

# THE YEAR IN REVIEW

## A message from the medical director

As part of our commitment to providing state-of-the-art cancer care to this community, the Blount Memorial Cancer Center continued to enhance and expand services in 2017. I'd like to share a few of the highlights with you now, and encourage you to learn more about our cancer program at any time at [blountmemorial.org](http://blountmemorial.org).

**Most people don't think about where they would go for cancer care until they or someone in their family is diagnosed with the disease.** But, even if cancer screenings, diagnostics or treatments aren't topics you're focused on right now, I do believe it is helpful and reassuring to know that state-of-the-art cancer care is available right here at Blount Memorial.

For that reason, I'd like to share some of the exciting new developments at the Blount Memorial Cancer Center. In 2017, we continued to enhance and expand services, capabilities, and welcome new members to our expert cancer care team. This special year-end report provides a quick snapshot of who we are and what we do at the Cancer Center. To learn more about Blount Memorial's accredited cancer program, visit [blountmemorial.org](http://blountmemorial.org).

## New Treatment and Diagnostic Tools

First, I'd like to highlight our new linear accelerator and our new 3D mammography system, also called digital breast Tomosynthesis or Tomo. We're very excited about the linear accelerator because it will allow us to provide some new cancer treatments, particularly using stereotactic radiosurgery. This non-surgical radiation therapy is used to treat small tumors of the brain, lung and other types of cancer requiring a high degree of precision. Likewise, the addition of 3D digital mammography is a real step forward, and is improving the diagnostic accuracy of mammograms. Basically, Tomosynthesis helps detect breast cancer earlier and at a smaller size than is possible with conventional mammography.

## New Support Services

At Blount Memorial, we take a whole-patient approach to cancer treatment. In other words, our program is designed to meet the physical, emotional and practical needs of our patients and their families. As part of this commitment, we hired Anna Shugart as our new oncology social worker. You may recall that Anna previously served as director of the Blount Memorial Emotional Health & Recovery Center. Having a licensed social worker on staff is a real plus for our patients, and Anna is doing an excellent job. She's very

good at assisting patients with non-medical issues, such as transportation to and from treatment, and with any social and psychological needs.

Anna is based in the radiation oncology department, but is available to help anyone receiving cancer treatment at Blount Memorial. Most importantly, perhaps, she is part of the initial evaluation when the physician talks with the patient. After the physician discusses the diagnosis and treatment, Anna continues the conversation with the patient, and can answer his or her questions. Some patients find it easier to talk with someone other than a physician, and Anna is someone who is able to develop a good rapport with the patients from the beginning. *continued inside*



## THE YEAR IN REVIEW *continued from front*

### Advanced Treatments and Proven Results

Since 1993, the American College of Surgeons Commission on Cancer (CoC) has accredited the Blount Memorial cancer program, and that accreditation was renewed in 2017. As part of the renewal process, we identify quality improvements—or, things we can do better—each year. In 2017, we specifically looked at our lung cancer patients who are receiving radiation, particularly for advanced-stage disease. We found some indication that an advanced type of radiation therapy called intensity-modulated radiation therapy, or IMRT, provides better control with fewer side effects. As a result, we've been increasing our use of that particular technique for advanced lung cancer, have been tracking that and seeing improvements for those patients.

Another advanced technique available here at Blount Memorial relates to radiation for women who have breast cancer on the left side, closest to the heart. We recognize the importance of reducing the dose of radiation to the heart, so we have been implementing a number of techniques to do that. One of those is called the deep inspiration breath hold technique, where a patient basically holds her breath [for between 20 to 30 seconds] when she is getting radiation. By expanding the lungs during a deep inspiration breath hold, the chest wall expands outward and the heart drops and falls out of the radiation field. We've been doing an increasing number of deep inspiration breath hold techniques when appropriate.

Finally, I would encourage you to read about the promising results already achieved by the new Blount Memorial Chest Center launched in 2016. As you may recall, the Chest Center is a three-step program designed to fast-track patients who exhibit early signs of lung cancer. Our lung cancer program received national recognition in 2017, and a study we conducted this year showed that we are meeting the national treatment guidelines for a particular type of early stage lung cancer patients.



