Spring 2015

Better Medicine

Lehigh Valley Health Network

LVHNACO Focuses on Quality Care for Medicare Patients

By Mark Wendling, MD, with LVPG Family Medicine–Emmaus*

Lehigh Valley Health Network's Accountable Care Organization (LVHNACO) has been selected as one of 89 new Medicare Shared Savings Program (MSSP) ACOs nationwide.[1]

Mark Wendling, MD
Family Medicine

This designation is important because providers in LVHNACO will work together to focus on prevention oriented care and improved coordination of care for patients with complex and chronic conditions. Approximately 1,100 physicians and advanced practice clinicians (APCs) comprise LVHNACO, serving 32,000 Medicare beneficiaries. We are actively adding new providers, beginning with primary care, and the number of beneficiaries also will grow.

We have been building capacity for several years to become an MSSP ACO by establishing reliable methods to promote care coordination and care management across disciplines. Improved information technology systems also will help providers better manage data, because you cannot manage that which is not measured.

This summer, the Centers for Medicare & Medicaid Services (CMS) will share with us the first round of claims data. This information had not previously been available and sometimes left providers without a meaningful way to gauge and improve the effectiveness of care.

Providers in LVHNACO will calculate and assess performance on measures related to four quality domains:

- Patient/caregiver experience
- Care coordination/patient safety
- Preventive health
- At-risk populations, such as those with diabetes and coronary artery disease

If LVHNACO meets benchmarks for these quality measures and reduces cost through better coordination of care, providers will share in the savings with Medicare. These shared savings will allow the ACO to continue to invest in care transformation to support the goal of improved health for our patients.

While LVHNACO is keenly interested in effective and efficient health care, the methods used to achieve this goal in an ACO are much different from those employed in care models such as health maintenance organizations (HMOs).

First, there are no restrictions on where patients seek care. Medicare beneficiaries can see the provider of their choice and can seek treatment from providers inside or outside the ACO at any time.

Second, CMS claims data will identify which patients are at greatest risk for deteriorating health and will require more focused attention to prevent that. These distinguishing characteristics of an ACO mean we will be providing more attention toward addressing our patients' specific health care needs.

Ultimately, LVHNACO will help us more wisely spend scarce health care resources to provide patient-centered care that will keep people healthier.

**Mark Wendling, MD, the author of this article, is a primary care physician and medical director of the LVHNACO. Jeff Etchason, MD, is the president of LVHNACO.*

1. "ACOs moving ahead." Centers for Medicare & Medicaid Services, 2014 Dec. 22. http://blog.cms.gov.

Genetic Testing Identifies Cancer Risks

Tara Namey, MS, LCGC
Genetics
Watch a video to learn more about heredity cancer syndrome.

Nicole Agostino, DO
Hematology oncology

Genetic profiling plays an increasingly important role in guiding oncology management. When patients receive cancer risk and genetic assessments, they receive information about genetic mutations associated with hereditary cancer syndromes and familial cancer risks.[1]

As such, Lehigh Valley Health Network's (LVHN) Gregory and Lorraine Harper Cancer Risk and Genetic

Assessment Program continues to expand significantly to meet patient need. Nearly 500 new patients were assessed in 2014.

Comprehensive program and assessment

Thirty percent of cancer risk and genetic assessment results from patients referred to LVHN revealed a familial cancer risk, and 10 percent were identified as exhibiting a hereditary cancer risk.[1]

“Genetic counseling and testing are vital to determining whether closer monitoring or risk-reducing strategies are warranted,” says LVHN senior genetic counselor and program manager Tara Namey, MS, LCGC.

Three board-certified genetic counselors and a medical oncologist are available to meet with patients and families to discuss the benefits of genetic testing and perform a personalized cancer risk assessment. The counselors provide an in-depth review of results, counsel patients and family members on implications, and provide comprehensive treatment and surveillance recommendations.

Guidance through the process

Clinicians also provide ongoing follow-up for patients who are identified as having a hereditary cancer syndrome. A cancer genetics clinic is conducted on Mondays, and appointments for urgent referrals are available within 48 hours.

Genetic Testing Indications

LVHN relies on National Comprehensive Cancer Network Clinical Practice Guidelines in Oncology[2] to determine patient eligibility for genetic testing.

Indicators include:

- Cancer diagnosed at a young age
- More than one primary cancer
- Family history of breast, ovarian, uterine, colon, prostate and other cancers, including melanoma
- Diagnosis of a rare cancer (such as male breast cancer)
- Ashkenazi (Eastern European) Jewish ancestry
- A known hereditary cancer syndrome

Patients who do not have a hereditary cancer syndrome still may have an increased cancer risk. Some of these risk factors include:

- Familial patterns of cancer
- Multiple breast biopsies
- Lobular carcinoma in situ (LCIS; lobular neoplasia), atypical ductal hyperplasia or atypical lobular hyperplasia in the breast found on breast biopsy
- Adenomatous polyps found on colonoscopy

“The medical community in general is becoming more aware of the indications for referral for genetic testing of

cancer syndromes," says Nicole Agostino, DO, who practices at LVPG Hematology Oncology−1240 Cedar Crest and is the medical director for the Gregory and Lorraine Harper Cancer Risk and Genetic Assessment Program. "We guide patients, their families and their care team through the process of appropriate testing and management if a hereditary cancer syndrome is diagnosed."

