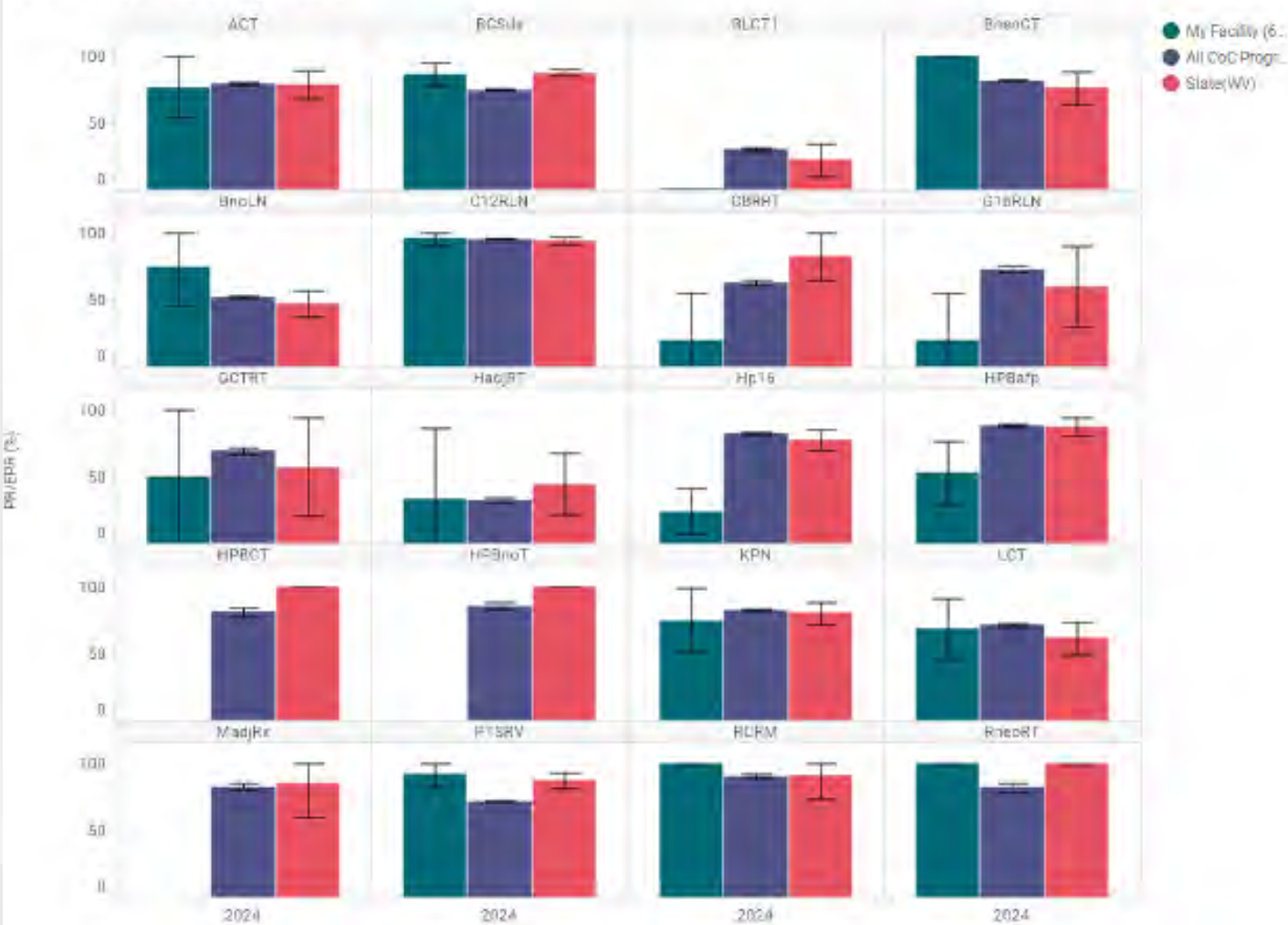
STORE Updates to 9 Quality Measure	BCSdx	Updated AJCC TNM Clin N codes starting with diagnosis year 2019 per STORE
	Result: AJCC TNM Clin N codes for cases diagnosed in 2019 and forward will now be validated per STORE. AJCC TNM Clin N coded as blank will no longer be incomplete and thus considered for eligibility.	
	ACT	Updated AJCC TNM Path Stage Group codes starting with diagnosis year 2025 per STORE v25
	C12RLN	Result: AJCC TNM Path Stage Group codes for cases diagnosed in 2025 and forward will now be validated per STORE v25. AJCC TNM Path Stage Group coded as blank will no longer be eligible and thus incomplete.
	G16RLN	1) Updated AJCC TNM Clin Stage Group codes starting with diagnosis year 2025 per STORE v25 2) Updated AJCC TNM Path Stage Group codes starting with diagnosis year 2025 per STORE v25 3) Updated RX Hosp -- Surg 2023 codes starting with diagnosis year 2025 per STORE v25
	Result: 1) AJCC TNM Clin Stage Group codes for cases diagnosed in 2025 and forward will now be validated per STORE v25. AJCC TNM Clin Stage Group coded as blank will no longer be eligible and thus incomplete. 