### BY THE NUMBERS: EARLY DETECTION MATTERS.

Lung cancer is the No. 1 cause of cancer death in Blount County.

For stage 1 lung cancer, the five-year survival is 85 percent.

For stage 4 lung cancer, the five-year survival is less than 15 percent.

Specifically, we did a five-year review of patients who have early stage lung cancer, weren't candidates for surgery and were treated with the radiosurgery technique—the advanced radiation therapy performed using the linear accelerator. We compared our five-year results to the ASTRO (*American Society for Radiation Oncology*) national guidelines detailing how these patients should be treated, who should be treated and in what fashion. We found that Blount Memorial has excellent compliance with the ASTRO guidelines. In other words, our early lung cancer patients who do not qualify for surgery are being treated appropriately.

Again, this is just a sampling of the many ways the Blount Memorial cancer program is ensuring that people in Blount and surrounding counties easily can access state-of-the-art cancer diagnostics, treatments and services. If the need ever arises, you can be confident that you or your loved one will receive the highest-quality cancer treatment right here, close to home.

Sincerely,

**Dr. Albert Petty**

*Radiation oncologist and  
Cancer Center medical director*

### Meet Our New Social Worker

#### Anna Shugart

#### **Cancer Center licensed clinical social worker**

Shugart helps identify and address the emotional, relationship and practical problems that individuals and families can face when dealing with a cancer diagnosis. She's available to assist any patient undergoing cancer treatment at Blount Memorial.

Anna Shugart (*left*), and nurse navigator Denia Lash

**600** The average number of cancers diagnosed and/or treated annually at Blount Memorial.



## TrueBeam® High-Precision Linear Accelerator

Advanced image-guided radiation therapy system reduces treatment times, enhances precision and expands options.

STATE-OF-THE-ART TECHNOLOGIES:

Learn about  
the latest cancer  
screening, diagnostic  
and treatment tools  
available at  
Blount Memorial.

**In November, the Cancer Center added a new TrueBeam® high-precision linear accelerator.** This advanced image-guided radiation therapy (IGRT) system customizes high-energy X-rays or electrons to conform to a cancerous tumor's shape. The X-ray beams are precisely aimed and "shot" to destroy the cancer cells while sparing surrounding normal tissue.

For patients undergoing cancer treatment at Blount Memorial, the new linear accelerator offers a variety of important benefits including:

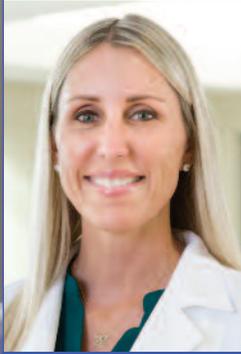
**FASTER TREATMENTS:** "The new machine dramatically reduces treatment times," says Blount Memorial radiation oncologist and Cancer Center medical director Dr. Albert Petty. "Patients won't have to lie down on the table in an immobile position for as long as they did before. This will make treatments easier, particularly for those receiving longer treatments, such as stereotactic body radiotherapy for early stage lung cancer. That treatment typically takes us about 30 minutes and will be cut down to a few minutes with the new machine."

**EXPANDED CAPABILITIES:** "One of the areas that we will be looking to expand is the treatment of brain tumors, particularly those that have spread from elsewhere into the brain," Petty adds. The new equipment allows for precise radiosurgery techniques, requiring only one or two treatments to the tumor rather than treating the whole brain. Future applications of this radiosurgery technique are expected to include tumors in the bone and other areas of the body.



## 3D Mammography

Blount Memorial is second in the nation to offer the new GE Senographe Pristina digital breast Tomosynthesis system.



Dr. Kristen Carver

When the Blount Memorial Breast Health Center unveiled its new GE Senographe Pristina 3D Mammography System (also called digital breast Tomosynthesis or Tomo), Blount County became only the second location in the nation to offer the new screening and diagnostic tool. The first GE Senographe Pristina system was installed at Boca Raton (Fla.) Regional Hospital in June.

