

Oncology ADVISOR

SUMMER 2021

A Special Report From Englewood Health



Program Stresses Follow-up Compliance for Early Diagnosis Of Cancerous Lung Nodules

The identification and monitoring of pulmonary nodules are important for the diagnosis and management of potential lung cancer, but patient compliance with recommended follow-up screening is often low.

Although compliance with follow-up for lung nodules has increased in recent years, as of 2017, less than 60% of patients returned for therapy in ways that complied with Fleischner Society guidelines for management of incidentally noted pulmonary nodules (*BMJ Open Quality* 2019;8:e000370. doi:10.1136/bmjopen-2018-000370).

"Compliance is relatively poor and is definitely an issue, from both the physician and patient standpoints," said Mark Shapiro, MD, the chief of the Department of Radiology at Englewood Health.

"Follow-up often doesn't get done. There's a sense that it's not urgent at the time, and it gets forgotten."

"When a radiologist sees a lung nodule, it is very important to follow up to get CT scans and to determine whether the nodule is significant," Dr. Shapiro added.

SEE LUNG NODULES, PAGE 19

Neoadjuvant Chemotherapy Benefits Pancreatic Cancer Patients

Over the past 15 years, a number of studies have investigated the efficacy of multiple chemotherapeutic agents for the treatment of pancreatic cancer. While much of this research has looked at the use of these agents in the postoperative setting, physicians at Englewood Health are increasingly interested in neoadjuvant chemotherapy.

"We've seen that multiple agents yield significant advances in the metastatic setting. Our thought is that if advances in overall survival can be seen in metastatic disease, why not apply

SEE PANCREATIC CANCER, PAGE 20

Strategies for Urologic Cancer Patients During COVID-19

A recently published study underscores the challenges and solutions of caring for urology patients amid the COVID-19 pandemic.

The report in *Urologia Internationalis* (2020;23:1-14) summarizes the recommendations and management strategies for urologic cancer care, with a focus on deploying appropriate resources and managing cancer patients who either have active COVID-19 or have recovered from it.

For renal cancer, clinicians should consider the risk stratification to determine treatment versus delaying therapy.

Surgery for small T1a tumors and cystic tumors (Bosniak III and IV)

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Biological and Technological Advancements Take Personalized Ca Care to the Next Level

A letter from Steven T. Brower, MD



Steven T. Brower, MD
Medical Director, Lefcourt Family
Cancer Treatment and Wellness Center

At Englewood Health, we strive to consistently expand our ability to provide state-of-the-art care to an ever-growing patient population. Our commitment to providing the best possible cancer care is evident through our continued growth in new technology, specialist recruitment, research and health care access across our region.

In recent years, there has been an explosion in the understanding of the cellular and molecular biology of cancer that affects every phase of cancer screening and surveillance. Our continued investment in technology allows for a more precise diagnosis and targeting of treatment at the cellular level, enabling us to deliver personalized cancer care at The Lefcourt Family Cancer Treatment and Wellness Center. Innovative technology in surgery and radiation ensures the precise destruction of cancer while minimizing harmful effects to normal tissue. Exciting advancements at Englewood Health include the robotics technology used in colorectal and gynecologic surgery, the use of MRI and CT technology to plan and precisely perform complex liver and pancreas procedures, and directed liver-specific Y90 radioembolization peptide receptor radionuclide therapy for cancer. Telemedicine, now more important than ever, also has become a key component of care.

The basic core worth of any cancer center is the dialogue between the physician and patient regarding best therapy, modality of treatment, expected outcomes, survivorship and quality of care. Therefore, our greatest asset is the recruitment of cancer physicians from the most respected comprehensive cancer centers who will become leaders and who may immediately develop unduplicated expertise and programs within the center.

As subspecialists join our team, we strengthen our ability to provide outstanding care for our patients.

Englewood Health combines exemplary clinical care with access to new discoveries, a deep understanding of the biological determinants of survival and research into targeted cancer treatment. This involves investing in technology, systemic chemotherapy and immunotherapy, radiobiology, and outcomes research. These research efforts also include the continued expansion of our precision medicine program for each patient, which promotes greater access to molecular medicine for each disease site and cancer informatics to allow the formation of large databases of cancer outcomes and survivorship. Together, these initiatives support our community's needs for the cancer continuum of care.

In an ongoing effort to increase access to care, our network has strategized placement of health care specialists within underserved communities across our region. We recognize that our diverse community requires specialized care across a range of health care needs. Englewood Health is fortunate to have specialized capabilities across 10 disease management teams that we can deploy throughout the region to bring fellowship-trained cancer doctors to regions that otherwise do not have subspecialty care. Through these efforts, we continue to mitigate health care disparities, provide access to cancer subspecialists, and make it possible to receive care closer to home.

As we look to the future, we are excited to continue our development as a tertiary care cancer center for the region by bringing in new technologies experts and services to care for the diverse and specialized populations in communities cared for by Englewood Health.

Meet Christos I. Stavropoulos, MD

Director of Thoracic Oncology



Christos I. Stavropoulos, MD
Director, Thoracic Oncology

Christos I. Stavropoulos, MD, has been named the new director of thoracic oncology at The Lefcourt Family Cancer Treatment and Wellness Center.

In this position, Dr. Stavropoulos will lead and develop a multidisciplinary lung and thoracic cancer program, as well as further expand the minimally invasive and robotic surgery expertise at Englewood Health.

"I'm excited to forge an integrative approach to provide personalized and state-of-the-art comprehensive care," Dr. Stavropoulos said. "Our cancer center will focus on improving survival by enhancing screening, identifying cancers at earlier stage and minimizing time from diagnosis to treatment."

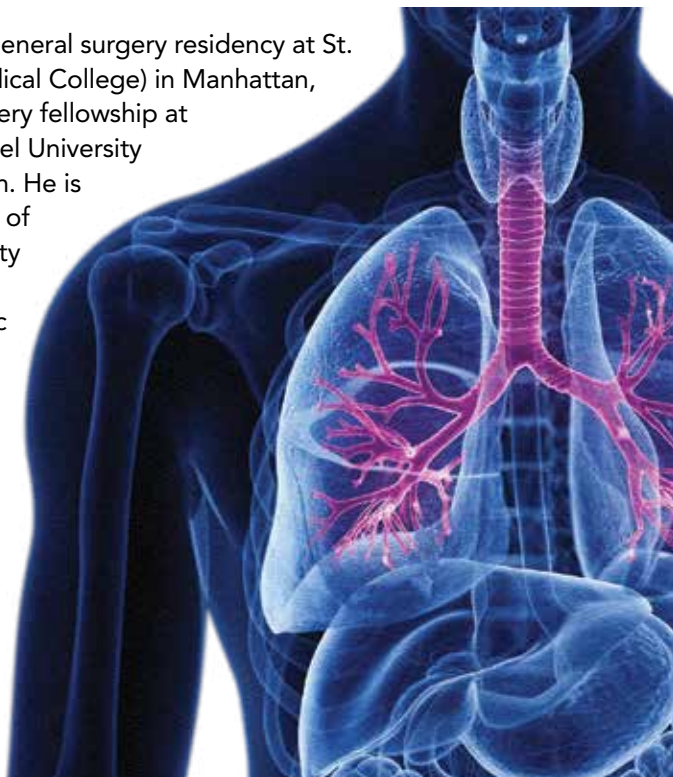
Dr. Stavropoulos, also a member of the Englewood Health Physician Network, is board certified in thoracic and general surgery. His primary clinical interests are chest, mediastinal and esophageal diseases, with particular interest in the management of pulmonary nodules. His surgical expertise includes robotic surgery, endobronchial ultrasound (EBUS), navigational bronchoscopy and thoracoscopy.

"With regard to diagnosis, I will help expand lung cancer screening and use all of the current modalities to help expedite diagnosis and staging—such as EBUS, navigational and robotic bronchoscopy," Dr. Stavropoulos said. "As for treatments, I will offer robotic technology as an option when appropriate and minimally invasive techniques in general. This can help patients recover sooner and resume their daily routines."

Before joining Englewood Health, Dr. Stavropoulos held leadership positions and provided clinical care throughout Hudson County, N.J.; Westchester County, N.Y.; and New York City.

Dr. Stavropoulos completed a general surgery residency at St. Vincent's Hospital (New York Medical College) in Manhattan, followed by a cardiothoracic surgery fellowship at Allegheny General Hospital (Drexel University College of Medicine) in Pittsburgh. He is a Fellow of the American College of Surgeons, a member of the Society of Thoracic Surgeons and the American Association for Thoracic Surgery, and a co-author on numerous peer-reviewed scientific publications.

"I have multiple colleagues and friends who work at Englewood and they could not be happier with the hospital's leadership and their own professional fulfillment," Dr. Stavropoulos said. "There is a strong foundation of comprehensive world-class care and I am honored to be a small part of this special team."



Englewood Health Providers Featured in This Issue

Steven T. Brower, MD; Hepatobiliary Surgery

Vinnidhy Dave, DO; Palliative Medicine

Justine Dellatte, RD; Clinical Nutrition

Julie DiGioia, MD; Breast Surgical Oncology

Jay A. Erlebacher, MD; Cardiology

Maz Ganat, MD; Urologic Oncology

Mindy Goldfischer, MD; Breast Imaging

Maxwell D. Janosky, MD; Hematology/Oncology

Minaxi P. Jhawer, MD; Hematology/Oncology

Peter M. Kaye, MD; Colon and Rectal Surgery

Brian H. Kim, MD; Hematology/Oncology

Cynthia Knorr-Mulder, APN, Pain and Palliative Medicine

Rachelle Leong, MD; Breast Surgery

Jessica Lyons, CNSC; Clinical Nutrition

Patricia Mazzola, MSN, FNP-BC, APNG, AGN-BC; Genetic Counseling

Violet M. McIntosh, MD; Breast Surgery

Nimesh Nagarsheth, MD; Gynecologic Oncology

Elizabeth Rastogi, RN, BSN; Patient Navigation

Miguel A. Sanchez, MD; Pathology

Tracy Scheller, MD; Integrative Medicine

Sharon Scherl, MD; Dermatology

Michael Schleider, MD; Hematology/Oncology

Anna Serur, MD; Colon and Rectal Surgery

Mark Shapiro, MD; Radiology

Lisa Sonzogni, MSN, APNG; Genetic Counseling

Rosalyn Stahl, MD; Pathology

Christos I. Stavropoulos, MD; Thoracic Oncology

Mikhail Tismenetsky, MD; Pathology

Cathy Verhulst, MS, LCSW, OSW-C; Patient Navigation

Christine Weiselberg, DNP, FNP-BC, Pathology

To contact any of these providers, please call 833-234-2234 or visit englewoodhealth.org.