To refer a patient to the Gregory and Lorraine Harper Cancer Risk and Assessment Program, call 610-402-CARE.

1. "The Cancer Center statistical report, 2014." Lehigh Valley Health Network.

2. "National Comprehensive Cancer Network clinical practice guidelines in oncology."

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Insurance Coverage for Lung Cancer Screening

For the past five years, Lehigh Valley Health Network (LVHN) has offered low-dose computed tomography (LDCT) for patients at high risk for lung cancer. Once an out-of-pocket expense, LDCT screening now is covered by Medicare, and the Affordable Care Act requires private insurers to cover it without cost-sharing.

Robert J. Kruklitis, MD, PhD
Interventional pulmonology
Watch a video to learn more about him.

Kenneth Cavorsi, MD
Radiology

Patients who meet the following criteria are eligible:

- Between ages 55-77 (patients covered by Medicare) and 55-80 (patients covered by private insurers)
- Have no signs or symptoms of lung cancer
- Have a 30 pack-year smoking history (smoking at least one pack per day for 30 years) or its equivalent
- Currently smoke or have quit within the past 15 years

A diagnosis breakthrough

“With LDCT, we’re able to find lung cancer at an early stage,” says LVHN interventional pulmonologist Robert Kruklitis, MD, PhD, chief, division of pulmonology. “It’s a major advance because we can find lung cancers that may be potentially cured.”

According to the National Cancer Institute-sponsored National Lung Screening Trial, patients ages 55-74 with a history of heavy smoking are 20 percent less likely to die from lung cancer if they’re screened with LDCT instead of standard chest X-rays.[1]

Per scan, patients receive just 1 millisievert of radiation to create a detailed image of the lung. “It’s about one-fifth the usual amount of radiation compared to a standard CT,” says Kenneth Cavorsi, MD, section head of thoracic imaging for the department of radiology who is fellowship-trained in cardiothoracic imaging.

Nodules are scored with a 0-6 Lung Imaging Reporting and Data System (Lung-RADS) that categorizes them according to size and composition. The likelihood of malignancy significantly increases for solid nodules that are greater than 8 millimeters and subsolid nodules that have a solid component greater than 5 millimeters. “Those are the early lung cancers we want to catch,” Cavorsi says.

Clinical expertise

LDCT has a high rate of false-positive results because noncancerous lung nodules are common. Yet LVHN’s multidisciplinary medical team has the expertise to evaluate all pulmonary nodules and treat them appropriately. Referring physicians will receive a copy of a patient’s LDCT report. Nurse navigator Janie Connor, RN, will connect patients who are diagnosed with lung cancer with other LVHN services as needed and coordinate their medical appointments.

Eligible patients with no pulmonary abnormalities at baseline should be screened annually for at least two more years, according to Centers for Medicare & Medicaid Services guidelines. Patients who present with a questionable nodule will need to be followed more often, with repeat scans at closer intervals.

To refer eligible patients for LDCT pulmonary screening, call 610-402-CARE.

1. “Annual number of lung cancer deaths potentially avertable by screening in the United States.” J. Ma et al. Cancer. 2013 April; 119(7): 1381-85.

Can Stem Cell Transplantation Improve Heart Function?

Ronald Freudenberger, MD
Cardiology
Watch a video to learn more about him.

Cardiologists with Lehigh Valley Health Network (LVHN) are participating in the first randomized, sham-controlled study to evaluate the safety and efficacy of allogeneic stem cells for the treatment of chronic heart failure (CHF).

The Dream HF trial builds on previous research into whether human bone marrow-derived mesenchymal precursor cells implanted via catheterization can differentiate into cardiac cells, with the ultimate goal of improving left ventricle systolic function. Those studies showed promising results.[1] Now this research is being expanded to examine the safety and efficacy of the technique.

“The theory is that the cells will differentiate into heart cells and improve the heart’s pumping mechanism,” says Ronald Freudenberger, MD, LVHN’s chief of cardiology and the study’s principal investigator. “We’re hoping to see improvement in major adverse events, including fewer cardiac deaths and less nonfatal decompensated heart failure requiring hospitalization or use of intravenous diuretics.”

Committed to leading CHF research

The phase 3 trial will track patients for 12 months following stem cell implantation. It also will measure a number of secondary objectives, including total hospital admissions, change in functional capacity and change in New York Heart Association (NYHA) functional class.

LVHN's extensive total heart failure capabilities made it an ideal study participant.

"We are a very active quaternary referral center with an advanced heart failure program," Freudenberger says. "We have a ventricular assist device program for advanced-stage heart failure and an infrastructure for treating complex CHF patients. Our heart program has about 1,800 hospital discharges per year, and we follow several thousand outpatients."

