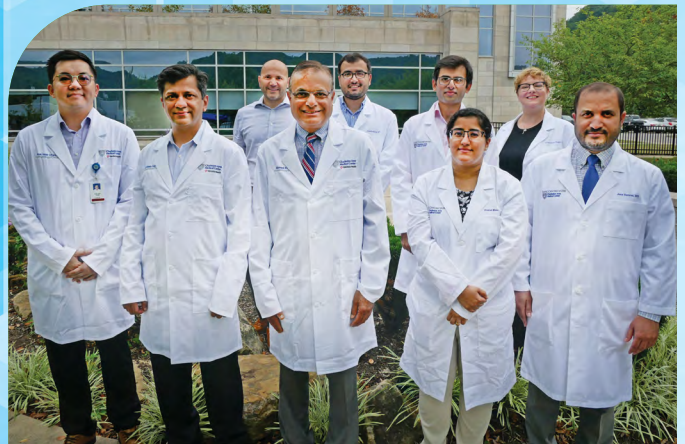


West Virginia's leading provider of cancer care

2024 CAMC CANCER SERVICES REPORT



**Charleston Area
Medical Center**

 **Vandalia Health**

2024 CAMC Cancer Services Report

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CAMC: Over 75 years of providing accredited cancer care



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 and the Commission on Cancer, the CAMC Cancer Center provides personalized multidisciplinary 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.

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 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.

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 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 that are integral to their training requirements.

2024 Accreditations

CAMC has received re-accreditation under the American College of Surgeons (ACS) Commission on Cancer (CoC) Accreditation Program.

CoC accreditation is granted to institutions committed to providing high-quality cancer care by demonstrating compliance with the CoC standards. Each cancer program must undergo a rigorous evaluation and review of its performance and compliance with the CoC standards. To

maintain accreditation, cancer programs must undergo a site visit every three years. The CoC accreditation standards supply the structure for providing all patients with a full range of diagnostic, treatment and supportive services either on-site or by referral, including community-based resources.

The Accreditation Committee of the College of American Pathologists (CAP) awarded accreditation to CAMC's laboratory based on results of a recent on-site inspection conducted by CAP inspectors. The inspection team included practicing pathology and laboratory medicine professionals. Recognized for rigorous and robust standards, CAP accreditation elevates quality and mitigates risk, an important way that laboratories can contribute to improved patient outcomes.

CAMC's lab is one of more than 8,000 CAP-accredited facilities worldwide. The CAP accreditation covers the four core labs at General, Memorial, Teays Valley and Women and Children's hospitals.



Executive director

In 2024, CAMC hired an executive director for cancer services. **Niesha Griffith, MS, RPh, FASHP** leads oncology services for all CAMC cancer center locations including Beckley, Charleston and Hurricane.

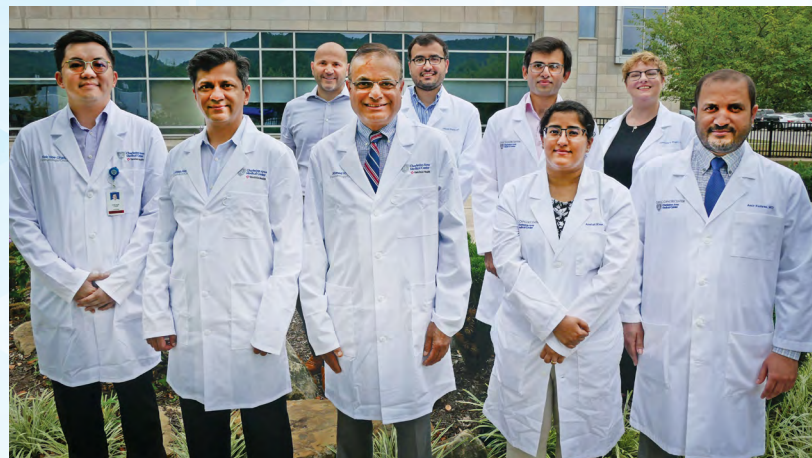
Griffith received her Bachelor of Science in Pharmacy degree from the West Virginia University School of Pharmacy and her Master of Science degree at the Ohio State University (OSU) College of Pharmacy after completing the combined two-year Masters/Residency Program in Hospital Pharmacy Administration.

Griffith has over 20 years of experience in oncology leadership including at OSU and WVU as well as executive pharmacy leadership at OSU.

Fellowship program

Also in 2024, the CAMC Hematology-Oncology Fellowship Program began. Led by program director **Amir Kamran, MD**, and program coordinator, **Leanne Lares, MA**, this fellowship program is designed to combine 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.

The Hematology-Oncology Fellowship Program will provide diagnosis-specific subspecialties, which include breast, gastrointestinal, genitourinary, gynecologic oncology, hematologic malignancies, lung and head and neck cancers.





CAMC Cancer Center



Representatives from the CAMC Cancer Center attended the WV Oncology Society 2024 Spring Meeting which featured the latest clinical advancements and strategies in cancer care. Speakers from CAMC included Dr. Ghulam Abbas, Dr. Samuel Deem, and Carrie Wines-Larch, BSN, RN, ONN-CG.

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

A DNV accredited facility, the CAMC Cancer Center provides personalized multidisciplinary cancer care, access to innovative clinical cancer research trials and hematological care for a diversity of benign and malignant conditions in a caring environment.

The Commission on Cancer survey was conducted in 2024.

The surveyor was very complimentary of CAMC:

Overall Comments from Commission on Cancer Accreditation Survey

3/18/2024

“I was welcomed to Charleston Area Medical Center to perform the virtual renewal site survey on March 18, 2024. The discussions were enthusiastically attended by the required personnel including good representation from administration. The AV support was excellent. They have been COC accredited for many years. The facility is part of a local group of four affiliated hospitals totaling approximately 900 inpatient beds. They serve a

wide catchment area with a variety of patient demographics. I enjoyed a well-produced virtual tour of the facility under review. The documentation was complete and for the most part excellent. As the newer standards for synoptic operative reports were evaluated for the first time there were some difficulties achieving compliance. The leadership is acutely aware and working hard to improve this. I felt the efforts were working moving forward. In summary, I felt this facility is providing outstanding cancer care and is complying with the standards well. They should be congratulated.”

Paul Frederick Waters, MD FACS

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Ambry Genetic Testing

Some patients are at increased risk of developing cancer due to genetic inheritance (i.e., it runs in the family). Approximately 5-10% of cancer is hereditary. The new assessment and testing, provided by Ambry Genetics, evaluates each patient’s risk of developing cancer based on questions answered on survey that pertains to the patient’s personal family history. Testing is based upon the answered questions and recommendations by NCCN (National Comprehensive Cancer Network) guidelines. Genetic testing results are a tool to help clarify cancer risk and assist the health care provider in determining the best place of action moving forward. Genetic counseling is also offered by Ambry should genetic testing result in a positive genetic mutation.

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

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 a majority of 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 have the opportunity to 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.

required) who are existing patients in active treatment. Physicians are supported by eight advance 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**.

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 CAMC Sickle Cell Clinic is dedicated to delivering comprehensive care for patients with sickle cell disease by providing easy access to specialists for disease management and preventative care. Its physicians specialize in both adult and pediatric sickle cell disease, and its multidisciplinary approach to care ensures patients receive the highest level of care to treat the many complicated facets of the disease.

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.

The clinic is accepting new patients. To schedule an appointment for pediatric patients, call **(304) 388-4979**. Adult patients can call **(304) 388-8380** to schedule an appointment or for more information.

Project ECHO

Most medical oncologists practice in urban areas, leaving rural communities without the capacity to screen, diagnose and treat patients with cancer, many of whom are diagnosed at later and less treatable stages.

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.

The CAMC Cancer Center has conducted Project Echo sessions on topics applicable to breast cancer survivorship. The format includes a short didactic by specialists followed by an in-depth case discussion.

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





CAMC Cancer Center – Beckley

College Basketball Hall of Fame Coach Bob Huggins and representatives from Little General Stores present a \$100,000 check to staff at the CAMC Cancer Center – Beckley. The funds were raised during the annual “Evening with Bob Huggins,” fundraiser held at Fairchild Motor Company showroom in Beaver, West Virginia.

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.

CAMC genetic counseling

Genetic counseling is the process of providing individuals and families with information on the nature, mode(s) of inheritance, and implications of genetic disorders to help them make informed medical and personal decisions. Though only up to 10% of cancer is due to hereditary causes, genetic counseling is a crucial component in the fight against cancer, providing individuals with valuable insights into their genetic predisposition to the disease.

A genetic counselor is a health care professional who is specifically trained to identify hereditary risks of certain diseases through the study of genetics and help the patients understand those results and the implications on themselves/their families.

Tamam Khalaf is a trained genetic counselor at the CAMC Cancer Center. She works 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 also is a board member of the Arab Society of Genetic Counselors.

"I am so glad to offer this care to our community," said Tamam Khalaf, Genetic Counselor.

"Genetic counseling is essential, not only are genetic counselors able to support the science behind genetic testing and go over complicated genetic concepts in a simple way, but we also offer significant psychosocial support to the patient."

Adult patients are identified by their referring physicians, or by a screening tool sent by the genetic counselor. A comprehensive cancer genetic risk assessment includes evaluating the family history, counseling and a discussion of the genetic testing options and possible test results.

Once the results of testing become available, the genetic counselor reviews the findings with the patient and discusses appropriate cancer screening and risk-reducing recommendations.

"I'm here to support patients as they navigate the extremely complicated world of genetics," Khalaf said. "The study of genetics changes constantly; I can offer patients the support and guidance in understanding the genetic test or the need for a genetic test based on their family history as well as understanding the implications of the genetic testing for them and their families."

For more information, call the CAMC Cancer Center at **(304) 388-8380** and ask to speak to the genetic counselor. Referrals can also be made through Cerner.



Tamam Khalaf



CAMC Cancer Center psychologist

CAMC welcomed **Sarah A. Setran**, PsyD, to the Cancer Center in 2024.

Dr. Setran specializes in clinical psychology. She 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 comes to CAMC after working as a clinical psychologist for the Department of Defense providing services to both active duty members and their families nationally and internationally.

Prior to that, Dr. Setran served as CEO and clinical director of an integrated behavioral health clinic working with professionals and doctoral candidates providing comprehensive services, including a robust telemedicine network.