Advances in Cardiologic Assessment For Oncology Patients



Jay A. Erlebacher, MD
Cardiologist

While cardiac toxicity from chemotherapy treatments is a known challenge in oncology, previous imaging techniques have sometimes missed spotting affected patients. Now, a novel imaging technology, speckle tracking echocardiography, allows for earlier and more accurate monitoring of heart function in a variety of oncology patients (*Tex Heart Inst J* 2020;47[2]:96-107).

"Although cardiology assessment of oncology patients is a rather new specialty, the effect of certain chemotherapy drugs on the heart has been known for many years," said Jay A. Erlebacher, MD, a cardiologist in the Englewood Health Physician Network. "However, as some of these treatments have become the backbone of treatment for many diseases, particularly breast cancer, it is increasingly important to detect the toxicities of oncology drugs, which are potentially toxic to the heart."

Dr. Erlebacher said it is crucial that these toxicities be detected as early as possible so adverse consequences on the heart can be avoided.

The headline drug for treating many cancers is doxorubicin, which is frequently used in breast cancer, but has potential toxicity related to the cumulative dose of the drug, according to Dr. Erlebacher. This can weaken the heart, potentially leading to congestive heart failure (CHF), he added.

Echocardiography is used routinely to monitor heart and valvular function in patients with heart disease or suspected heart disease. "We primarily look at a performance measurement of the heart called ejection fraction [EF], similar to measuring the horsepower of the heart," said Dr. Erlebacher, who led Englewood Health's echocardiography lab for the past 25 years.

EF measures the percentage of blood that is ejected from the heart with each beat, typically measured between 55% and 70%. An EF that falls by 10 percentage points and

drops below 53% has been used as a definition of chemotherapy-induced cardiac toxicity. Advanced echocardiogram machines are now able to recreate the left ventricular pumping chamber in 3D to obtain a more accurate and reproducible EF measurement than older more traditional techniques. Understanding a patient's EF is an important step in diagnosing and treating disease.

Doxorubicin and the other major cancer drug potentially toxic to the heart, trastuzumab, can lower EF and impair the performance of the heart, which can result in excess fluid in the body. "The legs become waterlogged and swollen, and patients will suffer shortness of breath, the hallmarks of CHF," Dr. Erlebacher said.

"We primarily look at a performance measurement of the heart called ejection fraction, similar to measuring the horsepower of the heart."

—Jay Erlebacher, MD

Fortunately, subtle effects that these two drugs can have on the heart may now be detected even before EF begins to decrease.

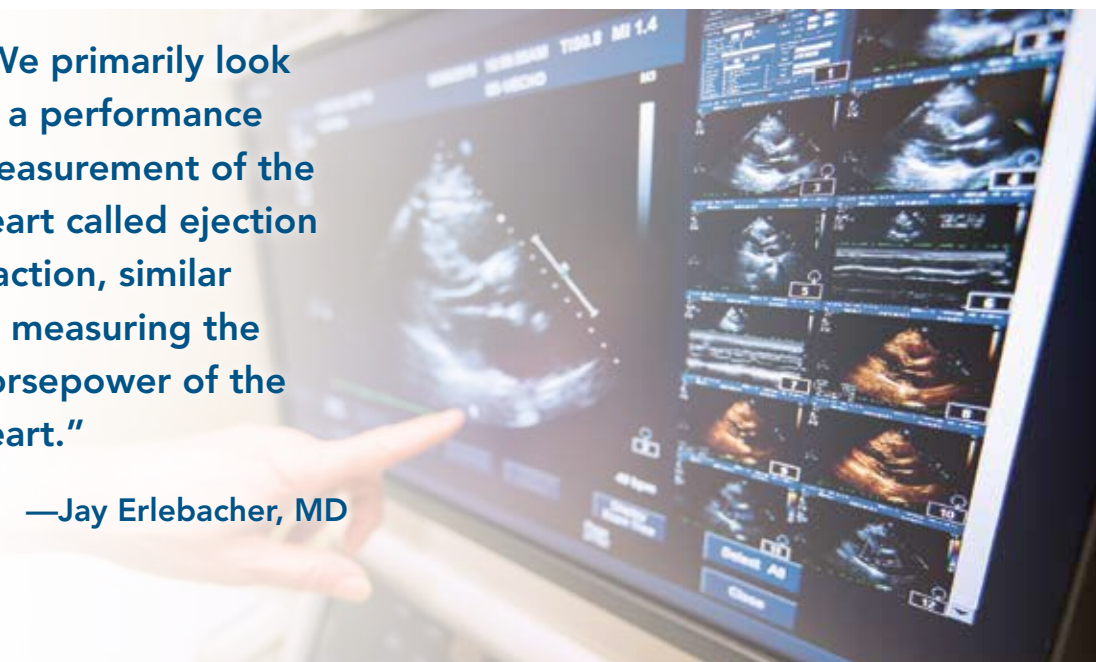
Speckle tracking echocardiography is a relatively new technology that is more sensitive and capable of measuring heart dysfunction earlier. "Within the heart muscle, there are tiny dots called speckles," Dr. Erlebacher said. "Extremely advanced processing software actually tracks the motion of each individual speckle within the view of the heart and computes the relative motion of adjacent speckles."

By measuring these speckles in relative motion as the heart contracts, a measurement of the regional and global function of

the heart can be derived via global longitudinal strain (GLS).

"In many ways, GLS is a superior measurement of heart function compared to EF," Dr. Erlebacher said. "GLS tends to be more reproducible and tends to start going south and becomes worse even before EF is affected. GLS is an ideal way of tracking patients who receive these chemotherapy drugs."

Patients are monitored both before and during chemotherapy with 3D echocardiography and speckle tracking. Trastuzumab patients are followed every three months, whereas doxorubicin patients are assessed upon completion of drug therapy or when they reach a standardized dose. Doxorubicin patients are



tested again six months after completing a course of treatment.

"If the heart function is decreasing, there are a number of treatments that have been shown to improve left ventricular function, similar to therapies for any type of CHF due to reduced heart function, including beta-blockers and angiotensin-converting enzyme inhibitors," Dr. Erlebacher said. "But for Herceptin [trastuzumab], simply temporarily withdrawing the drug will usually cause the heart to improve on its own over time. Our goal in working with our oncology colleagues is for our patients to receive their lifesaving chemotherapy without compromising their heart function."

Better Functional Outcomes After Robotic-Assisted Surgery for Colorectal Cancer

Compared with classic open procedures or laparoscopy, robotic-assisted colorectal surgery allows for minimally invasive, highly accurate procedures, which have been shown to have higher functional outcomes, according to a meta-analysis published last year in *Surgical Endoscopy* (2021;35[1]:81-95).

In the combined analysis of more than 24,000 patients, individuals who received robotic-assisted rectal resection were found to have a lower rate of urinary retention and ileus and higher quality of life when compared with laparoscopic surgery.

"Robotic-assisted surgery provides the highest level of dexterity and a nearly three-dimensional view so we can better see the patient's anatomy," said Peter M. Kaye, MD, a colon and rectal surgeon at Englewood Health. "The surgery is less invasive, there is less pain and there is less time spent in the hospital."

A dedication to the skilled use of emerging surgical technologies, as well as a strong multidisciplinary team approach, has allowed Englewood Health to offer cutting-edge therapies for patients with colorectal and digestive cancers.

The team at Englewood Health has completed more than 1,000 robotic resections for cancer. "We are the most experienced robotic colorectal surgeons in the area," Dr. Kaye said. "This is what we're trained to do."

One important benefit of the robotic approach is the decreased rate of conversion to an open procedure, which in turn reduces postoperative complication rates and allows for a faster interval to completing chemotherapy (*Ann Laparosc Endosc Surg* 2020;5:9). Being able to perform complex surgeries in a minimally invasive way also benefits patients by decreasing the need for devices, such as colostomy bags.



Peter M. Kaye, MD
Colon and Rectal Surgeon



Anna Serur, MD
Chief, Colon and Rectal Surgery

"Very few surgeons have the technical ability to conduct sphincter-sparing surgery," said Anna Serur, MD, the chief of colon and rectal surgery at Englewood Health (*J Gastrointestinal Surg* 2014;18[7]:1358-1372). "Fortunately, we have the special expertise to do these challenging procedures."

Drs. Serur and Kaye also emphasized the importance of Englewood Health's strong, multidisciplinary approach to managing patients' cancers.

"We work very closely with a patient's medical oncologist, radiation oncologist, with all of the specialties involved in the patient's care," Dr. Kaye commented.

"Robotic-assisted surgery provides the highest level of dexterity and a nearly three-dimensional view so we can better see the patient's anatomy. The surgery is less invasive, there is less pain and there is less time spent in the hospital."

—Peter M. Kaye, MD

Dr. Serur agreed that the team approach in the cancer center is part of what makes Englewood Health stand out. "We take pride in providing excellent care and outcomes," she said. "We use the latest techniques and medicines, and follow best practices and national recommendations as they are released. We provide our patients with an experience that is special."

New Standards in Immunotherapy For Advanced Ovarian Cancer

New technology in surgery, along with cutting-edge innovation in immunotherapy and tumor genetics, has begun to produce some of the highest success rates in the treatment and management of gynecologic oncology.

For example, minimally invasive surgery has been found to have comparable results to open surgery in ovarian cancer treatment (*J Clin Med* 2020;9[8]:2507; *J Minim Invasive Gynecol* 2020;S1552-4650 [20]31125-0), with the benefits of smaller incisions and recovery times.

"We've really pushed the envelope on what's possible with minimally invasive surgery, and it has resulted in better outcomes," said Nimesh Nagarsheth, MD, the medical director of gynecologic oncology and



Nimesh Nagarsheth, MD
Medical Director, Gynecologic Oncology and Robotic Surgery



Maxwell D. Janosky, MD
Oncologist

the medical director of robotic surgery at Englewood Health. "More than that, we've made a commitment to be innovators in the field of gynecologic oncology and pioneers in new techniques."