Selecting patients

The Dream HF study is examining patients who fall under NYHA class 2 or 3. Eligible patients will have symptomatic heart failure with a qualifying ejection fraction (below 40 percent by echocardiogram) and remain symptomatic despite being on maximal medical therapy.

The procedure itself is similar to standard heart catheterization. Surgeons will use a mapping system to identify optimal sites and then inject stem cells into the myocardium. (As a randomized, sham-procedure-controlled trial, half of patients will undergo the procedure but have no cells delivered. Conversation among clinicians will be scripted in all cases.)

More than 200 sites worldwide are participating in the study. If the procedure is shown to be safe and effective, the next step will be a larger trial testing efficacy.

To refer patients to the study, call 610-402-CARE.

1. "Autologous mesenchymal stem cells produce concordant improvements in regional function, tissue perfusion, and fibrotic burden when administered to patients undergoing coronary artery bypass grafting: The Prospective Randomized Study of Mesenchymal Stem Cell Therapy in Patients Undergoing Cardiac Surgery (PROMETHEUS) trial." V. Karantalis et al. Circ Res. 2014 Apr 11;114(8):1302-10.

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Valentin Fuster, MD, PhD, MACC, Interviewed by LVHN Chief of Cardiology Ronald Freudenberger, MD, FACC - VIDEO

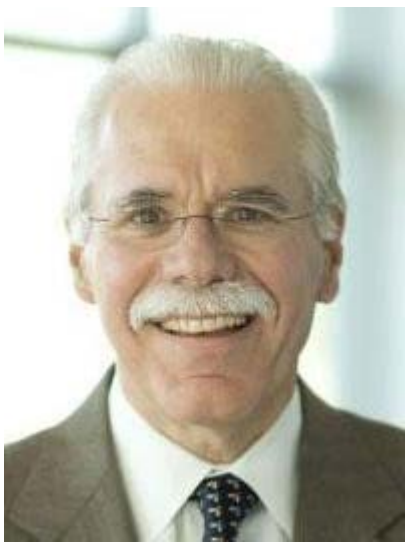
Lehigh Valley Health Network hosted Valentin Fuster, MD, PhD, MACC, for its annual Update in Cardiology 2015 for physicians and advanced practice clinicians (APCs) March 7, 2015, at Lehigh Valley Hospital-Cedar Crest. Fuster is the only cardiologist to receive the two highest gold medal awards and all four major research awards from the four major cardiovascular organizations.

For physicians, Fuster presented “The Three Pathways of Translational Cardiovascular Research: The Next Decade.” For nurses and (APCs), he presented the “Evolving Pragmatic Approaches to the Burden of Cardiovascular Research.”

While Fuster was on campus, LVHN Chief of Cardiology Ronald Freudenberger, MD, FACC, interviewed him. Watch the video here to listen as Fuster reviews key points from his presentation and offers his insight on a pivotal topic of the upcoming ACC Conference in San Diego: the changes and challenges facing cardiologists in patient care in the next 10 years.

Fuster is cardiology professor, director of Mount Sinai Heart, physician in chief of Mount Sinai Hospital and editor of the Journal of American College of Cardiology.

ERAS Standardizes Colon-Rectal Surgery Protocols



Pat Toselli, DO
General surgery

The new Enhanced Recovery After Surgery (ERAS) protocol for patients having elective colon-rectal surgery at Lehigh Valley Health Network (LVHN) provides a multimodal perioperative care pathway. The goals are to increase patient satisfaction and decrease length of stay and complication rates.

“The concepts behind ERAS were pioneered in Europe in the early 2000s,” says LVHN general surgeon Pat Toselli, DO, vice chair, department of surgery. “More recently, large U.S. institutions have shown ERAS to decrease complications such as urinary tract infections, deep venous thrombosis (DVT) and pulmonary embolism (PE) while reducing readmission rates.

“We’re piloting ERAS with elective colon-rectal surgeries —including laparoscopic and open colon resections — for both benign and malignant diseases. Historically, these procedures are generally associated with significant morbidity and long hospital stays.”

The five basic tenets of ERAS are:

- **Preoperative patient education, engagement and expectations setting:** Internal resources (surgeon, nursing, preadmission testing) are integrated, and patients meet with an ERAS nurse educator.
- **Standardization of intraoperative anesthesia:** The team follows an anesthetic and analgesic protocol to minimize narcotic usage and preemptively manage postoperative nausea.

- **Coordinated postoperative pain management:** The department of anesthesia oversees a regimen to manage pain and nausea with minimal use of narcotics.
- **Accelerated postoperative care:** Patients are encouraged to be mobile and to start eating and drinking as soon as conditions warrant.
- **Close postoperative follow-up:** All ERAS patients receive post-discharge calls from our dedicated ERAS nurse practitioner to closely monitor their progress.

“We have full buy-in and support from everyone on the ERAS team, including all ERAS surgeons, anesthesiologists, house staff and, most importantly, our Magnet®-accredited nursing staff,” Toselli says. The program was formally presented at grand rounds in March and was implemented in April.