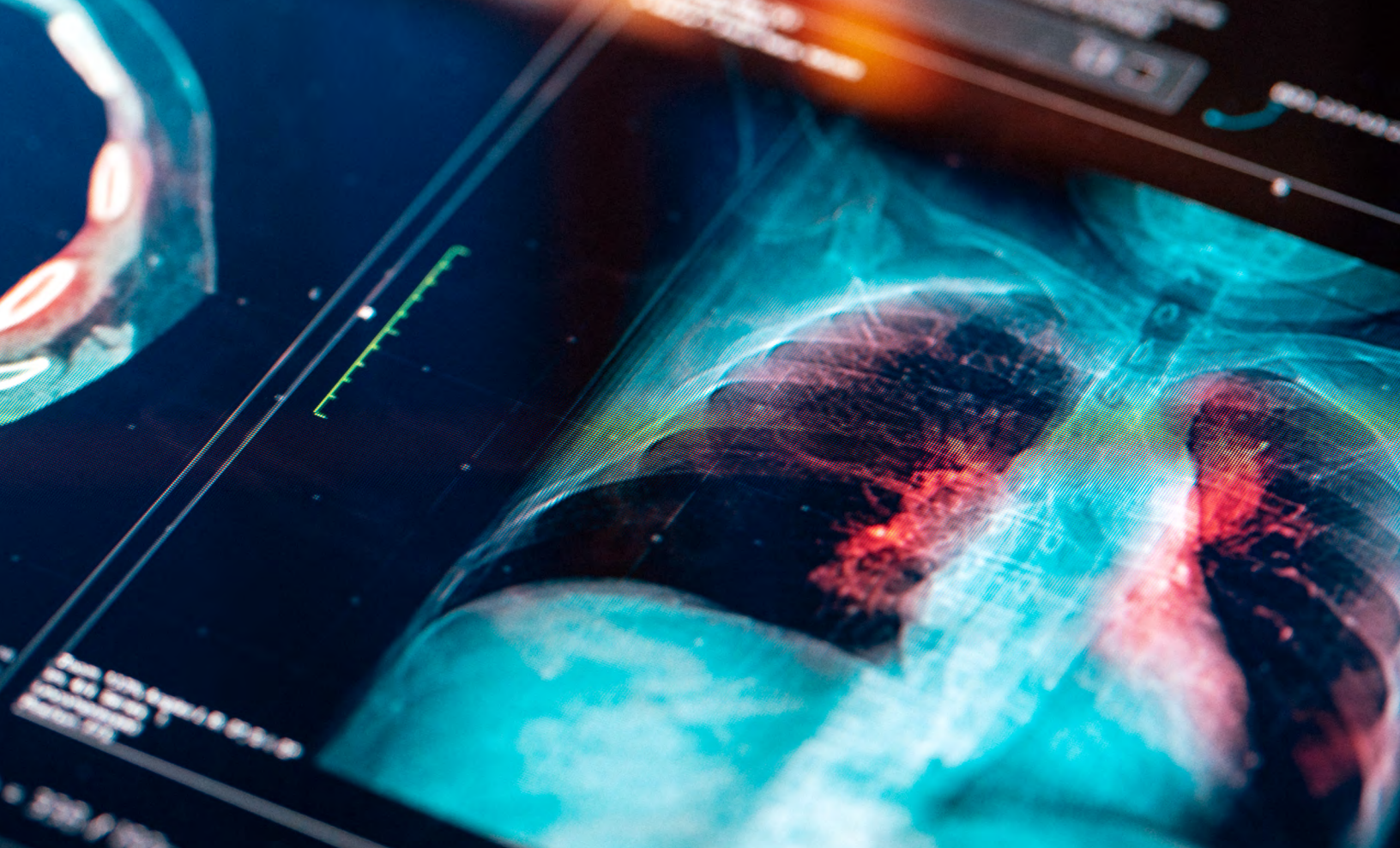
Dr. Setran also serves as adjunct faculty at Marshall University teaching introductory and doctoral level courses.

She is certified by the National Register of Health Service Providers in Psychology.

For more information, call the CAMC Cancer Center at **(304) 388-8380** and ask to speak to the psychologist. Referrals can also be made through Cerner.



Dr. Setran



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.

Ghulam Abbas, MD, joined the CAMC medical staff in 2023 specializing in robotic thoracic surgery. He is certified by the American Board of Surgery and American Board of Thoracic Surgery.

Dr. Abbas brought his expertise in robotic lung-sparing surgery for lung cancer and robotic esophagectomy for esophageal cancer.

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

“At CAMC, we have a very robust lung cancer screening and intervention program,” Abbas said. “patients with suspicious lung nodules are seen in the lung nodule clinic and using the state-of-the-art robotic navigation system we are able to biopsy these nodules by passing a robotic catheter through the patient’s wind pipe 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.

“We have a very strong multidisciplinary lung cancer team,” Abbas said. “All patients with lung are discussed and we decide what is the best treatment.”

[Click here for more information about the diagnosis and treatment for lung cancer at CAMC.](#)



CAMC doctors use new tool for earlier lung cancer detection

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

Early detection is the most effective way to tackle lung cancer.

More than 70% of all lung cancer nodules are in the tiny outer parts of the lung that can be hard to navigate. Traditionally, physicians would have to cut open the patient's chest to get a sample to test for cancer.

Now, doctors at CAMC are using a robotic navigation system to go through the patient's mouth and windpipe to access the lungs and tiny suspicious nodules alleviating the need for open surgery.

"When we are doing a biopsy with ION, a robotic platform, we can sample lung nodules that are very small, which was challenging previously," said **Sidra Raouf**, MD, CAMC Interventional Pulmonologist. "We are able to get a diagnosis more accurately in most cases. So it helps reduce the time between diagnosis and treatment."

A biopsy is an examination of tissue to discover the presence or extent of a disease.

"Once we find the lung nodule, test and diagnose it using the robotic system, we can mark them and on the same day, while the patient is already under anesthesia, and perform a robotic-assisted lung sparing surgery," said **Sandeep Kashyap**, MD, CAMC Thoracic Surgeon. "I am proud to be a part of the system where we have state-of-art-technology available to be able to diagnose and treat lung cancer at an early stage."

"It's a game changer," Raouf said. "Being able to detect cancer sooner and start treatment in earlier stages improves survival for patients."



In their own words: **Tommy Wills**

“I’m glad they found it so early.”



Like many West Virginians, Tommy Wills was a coal miner and a smoker. He tells his story of his diagnosis and quick treatment for lung cancer.

“When I retired my insurance changed, so I changed doctors.

My primary care doctor wanted to update my medical history, so she ordered things like blood work, X-rays and CT scans. The CT scan found a nodule on my left lung. More scans indicated it could be cancer.

So, I was referred to CAMC Thoracic and Esophageal Surgery where I underwent more imaging tests.

The thoracic surgeon used an advanced robotic bronchoscopy to navigate through my throat and into the outer areas of my lung to find the suspicious nodule.

He removed a sample and sent it to pathology for testing. Within a few minutes, while I was still under anesthesia, the results came back showing it was cancer.

They rolled me over and performed a lung sparing surgery with the assistance of another robot. There were five small incisions that you can barely see now.

It was all done in the same day: sampling, testing and the surgery.

I recovered in the hospital for four days and within three weeks was back to cutting grass.

All the pathology reports have come back, and they don’t show cancer. I’m clear right now.

I’m glad they found it so early. It was found in Stage 1 and that’s why I’ve had such good results.”



CAMC 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 to 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.

The Breast Center's 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

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 www.camc.org/locations/camc-breast-center or call (304) 388-2872.

Risk Assessment, Genetic Counseling & Testing

Every person has the right to know and understand their personal risk for breast and other cancers. The Breast Center offers individualized cancer risk assessment that calculates the patient's personal lifetime risk for development of breast cancer compared to the average population, this risk score helps providers determine the need for supplemental screenings such as MRI. The risk assessment also determines if the patient meets criteria for genetic testing for hereditary cancers. Nurse Practitioner, **Lisa Spradling**, and Genetics Navigator, **Amy Beaver** meet with high-risk individuals to educate and help them understand their increased risk. Counseling and testing are offered along with medical management options for cancer risk reduction, prevention, and early detection.

CAMC's Breast Center and Cancer Center staff donned their pinks and manned a booth to support breast cancer patients and survivors during the annual WV Breast Health Initiative's Race for the Ribbon.

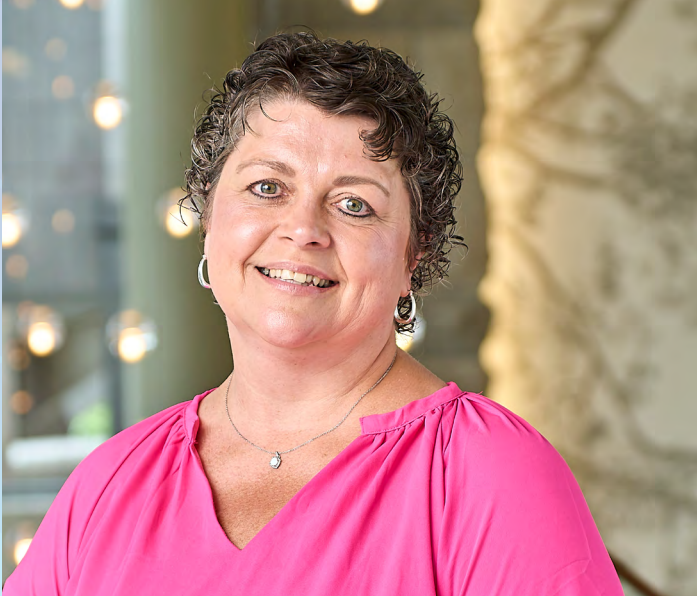


The 11th annual West Virginia Breast Health Conference was held March 1. CAMC experts focused on the most current topics affecting the diagnosis and treatment of breast diseases and describe the current and future care of breast disorders. The program included discussions on genetics, radiology issues, breast imaging, grafting and nerve regeneration, innovations in diagnosis and pathology and immunotherapy.



In their own words: Missy Bohan

“I was no longer the nurse; I was the patient.”



I have devoted the last 18 years of my nursing career to learning about breast health and breast cancer -- reading, studying, attending conferences and gaining as much knowledge as possible to care for others with breast disease/cancer.

Statistically speaking, I always felt in my heart that I would likely have breast cancer somewhere around age 70. Little did I know, shortly after turning 50 my screening mammogram showed a finding that resulted in additional imaging and recommended biopsy for a very tiny thing that was “probably nothing.”