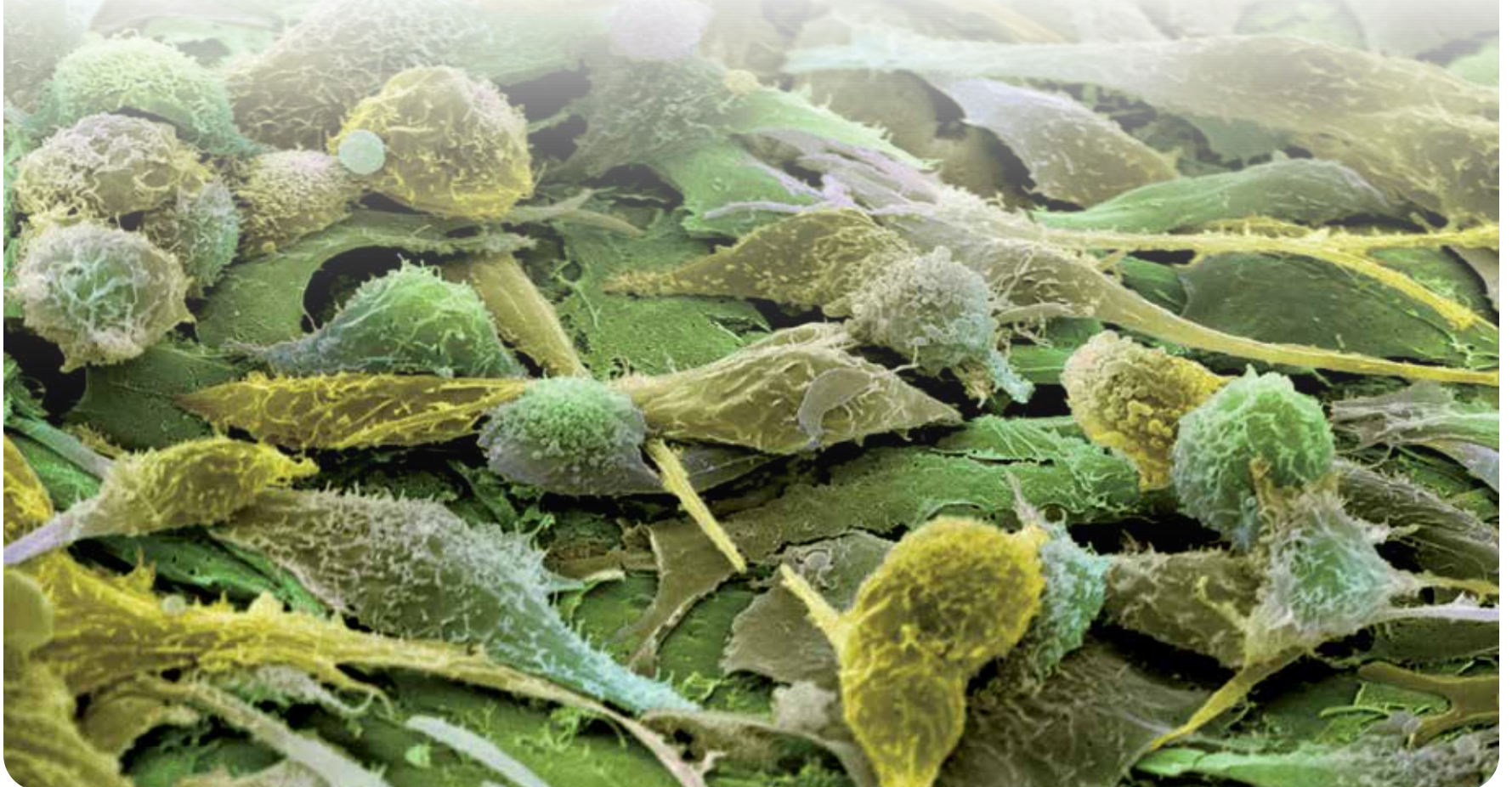
Using da Vinci (Intuitive Surgical) surgical robots, The Lefcourt Family Cancer Treatment and Wellness Center at Englewood Health has been at the forefront in the use of minimally invasive surgery to perform complex and delicate procedures to treat uterine and ovarian cancers. The da Vinci Xi gives surgeons 3D high-definition video for greater visualization, as well as enhanced technical aspects to allow surgeons greater control and precision. These properties help patients return quickly to their presurgical levels of quality of life, as was found in this study of

gynecologic oncology patients (*Gynecol Oncol* 2014;134[1]:144-149).

Dr. Nagarsheth and his team have also implemented new standards in targeted therapy for advanced ovarian cancer. These changes were made after results from multiple trials, including the PRIMA trial, which looked at patients who had a response to first-line platinum-based chemotherapy, showed maintenance therapy with the poly (ADP-ribose) polymerase (PARP) inhibitor niraparib (Zejula, GlaxoSmithKline) significantly lengthened progression-free survival in women with *BRCA* mutations by 21.9 months versus 10.4 months in those receiving placebo. The improved outcomes from the PARP inhibitor also extended to women without a homologous recombination deficiency (*N Engl J Med* 2019;381[25]:2391-2402).

Dr. Nagarsheth, a member of the Englewood Health Physician Network (EHPN), and Maxwell D. Janosky, MD, an oncologist with Hematology Oncology Physicians of Englewood, part of the EHPN, had stayed abreast of the bevy of clinical

SEE OVARIAN CANCER, PAGE 23



Incorporating the Latest Pharmacology in The Treatment of Acute Myeloid Leukemia

Acute myeloid leukemia (AML) remains a significant clinical challenge. The disease is the most common of all types of acute leukemia—with 21,000 new cases in the United States in 2019 alone—and the deadliest, with five-year survival rates of less than 25% due, at least in part, to the fact that the majority of patients are diagnosed at an elderly age (*Blood Rev* 2019;36:70-87).

However, the past three years have seen a significant rise in the number of FDA-approved treatments for AML. Since the beginning of 2017, the agency has green-lighted nine new therapies for this aggressive cancer, and Englewood Health has been proactive in evaluating these new agents and incorporating them into clinical practice (*J Hematol Oncol* 2019;12[1]:100).

“The fact that since 2017 there have been nine new drugs approved is just remarkable, and now we are seeing dramatically improved treatment response rates as a result.”

—Brian H. Kim, MD

“Between the mid-1970s and about 2000, there were no new FDA approvals for the treatment of AML, which is, if you think about almost any other disease, unheard of,” said Brian H. Kim, MD, a hematologist/oncologist at Englewood Health. “The fact that since 2017 there have been nine new drugs approved is simply remarkable, and now we are seeing dramatically improved treatment response rates as a result.”

Like most hospitals prior to 2017, Englewood Health relied on the regimen known as “7+3,” a chemotherapy combination—originally introduced in 1973—that includes an anthracycline and cytarabine. This treatment approach helped cure some patients but its intensive nature and side effects were challenging for others, particularly elderly patients and those with underlying health complications, for whom five-year



Brian H. Kim, MD
Hematologist/Oncologist



Michael Schleider, MD
Hematologist/Oncologist

survival rates using 7+3 as the primary treatment were less than 10%, Dr. Kim said.

Today, Englewood Health is having much greater success using newer treatments, particularly venetoclax, which was approved in 2018, in combination with low-dose cytarabine or the hypomethylating agents azacitidine or decitabine.

Englewood Health also has incorporated enasidenib and ivosidenib, which are designed to inhibit the isocitrate dehydrogenase 1 and 2 genes, respectively. Research has shown that mutations in these genes can predict relapse in patients with AML (*Haematologica* 2019;104[2]:305-311). Similarly, FMS-related tyrosine kinase 3 (*FLT3*) gene mutations are present in as many as 25% of all patients with AML, making treatment plans incorporating gilteritinib and midostaurin the preferred options. Both agents are designed to inhibit *FLT3*.

“We have these targeted therapies for patients who are appropriate for them,” Dr. Kim explained. “If they lack any of these specific targets, then the venetoclax-based combination is something that’s really been a remarkable advance.” All of these drugs improve survival in older, less healthy patients with AML, with fewer complications and/or adverse events, Dr. Kim said.

Identifying the appropriate treatment for a patient with AML considers not only the efficacy of the regimen but also the safety, according to Michael Schleider, MD, a hematologist/oncologist at Englewood Health. By their very nature, these targeted therapies carry with them reduced toxicities, he said.

“What I think our approach highlights is that, first, we accent being vigorous and rigorous and in making sure we’ve got our treatment targets correctly identified in all our patients,” Dr. Schleider said. “Second, we have a team approach where we integrate the pain and palliative team early on to help those who experience nausea, vomiting and other side effects during treatment. Finally, we design a patient’s treatment based on who they are and what their individual needs are, as we treat each patient as if they are our only one.”



Genetic Testing Guides Cancer Risk Assessment and Treatment

Englewood Health has one of the oldest (nearly 20 years) and largest cancer risk assessment and genetic counseling programs in New Jersey, led by advanced nurse practitioners specifically trained in genetics.

"We capture patients either when they are diagnosed with breast cancer or when they simply come in for a mammogram," said Rosalyn Stahl, MD, the associate chief of pathology and laboratory medicine at Englewood Health. "We can also counsel patients right away. We do not have to wait for a referral."

Dr. Stahl started the program in 2003 as a convenient and less invasive alternative to nipple aspirate fluid cytology for evaluating the degree of risk for developing breast cancer. Since then, the program "has grown by leaps and bounds," she said. "I used to see several patients a week. We now see 600 patients a year."

The program initially assessed breast cancer only, but has since expanded to other cancers: ovarian, pancreatic and gastrointestinal.



Rosalyn Stahl, MD
Associate Chief, Pathology and Laboratory Medicine



Lisa Sonzogni, MSN
Advanced Practice Nurse, Genetics



Patricia Mazzola, MSN
FNP-BC, APNG, AGN-BC,
Coordinator, Cancer Risk Assessment and Genetics Program

For breast cancer assessment, which currently constitutes 90% of patients, a routine or diagnostic mammogram is performed. The next step is an interview with a nurse practitioner and a questionnaire, which are designed to gauge the patient's family history and assess genetic risk.

Current recommendations from the American Cancer Society (ACS) state that for women of average risk, patients have the option to begin mammography yearly between the ages of 40 and 45 years; the screening test is then strongly recommended yearly between the ages of 45 and 54 years. For those older than 55, the screening can be yearly or every other year, and should

only be performed if the patient is "in good health and is expected to live at least 10 more years," the society states.

For patients who are considered high risk, yearly mammograms should begin around the age of 30. The ACS defines a high-risk patient as someone who has a lifetime risk for breast cancer of 20% to 25% or greater,

"Patients with a particular gene associated with breast cancer have a 50% to 80% chance of developing breast cancer in their lifetime."

—Rosalyn Stahl, MD

based on their risk assessment tool, which can be accessed on their website; had radiation therapy to the chest when they were between the ages of 10 and 30 years; has a first-degree relative with Li-Fraumeni, Cowden or Bannayan-Riley-Ruvalcaba syndrome; or has a first-degree relative with a *BRCA1* or *BRCA2* gene mutation, as discovered through genetic testing.

If the patient is determined to be high risk, she is then referred to a genetics nurse, who interviews the patient in more detail

SEE GENETIC TESTING, PAGE 22

New Armamentarium Significantly Improves Melanoma Therapy

Over the past decade, new medications, immunotherapies and targeted agents have revolutionized the treatment of melanoma. These new treatments are offered at Englewood Health, where oncologists have gained valuable expertise in managing the toxicities of the new drugs.

"The landscape of treating melanoma is incredibly dynamic right now, and it is very exciting because we are finally getting all types of immunotherapies targeting the pathways that allow these skin cancers to grow. Very often they are able to grow because the cancers themselves are able to circumvent our own defense system, but we are now finding ways to make our immune system recognize these cancers and attack them on their own," said Sharon Scherl, MD, the chief of dermatology at Englewood Health.