The addition of the state-of-the-art 3D mammography system is part of Blount Memorial's commitment to equip the hospital's cancer

specialists with the most-advanced equipment. For Breast Health Center patients, 3D mammography offers multiple benefits, such as:

**increased breast cancer detection, particularly of small, early stage cancer**

**reduced callbacks for additional imaging following screening mammogram**

**enhanced comfort during the exam**

Having a 3D image is particularly helpful for examining dense breast tissue. A conventional mammogram creates a two-dimensional image of the breast from two X-ray images of each breast. When screening women with dense breast tissue, it can be difficult for radiologists to detect cancers using the 2D technology since both the cancer and tissue appear white on the image.

The 3D image provides much greater visibility of breast tissue structures and possible cancers, explains Blount Memorial board-certified and fellowship-trained radiologist Dr. Kristen Carver, adding that any additional radiation exposure from the 3D portion of the exam is "insignificant."

"The evidence clearly shows that 3D mammography not only is better for patients with dense breasts, but for all patients," Carver says.

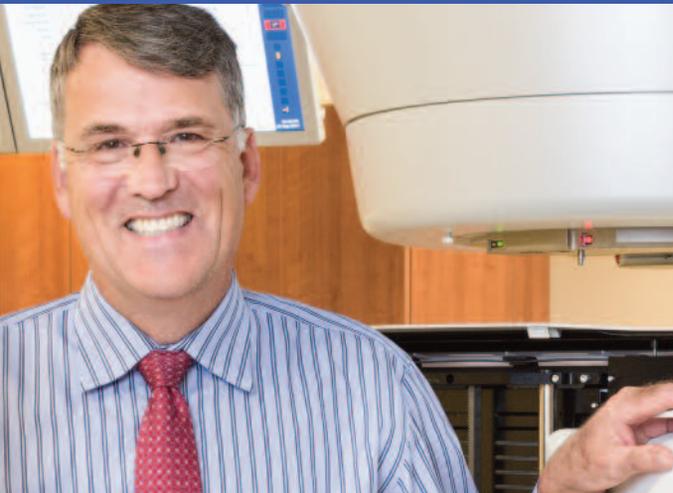
*At the Breast Health Center, both 2D and 3D mammograms are performed using the new GE Senographe Pristina 3D Mammography System. Patients have the opportunity to choose 3D or 2D mammography. Those choosing 3D need to verify coverage with their insurer. Currently, 3D mammography is covered by Medicare and by many—but not all—private insurance providers.*

**ENHANCED IMAGE-GUIDED THERAPY:** While IGRT (a form of medical imaging used to plan, perform and evaluate surgical procedures and therapeutic interventions) previously was available at Blount Memorial, the new linear accelerator will enhance this approach. Adds Petty, "Now, we are able to quickly produce an image of the body, what we call a ConeBeam CT (computed tomography) scan, which will look very much like a diagnostic CT scan. This will give us a lot of detail to identify a target and be very precise in treating it, and actually use less radiation exposure than conventional imaging studies."

**FUTURE UPGRADES:** Since the new linear accelerator is digital, software can be upgraded as new capabilities and techniques become available.

**CUSTOMIZED RADIATION:** The new machine has five high-energy X-ray beams, three more than the previous linear accelerator. The added beams create a range of different energies, allowing oncologists to choose a beam that precisely targets the tumor and provides the correct dose of radiation.

**INCREASED COMFORT:** "The new machine is located in a spacious, vaulted room that is much larger than the room housing our current linear accelerator," Petty says. "So, in addition to faster treatment times, there is more room for patients in a very attractive setting."



Dr. Daniel Green, Radiation oncologist



Dr. Greg LeMense, Interventional pulmonologist



Dr. Randal Croshaw, Breast surgeon

## Prevention Programs

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### SUNSCREEN USE AND SUN PROTECTION

#### **Head Start Program** (*preschool-aged children*) **54 students and nine adults**

**Activities:** Presentation used original “Safari Sam” characters to teach the importance of using sunscreen. Children were given a craft bag and sun hat.

**Summary:** Presentation date May 11, 2017. Oral quiz was used to reinforce how and when sunscreen should be used. There was a written five-question pre- and post-test for adults: 13 percent scored 100 during the pre-test, and 100 percent scored 100 on the post-test.

#### **Second grade classes** (*part of a week-long summer safety camp*) **105 students and 10 adults.**

**Activities:** Interactive presentation used original “Safari Sam” characters to teach the importance of using sunscreen. Students were awarded a club member card and goody bag upon completion of presentation.