In my gut, I knew it wasn't going to be benign, but at the same time there was peace in my heart. I knew whatever it was, God was going to help me through it.

I quickly found myself on the other side of a diagnosis. I was no longer the nurse; I was the patient.

That tiny thing turned out to be invasive ductal breast cancer. WHAT????

How can that be? I just turned 50 years old. I have no significant family history of any cancers, much less breast cancer. I have been getting yearly mammograms since I was 40 years old. Nothing more than a typical cyst had ever been found. Now I have this tiny area growing that is a cancer. A Mammogram SAVED MY LIFE!!!

I am here to tell you; the patient perspective is a whole different world than the nurse perspective. The Breast Center has the most compassionate, caring and knowledgeable nurses in the business. They listen, they hold hands, they hug, they cry with you and they pray with you. In my situation, they are friends. They are angels from heaven.

Until you are told you have cancer, you will never understand the patient perspective. So many thoughts and questions immediately go through your head. I would even venture to also say guilt. Guilt feelings of burdening your family. Your family would not see it that way, but as the patient, you do. Or at least I do.

- *How do I tell my husband?*
- *How do I tell my children?*
- *Am I going to die?*
- *How am I going to pay for this?*
- *What treatment do I need?*

Telling my husband and children the news was difficult, but I knew it had to be done. There was immediate fear in their eyes with many questions and concerns. Their fear quickly turned to a fighting spirit. I can't explain the feelings one has when your young adult child musters up enough courage to shave her mother's head.

The waiting and not knowing is one of the hardest hurdles even before you know it is cancer. From the time knowing you need a biopsy, to getting the biopsy, to waiting for results, then waiting for more results. So much anxiety waiting for all the information just to begin building a plan of care.

A rollercoaster of emotions swarms you daily. One minute you have the fighting spirit and next you are overwhelmed with fear. You try to hide the fearful side from your family and friends as not to worry them. You can only do that for so long. One day you will break.

I had a couple breaking points.

The first was an appointment with my plastic surgeon. He knows my profession and where I worked and me finding myself in a patient's shoes. He looked at me with such

In their own words: Missy Bohan

“I was no longer the nurse; I was the patient.”

continued

genuine concern and care I lost it. He immediately hugged me and helped me through that moment.

The second one came six months into my treatment process. I had already completed my surgery and chemotherapy. I was at my radiation appointment for the simulation visit. This visit allows the doctor to mark your skin in specific areas for target points based on your radiation treatment plan. They positioned me on the CT table to begin the process. My mind and heart had hurt so long that I could not hold back the emotions. Tears just poured down my cheeks and two of the staff members, whom I will never forget, just hugged me and got me through that moment. One even told me a personal story of her own and prayed with me.

So many have been supportive and encouraging. My husband never left my side. He held me when I was scared. He made sure I was fed, took my medicines, changed my dressings, emptied my drains and held me up when I didn't have the strength to stand. He has been my rock.

My prayer warriors are still praying. God is so good. He always provided what I needed when I needed it. Still is today.

Breast cancer is not breast cancer. Every single patient is different. Every single patient will have their own plan based on their pathology and other factors.

Yes, there are national guidelines for best outcomes that are followed. Even in those guidelines, there are decisions to be made. Those are tough decisions. Even for those who work with breast cancer daily.

Breast cancer is one of the most body altering cancers. No matter what you choose, you must sacrifice something.

I am over a year out of surgery, and I am still trying to get used to my new normal. I am still adjusting to my new body image. It makes me angry at times, but at the same time, I am grateful and thankful God chose to spare me one more day to try and help someone else.

From the very beginning I knew in my heart that something good would come of my diagnosis. That was the peace and strength God provided me to get through a tough situation.

A good friend of mine gave a devotion at our church and I will never forget those words. “Sometimes the storms we go through are not always for us.” I can tell you today that I am singing and praising God that my storm answered a huge prayer of mine, and I would go through it all again 10 times over just to have that one prayer answered. I can tell you many other blessings I received and still receiving from this storm called my breast cancer journey.

1 Thessalonians 5:16-18

“Rejoice always, pray without ceasing, give thanks in all circumstances; for this is the will of God in Christ Jesus for you.”

Colossians 3:15

“And let the peace of Christ rule in your hearts, to which indeed you were called in one body. And be thankful.”

Psalms 107:1

“Oh give thanks to the Lord, for he is good, for his steadfast love endures forever.”

Missy Bohan, RN, BSN, CN-BN, is the Nurse Manager for the CAMC Breast Center.

In their own words: **Kathy Newsome**

“Early detection truly saves lives.”



I was standing in the hallway at work when one of our nurses told me about a fellow manager, who was one of her best friends, had just been diagnosed with breast cancer.

Tears welled up and I thought how terrible, she's so young. Little did I know that two weeks later it was going to be me.

I had a known cyst on the right, so I had an order for a diagnostic mammogram. I was stubborn and didn't want to go because I didn't want another hospital bill and screenings were covered so why couldn't I just get a screening.

When I called Missy, the CAMC Breast Center manager, about making an appointment she said, "get over here now."

Again, I hesitated because I didn't want to be worked in if they were busy, I was just going to make a regular appointment. She again said "just come and get it done."

I was not prepared for what came next. After the mammogram I was told to have a seat in the waiting room. I sat there for a long time. This of course caused some anxiety. I needed an ultrasound on the left. What? My cyst is on the right. I had the ultrasound and Missy came to talk to me. I knew by the expression on her face something was wrong, she told me that they had found something, and I would need a biopsy.

Once the report was confirmed, she set up the biopsy for a few days later. Then the wait. Does anyone know that the

waits take three times longer than normal when you are dealing with a cancer diagnosis? By the end of that week, I had the result of invasive ductal carcinoma. This was April 23, 2021.

The rest is a blur, I have it all journaled but will spare the details of the appointments, blood work, genetic testing and weighing my options to make a decision. I had to wait until June the 3 for my double mastectomy. In the meantime, I turned 50, my daughter got her learners, so I was teaching her to drive, life was still happening. But it was always there, in the back of my mind, I'm walking around with cancer in my body.

The surgery finally happened but reconstruction was a long journey. I didn't have any nodes involved so I didn't have to have chemo or radiation. What I did have was six more surgeries over the next year for reconstruction due to seroma and incisions not healing plus a hysterectomy because the cancer was hormone positive, so I needed to be in menopause.

I feel like my body has aged 20 years in the last three years.

What I learned is every journey is different, the cancer diagnosis may be same type, same stage but everyone has a different story. I believe in the power of prayer because through the whole process, every surgery, every test, I had prayer warriors, and I had a sense of peace that was definitely above my own understanding.

I have become a huge advocate for screenings; not just the mammo, but any screening offered. Early detection truly saves lives. At one point my surgeon said, "you are cured."

It's hard to believe those words but I realized that mammo did indeed save my life.

Kathy Newsome, RBA, CNMT, is the manager for CAMC Nuclear Medicine and Cardiac Imaging.



Head and neck surgical oncology and reconstruction

The Head and Neck Surgical Oncology and Reconstruction's mission is to provide exceptional patient care from the first consultation through perioperative period and finally the surveillance journey. This has been made possible by the dedicated Nurse Navigator, Physicians Assistants, Operating Room and Clinical Staff which are the backbone of our service line.

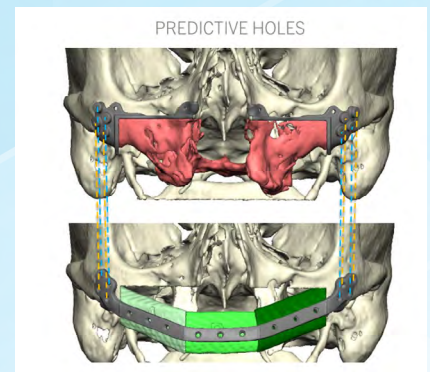
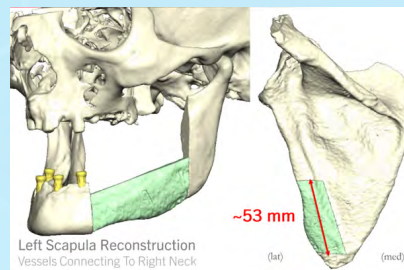
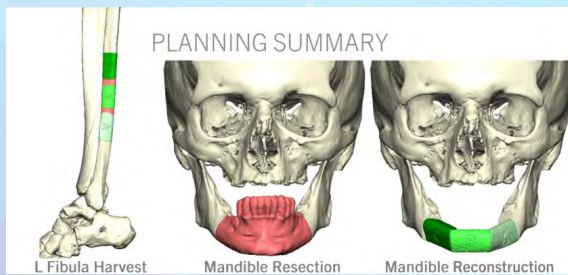
According to the CDC, West Virginia has one of the highest rates of Head and Neck Cancer in the country. Most patients with this diagnosis come from the southern half of the state and most often present with advanced stage disease.

Head and Neck Cancer can have a profound effect on an individual's ability to breathe, speak, eat, and swallow. Additionally, it may affect their appearance and how they interact with their loved ones.

Our group is dedicated to the comprehensive surgical management of Head and Neck Cancer. This includes but is not limited to cancers of the oral cavity, pharynx, larynx, nasal cavity/paranasal sinus, 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.



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



Dr. Sanjuan

Alba Sanjuan, MD, PhD, completed a head and neck oncologic surgery and microvascular reconstruction fellowship at the University of Florida and a head and neck oncologic surgery and microvascular reconstruction fellowship at Ascension Macomb-Oakland Hospital.

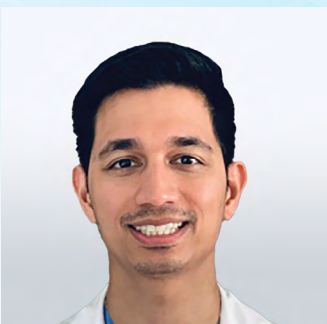
With a robust background in primary and urgent care as well as general and trauma surgery, Sarah now specializes in Head and Neck Surgical Oncology. Her comprehensive experience and advanced training have aided her in providing exceptional care in this critical area of medicine.



Dr. Stull

Lindsey Stull, MD, 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.

Outside of work, Sarah enjoys reading, hiking and spending time with her husband and two dogs.