"Whereas not even 5% of patients with melanoma survived a decade or more ago, survival rates are now 20% for those treated with immune therapies alone and about 33% for patients treated with both an immune therapy and a targeted therapy," Dr. Scherl added.

Drugs for melanoma include immune checkpoint inhibitors (*Cell* 2016;165[1]:35-44; *J Cancer Res Ther* 2018;14[6]:1167-1175), such as the programmed death-1 (PD-1) inhibitors nivolumab (Opdivo, Bristol Myers Squibb) and pembrolizumab (Keytruda, Merck), and the cytotoxic T-lymphocyte-associated antigen 4 inhibitor ipilimumab (Yervoy, Bristol Myers Squibb). In addition, BRAF inhibitors for patients with BRAF mutations and MEK inhibitors for patients with MEK mutations (*Curr Opin Oncol* 2020;32[2]:85-90) have improved survival rates in melanoma. BRAF inhibitors include vemurafenib (Zelboraf, Genentech), dabrafenib (Tafinlar, Novartis) and encorafenib (Braftovi, Pfizer). MEK inhibitors include binimetinib (Mektovi, Pfizer), trametinib (Mekinist,



Sharon Scherl, MD
Chief, Dermatology

Novartis) and cobimetinib (Cotellic, Genentech). "With the checkpoint inhibitors, BRAF inhibitors and MEK inhibitors, our ability to treat these melanomas is advancing and very promising for the future," Dr. Scherl said.

Five years ago, the first oncolytic virus therapy, talimogene laherparepvec (Imlygic, Amgen), was approved for advanced melanoma (*J Clin Oncol* 2015;33[25]:2780-2788; *Am J Clin Dermatol* 2017;18[1]:1-15). The treatment is injected directly into tumors that are cutaneous, subcutaneous or nodal.

Melanoma is not the only skin cancer for which progress has been made. Hedgehog pathway inhibitors have altered the treatment of basal cell cancers in recent years (*Eur J Cancer* 2019;118:10-34; *Expert Opin Drug Saf* 2020;19[12]:1585-1594). "Patients with metastatic basal cell often have to undergo major disfiguring surgeries because a lot of the basal cell cancers occur on the face, around the eyes, the mouth and the nose," Dr. Scherl said. "In the past, the only way we had to deal with basal cell cancers was by surgical means, but now, for locally advanced or metastatic basal cell, there is a group of oral medications called hedgehog inhibitors that attack the immune system and are very effective at keeping basal cell cancers in check."

Cemiplimab (Libtayo, Regeneron) is a relatively new PD-1 pathway inhibitor that is improving outcomes in patients with advanced or metastatic squamous cell cancers (*N Engl J Med* 2018;379[4]:341-351). "Advanced squamous cell cancer is not as prevalent as melanoma but can be equally as dangerous," Dr. Scherl noted, adding that the majority of cutaneous squamous cell cancer will not turn into an advanced malignancy. High-risk lesions are generally those that occur on the head, neck and mucous membranes. Cemiplimab also has been FDA approved to treat advanced basal cell carcinomas.

"Before we had immunotherapy to treat these malignancies, we used chemotherapy, radiation and surgery. Now we are regulating and targeting specific immune pathways to inhibit cell growth to fight off these cancers."

"We are now finding ways to make our immune system recognize these cancers and attack them on their own."

—Sharon Scherl, MD



Illustration of a cross-section of diseased skin with melanoma that enters the bloodstream and lymphatic tract.

Outreach to Korean Americans Targets Gastric, Colorectal Cancer Screening

Korean Americans are a rapidly growing ethnic community in the United States, currently the fifth largest among Asian American groups, according to the 2010 U.S. Census. This trend is particularly evident in the region served by Englewood Health. With nearly 60,000 Korean American residents, Bergen

County is home to the largest such population nationally, based on figures from the New Jersey Department of Labor and Workforce Development.



Minaxi P. Jhawer, MD
Associate Medical Director,
Lefcourt Family Cancer
Treatment and Wellness Center



Mikhail Tismenetsky, MD
Pathologist

Health 2014;19[4]: 406-423), while the risk for different types of gastric cancer—such as noncardia gastric cancer—is up to 14.5-fold higher among Korean American men than their white American counterparts (*Gastroenterology* 2020:S0016-5085 [20]35013-35017). Korean Americans also are susceptible

to hepatocellular carcinoma because chronic hepatitis B and/or C infections remain largely underdiagnosed and undertreated in this population (*BMC Infect Dis* 2016;16[1]:415).

prognosis by diagnosing them at an earlier stage,” said Minaxi P. Jhawer, MD, the chief of hematology/oncology and the associate medical director of The Lefcourt Family Cancer Treatment and Wellness Center at Englewood Health.

In general, this has meant the institution of protocols within the hospital to proactively identify at-risk patients and encourage them to undergo screening, including endoscopy and colonoscopy in a timely manner, she said.

“There are a number of factors that place this population at increased risk for these cancers,” Dr. Jhawer said. “Some of them are genetic—we know that there a lot of Korean Americans and Asian Americans who have a family history of these cancers. But we also think some of them may be environmental or diet related.”

In fact, research suggests that pickled and salty foods common in the Korean and Korean American diet—including kimchi—may contribute to this increased risk (*Cancer Epidemiol Biomarkers Prev* 2012;21[6]: 905-915).

According to Dr. Jhawer, the pilot program—formally instituted earlier this year, in conjunction with the hospital’s Center for Korean Health and Wellness—seeks to screen Asian Americans generally, and Korean Americans specifically, for these cancers, because there are no guidelines that address

“Colorectal cancer is one of the few cancers that we can actually prevent through screening, but, unfortunately, Asian Americans have a much lower rate of screening than the general U.S. population.”

—Mikhail Tismenetsky, MD

Unfortunately, recent research suggests that the incidence of colorectal cancer may be up to 20% higher among Korean Americans compared with other racial and ethnic groups (*Ethn*

“Because most of these cancers are being diagnosed at stage III and IV, we wanted to move ahead of the curve and give patients a better outcome and a better overall

HBV Screening Program

In New Jersey, Bergen and Hudson counties are known for the diversity of their communities, a large portion of whom originated in Asian countries. Unfortunately, some of these individuals unknowingly have the hepatitis B virus, which puts them at risk for cirrhosis, liver cancer and death. Englewood Health is committed to screening and treating this vulnerable population.

“There are several etiologies of cirrhosis in the liver, such as fatty liver disease, chronic alcoholism, and non-alcoholic steatohepatitis. But hepatitis B infection is responsible for the majority of liver tumors in people from Asian countries,” said Steven T. Brower, MD, the chief of hepatobiliary surgery and the medical director of The Lefcourt Family Cancer Treatment and Wellness Center.

“Many people with hepatitis are unaware they have it. Untreated, the disease can progress silently to cirrhosis and eventually to cancer,” he said.

About half of the people with chronic hepatitis B in the United

States are Asian or Pacific Islanders, most of whom acquired the infection before arriving in this country. Asian Americans are twice as likely as whites to develop chronic hepatitis B, and eight times more likely to die from it. Situated as it is geographically, Englewood Health is uniquely positioned to screen individuals for hepatitis before the infection becomes life-threatening.

When patients arrive at Englewood’s emergency department, they are seen by a program coordinator and nurses who ask questions about their ethnicity and potential for risk, and offer them the opportunity to become part of Englewood’s large-scale research effort. Englewood also conducts outreach with community partners to educate them on hepatitis risk and the need for screening.

“We’ve screened thousands of patients so far, and administered a significant number of hepatitis B vaccinations to young adults and children that will prevent progression of the infection and decrease the rate of liver cancer,” Dr. Brower said.

“It’s been a very successful program,” he noted.



this issue in the United States. For example, Korean American patients presenting to the hospital with *Helicobacter pylori* infection and intestinal metaplasia—two known risk factors for gastric cancer—are referred for upper endoscopy. Some of the many physicians intimately involved in the development and successful execution of this program include Drs. Eugene Han, Sam Bae, Mitchell Spinnell, Sandarsh Kancherla and Walter Klein.

Similarly, the hospital has ramped up screening for hepatitis B and C in this population, encouraging testing for all Korean American patients who present to the hospital's emergency department for chronic liver disease. Since 2018, nearly 3,400 such patients have undergone screening at the hospital, Dr. Jhaver said.

Much of the effort has also focused on educating Korean American patients on the importance of cancer screening. According to Mikhail Tismenetsky, MD, a pathologist at Englewood Health, research indicates



Sam Bae, MD, an Englewood Health gastroenterologist, speaking at a Korean Center event.

that Asian Americans are far less likely to undergo routine screening (e.g., colonoscopy) for colorectal cancer, for example, than those in other racial and ethnic groups (*Am J Clin Oncol* 2013;36[2]:167-173), placing them at increased risk for late-stage diagnosis and, thus, a poorer prognosis.

"Colorectal cancer is one of the few cancers that we can actually prevent through screening, but, unfortunately, Asian Americans have a much lower rate of screening than the general U.S. population," he said. "Some of the other barriers could be cultural, as I think a lot of Asian Americans have a very symptom-based approach to health care. So I think it's very important for us to communicate to our patients that screening is something you do even if you have no symptoms, if you are completely healthy."

Englewood Health's outreach efforts have included educational programming conducted in partnership with local Korean American community groups and media outlets.

Acupuncture and Aromatherapy Tested For Chemo-Induced Nausea and Vomiting

Physicians at Englewood Health have launched a randomized controlled trial to evaluate the efficacy of acupuncture versus aromatherapy as treatment to decrease nausea, vomiting and anxiety associated with chemotherapy in patients with breast cancer. Patients in the trial who are scheduled to receive doxorubicin and cyclophosphamide are randomized to one of three groups: standard therapy with antiemetics, aromatherapy and antiemetics, or acupuncture and antiemetics.



Tracy Scheller, MD
Medical Director, Integrative Medicine

"We are enrolling 60 patients total, 20 in each arm," said Tracy Scheller, MD, the medical director of integrative medicine at the Graf Center for Integrative Medicine at Englewood Health. "The study results will help us give patients who have a higher level of anxiety during chemotherapy a holistic option that can improve their experience. Nausea and vomiting are other side effects that many cancer patients frequently experience, and they are often severe. However, patients will frequently see a reduction in these symptoms when incorporating various holistic modalities."

Patients experience nausea and vomiting from chemotherapy due to the stimulation of various receptors in the fourth ventricle of the brain, also known as a chemoreceptor

trigger zone. Chemotherapy can also irritate a patient's enteric nervous system. The enteric nervous system transmits a signal to the brain through the vagus nerve, activating the 5-HT₃ receptor in the brain, which leads to vomiting (*Oncology [Williston Park]* 2005; 19[5]:637-645).