2) AJCC TNM Path Stage Group codes for cases diagnosed in 2025 and forward will now be validated per STORE v25. AJCC TNM Path Stage Group coded as blank will no longer be eligible and thus incomplete. 3) RX Hosp -- Surg 2023 codes for cases diagnosed in 2025 and forward will now be validated per STORE v25. RX Hosp -- Surg 2023 coded as blank will no longer be eligible and thus incomplete.	
	GCTRT	Updated RX Summ -- Surg 2023 codes starting with diagnosis year 2025 per STORE v25
	LCT	
	MadJRx	Result: RX Summ -- Surg 2023 codes for cases diagnosed in 2025 and forward will now be validated per STORE v25. RX Summ -- Surg 2023 coded as blank will no longer be eligible and thus incomplete.
	HadJRT	1) Updated AJCC TNM Clin Stage Group codes starting with diagnosis year 2025 per STORE v25 2) Updated AJCC TNM Path Stage Group codes starting with diagnosis year 2025 per STORE v25
	RCRM	Result: 1) AJCC TNM Clin Stage Group codes for cases diagnosed in 2025 and forward will now be validated per STORE v25. AJCC TNM Clin Stage Group coded as blank will no longer be eligible and thus incomplete. 2) AJCC TNM Path Stage Group codes for cases diagnosed in 2025 and forward will now be validated per STORE v25. AJCC TNM Path Stage Group coded as blank will no longer be eligible and thus incomplete.