Dr. Waris

Samir Waris, DMD, MD, completed an oral and maxillofacial surgery residency at Mayo Clinic Minnesota and a head and neck oncology/microvascular reconstructive surgery fellowship at St. John Hospital. He is certified by the American Board of Oral & 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 the Physician Assistant program Alderson Broaddus University. During his clinical rotations in Charleston, he met his now wife and decided to remain in West Virginia to be close to her family. He has been a member of the Head and Neck Cancer team for two years and is proud to work with such a fantastic group of providers in serving our community in Charleston.

This expertise allows for a team-based approach to simultaneously address the ablative and complex reconstructive needs of the patient in a single operation.

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

Sarah Buch, PA-C is a dedicated medical professional originally from Southern West Virginia. She completed her undergraduate studies in biology and chemistry 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, where she graduated with honors and was proudly inducted into the Pi Alpha Honor Society.

For more information, contact the CAMC Facial Surgery Center, **(304) 388-3290**.



Interventional radiology

CAMC specialists are expanding a service line 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.

Planned expansion at the General Hospital

Within the next year, a new combined interventional CT/

angiography suite will be built at the General Hospital, with a peri-procedural workup and recovery unit. This expansion will allow 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

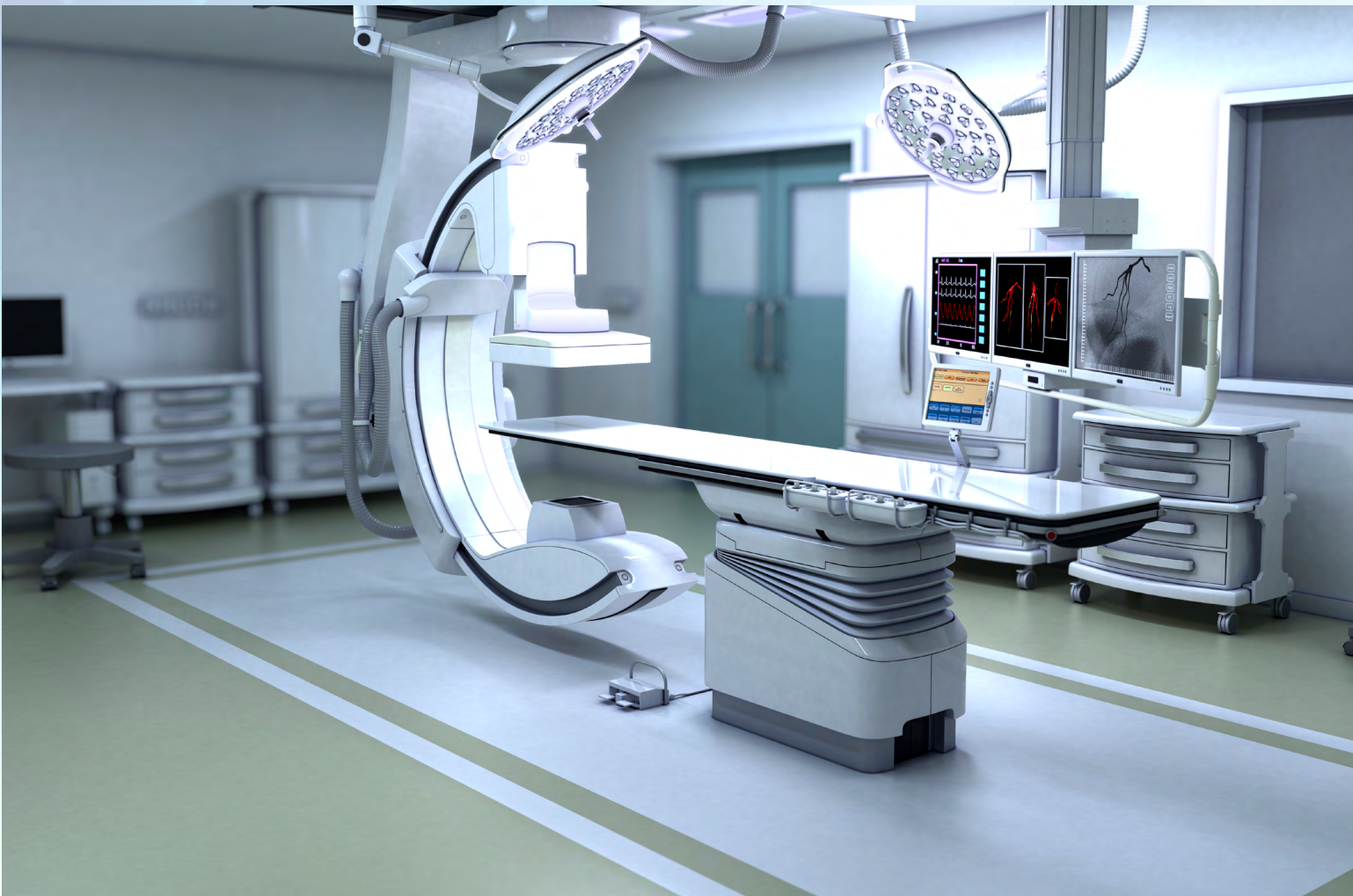
CAMC IR physicians have introduced cryoablation of primary breast cancer for patients who are not surgical candidates, who decline surgery, or who require palliation

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, peristomal, 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.





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

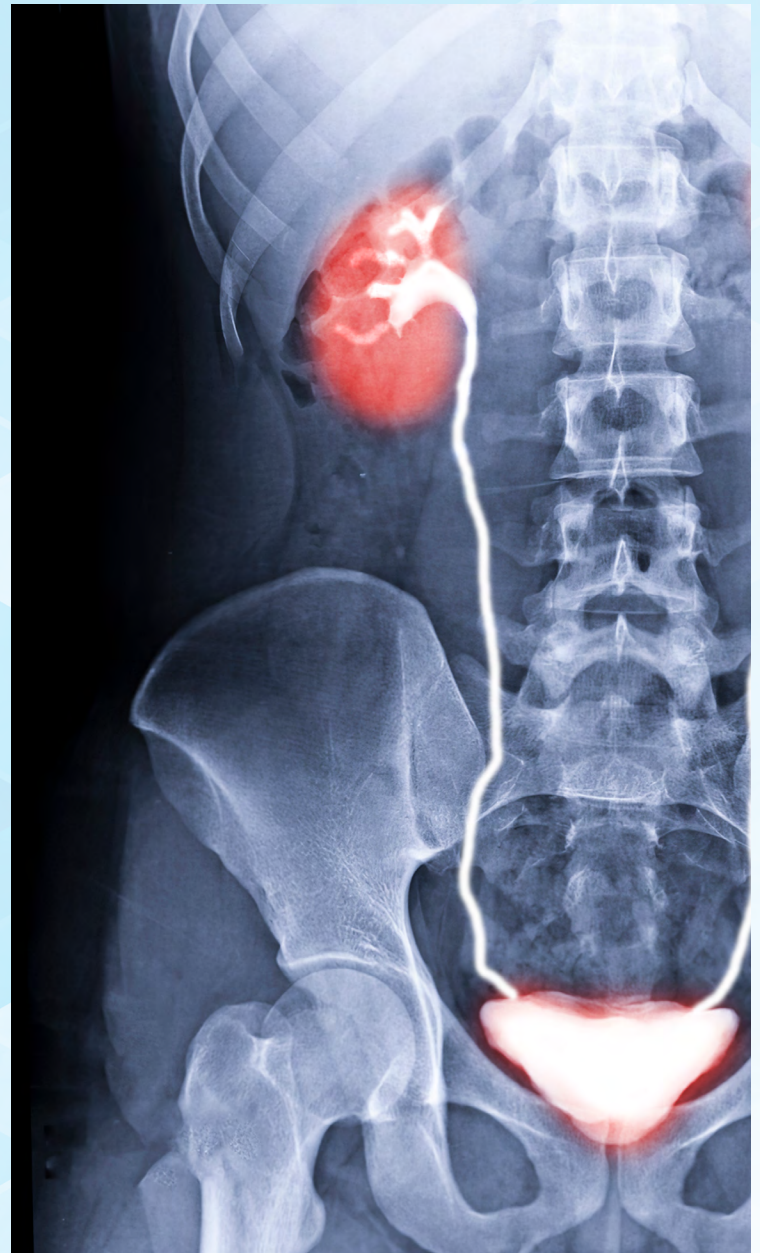
Bladder Cancer

- 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.





L-R: Dr. Michael Stencel, Tina Lane, Marian Campbell, Emma Bowles, Pam Walker, Dr. Nathan Hale

CAMC robotics get smaller

The CAMC robotics program has been growing since the first robot was installed in 2007. With the newest robot, the program is shrinking. In March, urologists used a single-port version of the daVinci robot to assist with surgery.

The single port (hence the name) uses only one small incision as opposed to 4-5 smaller incisions to do all the same work.

“It’s technically more demanding on the surgeon as we learn the new technique, but the patient benefit is worth it,” said **Samuel Deem**, DO, MBA, CAMC Director of Robotic Surgery. “Smaller and/or fewer incisions cause less pain and allow quicker discharge (usually same day) and faster healing.”

Currently the single port robot is FDA approved for urology cases. Other specialties (such as gynecology and general/colorectal surgery) will have to perform the procedures as part of a clinical trial under IRB supervision, which CAMC is pursuing.