Acupuncture and aromatherapy are two different forms of integrative medicine that are often used to relieve stress, alter one's mood, improve cognitive well-being and/or improve physical well-being. Patients who are randomized to the aromatherapy group will receive their treatment at the infusion center. Aromatherapy uses inhalation of vapors or absorption of oil into the skin to alleviate symptoms. Early studies have shown that certain blends of aromatherapy soothe the stomach, ease nausea and relieve anxiety (*Cochrane Database Syst Rev* 2018;3[3]:CD007598; *Nurs Clin North Am* 2020;55[4]:489-504). The therapeutic-grade essential oils used in the study include lavender, peppermint and ginger root. Lavender has antidepressive, sedative and calming properties that are beneficial in treating anxiety (*Clin J Oncol Nurs* 2019;23[5]:502-508; *Complement Ther Med* 2019;47:102208). Peppermint and ginger root are known to relieve nausea (*Complement Ther Clin Pract* 2020;40:101199; *J Altern Complement Med* 2017;23[3]:196-200).

Acupuncture consists of using specific pressure points that have been linked to relieving nausea, vomiting and anxiety. It is a safe medical procedure with limited side effects and has been shown to reduce the proportion of

patients experiencing acute vomiting (*Nurs Clin North Am* 2020;55[4]:571-580).

Before each cycle of chemotherapy, subjects will fill out the Edmonton Symptom Assessment System (ESAS) and Symptom Diary. Aromatherapy is administered prior to chemotherapy, and after chemotherapy these patients will fill out the ESAS and Symptom Diary. Approximately 48 to 72 hours after each chemotherapy cycle, the subject will come back to get a filgrastim injection, a medication to help the body make more white blood cells during chemotherapy. After receiving the shot, the subject will fill out the ESAS and Symptom Diary, followed by their acupuncture treatment, consisting of eight acupuncture points for 30 minutes. A fourth ESAS and Symptom Diary entry will follow that session. Patients will also complete an antiemetic diary every day during the trial.

"The trial is designed to help us understand if some of these complementary modalities can ease the symptoms of nausea and vomiting, and even anxiety. If patients feel they can do something proactively during their treatments, then their overall health will have a better outcome and they will have a better experience going through chemotherapy," Dr. Scheller said.

"We want to address those patients and say, 'Let's have you work with an integrative medicine physician and talk about coping techniques that you can work on preoperatively to allow you to have decreased anxiety and stress about the procedure, and then it will help you postoperatively with pain management and other symptoms.'"

"The trial is going to help us understand if some of these complementary modalities can ease some symptoms of nausea and vomiting, and even anxiety."

—Tracy Scheller, MD

Palliative Care Helps Oncology Patients' Treatment Outcomes, Quality of Life

Oncology patients who begin palliative care as early as possible improve their overall outcomes and quality of life during their treatments, according to Vinnidhy Dave, DO, the director of palliative medicine for the Englewood Health Physician Network.

Research has shown that integration of oncology and palliative care benefits patient survival, symptom control, family satisfaction and overall quality of life, while also decreasing anxiety and depression (*Lancet Oncol* 2018;19[11]: e588-e653).

This is why patients are encouraged to begin palliative care at the time of diagnosis,



Vinnidhy Dave, DO
Director, Palliative Medicine

"Palliative care gets involved to treat the patient as a whole person, not just focus on their disease, to improve their quality of life by making patients able to cope with their symptoms and their treatments to really improve their outcomes."

—Vinnidhy Dave, DO

Dr. Dave said. Palliative care is available not only for cancer patients but also for patients with lung, heart and liver disease, although approximately three-fourths of those in palliative care at Englewood Health are oncology patients.

The team of palliative specialists, which includes physicians, nurses and nurse practitioners, works together with patients' doctors to manage the symptoms of a serious illness, as well as the resulting stress of the



Cynthia Knorr-Mulder,
APN, Pain and Palliative
Medicine

disease and its treatment. The team members then interact with pastoral care, social services, child life specialists and other multidisciplinary teams to assist patients and their families in managing individual issues that might arise.

"Palliative care gets involved to treat the patient as a whole person, not just focus on their disease, to improve their quality of life by making patients able to cope with their symptoms and their treatments to really improve their outcomes," Dr. Dave said.

The care team works with families and focuses on the "overall quality of life for the patient who has a serious disease," explained Cynthia Knorr-Mulder, APN, a pain and palliative medicine practitioner at Englewood Health.

To accomplish this goal, she said, "we do a lot of education with patients and their families on their disease process so that they understand what's happening and how we're going to work with them throughout the future. They appreciate that."

For instance, many patients suffer side effects from treatment that are difficult to manage, according to Knorr-Mulder. "We help to manage their symptoms, whether it be shortness of breath or pain or nausea, vomiting, or difficulty eating where they have no appetite. We're specialists in symptom management and pain management."

Dr. Dave said the palliative care teams bring the disease "down to the patients' level" so they understand their disease, what their treatment options are, what the expected outcomes are, and then going into the symptoms that are affecting them. "Whether it's pain; whether it's nausea; whether it's depression, anxiety, loss of appetite or social issues at home, we discuss what additional care and support is needed."

Screening, Community Education Aid in Early Detection of Cancer

While state-of-the-art treatment options for breast cancer—new chemotherapy regimens, precision immunotherapies and modern surgery—have advanced, consensus continues to show that early detection is key.

The earlier the stage of cancer is detected, the more likely death can be prevented, according to recent screening guidelines from the American Cancer Society and European Commission Initiative on Breast Cancer (*JAMA* 2015;314[15]:1599-1614; *Ann Intern Med* 2020;172[1]:46-56).

As an example, there are better surgical results. The earlier the diagnosis and the smaller the tumor, the greater the chances of being able to preserve the breast, explained Violet M. McIntosh, MD, the chief of breast surgery at Englewood Health.

"If the patient comes in with a larger tumor, that changes the approach," she said.

To this end, Englewood Health is now employing a combination of multimodal diagnostic techniques, patient alert systems,



Violet M. McIntosh, MD
Chief, Breast Surgery



Rachelle Leong, MD
Breast Surgeon



Mindy Goldfischer, MD
Chief, Breast Imaging

and community outreach and education to expunge breast tumors in their earliest stages.

High-Quality Screening

Interpreting images is as important as obtaining them. Englewood Health employs a team of radiologists dedicated to breast imaging. "This makes a big difference, as they are able to identify subtle abnormalities in the breast," Dr. McIntosh said.

In addition to screening mammography, radiologists use MRI in patients who are at high risk and in those already diagnosed with breast cancer, to rule out additional disease that may not be visible on a mammogram or an ultrasound scan.

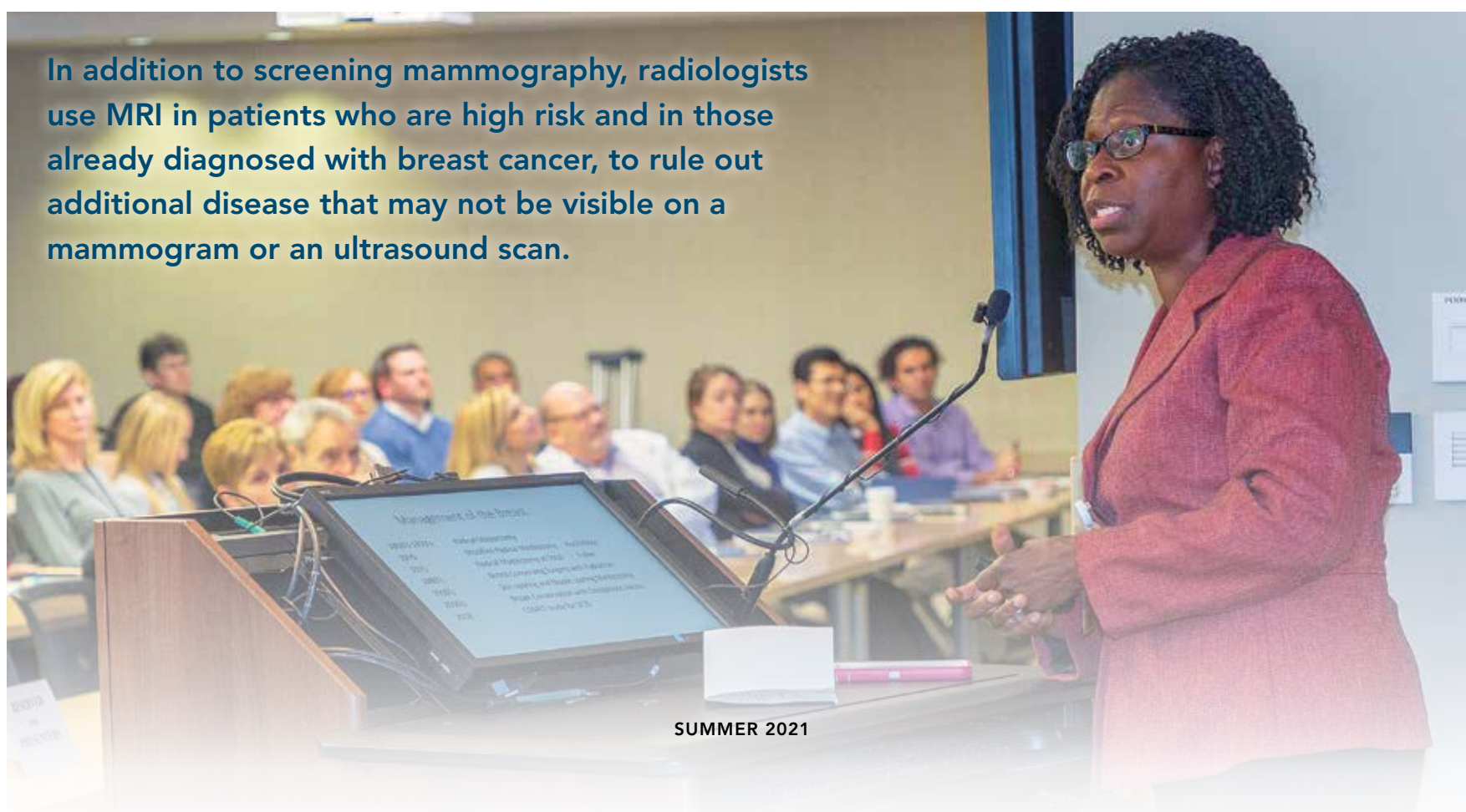
Ultrasonography and mammography have their unique uses. "Mammogram is useful for seeing architectural distortions or calcifications, which are difficult to visualize on ultrasound. On the other hand, ultrasound is better than mammogram for identifying cysts and masses," said Rachelle Leong, MD, a breast surgeon at Englewood Health. "Ultrasound is especially helpful in patients who have dense breast tissue."