“Because our network already collects and monitors data as part of the American College of Surgeons National Surgical Quality Improvement Program®, the effectiveness of the ERAS protocol soon will become apparent,” Toselli says. “We believe ERAS will lead to better outcomes while helping patients feel empowered and engaged.”

Spring 2015

New, No-Needle Option for Fibrosis Assessment

For patients suffering from hepatitis C, nonalcoholic liver disease and other liver diseases, fear of core needle biopsy can be a significant impediment to treatment. FibroScan technology, recently approved for use by the FDA, offers a fast, pain-free diagnostic alternative. Lehigh Valley Health Network's (LVHN) Hepatitis Care Center and AIDS Activities Office are among the first practices in Pennsylvania — and the only ones in the region — to provide this emerging gold standard for fibrosis assessment.

Joseph Yozviak, DO
Internal Medicine

"FibroScan virtually eliminates the need for needle biopsy," says LVHN internist Joseph Yozviak, DO. "Regardless of the etiology of the disease, FibroScan can determine the amount of fibrosis present in the liver without the invasive characteristics of biopsy. It's virtually painless, can be performed in our office, and results can be provided immediately to patients."

Lower costs, faster results

FibroScan uses vibration-controlled transient elastography to measure the speed at which a mechanical vibration is transmitted through the liver. Based on the speed of transmission, the technology can quickly and accurately determine the degree of fibrosis.

"Stories of bad experiences with liver biopsy have almost become lore among many patients who have liver disease," Yozviak says. "I've heard countless reports of patients who won't even come in to get evaluated because of fear of having a biopsy. FibroScan contradicts and eliminates those concerns. I've had patients who were

absolutely shocked that there wasn't more to it, especially when I have results for them in just a few minutes."

FibroScan also is much less expensive than core needle biopsy, a procedure that can cost several thousand dollars.

"I think FibroScan will become more commonplace as time goes on," Yozviak says. "It's much more economical for a health system and much better for the patient."

Expanding leading-edge care

FibroScan is appropriate for patients with any type of liver disease. It is covered by Medicare, Medicaid and many insurance plans, though precertification may be required.

"Our goal is to provide equitable care to patients with viral hepatitis and other liver disease regardless of their financial background, while providing the most advanced care in our region," Yozviak says. "We are very pleased to be able to offer this among our leading-edge therapies."

To refer a patient for a FibroScan assessment, call 610-402-CARE.

Spring 2015

New Infusion Treatment Available for Relapsing-Remitting MS

Dmitry Khaitov, MD
Neurology
Watch a video to learn more about him.

Gary Clauser, MD
Neurology

Neurologists at Lehigh Valley Health Network (LVHN) now are treating multiple sclerosis (MS) patients who have

experienced inadequate responses to two or more MS therapies with the drug Lemtrada (alemtuzumab). The MS Center of the Lehigh Valley at LVPG Neurology participated in clinical trials of Lemtrada, which has been shown to reduce relapse rates and slow worsening of disability.[1]

A new approach

“Lemtrada adds another level of aggressiveness in treating MS in situations where other treatments have failed,” says LVHN neurologist and MS Center co-director Gary Clauser, MD.

Although Lemtrada offers a new MS treatment option, its risks may include autoimmune conditions, infusion reactions and a slightly higher risk for cancer.[2] Lemtrada’s restricted distribution program, known as the Risk Evaluation and Mitigation Strategy, is required by the Food and Drug Administration (FDA). Certified facilities such as LVHN’s must provide patient education along with equipment and personnel to manage infusion reactions and long-term patient monitoring.

FDA approved late in 2014 for use in patients with relapsing-remitting MS, Lemtrada is a CD52-directed cytolytic antibody originally used to treat leukemia. Intravenous infusions of Lemtrada are administered for five consecutive days and then again for three consecutive days one year later. The MS Center was the only site in the region and greater Delaware that participated in clinical trials of the drug over a 13-year period. Eight patients were treated with Lemtrada at the MS Center during phase 2 and phase 3 trials comparing alemtuzumab to interferon beta-1a (Rebif).

Certified center for care

While the MS Center anticipates that less than 5 percent of MS patients will qualify to receive Lemtrada, early diagnosis and management of MS is crucial to limit the disease’s impact. “MS is very different from patient to patient,” says LVHN neurologist Dmitry Khaitov, MD. “The specialists and subspecialists here are focused on using the advances that are being made in MS research and practice to help patients lead full lives.”

LVHN is the only organization in the region designated as a Center for Comprehensive MS Care by the National Multiple Sclerosis Society. This is a certification achieved by meeting specific treatment requirements. Physicians and nurse practitioners at the center, which treats more than 1,800 MS patients annually, have received advanced education in caring for MS patients.

The MS Center also includes an on-site neuropsychologist, certified registered nurse practitioner and clinical counselor for mental health needs; social services support; and physical therapists.

To refer a patient to neurology, call 610-402-CARE.

1. “Alemtuzumab for patients with relapsing multiple sclerosis after disease-modifying therapy: A randomised controlled phase 3 trial.” A.J. Coles et al. Lancet. 2012; 380(9856): 1829-39.