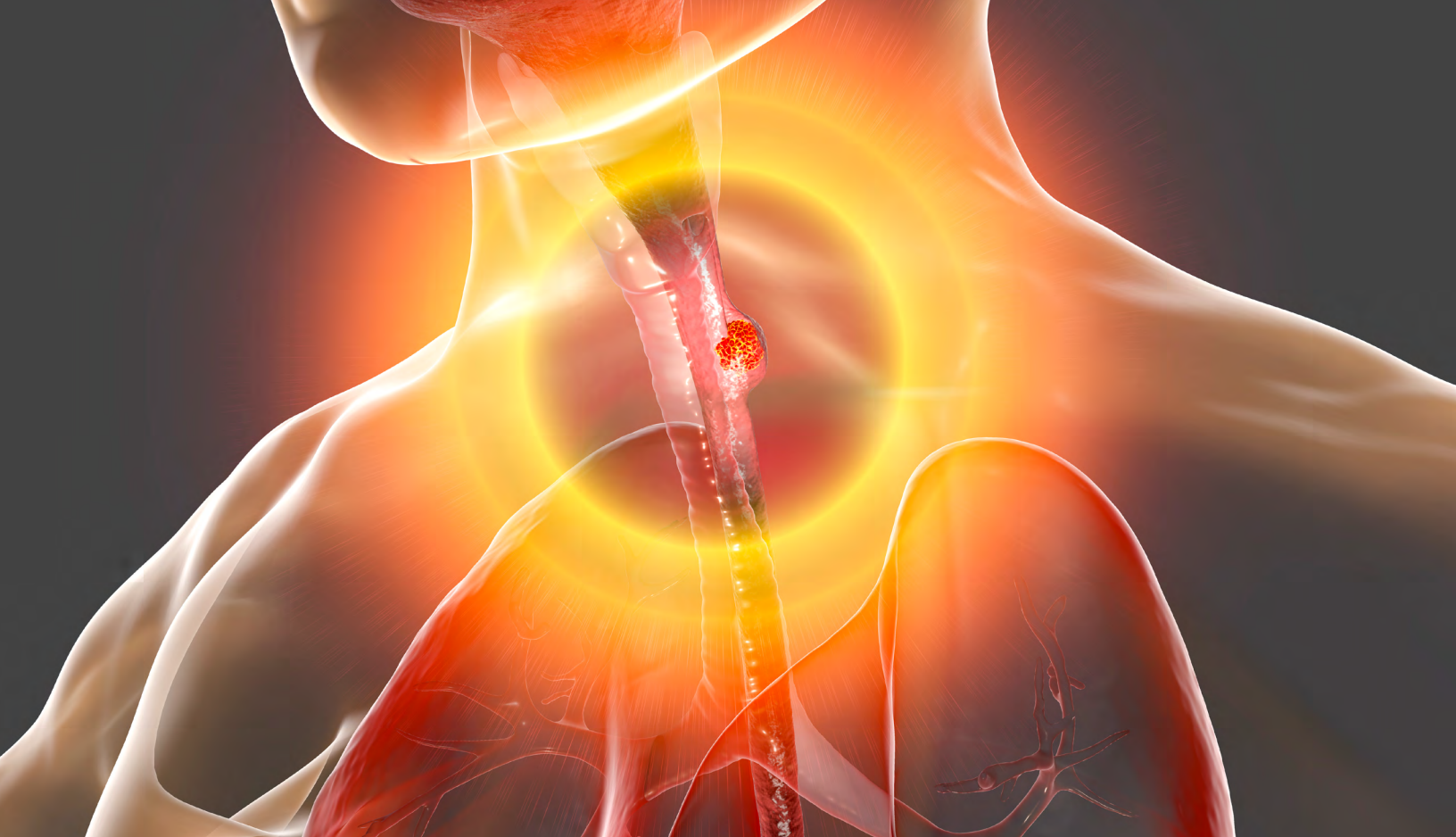
“CAMC has always allowed us the opportunity to be at the forefront of providing state-of-the-art care,” Deem said. “By purchasing seven daVinci robots, including the single port technology, we are driving innovation in the community and state allowing access to the same care provided in larger metropolitan areas.”

In 2023, the Surgical Review Corporation reaccredited CAMC as a Center of Excellence in Robotic Surgery.

CAMC launched the first multispecialty robotic surgery program in West Virginia in 2007 and now has eight robots assisting surgeons: four robots at CAMC Memorial Hospital, two at CAMC Women and Children’s Hospital, one at CAMC General Hospital and one at CAMC Plateau Medical Center.

Since the robotics program began, surgical specialists practicing at CAMC have used robots for more than 8,500 procedures and are currently performing more than 700 procedures each year.

CAMC offers multiple procedures with each specialty including several oncologic procedures such as colon resection, esophageal cancer, lung cancers and mediastinal masses, prostate, bladder, and kidney cancers, as well as hysterectomy, oophorectomy and lymph node removal for gynecological cancers.



Esophageal cancer

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.

Ghulam Abbas, MD, joined the CAMC medical staff in 2023 specializing in robotic thoracic surgery. He is certified by the American Board of Surgery and American Board of Thoracic Surgery.

Dr. Abbas brought his expertise in robotic lung-sparing surgery for lung cancer and Robotic esophagectomy for esophageal cancer.

Esophageal cancer is more like the progression of a chronic disease. Uncontrolled reflux leads to precancerous condition which leads to esophageal cancer.

“We’re lucky to have a comprehensive center for esophageal disease at CAMC where we have state-of-the-art modern intervention for different stages of the disease,” Abbas said.

“For example, we provide cryotherapy and radiofrequency ablation for Barrett’s esophagus. We have a state-of-the-art esophageal lab which provides Reflux testing and

esophageal manometry which helps patients with reflux disease and swallowing difficulties.”

Barrett’s esophagus is a condition in which the flat pink lining of the swallowing tube that 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.

“Right now, we are the only center in West Virginia right now providing robotic esophagectomy for esophageal cancer.”



CAMC 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 pancreaticobiliary 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 pancreaticobiliary 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.

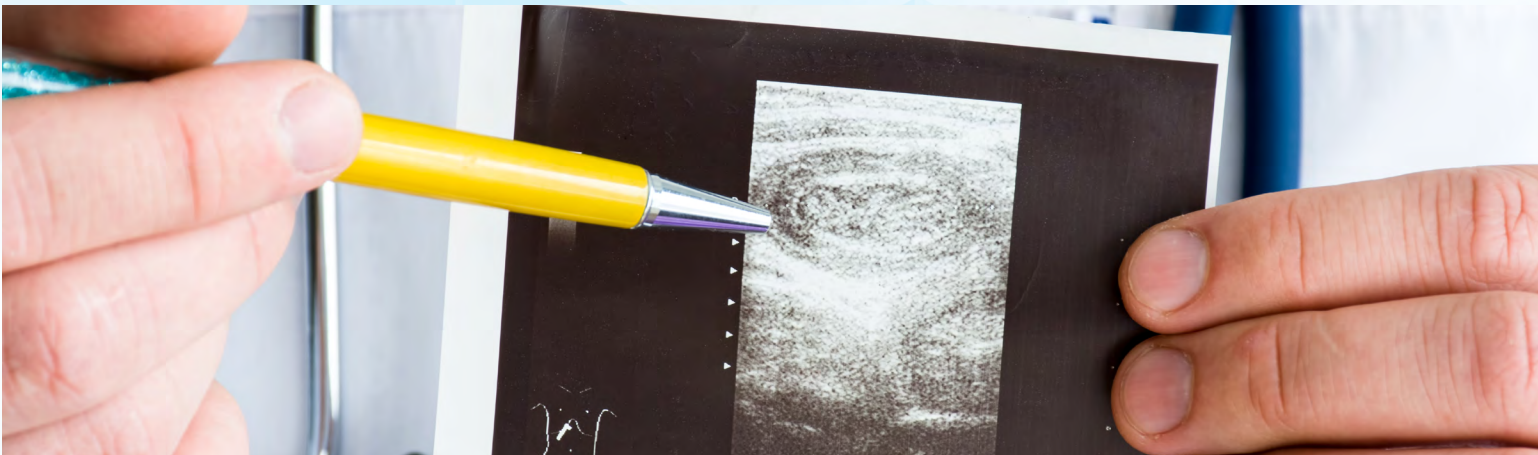
Our center provides a calming environment where patients will be heard and not rushed through their office visit or endoscopic procedures. We answer their questions and engage our patients as an active participant in their health care. Patient education is an integral part of our program. Our service 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
Jeremy Cumberledge, MD
Ebubekir Daglilar MD
Mohamad Haffar, MD
Roberta Hunter, MD
Sara Iqbal, MD
Mohamad Sankari, MD
Jeremy Stapleton, DO
Veysel Tahan, MD
Kamran Zahid, 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.





Gynecologic Oncology

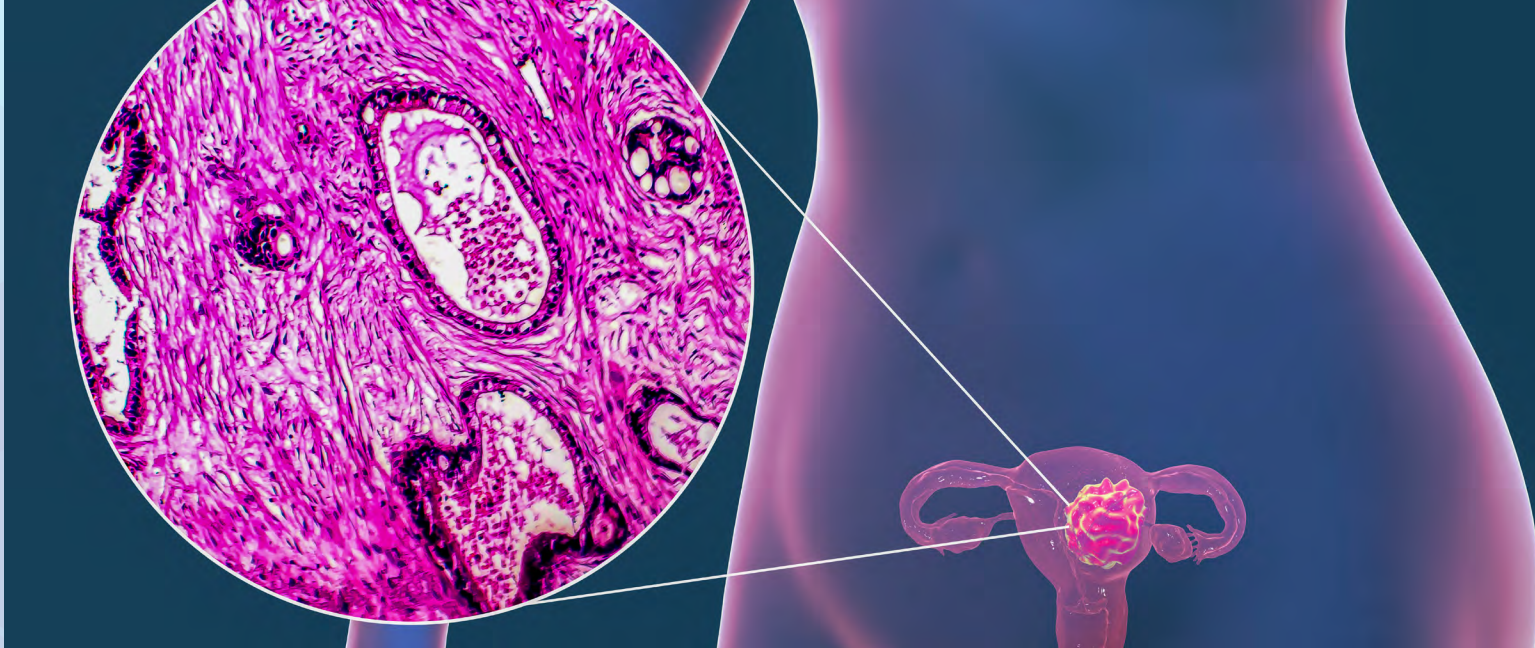
CAMC Gynecologic Oncology provides a patient and family centered approach to treating gynecologic malignancies such as ovarian, uterine, cervical and vulvar/vaginal cancers. We also manage many complex benign gynecologic conditions. Our goal is to provide the highest quality cancer care for gynecologic 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 was recently selected as a National Board Examiner by the American Board of Obstetricians and Gynecologists for the certification exam in Obstetrics and Gynecology. He 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.