As such, early detection of breast cancer is best achieved through a combination of risk assessment and routine screening mammography, according to Mindy Goldfischer, MD, the chief of breast imaging at The Leslie Simon Breast Care and Cytodiagnosis Center at Englewood Health.

"Current thinking suggests that all women should have a personal and family history obtained at age 30 to determine if they fall into the high-risk category," she said. "For those of average risk, annual mammograms should begin at age 40. Supplemental imaging with ultrasound may be needed in women with dense breast tissue."

At Englewood Health, every mammogram report includes a description of breast density to guide decision making. In addition, all mammograms are performed using digital tomosynthesis, which is the most

In addition to screening mammography, radiologists use MRI in patients who are high risk and in those already diagnosed with breast cancer, to rule out additional disease that may not be visible on a mammogram or an ultrasound scan.



Specialized Breast Care Serving Ethnically Diverse Groups in Hudson County

Hudson County is a major port of entry for immigration to the United States. Its largest city, Jersey City, is considered one of the most ethnically diverse in the world. While culturally fascinating, some specific populations pose particular challenges in breast cancer care.

"African American women, unfortunately, tend to have higher rates of triple-negative breast cancer, which often occurs in younger women who are not in the screening mammogram population," said Julie DiGioia, MD, the Hudson County regional director of breast surgical oncology for Englewood Health. Triple-negative breast cancers are estrogen receptor-negative, progesterone receptor-negative and HER2-negative.

Furthermore, outcomes in Black women are worse than outcomes for women of European ancestry, no matter the type of breast cancer. The age-adjusted cumulative incidence rate for all types of breast cancer is actually slightly lower in Black women (124.3/100,000) than whites (128.1), but Black women have a 42% higher mortality rate than white women (*Cancers [Base]*



Julie DiGioia, MD
Hudson County Regional
Director, Breast Surgical
Oncology



Miguel A. Sanchez, MD
Emeritus Chief, The Leslie
Simon Breast Care and
Cytodiagnosis Center

2018;10[12]:514). Biological and socioeconomic factors undoubtedly influence these figures.

Hudson County also has large groups of people from the Caribbean and Latin America who tend to present with later-stage disease, and triple-negative breast cancer may be more common in Hispanic compared with white women (*Breast Cancer Res Treat* 2017;166[1]:183-193).

"This presentation is due to a combination of economic and cultural influences, not to mention language barriers," said Miguel A. Sanchez, MD, the emeritus chief of pathology and emeritus medical director of the Leslie Simon Breast Care and Cytodiagnosis Center at Englewood Health.

The barriers to care are many, but lack of access is the main issue, Dr. DiGioia said, noting that in addition to the large number of urban poor who are uninsured or underinsured, many residents of Hudson County do not have cars or access to taxis or other hired transportation services. Added to that is the COVID-19 pandemic.

"We see far too many neglected cancers, especially now, when COVID-19 has kept so many people home," Dr. DiGioia said.

To that end, she is deeply invested in the ambulatory care center that Englewood Health is bringing to 2 Journal



Square in Jersey City, directly across from the PATH station.

"The population of Jersey City is really remarkable. There is so much energy and so much intelligence. People want to learn, and they want to know what needs to be done. But they need to have health care that is available and accessible," Dr. DiGioia said.

"The reputation of Englewood Health's Breast Center has been established for decades, and it is that kind of quality, stability and reliability that enables the Englewood program to expand to other areas that are underserved," she added. ●

sensitive radiographic modality. A risk score is calculated after taking a detailed personal and family history, which provides guidance on when screening should begin and whether supplemental imaging is needed.

"For those at highest risk, and for women with a personal history of premenopausal breast cancer, breast MRI may be indicated. Breast MRI is the most sensitive imaging modality for detecting breast cancer at the earliest stage, and it often detects cancers that cannot be seen on mammograms or sonograms."

Timing Is Everything

Even within the isolation of the past year, it's easy to lose track of time. To help patients stay consistent with timely screenings, Englewood Health uses a series of alerts.

"Patients have to be very diligent and keep a calendar of what they need to do and when. But time goes by so quickly, and patients often

think they're up-to-date when they are not," Dr. McIntosh said. "Once a patient has had a mammogram or other imaging at Englewood Health, they will get reminders when they're due for another."

Education and Outreach

Expanding the numbers of women who receive early diagnoses due to regular screening goes beyond keeping tabs on patients in the Englewood Health system. To inform the broader community about breast cancer risks and the importance of screening, Dr. McIntosh makes a concerted effort to address various women's groups in the Englewood area.

Dr. McIntosh has been invited to address Black and Hispanic groups, populations that are often underserved.

"Along with outreach, patient alerts and multimodal imaging, we're using everything in our armamentarium to ensure that every patient has the best chance," Dr. McIntosh said. ●



Adapt and Overcome: Treating Patients in the Era of COVID-19

From the onset of the COVID-19 pandemic, Englewood Health has taken steps to protect patients and providers while maintaining the access to care that patients need.

"During the height of the initial surge, we were caring for 130 or so ICU patients as part of the 250 patients in the hospital with COVID-19, and despite this, we were fully equipped to take care of cancer patients throughout all of that," said Steven T. Brower, MD, the medical director of The Lefcourt Family Cancer Treatment and Wellness Center at Englewood Health.

In response to the COVID-19 pandemic, Englewood Health quickly made changes to accommodate those with the virus and



Steven T. Brower, MD
Medical Director, The Cancer Treatment and Wellness Center



Christine Weiselberg, DNP, FNP-BC
Administrative Director, The Leslie Simon Breast Care and Cytodiagnosis Center

took steps to protect patients and providers while maintaining access to cancer care. Physicians adopted new pathways to protect patients, including putting some patients on systemic therapy before taking them to operating rooms. "We had to be extremely malleable," Dr. Brower said. "But all of our subspecialists in our cancer center, each in their own disease management groups, were able to change their clinical paradigms for care."

Within the infusion centers, there were strict guidelines for who could be treated, how patients were screened and how side effects were managed. Telemedicine became

an integral tool to care for patients without bringing them into the hospital.

"All aspects of managing a patient's disease, including side effect management, escalation of care, end-of-life care and survivorship, were taken care of through virtual visits," Dr. Brower said. "Englewood Health, quite literally overnight, created a vast telemedicine infrastructure. And, I have to say, it was as seamless as it could be."

Dr. Brower emphasized the absolute importance of patients obtaining care if they need it. "Cancer doesn't isolate, and screening and prevention cannot isolate," said Dr. Brower, noting that Englewood Health is a safe environment where patient care will not be altered in any way other than for the protection of patients and their loved ones.

Even when the CDC ordered elective breast screening to be postponed at the onset of the pandemic, Englewood Health staff were always available for patients with any type of symptom, such as a mass,

Vaccine Development

As the medical and scientific communities follow COVID-19 vaccine development closely, Dr. Brower notes that vaccines have been a long-standing component of cancer prevention and care.

"The notion of vaccines and their relationship to the immune system and cancer is something that is at the forefront of most of our disease entities," Dr. Brower explained. "Viral vectors have been utilized in the therapeutic treatment of multiple cancers such as pancreatic, liver and gynecologic malignancies for about a decade."

The two most notable examples are the hepatitis B vaccine for the prevention of liver cancer, as well as the HPV vaccine for the prevention of cervical malignancies, he added.

"All of these have been developed in an incremental research fashion with informed patients submitting themselves to clinical trials," Dr. Brower said. "Over the course of tens of thousands of patients, we have ascertained that these vaccines are safe. We in the medical community adhere to that same kind of safety profile for any vaccine that's being developed for the coronavirus." ●



change of breast appearance or nipple discharge, according to Christine Weiselberg, DNP, FNP-BC, the administrative director of The Leslie Simon Breast Care and Cytodiagnosis Center.

"We realized that many patients had put off going to the hospital as they began to hear more about COVID-19, even though they had noticed something many months prior," she said. "This was incredibly concerning, and it was something that we wanted to investigate."

"All aspects of managing a patient's disease, including side effect management, escalation of care, end-of-life care and survivorship, were taken care of through virtual visits."

—Steven T. Brower, MD



As a result, Englewood Health decided to conduct a study comparing breast cancer presentation and stage in women diagnosed in 2019 versus 2020, during the pandemic. Researchers compared women who were diagnosed with breast cancer from July 1, 2019, to Dec. 31, 2019, with patients during the same period in 2020. The data are still being analyzed, but some of the comparisons include the overall number of people who were diagnosed and had some sort of workup and treatment; the types of symptoms; how they were diagnosed; the degree of pathology; and if it was a malignancy, the size and stage.

"I can't stress enough that you should always listen to your body; if you see or feel something, act on it immediately," Dr. Weiselberg said. "Letting time go by will only worsen symptoms and potentially lead to worse outcomes. For patients worried about COVID-19, Englewood has absolutely ensured the safety of their staff and their patients—and that includes my own family. We've mirrored and implemented every single CDC guideline, so I implore patients to never hesitate to come in." ●

"With our multidisciplinary approach, the navigation team can be the liaison between the providers on the health care team, giving the patient a point person with a personal connection."

—Elizabeth Rastogi, RN, BSN



Reaching Beyond Clinical Treatment, Support Services Complete Cancer Care



Cathy Verhulst, MS, LCSW, OSW-C
Patient Navigation Manager



Elizabeth Rastogi, RN, BSN
Oncology Patient Navigator



Jessica Lyons, CNSC
Chief, Clinical Dietitian



Justine Dellatte, RD
Oncology Dietitian

Cancer care is more than just a diagnosis and treatment.

"We know that a cancer diagnosis has the potential to affect many areas of life," said Cathy Verhulst, MS, LCSW, OSW-C, the patient navigation manager for The Lefcourt Cancer Treatment and Wellness Center at Englewood Health. "At Englewood Health, one way we address the whole person is through our patient navigation team. We are here to provide access to the information, services and support that will help."

Verhulst and the patient navigation team meet with patients and their families at the time of diagnosis to assess needs. They can help to schedule, educate and reduce barriers

to obtaining the tests, evaluations and treatments required to cure early-stage and manage advanced-stage cancers.

According to Elizabeth Rastogi, RN, BSN, an oncology patient navigator at Englewood Health, the team's approach is simple: to be with the patient at the first step in their journey.

"A cancer diagnosis can be overwhelming in so many ways. Our role is to eliminate barriers that could affect their care right from the start and support the patient," Rastogi said. "With our multidisciplinary approach, the navigation team can be the liaison between the providers on the health care team, giving the patient a point person with a personal connection."

The next step is to guide patients through evidence-based treatments. Oncology patients may receive evidence-based treatments that minimize nausea during chemotherapy, reduce pain post-surgery, and decrease stress and anxiety.