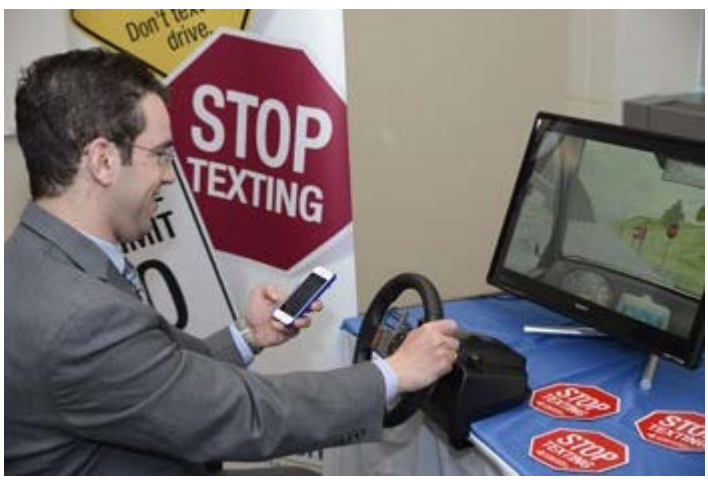
2. “Lemtrada.” https://www.lemtrada.com.

Spring 2015

LVHN, Pocono Medical Center Extend Partnership to Community Education, Oncology

Lehigh Valley Health Network (LVHN) and Pocono Medical Center (PMC), already partners in trauma care, are extending their partnership to include community safety education and oncology care.

Monroe County Community Safety Program



The partnership between LVHN and Pocono Medical Center funds sessions throughout Monroe County on distracted driving.

Children's Hospital at Lehigh Valley Hospital (LVH) and PMC are teaming up with the Monroe County Community Safety Program to provide more programming and educational materials for families. The two organizations have committed $20,000 along with their partnership with the safety program, which has served thousands of children in the Pocono region for nearly 27 years. Services have included education about safe and proper car seat installation, as well as sessions on distracted driving and accident prevention, all with the aim of reducing fatalities and injuries.

The partnership will allow for new programming, such as driving simulators at Monroe County schools, activities and events to help educate families and children on the importance of safe driving.

In addition, LVHN provides the medical director and associate medical director and PMC provides the trauma manager for PMC's Level III Trauma Center. Staffing is provided by both organizations. Severely sick or injured patients are transported to LVH−Cedar Crest's Level I Trauma Center via LVHN MedEvac air or ground transport.

Oncology care and services

In another new partnership, LVHN has begun to provide medical director and professional services for radiation oncology at PMC's Dale and Frances Hughes Cancer Center. As part of this partnership, the radiation oncologists who provide care at LVHN's Cancer Centers in Allentown and Bethlehem now do the same at PMC.

"We are excited about this new affiliation with the highly respected LVHN, which will continue to serve area residents with world-class cancer care," says Jeff Snyder, PMC president and chief executive officer.

LVHN's physicians are experienced in all aspects of radiation therapy and have a history of strong patient satisfaction scores and quality outcomes. Their leadership has produced consistent quality and innovation at LVHN and will collaborate with PMC's radiation oncology program to continue its nationally recognized program.

Spring 2015

MRI-Guided Prostate Biopsy Now Available Locally

Find out what's causing your frequent urination

Ultrasound-guided biopsy, the current standard of care for confirming prostate cancer, has limitations.

Ultrasound alone doesn't provide the resolution necessary to differentiate cancer from normal tissue. Therefore, physicians must rely on random biopsies, using as many as 24 needles to identify a tumor.

Now, a new standard of care, MRI-guided prostate biopsy, offers more precision. By overlaying ultrasound on MRI images, physicians can target suspicious sites with far more accuracy. This technology, most often found at major academic institutions, is now available at Lehigh Valley Health Network (LVHN).

"Prostate cancer can be very hard to detect," says Angelo Baccala Jr., MD, LVHN's chief of urology. "We want to treat aggressive, potentially lethal prostate tumors, but we don't want patients to undergo needless worry or unnecessary procedures for non-life-threatening issues. This technology addresses both challenges. It also may improve cancer detection rates by a minimum of 10 to 15 percent, and according to some studies, as much as 60 percent."

Unified imaging

Angelo Baccala Jr., MD
Urology
Watch a video to learn more about him.

MRI can provide fine-grained detail to target suspicious lesions, but until recently there had been no practical way to perform biopsies while patients are in closed MRI chambers. New software combines ultrasound with MRI to harness the advantages of both technologies.

First, patients undergo an MRI and radiology evaluation. The urologist then performs an ultrasound-guided biopsy. During procedure, the fusion software overlays the live, in-office ultrasound of the prostate onto the MRI images displayed on the monitor, providing a highly detailed, 3-D view.

“We can guide the needle directly to areas that look suspicious on MRI, down to the millimeter,” Baccala says. “It’s like using GPS to reach your destination rather than just driving around.”