Quality Measures Comparison (DX Year: 2024)

Note: report displays data available for the current year - 1.



Performance Rate Comparisons



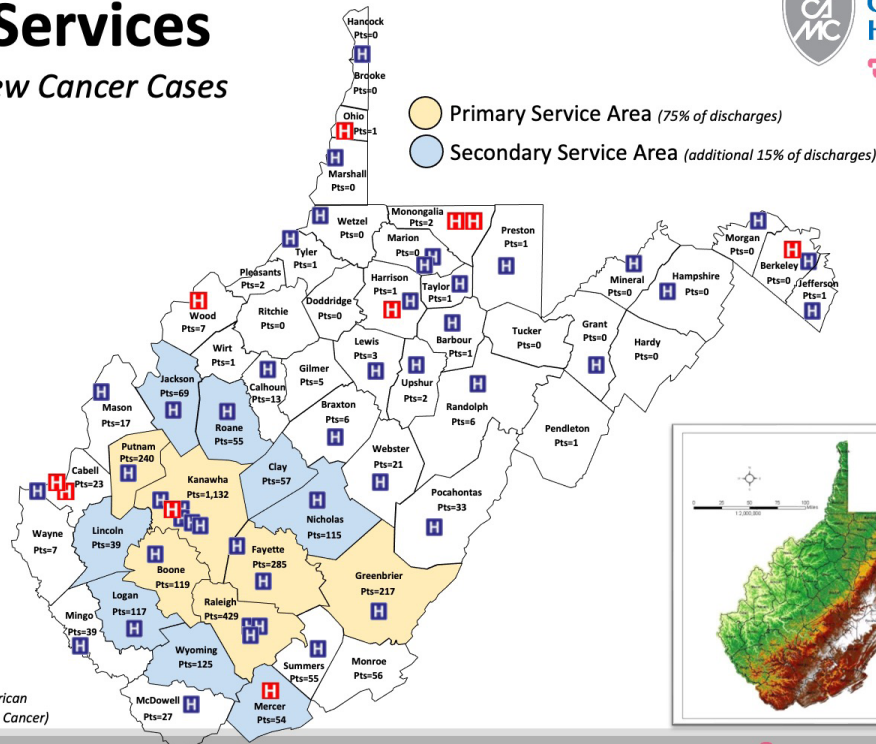
Oncology Services

2024 Incidence of New Cancer Cases

Total Cases: 3,445
WV Cases: 3,386
Out of State Cases: 59

Virginia	32	Colorado	1
Alleghany	6	Washington	1
Bath	2	Florida	1
Covington	11	Highlands	1
Galax	2	Georgia	1
Giles	1	Douglas	1
Henrico	1	Maryland	1
Lexington	1	Garrett	1
Roanoke	1	Michigan	2
Rockbridge	1	Genesee	2
Tazewell	6	New Jersey	1
Ohio	9	Middlesex	1
Gallia	1	Rhode Island	1
Lawrence	6	Providence	1
Marietta	1	Tennessee	1
Meigs	1	Sullivan	1
Kentucky	8	Texas	1
Boyd	2	Travis	1
Martin	1		
Pike	5		

Hospital
 Hospital (Accredited by the American College of Surgeon's Commission on Cancer)



Source: CAMC Cancer Registry, American College of Surgeon Website, CMS, CAMC Planning Department 06/26/25

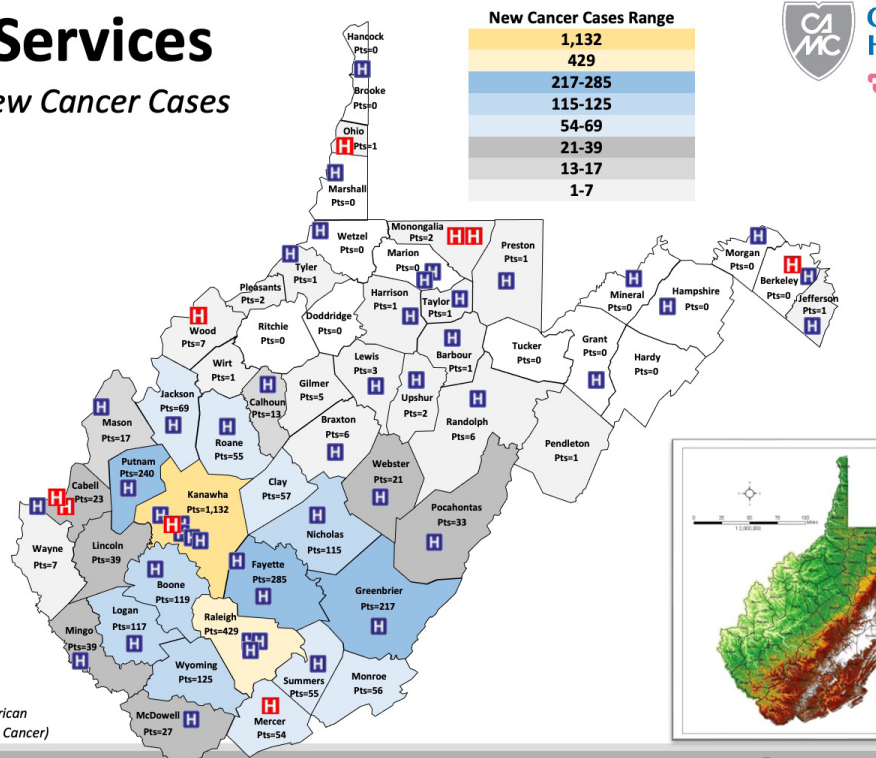
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Hospital
 Hospital (Accredited by the American College of Surgeon's Commission on Cancer)