**Summary:** Presentation date May 15, 2017. An oral quiz was used to reinforce how and when sunscreen should be used. There was a written five-question pre- and post-test for adults: 10 percent scored 100 during the pre-test and 53.3 percent scored 100 on the post-test.

**Guidelines:** *American Cancer Society/American Academy of Dermatology*

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### SMOKING PREVENTION

#### **Boys and Girls Club** (*Maryville*) **31 students ages 5-13**

**Activities:** An open discussion where students were asked to write their own reasons for not smoking on the banner “104 Reasons Not to Smoke.”

**Summary:** Pre- and post-tests were given to help assess the students’ knowledge of associated smoking risks: 10 percent scored lower on the post-test, 71 percent scored higher on the post-test and 19 percent scored the same on the post-test.

#### **Maryville Junior High School Athletic Team** **15 adolescent females**

**Activities:** An open discussion where athletes were presented with information about smoking and the associated risks. Visual aids included rat poison, insecticide, acetone and hair color.

**Summary:** Pre- and post-tests were given to help assess the athletes’ knowledge of associated smoking risks. Athletes were asked to write a note about their future plans to refrain from smoking: 20 percent answered all questions correctly on the pre-test, 73 percent answered all questions correctly on the post-test. All participants noted they would not (*or never*) smoke.

**Guidelines:** *American Cancer Society*



Chest center nurse navigators and registered nurses Cheryl Campbell (left) and Nikki Inman assist lung cancer patients throughout their diagnosis and treatment phases, ensuring timely treatment and follow up.

#### NATIONALLY-RECOGNIZED LUNG CANCER CARE

### Blount Memorial named Community Hospital Center of Excellence

**The Bonnie J. Addario Lung Cancer Foundation (ALCF)**—one of the largest patient-founded, patient-focused and patient-driven charitable organizations devoted exclusively to eradicating lung cancer—recently recognized Blount Memorial as an ALCF Community Hospital Center of Excellence. Earning this prestigious designation means that Blount Memorial’s pulmonary program meets the rigorous ALCF standard of care: a patient-centric, collaborative model ensuring that all patients have access to the newest and most-effective diagnostic and therapeutic techniques.

According to the ALCF, Community Hospitals Centers of Excellence are places “where the greatest good can be done for the greatest number” in terms of lung cancer survival, since 80 percent of patients receive medical treatment at their local community hospital. The program is an important component of the multi-faceted ALCF effort to make lung cancer a manageable chronic disease by 2023.

*To learn more about the ALCF Community Hospitals Centers of Excellence program, visit the ALCF website at [lungcancerfoundation.org](http://lungcancerfoundation.org).*

#### CHEST CENTER UPDATE:

## Blount Memorial’s innovative program is detecting more early-stage lung cancers.

When Blount Memorial’s virtual Chest Center—a three-pronged approach designed to fast-track patients with early signs of lung cancer—debuted in 2016, the goal was clear: detect lung cancer at an earlier stage. Based on the promising first-year results, the Chest Center already is a success. Here’s a quick snapshot:

**38 percent** of the of the newly diagnosed lung cancers at Blount Memorial now are stage 1 or 2, as opposed to 23 percent previously.

#### **More total lung cancers are being diagnosed**

at Blount Memorial—104 cases in the first year of the Chest Center compared to 85 cases in 2012.

#### **The rise in total diagnoses is due to the earlier**

**detection** of lung cancer using the Chest Center approach, not an increase in the incidence of lung cancer.

#### **Helping boost diagnosis rates is the Chest Center’s multidisciplinary, three-step approach. Here’s how it works:**

- 1 Step one:** Screening people at high risk for lung cancer (*such as current or former heavy smokers ages 55-75*) using low-dose CT (*computed tomography*) scanning. This high-risk pool includes people ages 55-75 who are heavy smokers or who have quit smoking within the past 15 years.
- 2 Step two:** Identify incidental pulmonary (*lung*) nodules found on any CT scans performed at Blount Memorial for any reason. Patients are notified of the presence of a nodule within two days of their scan.
- 3 Step three:** Fast-track the diagnosis and management of patients with a newly identified lung nodule or other lung disease. Part of this rapid-access approach includes having a dedicated Chest Center nurse navigator on staff to act as a lung cancer care point person for patients and their families. As the title implies, nurse navigators help guide patients through the diagnosis, treatment and survivorship stages by coordinating appointments, communicating with physicians, answering questions, and ensuring that any test results or other information is shared accurately and quickly. Due to the success and growth of the Chest Center program, a second nurse navigator has joined the staff.