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 therapists. 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.



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:

J. Chase Burns, MD

J. David Hayes, MD

Justin L. McKinney, DO

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.

Nathaniel Rainey, PA-C received his bachelor's degree in Exercise Science from Marshall University, master's degree in Physician Assistant Studies from Alderson Broaddus 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**.





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.





Radiation oncology services



Radiation oncology services at Charleston Area Medical Center, a department of CAMC in partnership with Akumin/Alliance Oncology, the nationwide leader in radiation oncology and radiosurgery programs, offers current and advanced radiation therapy treatments, provided by an experienced and caring team which includes board-certified radiation oncologists, nurse practitioners, medical physicists, dosimetrists, radiation therapists, radiation oncology nurses, support staff, a physician services representative and a site administrator.

The team at radiation oncology services at CAMC treats early-stage, recurring, and advanced cancer using many radiation therapy techniques, which has been used for more than a century to treat cancer. Radiation therapy is performed as an outpatient procedure. Treatments are quick and painless, with minimal to no side effects, and most patients return to their normal daily routines following each treatment session. Radiation therapy may be an option for patients with medically inoperable or surgically complex tumors or those who seek an alternative to surgery or conventional chemotherapy, patients with recurrent cancer or metastatic tumors that have spread to other areas of the body from the main tumor site, and those who have a high risk of developing complications after surgery.



the primary form of treatment or may be used before or after other types of treatment such as surgery or chemotherapy. Radiation oncology services at CAMC are on the leading edge in offering state-of-the-art radiation therapy options for childhood cancer. The pediatric radiation therapy program builds upon CAMC's well established and experienced pediatric oncology department. Along with CAMC pediatric oncologists and their staff, the radiation oncologists, medical physicists, and other scientists actively participate in research through the national Children's Oncology Group.

Radiation oncology research and education

Radiation oncology services at CAMC is dedicated to providing patients with the most up-to-date radiation treatment options. We are affiliated with the internationally renowned Radiation Therapy Oncology Group (RTOG) and offer enrollment in RTOG clinical trials for qualifying patients. Through this affiliation, multiple clinical trials for patients with higher risk prostate cancers have recently been made available for enrollment. The radiation oncologists also participate as assistant clinical professors for the West Virginia University School of Medicine and offer elective educational rotations for medical students as well as for CAMC training resident doctors interested in oncology. The multidisciplinary approach to cancer care, coupled with the use of cutting edge technologies and dedication to research and education, help provide better outcomes and experiences for patients.

CAMC Radiation Oncology Services offers several types of state-of-the-art radiation therapy techniques designed to treat all forms and stages of cancer and some noncancerous conditions, including:

- Pluvicto (lutetium Lu 177 vipivotide tetraxetan), a new treatment for metastatic prostate-specific membrane antigen-positive metastatic castration-resistant prostate cancer (PSMA-positive mCRPC), which has spread to other parts of the body and has been resistant to other treatments.
- Radiopharmaceuticals given include Pluvicto, Lutathera, Xofigo and Iodine 131
- Stereotactic radiosurgery and body radiation therapy (SRS/SBRT)
- Intensity modulated radiation therapy (IMRT)
- 3-D conformal therapy
- 4D (four-dimension) CT-based treatment planning
- Image guided radiation therapy (IGRT)
- High Dose Rate Brachytherapy (HDR)

Radiation oncology services at CAMC provides individualized, compassionate cancer care using today's most advanced radiation therapies. We provide state-of-the art cancer fighting technology in a location close to home for the cancer patients in our communities. In addition to offering the latest technology, radiation oncology services patient satisfaction surveys yielded exceptionally high marks in the past year with an average 96 percent of patients surveyed reporting a positive experience with their care.

Pediatric Radiation Therapy

Radiation treatment is often an integral part of optimal treatment for cancers in the pediatric population. Depending on each child's specific diagnosis, radiation therapy may be used as





Comprehensive Assistance with Resources and Education (CARE) Team

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 worker, 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 creation of a new 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.

TREATMENT CLINIC **Pre-Treatment Clinic Visit:**

The pre-treatment clinic is a multidisciplinary clinic staffed by a nurse navigator, financial navigator, social worker and dietitian. Currently, the clinic supports newly diagnosed breast, colorectal, esophageal, genitourinary, head and neck, hematologic malignancies and lung cancer patients, and allows newly diagnosed patients to meet the many members of their care team in a single visit.

Patients are scheduled for the pre-treatment visit seven-10 days after meeting with their medical oncologist and being consented for chemotherapy or immunotherapy treatment. This space between treatment consent and pre-treatment clinic visit allows patients time to process their questions about treatment. This time is also used for any additional testing needs before the start of treatment.

Information: Meeting with a medical oncologist and processing the amount of information can be overwhelming.



Consenting to chemotherapy or immunotherapy is a rigorous process. Patients are provided with information related to treatment schedule, side effects of treatment, intent (curative or palliative), administered drugs/chemo agents, education on each drug, symptom management, instructions (importance of checking temperature after treatment, contact information, etc.) and risks and benefits.

Patients are often overloaded with information. By bringing patients back, ideally one week after the consent process, patients are better equipped to participate in an educational visit. They have additional time to read through the educational material, write down their questions, and are better able to process information related to their treatment. Essentially, they will have received chemotherapy/immunotherapy information and education twice before their treatment begins.

Preparing for Clinic:

Prior to their pre-treatment clinic visit, patients receive an email or text to their mobile device to complete a patient questionnaire from the comfort of their home. This questionnaire is provided by navigational software that integrates with CAMC's electronic medical record platform. This questionnaire includes the NCCN Distress Thermometer as well as several other questions that help to identify any barriers to care. Nurse navigators review this information along with the physician note and create a detailed treatment

plan with tailored educational information and resources specific to their cancer type.

Benefits of completing questionnaire prior to visit:

Patients can take their time thinking through their concerns, and they are often more forthcoming about challenges when endorsing on a questionnaire rather than when being directly asked in person. Self-report questionnaires can be an invaluable addition to comprehensive assessment in patient care. Completion of the questionnaire prior to clinic also significantly reduces the clinic appointment time as the healthcare team is aware of the barriers ahead of the appointment time. This also provides the team with additional time to research resources available to the patient, perhaps in their community, to better address any barriers to care.

Pre-Treatment Clinic Visit:

Most patients access and complete the questionnaire at home. However, some lack technology, internet service or lack literacy skills. For those without adequate technology, an I-Pad is provided for them to complete the questionnaire prior to meeting with the treatment team.

Post-Treatment Clinic:

All patients who receive treatment with a curative intent are scheduled for a post-treatment clinic visit at their estimated



completion of treatment, ensuring that survivorship care is introduced early on. The post-treatment visit focuses on identifying and managing long-term and late effects of treatment, and on educating patients about the importance of monitoring for cancer recurrence as well as screening for new cancers.

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 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 the documentation within the EHR and use of the 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.

MINDFULNESS

With the help of the CAMC Volunteer Services and CAMC Foundational support, the cancer center can offer a creative process called the Zentangle® method. Taught by a certified instructor. The method promotes meditation and mindfulness through combining dots, lines, simple curves and circles to create images. A kit is provided to participants during their outpatient treatment stay encouraging fun and relaxation.

GIGI's PLACE

Created in honor of a young mother who lost her battle with cancer. Counseling services are provided by a psychologist to children who have loved ones undergoing treatment or have lost a parent to cancer. An area for crafts, artwork and other interactive activities is available during the appointment for those obtaining services.

RUN FOR YOUR LIFE

Members of the Cancer Center participated in the annual Run for Your Life run/walk on June 15, 2024. There were 530 registered participants and raised over \$110,000 to support colorectal cancer screening and education. Staff members were in attendance providing materials on screening guidelines and education using the inflatable colon.

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



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 (NCCPA).

Jennifer Nuckols, CRA, is the clinical research coordinator and Children's Oncology Group (COG)-Lead CRA. The institutional lead CRA assists the COG member site principal investigator (PI) in the implementation, communications, and oversight for COG research studies (protocols) according to regulatory and institutional requirements. The lead CRA acts as the primary point of contact for all aspects of member requirements, protocol



coordination and management. Together, the PI and COG lead CRA are leaders whose responsibilities are diverse, in task, delegation and management regarding their COG institutional member site.

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 offers support by providing financial applications to assist the family while in treatment.

Emily Rodriguez, MS RD CSP is a registered dietitian certified in pediatric nutrition. She is a graduate of Marshall University's dietetic internship and master's program in dietetics. She joined CAMC's Cancer Center in 2020. She provides nutrition education to families, ensures patients are meeting nutrition needs throughout treatment, monitors growth goals and manages nutrition support. She is available to families both inpatient and in the Children's Cancer Center.

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.