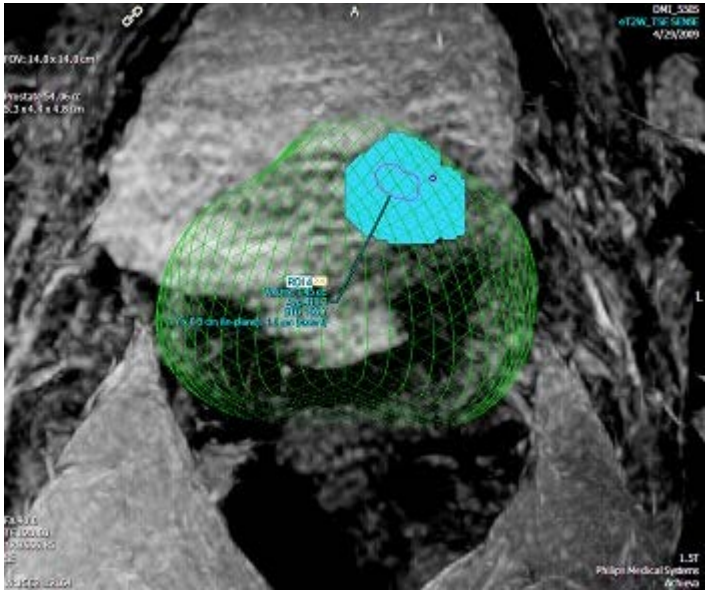
The results of this technique have been published extensively.[1] Baccala suggests MRI-guided biopsy also may play a role in genetic testing for aggressive, possibly lethal tumors versus indolent nonaggressive tumors by allowing physicians to more readily identify tissue most applicable for genetic evaluation. This may help reduce cost and side effects by eliminating unnecessary biopsies and determining the appropriate care.

A new standard of care

MRI-guided biopsy is ideal for patients who:

- Have elevated PSA and are suspected of prostate cancer
- Have previously had a negative biopsy using the traditional technique but whose PSA continues to rise
- Are on active surveillance

“Like the conventional approach, MRI-guided biopsies do miss some tumors, but those missed are much more likely to be insignificant, and we shouldn’t be making men go through unnecessary biopsies and treatment for them,”



Baccala says. “This is a huge benefit to patients and is quickly becoming best practice for prostate cancer diagnosis.”

To refer eligible patients for MRI-guided prostate biopsy, call 610-402-CARE.

1. *“Prospective study of diagnostic accuracy comparing prostate cancer detection by transrectal ultrasound-guided biopsy versus magnetic resonance (MR) imaging with subsequent MR-guided biopsy in men without previous prostate biopsies.” M.R. Pokorney et al. Eur Urol. 2014 Jul; 66(1): 22-29.*

Spring 2015

How to Discuss Obesity With Your Patients

Discussing weight management with patients who have a BMI of 30 or higher can be challenging. “It is a sensitive and complicated topic many clinicians feel they don’t have time to address,” says Robin Schroeder, MD, medical director of Lehigh Valley Health Network’s (LVHN) Weight Management Center.

Robin Schroeder, MD, counsels a patient about weight loss.

Yet it’s a discussion worth having. A meta-analysis of survey data found that brief primary care physician counseling may play a role in patient weight management.[1] Referring patients to a multicomponent behavioral treatment program, such as LVHN’s Weight Management Center, may further set up patients for weight-loss success.

U.S. Preventive Services Task Force guidelines recommend intensive treatment for patients with a BMI of 30 or higher.[2] This recommendation is based on a 2012 systemic review, which found such counseling led to a 6 percent average weight loss among obese patients, along with improved comorbidities.

Starting the conversation

To encourage obesity patients to seek treatment, Schroeder, who herself has maintained a 90-pound weight loss after undergoing bariatric surgery, suggests first acknowledging that weight loss is difficult.

“You might say, ‘I see your list of medical problems, and almost all of them could be made a lot better if we could

do something to help you lose weight. I know how hard it is and that it's not just a matter of eating less and moving more,' " she says. Then mention how the science of weight loss has changed. "We now know that the brain, the gut and fat cells talk to each other, and their goal is to keep weight on," she says. "We have to help you break that cycle."

Weight-loss services

Services at LVHN's Weight Management Center are designed to get patients on a healthier track. In the past year, the center has helped more than 1,000 obese patients lose weight. Treatment options include:

- Weight-loss surgery: LVHN is recognized as a Center of Excellence, accredited by the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP).
- Medically managed weight loss: This program is led by a physician certified in obesity management, or a certified registered nurse practitioner, and includes diet, nutrition and exercise counseling, and when necessary, appetite suppressants and other prescription medications.
- Supportive weight loss: This six-month program provides nutrition, behavioral and exercise education. Patients meet regularly with a registered dietitian or behavioral health professional.

"Many of our patients are successful at losing weight and maintaining their loss, even those who don't undergo bariatric surgery," Schroeder says.