## 2017 BLOUNT MEMORIAL CANCER CENTER • COMMUNITY OUTREACH ACTIVITIES

### Screening Outcomes and Guidelines

**56 PROSTATE CANCER** the number of men who took advantage of the free September prostate cancer screenings offered at East Tennessee Medical Group in Alcoa. Of the 56 men tested, four were found to have elevated PSA (*prostate-specific antigen*) levels and were recommended to follow-up.

**Screening Guidelines:** Men should talk with their doctor about whether to be screened for prostate cancer. The decision should be made after getting information about the uncertainties, risks and potential benefits of screening. The discussion should take place at age 50 for men who are at average risk for the disease, at age 45 for men at high risk (*including African Americans and men who have a first-degree relative diagnosed before age 65*) and at age 40 for men with more than one first-degree relative who had prostate cancer at an early age.

Source: American Cancer Society and National Cancer Institute

**12 BREAST CANCER** the number of women who participated in the Mammograms in the Moonlight after-hours events at the Blount Memorial Breast Health Center. Of the 12 women who had mammograms, five were referred for follow-up testing.

**Screening Guidelines:** Mammography is the best tool available to screen for breast cancer and has helped reduce the breast cancer death rate in the United States by 30 percent. Women should receive an annual mammogram starting at age 40, or by age 30 if they have a family history (*maternal and paternal*) of the disease, certain BRCA1 or BRCA2 mutations, or other risk factors.

Source: American College of Radiology and Society of Breast Imaging

**72 SKIN CANCER** the number of people who participated in the March free skin cancer screening at the Blount Memorial Cancer Center. Of the 72 screening participants, 17 were recommended for biopsies and 22 were encouraged to have follow-up exams.

**Screening Guidelines:** Checking your skin and knowing your moles are key to detecting skin cancer in its earliest, most-treatable stages. If you spot anything changing, growing or bleeding, see a dermatologist.

Source: American Academy of Dermatology

### Support Groups/Education # of participants

Breast Cancer Support Group	31
Caregiver Coffee and Conversation	411
Caregiver Consultations	238
Caregiver Support Group	17
Head and Neck Resource Support Group	16
LifeStories	39
Look Good, Feel Better	39
Lymphedema Support Group	157
Managing Your Cancer Class	4
Prostate Cancer Support Group	45

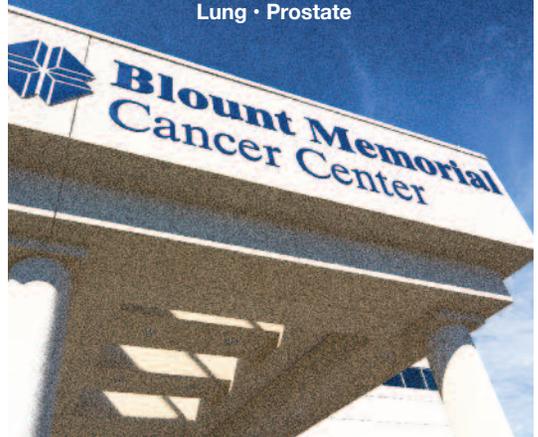
### Health Fairs, Screenings, Events # of participants

Community Health Fair/Presentation	172
Skin Cancer Screening	72
ALCOA Employee Health Fairs	350
The Daily Times Cooking Show	150
Safari Sam Sun Safety Program	176
City of Maryville Health Fair	185

### TOP FIVE CANCER SITES

The five most commonly diagnosed cancers at Blount Memorial.

Bladder • Breast • Colo/Rectal  
Lung • Prostate



Blount Memorial Cancer Center Community Outreach efforts reached thousands of people through education programs, financial assistance and awareness campaigns about cancer risk, prevention and screenings.



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