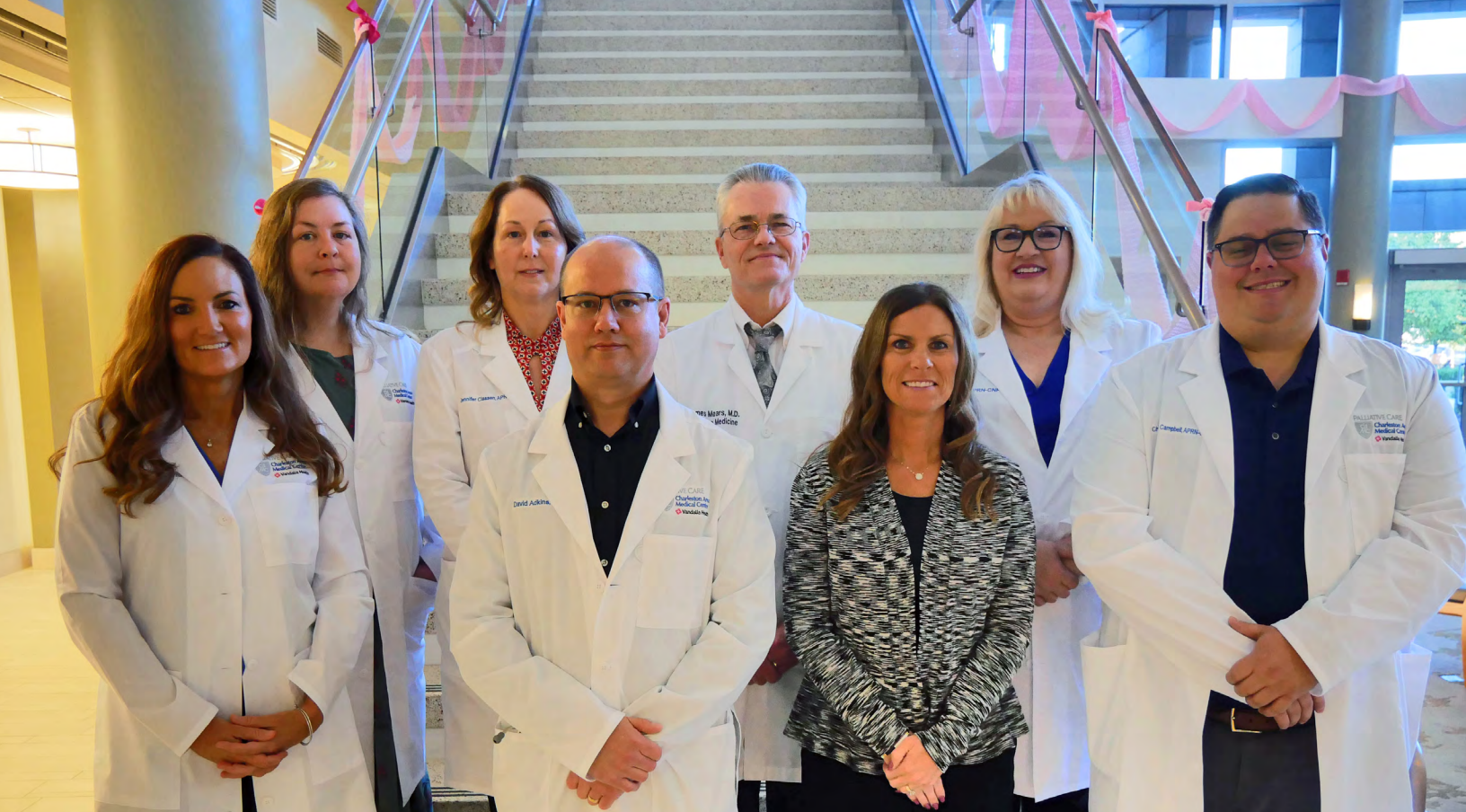
The CAMC Children's Cancer Center started a dedicated cancer survivorship clinic. An oncologist, psychologist, dietitian, and other pediatric subspecialties are available on the third Friday of every month to help our cancer survivors.

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 offering games, televisions, DVDs and a playroom for each child battling cancer or other diseases to have the experience of a home environment during their treatment. All the patient rooms are private which allows for added safety and comfort for those who are sick or are immune compromised.

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



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.

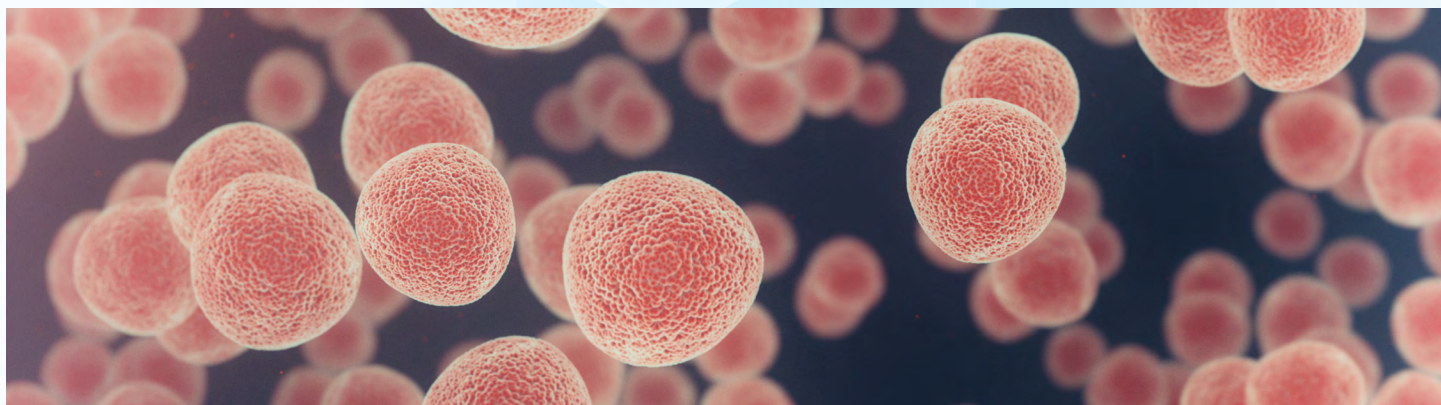
The department's 12 experienced pathologists actively participate in the cancer care at CAMC. The pathologists are all certified by the American Board of Pathology. Many of them hold subspecialty board certifications including hematopathology, neuropathology, cytopathology and transfusion medicine.

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.



2024 Center for Cancer Research Status Report

In 2024, CAMC lost Dr. Steven Jubelirer after a long illness. Dr Jubelirer piloted the clinical trials program here in the 1980s and was witness to the remarkable progress made in cancer care over the years as a result. We hope to honor his memory by continuing to improve cancer care through our participation in clinical trials. His legacy of caring will live on in the lives of those he worked with and whose lives were touched in one way or another by this wonderful, brilliant man.

The CAMC Institute for Academic Medicine Center for Cancer Research continues to provide local access to clinically relevant clinical trials, diagnostics and treatments to the people of West Virginia. We have an active Clinical Trial protocol list that covers a broad range of malignancies. We collaborate with major Cancer institutions such as the National Institute of Health/ NCI, Johns Hopkins, Cleveland Clinic, Duke, Ohio State and Sloan Kettering Cancer Centers. And as part of the Vandalia Health network, we will soon be able to collaborate with several of our WV oncology colleagues.

We have been working with the CAMC Institute for Academic Medicine's Clinical Trials Center on several clinical trials in the areas of breast, colon and lung for the development for the further development of investigational non-invasive tests to identify high frequency malignancies. Continued efforts are still ongoing in the area of bladder cancer with 3 trials using Keytruda as the Investigational product. We have also worked with Outcomes Research on investigator-initiated projects.

Dr. Amir Kamran, the Director of the Hematology and Oncology Fellowship program has obtained the approval for the fellowship program and the first two fellows in the Hematology Oncology fellowship program arrived on site summer of 2024, research is an integral part of their curriculum and we look forward to working with them soon.

From the Outcomes Research department, the following projects have been ongoing and or published or presented by our local investigators:

Currently accruing studies by local investigators:

Cardiology	Impact of John E. Amos Power Plant on the Health of Nearby Residents
Cardiology	Effect of LAAO on Atrial Fibrillation
Hem/Onc	Incidence and epidemiology of biliary cancers in the Charleston service area

Hem/Onc	Utilization of adjuvant therapy among completely resected non-small cell lung cancer (NSCLC) patients at CAMC.
Hem/Onc	A survey of cancer risk factors of those living in the Charleston WV area
Hem/Onc	Health literacy in patients with early state cancer
Hem/Onc	Relation of absolute number of polyclonal CD5+ B-cells in the peripheral blood to the various human disease
Hem/Onc	Breast cancer during pregnancy at CAMC
Hem/Onc	Positive margins in breast conservative surgery for localized breast cancer
Heme/Onc	Effect of current cigarette smoking and other risk factors on response to immunotherapy in cancer patients
Heme/Onc	Unveiling the Impact: Exploring Adverse Outcomes in Hospitalized COVID-19 Patients—Comparing Those with and Without a Cancer Diagnosis
Internal Med - Neuro	Develop registry of patients with stroke who were then diagnosed with cancer
Inter Radiology	Outcomes of Image Guided Interventions in Interventional Radiology (Procedure Registry)
OBGYN	A Case Series: Outcomes of Colpopexy for Pelvic Organ Prolapse in the Setting of Endometrial Cancer
OBGYN	Outcomes of Endometrial Cancer Treated with Primary Radiation/Brachytherapy in Southern West Virginia
General Surgery	Predicting Successful Laparoscopic Transhiatal Esophagectomy by Preoperative Mediastinal height measurement: A Retrospective Study
General Surgery	Examining Factors Predicting Treatment Utilization and Outcomes in Colon and Rectal Cancers
General Surgery	TAMIS outcomes: Laparoscopic versus Robotic approach

Urology	Ability of MRIUS Fusion Prostate Needle Biopsy to Detect Clinically Significant Prostate Cancer in a Community-Based Hospital Setting	Wiseman, Brian; Haffar, Ahmad; Williams, Andrew; Hale, Nathan; Luchey, Adam; Hajiran, Ali. Rural disparities in penile cancer: A multi-institutional statewide review in West Virginia. <i>The Journal of Urology</i> . 209 (4S) 04/28/2023. 10.1097/JU.0000000000003227.14
Urology	Implementation and outcomes of prostate needle biopsy using a trans-perineal approach	Knotts C, Van Horn A, Orminski K, Thompson S, Minor J, Elmore M, Richmond BK. <i>Clinical and Socioeconomic Factors that Predict Non-completion of Adjuvant Chemotherapy for Colorectal Cancer in a Rural Cancer Center</i> . <i>Am Surg</i> [published online: January 04, 2022]. 10.1177/00031348211054708 PMID:35850535
Urology	Prostate Health Index and Positive Prostate Needle Biopsies	Tobin EC, Nolan N, Thompson S, Elmore M, Richmond BK. <i>The Intersection of Race and Rurality and its Effect on Colorectal Cancer Survival</i> . <i>Am Surg</i> [published online: March 08, 2023]. 10.1177/00031348231160833 PMID:36890731
Urology	Does Same Day Discharge Post Robotic Radical Prostatectomy Affect Patient Outcomes?	Richmond BK, Gallimore J. <i>Genetic Considerations in the Tumorigenesis, Diagnosis, and Treatment of Differentiated Thyroid Cancer: Current State of the Science</i> . <i>Am Surg</i> [published online: May 30, 2023]. 10.1177/00031348231180952 PMID:37253623
Urology	Contemporary surgical management of advanced renal cell carcinoma with venous extension: Does timing of pre-operative imaging make a difference?	Quarter 1 and Quarter 2 of 2024
Urology	Limiting repeat Transurethral resection of bladder tumor for Ta and 1 Bladder cancer (TURBIT)	Dobbs E, Tobin EC, Deslich S, Richmond BK. <i>Race/Ethnicity and Social Determinants of Health and Their Impact on Receiving Appropriate Chemotherapy for Colon Cancer</i> . <i>Am Surg</i> [published online: April 08, 2024]. PMID:38587435
Urology	Factors Contributing to Positive Margins in Radical Prostatectomy Specimens	Tobin EC, Dobbs E, Deslich S, Richmond BK. <i>Race/Ethnicity and Social Determinants of Health and Their Impact on the Timely Receipt of Appropriate Operative Treatment of Colon Cancer</i> . <i>Am Surg</i> 2024 Mar 29. PMID:38551594

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We thank our investigators and staff for their hard work on these important cancer related projects.