1. *"Physician weight loss advice and patient weight loss behavior change: a literature review and meta-analysis of survey data." S.A. Rose, et al. Int J Obesity. 2013 Jan. 37(1): 118-128.*
2. *Final Recommendation Statement: Obesity in Adults: Screening and Management – U.S. Preventive Services Task Force. June 2012.*

Spring 2015

Pediatric Pulmonologists and Sleep Specialists Treat a Spectrum of Conditions

Michael Schwartz, MD
Pediatric pulmonology

Dharmeshkumar T. Suratwala, MD
Pediatric pulmonology

Multidisciplinary asthma care

Asthma affects 9 percent of children in the U.S., according to the Centers for Disease Control and Prevention,[1] and in the Lehigh Valley, the need for asthma specialists is especially acute. In 2014, Allentown ranked No. 12 on the Asthma and Allergy Foundation's list of "Asthma Capitals," the most challenging places in the nation to live with asthma, determined by evaluating 13 critical factors regarding asthma prevalence, environmental conditions and health care utilization. In 2013, Allentown ranked No. 11.[2]

Lehigh Valley Health Network's (LVHN) pediatric pulmonologists handle particularly challenging asthma cases. "Achieving good asthma control can be difficult, especially when the condition is complicated by allergies, chronic cough, vocal cord dysfunction or reflux," says pediatric pulmonologist Michael Schwartz, MD, with LVPG Pediatric Pulmonology−1210 Cedar Crest. "We help address these issues and offer new therapies that may provide better symptom relief."

Care begins with a patient history and physical exam. Respiratory therapists educated in precise testing techniques then perform various diagnostics such as spirometry, respiratory muscle strength, plethysmography and lung diffusion testing.

"Based on our findings, we take a multidisciplinary treatment approach, consulting with specialists in gastroenterology; ear, nose and throat (ENT); and allergy and speech therapy throughout LVHN, including Lehigh Valley Children's Hospital," Schwartz says. "We also update patients' pediatricians by letter or phone after every visit."

Many patients return for follow-up visits every few months to monitor treatment effectiveness and receive ongoing education on self-care techniques, including how and when to use inhalers to achieve better symptom control.

Body plethysmograph used to measure lung volume.

Specialized treatment for sleep disorders

Schwartz's colleague, pediatric pulmonologist and sleep specialist Dharmeshkumar Suratwala, MD, leads LVHN's Pediatric Sleep Disorders program, which offers care for children with medical and behavioral sleep issues.

For children with suspected sleep apnea, excessive daytime sleepiness, hypersomnia, narcolepsy and other sleep disorders, the Pediatric Sleep Disorders Center offers sleep studies at two sleep laboratories, in Allentown and Bethlehem Township, both accredited by the American Academy of Sleep Medicine.

"Our pediatric sleep centers have child-friendly equipment and are staffed by designated pediatric technicians who are skilled at working with children and parents," says Suratwala, who is board-certified in sleep medicine and pediatric pulmonology.

Pediatricians may order a sleep study with or without a post-study consultation for the patient; the data and final interpretation report is always sent to the referring physician. "We always update the referring providers by letter after the patient is seen for a consultation visit," Suratwala says.

A Continuum of Cystic Fibrosis Care

The Lehigh Valley Cystic Fibrosis (CF) Center is the only CF center in the region that is an affiliate of the Children's Hospital of

Philadelphia (CHOP) and accredited by the Cystic Fibrosis Foundation. The center currently cares for 60 patients, from newborns to young adults.

“Our team includes physicians, respiratory therapists, nutritionists, social workers and psychologists who create a tailored plan of care for each patient,” Schwartz says. “Our affiliation with CHOP also gives us access to the latest treatments and clinical trials.”

According to the 2013 Cystic Fibrosis Foundation Patient Registry,[1] the median predicted age of survival for CF patients is 40.7, and that threshold is steadily rising. “Newborn screens have allowed us to identify CF at birth and offer early treatments that preserve lung health and strength before the first symptoms appear,” Schwartz says.

The center’s services include:

- Comprehensive evaluation and management for various pulmonary and sleep disorders
- Close outpatient management for patients requiring home oxygen therapy, home ventilator (invasive or noninvasive) therapy and the like
- Pediatric Pulmonary Function Test Laboratory
- Care for ventilator-dependent children
- Support groups including psychosocial and nutrition

To refer a patient to the Lehigh Valley Cystic Fibrosis Center, call 610-402-CARE.

1. “Cystic Fibrosis Foundation patient registry 2013 annual data report.” Cystic Fibrosis Foundation.

“The most common causes of obstructive sleep apnea in children are enlarged tonsils or adenoids,” Suratwala says. “In those situations we recommend referrals to ENT surgeons if clinically necessary. Nocturnal CPAP [continuous positive airway pressure] therapy may be indicated in selected patients to treat clinically significant obstructive sleep apnea hypopnea syndrome. If needed, we may do a titration study in the laboratory for further assessment of the necessary CPAP therapy. We also work closely with durable medical equipment suppliers to provide patients with the correct CPAP equipment and educate them on how to use it.”

The program also assists children and teens whose sleep issues are psychological. “We work closely with parents on establishing limits and setting consistent bedtime routines,” Suratwala says. “We provide an expert perspective to help families understand the importance of getting adequate sleep.