Patients also have the option to take advantage of the holistic treatments at the Graf Center for Integrative Medicine, such as Reiki, aroma touch and lymphatic drainage massage after breast surgery with lymph node removal. Also offered are virtual yoga and stretch classes, acupuncture for pain and anxiety relief, and meditation classes to maintain wellness and a healthy sympathetic nervous system.

Not only is integrative medicine now an accepted adjunct to conventional cancer care, but the field has significantly grown throughout major cancer centers in the nation (*J Natl Cancer Inst Monogr* 2017;2017[52]).

Verhulst acknowledges that hearing the diagnosis of cancer may feel overwhelming. She wants patients and families to know that the entire oncology team is here to help and committed to an excellent outcome and positive experience for patients and their loved ones.

"The navigation program is successful because we get to know our patients individually and learn about their needs,"

LUNG NODULES

CONTINUED FROM PAGE 1



Mark Shapiro, MD
Chief, Department of Radiology

At Englewood Health, an innovative program has been put in place to increase compliance and thus increase early diagnosis of cancerous nodules.

The program, which has been operational for approximately one year, enlists the assistance of a team of patient navigators who check diagnostic reports, note when lung nodules have been identified, and populate the necessary information into a list that generates a protocol for follow-up.

The patient navigators oversee three rounds of reminders, both to patients and their physicians, with the goal of ensuring that all patients continue their recommended care.

"This communication is an important aspect in closing the loop and ensuring patients don't fall through the cracks," Dr. Shapiro said.

A screening program also targets patients at high risk for lung cancer. Characteristics such as age and smoking history are noted, and patients who meet eligibility criteria are recommended for pre-emptive CT scan screening.

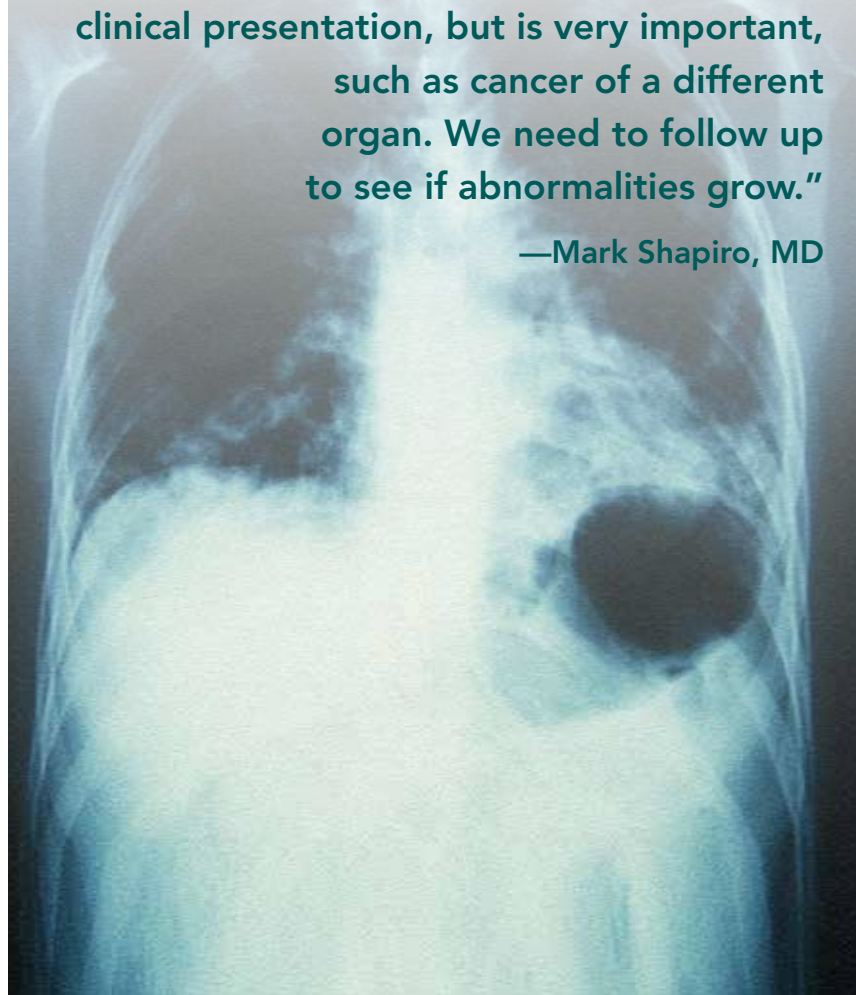
If lung nodules are found in the CT scan, Englewood Health physicians are able to conduct further screening and initiate therapy, as necessary—ideally allowing for detection of tumors at the earliest possible stage.

When scans are negative, the patient navigators help to ensure that each individual is tracked, urging them with personal communications to return for an annual scan, an approach that has significantly improved cancer diagnosis.

"In radiology, incidental findings can turn out to be very significant," Dr. Shapiro said. "There may be a finding which is unrelated to the acute clinical presentation, but is very important, such as cancer of a different organ. We need to follow up to see if abnormalities grow."

"In radiology, incidental findings can turn out to be very significant. There may be a finding which is unrelated to the acute clinical presentation, but is very important, such as cancer of a different organ. We need to follow up to see if abnormalities grow."

—Mark Shapiro, MD



Without follow-up, Dr. Shapiro emphasized that patients may be harboring malignancies that may become symptomatic.

"If it looks suspicious, we can act on it right away," Dr. Shapiro said. "This can be a huge benefit for the patient."

Rastogi said. "We have many resources available for our patients, and our job is to make sure they know about those resources. Our overarching philosophy is to make sure the patient and their families feel supported in every step of the way."

Personalized Nutrition Care for Oncology Patients

Other support includes managing and synchronizing appointments, coordinating transportation, working with insurance companies, patient financial services and individualized nutrition counseling.

Cancer and its treatments can impair a patient's ability to eat, digest and absorb nutrients (*J Visc Surg* 2015;152[suppl1]:S3-S7). This may affect how they respond to their treatments, which is why nutrition and oncology are closely linked at Englewood Health.

Each patient who receives a diagnosis of cancer is offered a complimentary nutrition counseling session, said Jessica Lyons, RD, CNSC, the chief clinical dietitian and clinical nutrition manager at Englewood Health.

Nutrition services are provided by the center's oncology dietitian, Justine Dellatte, RD. This includes a comprehensive nutrition assessment, nutrition counseling and education. The goal is to set patients on the right dietary path as soon as possible to improve their nutritional status, help manage symptoms and improve quality of life during their treatment.

Each patient will receive a personalized nutrition care plan, taking into consideration their primary cancer site, needs and concerns.

"Patients may experience fatigue, nausea, early satiety, mouth sores, taste changes, diarrhea or constipation, which make

eating extremely challenging," Dellatte said. "Nutrition interventions address these issues by adjusting the type, amount and timing of foods, beverages and supplements consumed." An individualized approach is always implemented based on the patient's medical history, planned treatment schedule and personal nutrition goals.

Englewood Health's oncology nutrition services play a role before, during and after treatment.

"Improved diet quality and nutrition intake can positively affect outcomes for cancer patients," Dellatte said. "Benefits include increasing strength and energy, preventing muscle loss, recovering more quickly after treatments, supporting the immune system, decreasing risk of infection, managing nutrition-related side effects and enhancing overall well-being."

PANCREATIC CANCER

CONTINUED FROM PAGE 1

these agents preoperatively to patients with potentially resectable pancreatic carcinoma?" said Steven T. Brower, MD, the chief of hepato-biliary surgery and the medical director of The Lefcourt Family Cancer Treatment and Wellness Center at Englewood Health.

Administering neoadjuvant chemotherapy to patients with pancreatic cancer is associated with several advantages, according to Dr. Brower. First, it allows the cancer care team to identify which patients are candidates for surgery; those whose disease progresses despite two to four months of neoadjuvant therapy are not eligible.

"To further improve outcomes at time of surgery, after initial chemotherapy we can often incorporate radiation concurrently with some chemotherapy as part of their treatment regimen," said Minaxi P. Jhaver, MD, the chief of hematology/oncology and the associate medical director of The Lefcourt Family Cancer Treatment and Wellness Center.

Secondly, patients are more likely to undergo a full course of treatment when the therapy is administered preoperatively, Dr. Brower said. "When we give chemotherapy postoperatively, neoadjuvantly, only 30% to 50% will get their full course because they are recovering from a major surgery or because of complications."

While the results are still mixed, neoadjuvant therapy can also help treat micrometastatic disease (*Front Oncol* 2020;10:245), Dr. Jhaver explained. "Even when patients appear to have localized disease, unfortunately a vast majority of them have micrometastatic disease—micrometastases in the blood. Administering systemic chemotherapy through the blood stream,

where the micrometastatic disease is, ensures direct targeting of this micrometastasis and improved overall outcomes."

Finally, neoadjuvant therapy can help surgeons obtain optimal surgical outcomes, according to data from multiple clinical trials, as well as observations from Englewood's pancreatic cancer database, Dr. Brower said. "The most difficult aspect of pancreatic cancer surgery is achieving a microscopically free margin on the two largest blood vessels in the abdomen," he said. "When we deliver these drugs preoperatively, our resectability rate improves from one out of three to better than two out of three individuals."

"The most difficult aspect of pancreatic cancer surgery is achieving a microscopically free margin on the two largest blood vessels in the abdomen. When we deliver these drugs preoperatively, our resectability rate improves from one out of three to better than two out of three individuals."

—Steven T. Brower, MD

Numerous studies are currently underway investigating various aspects of neoadjuvant chemotherapy in pancreatic cancer. One such phase 2 trial, called SWOG 1505, is an attempt to set benchmark data for the use of fluorouracil, irinotecan, and oxaliplatin compared with gemcitabine and albumin-bound paclitaxel (Clinical Trial NCT02562716).

"Englewood Health will soon embark on a very important trial comparing the impact of neoadjuvant chemotherapy and postoperative chemotherapy on overall survival," Dr. Brower said.

The phase 3 clinical trial is part of a cooperative group organized by the Alliance for Clinical Trials in Oncology.