Research is a key element in the American College of Surgeons Cancer Center accreditation program. The Center for Cancer Research has consistently met or exceeded the accrual goals required for the Academic Comprehensive Cancer Program with the cooperation of the CAMC Clinical Trials Center and the CAMC Outcomes Research departments.

Clinical trials have the potential for positively changing the treatment paradigm of cancer patients and we are always looking forward to the opportunity to participate in this process.

The CAMC Center for Cancer Research is committed to providing the people of West Virginia access to state-of-the-art clinical trials, our mission is to continue to improve the treatment of cancer through the clinical trial process. It would be remiss to not discuss the near future for CAMC's Center for Cancer Research. Under the auspice of cancer services strategic planning at the end of 2023, we have now begun in the last quarter of 2024 operationalizing the long-awaited research improvements from this planning. With the direction and input of the various service lines within cancer care delivery, we are optimistic for better integration of research services within the various cancer-related services. Thus far, there has been a warm reception internally to the changes, which will ultimately positively impact the population of patients we serve.

With what has been largely recognized by our provider team for some time is that increasingly newer pharmaceutical compounds have often not been made available through one of our cancer program's strengths, the NCI cooperative groups, formally established by Dr. Steve Jubelirer (and now lead by Dr. Ahmed Khalid). While continuing to invest in maintaining our access to NCI's cooperative group program, we are undertaking an expansion initiative to make more readily available access to newer and developing oncologic pharmaceuticals. This will entail building upon and developing new relationships with pharmaceutical industry.

Under the leadership of Kristi Sutphin, Systems Director for Clinical Trials and Lisa Luikart, Operations Manager for Cancer Research, we believe that we are in good hands to achieve our mission. Between just these two individuals, we have more than 40 years of experience, principally involving working directly with the pharmaceutical and device industries. Sutphin has successfully lead CAMC's existing Clinical Trials Center for more than two decades, having built a top notch team that has positively impacted thousands of patients across various disciplines with hundreds of clinical trials undertaken. At any given time, this center is managing approximately 50 ongoing sponsored trials, which will soon include the expanding area of oncology. It is an area of endeavor burgeoning with possibilities, indeed, some having proven curative.

Further, Sutphin and Luikart have "an eye" for quality, having successfully navigated more than 10 FDA audits throughout the years without one blemish. They have already been investigating efficiencies and quality controls that are sure to improve upon our ability to deliver research services. Luikart will be expanding our research team over the next quarter to assure ourselves that we can meaningfully fulfill our plan. Already, we have welcomed Beth

Whiting to our team, an experienced nurse with several years of oncology experience. So, we will reset and build upon a team that has historically been recognized with commendation-level merit by the American College of Surgeons!

Integration will be key to our newer service offerings. We want to be visible and accessible to our colleagues. We are beginning with our Tumor Boards, recognizing that clinical trials are a key part of what our system should be offering as an option to patients. Thus, our team will be there to provide information, research available opportunities and to answer research-related questions. Recognizing our Navigator team, we desire to work

more closely with them, making sure they have what they need from us when relating to our patients. Of course, we will continue to screen for our research trials, inpatient and ambulatory. We also will strive to expand our trial offerings beyond treatment to include prevention, QOL and economic studies as examples. Most importantly, we will be working with oncology leadership, including Bev Farmer, Dr. Ahmed Khalid and Dr. Kamrin to assure ourselves that we are aligned to produce the best outcome for the patients we serve. Welcome to our re-energized and revitalized cancer research team!

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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 database (NCDB) and to the West Virginia state cancer registry. As an accredited cancer program with the Commission on Cancer (CoC), Charleston Area Medical Center 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 2023, CAMC accessioned 2,626 new cancer patients into the registry. CAMC has 71,457 cancer cases in the cancer registry database. Of this total population 40,478 patients have been diagnosed and/or treated since Jan. 1, 2005.
- CAMC's follow-up rate of all patients in the registry is currently 92.53% 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 91.31% above the required 90% rate.
- The annual Call for Data for the NCDB was performed on 03-27-24 and resulted in zero quality problems and zero cases being rejected on the first submission.
- Some registrars attended the West Virginia State Cancer Registrar's annual meeting on 10-20-23 in Flatwoods, WV

- **Susan Thompson, Melissa Roebuck and Jennifer Butcher** attended the National Cancer Registrars Association Annual Conference virtually April 25-27, 2024.
- 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 Jan. 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 Jan. 1, 2015. All staff who abstract are credentialed.

Staff members include:

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

CAMC hired an additional employee, **Tessa Shrum** to the cancer registry in Nov. 2020. She comes to the registry from the coding department. She will be performing AA responsibilities, follow-up, case finding and various other duties. Shrum has completed her pre-requisite studies and has enrolled and began her AHIMA Cancer Registry Program. She has completed her course work and is currently completing her practicum to prepare her to sit for the ODS-C exam in the fall.

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 2022

- New breast quality measure – BCSdx – First therapeutic breast surgery in a non-neoadjuvant setting is performed within 60 days of diagnosis for patients with AJCC Clinical Stage I-III breast cancer.
- New gastric quality measure – GCTRT – Neoadjuvant chemotherapy and/or chemo-radiation is administered within 120 days preoperatively for patients with AJCC cT2+ or cN1,cM0 for gastric carcinoma; or (cT2 and poor differentiation) or cT3+ or cN1, cM0 for esophageal or gastroesophageal junction carcinoma, age 18-79.
- New head and neck measure – HadjRT – Time to initiation of postoperative radiation therapy less than six weeks for patients with surgically-managed head and neck squamous cell carcinoma.
- New melanoma quality measure – MadjRx – Melanoma adjuvant systemic therapy was administered within six months of surgery or recommended for eligible patients with Stage IIIB-D resected melanoma.
- New rectum quality measure – RCRM – Circumferential Margin is greater than 1 mm from the tumor to the inked, non-serosalized resection margin for Rectal Resections.

Rapid Cancer Reporting System (RCRS) The following updates to the measure specifications were applied in July 2023

Change Measures affected Description Clinical updates to three Quality Measures BCSRT Clinical definition of the breast BCSRT measure selection criteria changed from:

Radiation therapy is administered within one year (365 days) of diagnosis for women under age 70 receiving breast conserving surgery for breast cancer to new definition Radiation therapy, when administered, is initiated less than or equal to 60 days of definitive surgery for patients receiving breast conserving surgery for Stage I-III breast cancer who do not undergo adjuvant chemo- or immuno-therapy.

Result: Programs will see differences in the EPRs, and denominator counts due to the major change in clinical requirements.

G16RLN The name of the G15RLN measure has changed to G16RLN. Clinical definition of the new gastric G16RLN measure selection criteria changed from: At least 15 regional lymph nodes are removed and pathologically examined for resected gastric cancer to new definition: At least 16 regional lymph nodes are removed and pathologically examined for patients with surgically resected gastric adenocarcinoma undergoing curative intent therapy.

Result: Programs will see differences in the EPRs, and denominator counts due to the change in clinical requirements: increase to 16 regional lymph nodes and exclude palliative care.

LCT Clinical definition of the lung LCT measure selection criteria changed from: Systemic chemotherapy is administered within four months to day preoperatively or day of surgery to six months postoperatively, or it is recommended for surgically resected cases with pathologic, lymph node-positive (pN1) and (pN2) NSCLC. to new definition: Systemic chemotherapy, immunotherapy or targeted therapy is administered or recommended within three months preoperatively or three months postoperatively for surgically resected cases with pathologic T2 greater than 4cm or T greater than or equal to 3, or N greater than or equal to 1 NSCLC.

New quality measures added Aug. 15, 2024

BLCT1: For patients with low grade Ta bladder cancer undergoing transurethral resection of bladder tumor, intravesical chemotherapy* is initiated within 24 hours of the procedure or recommended.

**Chemotherapy within 24 hours of the transurethral resection assumed to be intravesical however the NCDB does not differentiate this from systemic chemotherapy*

BneoCT: For patients ≤ 75 years old with HER2+ or triple negative breast cancer with any clinical N > 0 or clinical T > 1 , neoadjuvant chemotherapy and/or immunotherapy is initiated within 60 days of diagnosis or recommended.

CBRR: For patients with any stage cervical cancer treated with primary radiation with curative intent, brachytherapy is used.

KPN: For patients with surgically managed, cT1a kidney tumors, partial nephrectomy is performed.

PTSRV: For patients with low-risk prostate cancer (Gleason ≤ 6 and PSA < 10 and \leq cT2), active surveillance is performed.

RneoRT: For patients with surgically treated clinical T4NanyM0 or TanyN2M0 rectal cancer, neoadjuvant radiation therapy is initiated within nine months prior to resection or recommended.

Result: Programs will see differences in the EPRs, and denominator counts due to the major change in clinical requirements.

The Rapid Cancer Reporting System (RCRS) is a voluntary program of the National Cancer database (NCDB) that allows facilities to review and track performance on a more concurrent basis. Charleston Area Medical Center (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.





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