Source: CAMC Cancer Registry, American College of Surgeon Website, CMS, CAMC Planning Department 06/26/25

Physicians providing Oncology services

GASTROENTEROLOGY **304-351-1700**

Nadeem Anwar, MD
Muhammad Bashir, MD
Emily Battle, MD
Harleen Chela, MD
Cheryl Cox, MD
Jeremy Cumberledge, MD
Ebubekir Daglilar MD
Mohamad Haffar, MD
Roberta Hunter, MD
Charles Rice, Jr., MD
Mohamad Sankari, MD
Jeremy Stapleton, DO
Veysel Tahan, MD

GYNECOLOGIC ONCOLOGY SURGERY **304-925-4200**

Michael Schiano, MD
Stephen Bush, II, MD

HEAD AND NECK SURGICAL ONCOLOGY AND RECONSTRUCTION **304-388-3290**

Alba Sanjuan, MD, PhD
Lindsey Stull, MD
Ashley Weyh, MPH, DMD, MD

INTERVENTIONAL RADIOLOGY **304-388-0193**

Amy Deipolyi, MD, PhD, FSIR,
Michael V. Korona, Jr., MD, FACR

MEDICAL ONCOLOGY **304-388-8380**

Ahsan Alamgir, MD
Muhammad Awidi, MD
Kok Chan, MD
Justin Cohen, MD
Mayez Ahmad El-Harake, MD
Amir Kamran, MD
Anahat Kaur, MD
Ahmed Khalid, MD
Rajiv Khanna, MD
Pranali Pachika, MD
David Shimm, MD

NEUROSURGERY **304-344-3551**

Lana Christiano, MD

SURGICAL ONCOLOGY **304-351-1600**

Michael Elmore, MD
Chelsea Knotts, MD

COLON/RECTAL

Benjamin Dyer, MD
(304) 351-1600
Jay Lohan, MD
(304) 925-3115

BREAST **304-351-1600**

Michael Elmore, MD
Jade Gallimore, DO
Chelsea Knotts, MD
Mark Choueiri, MD
(304) 388-5120

Physicians providing Oncology services

SURGICAL ENDOCRINOLOGY **304-351-1600**

Bryan Richmond, MD

PALLIATIVE CARE **304-388-7916**

David Adkins, MD

Byoungchul Kim, MD

James Mears, MD

Danica L. Stephens, MD

PATHOLOGY **304-388-5550**

Fahad Bafakih, MD

Oscar Estalilla, MD

Zachary Grimes, DO

Darlene Gruetter, MD

Tzongwen Huang, MD

William Mangano, MD

Nadia Naumova, MD

Andrew Plata, MD

Milton Plata, MD

Ragheb Rezko, MD

David Webb, MD

Stephanie Wright, MD

PEDIATRICS **304-388-1552**

Mohamad Badawi, MD

Sana Farooki, MD

PLASTIC SURGERY **304-388-1930**

J. Chase Burns, MD

Sarah R. Goldsberry-Long, MD

J. David Hayes, MD

Justin L. McKinney, DO

RADIOLOGY ONCOLOGY **304-388-1790**

Lloyd Farinash, MD

Premkumar Raja, MD

David Shimm, MD

Hayley Stowe, MD

Michael Young, MD

THORACIC AND ESOPHAGEAL SURGERY **304-388-5395**

Argenis Herrera, MD

Sandeep Kashyap, MD

UROLOGIC ONCOLOGY **304-388-5280**

Samuel Deem, DO, MBA, FACOS

Nathan Hale, DO, MS, FACOS

Michael G. Stencel, DO, MS



**Charleston Area
Medical Center**

 **Vandalia Health**

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