Treatment of this complex cancer, in which 75% or more of patients have microscopic



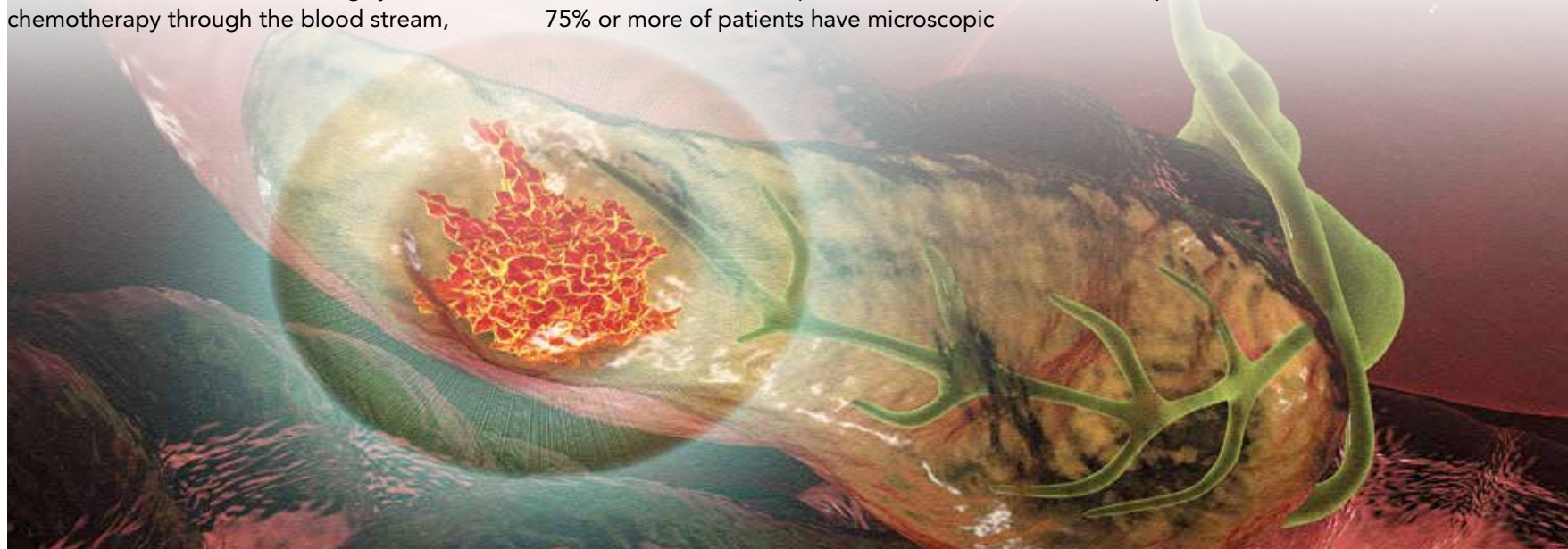
Steven T. Brower, MD
Medical Director, Lefcourt
Family Cancer Treatment and
Wellness Center



Minaxi P. Jhaver, MD
Associate Medical Director,
Lefcourt Family Cancer
Treatment and Wellness Center

disease outside the pancreas, requires a multimodal approach that involves numerous disciplines. To that end, Englewood Health has developed a program of organ-specific, multidisciplinary collaborative care to best suit the needs of these cancer patients.

"We have a multidisciplinary approach with the idea of developing a unique, personalized plan for each patient, as we believe one size doesn't fit all," Dr. Jhaver said. "Each case is unique and deserves all disciplines, including medical oncologists, radiation oncologists and surgeons, to make a comprehensive plan, and we do this all together in one location and at one appointment for the ease and convenience of the patients."



UROLOGIC CANCER

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can be postponed, depending on the available resources. However, surgery is a priority for locally advanced tumors such as T3 tumors, thrombus of the renal vein, vena cava thrombus and symptomatic tumors.

"Any delay in care for some tumor types or for cancers that are more aggressive results in significant worsening of outcomes," said Maz Ganat, MD, the program director of urologic oncology at Englewood Health.

Similarly, for bladder cancer, patients require risk stratification. However, for patients with high-risk non-muscle-invasive bladder cancer, and certainly muscle-invasive bladder cancer, any delay in treatment of care can result in poor outcomes. For example, patients with high-risk non-muscle-invasive disease need to receive bacillus Calmette-Guérin intravesical instillation therapy to reduce progression and recurrence after transurethral resection of the bladder. Patients with muscle-invasive disease who require neoadjuvant chemotherapy followed by radical cyst-ectomy pose a challenge, as this procedure can involve prolonged hospitalization and high complication rates.

Most patients with bladder cancer are also older and have a higher risk for more severe cases of COVID-19. "These guidelines were implemented at Englewood early on, especially during the peak of the epidemic," Dr. Ganat said. "This allowed us to use our resources appropriately and to prioritize those patients with higher-risk cancer."

At the peak of the pandemic, all urologic cancer services at Englewood Health that were deemed nonemergent were placed on hold based on the recommendations of the state. "This allowed appropriate measures for the reallocation of resources to COVID patients, but likely resulted in patient care delays, including for procedures and

routine screening," Dr. Ganat said. "Unfortunately, once the hospital fully reopened and COVID-19 was under better control, patients were still scared to come in because of the virus."

Confidence-boosting measures have been implemented to protect patients, including temperature checks, contact tracing, testing and mask requirements. "The vaccine has boosted the confidence of patients even more," Dr. Ganat said. "In my opinion, most patients have returned to their scheduled screening and procedures at this time."

"Any delay in care for some tumor types or for cancers that are more aggressive results in significant worsening of outcomes."

—Maz Ganat, MD



Maz Ganat, MD
Program Director, Urologic
Oncology

Urologic cancers in women are not common and consist of kidney, bladder, ureter and urethral cancers. For female patients with urologic cancer, Englewood Health offers comprehensive care including consultation, diagnostic studies, and advanced and complex surgeries, such as minimally invasive or robotic surgical procedures.

For kidney cancer, patients are offered nephron-sparing surgery or partial nephrectomy, even in the case of a complex tumor. "We can safely remove the tumor and save the rest of the kidney in appropriate cases," Dr. Ganat said.

Further, the bloodless program has attracted many female patients with advanced cancer from all over the country who are Jehovah's Witnesses. "These patients were denied surgery at other institutions due to a high risk of bleeding," he said. "They have done well here."

One patient with muscle-invasive bladder cancer who is a Jehovah's Witness failed chemotherapy and radiation elsewhere, but was treated successfully at Englewood Health with robotic cystectomy. "Blood loss and bleeding is potentially a huge factor in such a patient," Dr. Ganat said. "But thankfully the patient had minimal blood loss with the robotic surgery; she recovered well after surgery and is cancer-free."



GENETIC TESTING

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about family history. Based on various risk assessment models, the percentage of risk is calculated to determine eligibility for testing.

In just shy of 30 years, genetic testing and early detection have changed outcomes for breast cancer patients. *BRCA1* and *BRCA2*—first identified in 1994 and 1995, respectively—are gene mutations in which specific proteins do not act to repair damaged DNA as they should, resulting in abnormal cell growth. Clinical testing became available in 1996. While an estimated 13% of women in the general U.S. population will develop breast cancer, 55% to 72% of women with a *BRCA1* variant and 45% to 69% of women with a *BRCA2* variant will develop breast cancer, according to statistics from the National Cancer Institute. Women with a *BRCA* variant also have a higher risk for developing contralateral breast cancer following a primary breast cancer diagnosis, as well as a higher risk for ovarian cancer, than the general public.

The U.S. Preventive Services Task Force recommends that patients with a family history of breast or various gynecologic cancers be tested for a *BRCA* mutation. If a mutation is found, the ACS recommends MRI surveillance, alongside mammography. Other risk management measures, including chemoprevention and surgeries such as bilateral risk-reducing

mastectomy, have been found to benefit patients (*Breast* 2020;49:81-86).

Other genetic mutations can lead to increased risk for breast cancer. Fortunately, they do not increase the risk as much as *BRCA* and are much less common in the general population, according to the ACS.

When the eligibility criteria for genetic testing are met, the patient is then offered molecular genetic testing via a simple blood test. “The testing is explained to the patient, what it means and the interpretation,” Dr. Stahl said. “However, some patients require additional counseling to demonstrate the benefits of testing.”

The blood sample is sent to various laboratories, with results received normally in two to three weeks. “The program tests for certain genetic mutations that are known to be associated with a high risk of particular cancers,” Dr. Stahl said. “The blood test is very accurate in detecting a mutation. Patients with a particular gene associated with breast cancer have a 50% to 80% chance of developing breast cancer in their lifetime.”

Results of the blood test and risk reductions are discussed with the patient in a sit-down meeting with a genetics nurse. Strategies range from increased imaging surveillance to a prophylactic bilateral mastectomy or oophorectomy.

Patients already diagnosed with breast cancer need to decide how they are going

to treat their breast cancer based on their genetic test results. “If the results show that the patient has a genetic mutation that is known to be associated with breast cancer, the patient may choose to have a prophylactic bilateral mastectomy rather than a lumpectomy,” Dr. Stahl said.

Lisa Sonzogni, MSN, an advanced practice nurse in genetics (APNG) at The Leslie Simon Breast Care and Cytodiagnosis Center at Englewood Health, is excited that she and others can guide people “to further clarify their risk factors, with or without a cancer diagnosis.”

In collaboration with the patient’s medical provider, genetics information is valuable “for making medical decisions based on the patient’s genetic makeup,” Sonzogni said.

Patricia Mazzola, MSN, FNP-BC, APNG, AGN-BC, the coordinator of the Cancer Risk Assessment and Genetics Program, said the program is on the cutting edge of precision medicine. “We make plans, manage and screen each patient specifically, including managing a cancer patient with the newer chemotherapeutic targeted agents,” she said.

Mazzola values her interaction with the patients. “We also need to stay on top of our field,” she said. “Referring clinicians count on us to bring them the latest information about genetic testing and about changes in the guidelines.”

OVARIAN CANCER

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trials proving the efficacy of PARP inhibitors, and formulated a clinical pathway for PARP inhibitors as a front-line, standard-of-care benefit for all patients with advanced-stage cancer. The pathway they developed was commensurate with the same clinical guidelines that the American Society of Clinical Oncology published, leading to FDA approval in April 2020.

"This new front-line maintenance is extremely beneficial to patients, since most ovarian cancers are diagnosed in stage 3, where survival is only 39%," Dr. Janosky said.

"Using PARP inhibitors, we've shown outstanding outcomes for our patients," Dr. Nagarsheth added. "Our success rates and our survival rates are far beyond what the data would suggest for these types of cancers."

Dr. Janosky noted that he and Dr. Nagarsheth keep tabs on breakthrough therapies that are able to improve outcomes by targeting

specific cellular pathways. Recently, they were encouraged to see that mirvetuximab soravtansine in combination with bevacizumab (Avastin, Genentech) showed positive results as a treatment for patients with platinum-agnostic ovarian cancer (*Gynecol Oncol* 2020;157[2]:379-385).

"If this gets approved by the FDA, it would be in line with targeted therapy, since it not only delivers a selective treatment to cells that have high levels of folate receptor-alpha, but also activates immune cells to improve the selective response," Dr. Janosky said. "That's significant since metastatic ovarian cancer usually doesn't benefit from immunotherapy used alone."

The cancer center has implemented a multidisciplinary tumor board to analyze the molecular aspects of cancerous tumors.

"Realizing that one person's cancer might differ from another's helps us build an arsenal of targeted therapies so we can predict which treatments will be the most responsive," Dr. Nagarsheth said.

"Those advances will allow us to target gene-specific treatments that will maximize outcomes and minimize toxicity."

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