To refer a patient to pediatric pulmonology, call 610-402-CARE.

1. "Summary health statistics for U.S. children: National health interview survey, 2012." B. Bloom et al. Vital Health Stat. 2013; 10(258).

2. "Asthma capitals 2014: The most challenging places to live with asthma." Asthma and Allergy Foundation of America. http://www.aafa.org/pdfs/2014_AC_FinalPublicList1.pdf.

Spring 2015

Weight Management Support for Women During Pregnancy

The Institute of Medicine recommends that obese women gain just 11 to 20 pounds during pregnancy to achieve the best outcomes.[1] That's why Lehigh Valley Health Network (LVHN) now offers patients the grant-funded Healthy Expectations program. It's free to all LVPG–Obstetrics and Gynecology practice patients with a BMI of 30 or higher.

Kristin Friel, MD
Obstetrics/gynecology

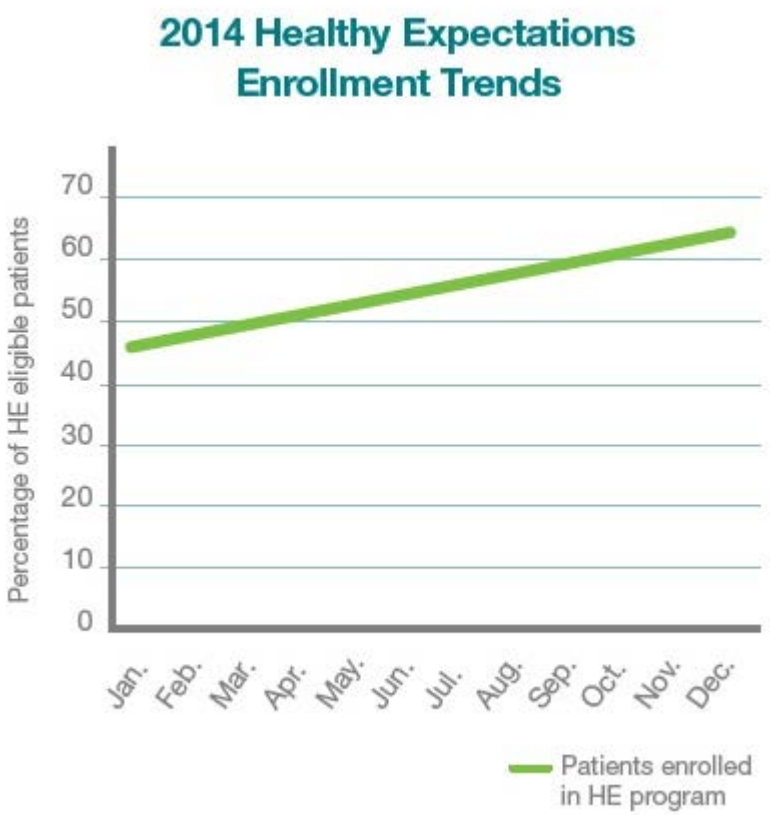
Tara Miltenberger, RDN, LDN
Clinical nutrition

“This is a unique program that combines prenatal appointments with meetings with a registered dietitian,” says obstetrician/gynecologist Kristin Friel, MD, who is the program’s lead physician. “We’re using pregnancy — a time when women have consistent contact with a health care provider — as an opportunity to provide nutrition, exercise and goal-setting education.”

Eligible patients may be referred to Healthy Expectations at their first prenatal visit. They simultaneously may be enrolled in an institutional review board–approved prospective study that tracks pregnancy outcomes, such as the incidence of preeclampsia and gestational diabetes, Cesarean-section rates, total weight gain during pregnancy, baby birth weight, postpartum complications and wound infections.

Monthly check-ins inspire and motivate

Patients first meet with a dietitian at their 12-week prenatal appointment, and again monthly until 36 weeks. “We show patients what a meal plan looks like, but we tailor it to their preferences and give them a foundation to help them meet their personal goals,” says Tara Miltenberger, RDN, LDN, who helped create the program with Ann Marie Barilla, RDN, LDN, CDE.



Patients receive an instructional program binder, a pedometer to track their daily step count, resistance bands and physical activity guidance so they can safely exercise on their own. The monthly check-ins provide patient accountability. If patients mention relevant medically related issues, that information is relayed to their obstetricians. “That improved continuity of care is a program benefit,” Friel says.

Postpartum, patients meet with a dietitian again to review their progress, their postpregnancy diets and exercise

goals.

About 300 patients have enrolled in Healthy Expectations since it began in October 2013. “Patients tell us they feel good, and that it’s much easier than they thought,” Miltenberger says. In addition, the team is collecting data to track the efficacy of the program.

The program’s overall objectives are to help women have a healthy pregnancy and to improve their family’s health. “Women make a lot of health care and nutrition choices for their family,” Friel says. “We’re hoping their new approach to food choices and exercise habits will transfer to everyone.”

1. *“Weight gain during pregnancy.” Committee Opinion No. 548. American College of Obstetricians and Gynecologists. Obstet Gynecol. 2013; 121:210-12.*

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