

FOCUS

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Focusing on the people and initiatives that distinguish Christiana Care Health System

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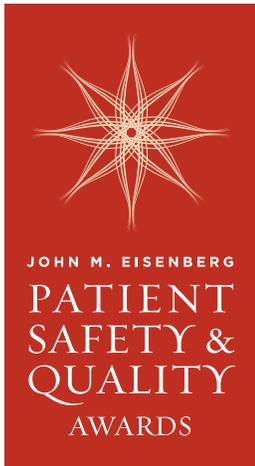
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Christiana Care earns Eisenberg Patient Safety and Quality Award



Patient-centered care coordination service Carelink CareNow has been recognized for an innovative, effective approach in helping patients to manage their health, achieving higher quality health care at lower costs.

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“Our success with Carelink CareNow stems from a culture at Christiana Care in which the patient and their family is placed at the center of all we do.”

SHARON L. ANDERSON, MS, BSN,
RN, FACHE

For its thriving, patient-centered care coordination service Carelink CareNow, Christiana Care Health System has earned the John M. Eisenberg Patient Safety and Quality Award, the nation’s preeminent recognition for quality and safety in health care.

The award recognizes the best examples of individual, local and national efforts to improve patient safety and health care quality and is jointly presented by the Joint Commission — the nation’s oldest and largest standards-setting and accrediting body in health care — and the National Quality Forum, the standard setter for health care performance measurement.

“Our success with Carelink CareNow stems from a culture at Christiana Care in which the patient and their family is placed at the center of all we do,” said Sharon L. Anderson, MS, BSN, RN, FACHE, chief population health officer, senior vice president of Quality and Patient Safety, and president of Carelink CareNow. “The missing link to optimal health is addressing the gaps between sicknesses and health crises. It is ensuring that patients’ social and behavioral health needs — with their great impact on health — are being met, in addition to their medical needs. Carelink CareNow’s unprecedented predictive analytics capabilities and innovative work in care coordination improves health care safety, quality, value and access to care for all throughout our state and region.”

Christiana Care received the award for Local Level Innovation in Patient Safety and Quality, which recognizes organizations that have made an extraordinary impact on care at the community level.

Transforming health care

Carelink CareNow currently serves nearly 75,000 Medicare beneficiaries and health plan members in Delaware and neighboring areas. Many present with chronic diseases and conditions such as heart disease, stroke and diabetes, which are the leading causes of death and disability in the United States, according to the U.S. Centers for Disease Control and Prevention (CDC).

Nearly half of U.S. adults — about 117 million people — have one or more chronic health conditions and account for 86 percent of all health care spending, according to the CDC.

Through Carelink CareNow, Christiana Care partners with primary care physicians to transform the way care is delivered throughout the region and accelerates Christiana Care’s journey to achieve better quality and better experience at reduced costs.

Carelink CareNow is a robust, information-technology-enabled network of care coordination support services that builds relationships among providers and patients to optimize outcomes. Unlike traditional care coordination programs, Carelink CareNow harnesses a real-time information technology platform that integrates information from regional health information exchanges along with other health information — including admission and emergency department visit information, physician visits, lab results, radiologic reports, pharmaceutical use and claims data.

This information is integrated into a care coordination platform that supports Carelink CareNow’s interdisciplinary team in providing care coordination services to providers and their patients. It incorporates a prediction analytics engine that uses artificial intelligence and machine learning technology to enable the Carelink CareNow team to proactively identify populations most at-risk or in need of attention so issues can be addressed before they escalate.

Making health care more successful for patients and providers

The success of Carelink CareNow is borne out by data under the U.S. Center for Medicare and Medicaid Services’ Bundled Payment for Care Improvement program. Since October 2015, more than 8,600 patients in several surgical and medical populations, including total hip or knee replacement surgery and congestive heart failure, have been supported by Carelink CareNow.

With the help of Carelink CareNow, the number of patients with elective joint replacement

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who were discharged to their homes with self-care or with home health care increased by 30 percent and the number of patients transferred to skilled nursing facilities after total joint replacement surgery reduced by over 62 percent. For this patient population, there was a 30 percent reduction in readmissions after 90 days.

For patients admitted to the hospital with congestive heart failure, the average length of stay dropped by over 11 percent. The volume of patients being discharged to home with self-care or with home health care rose by nearly 12 percent, with a concurrent reduction in the number of patients transferred to skilled nursing facilities by over 10 percent. The readmission rate to the hospital reduced by almost 14 percent.

To reduce unnecessary hospital utilization and improve quality of care for patients in skilled nursing facilities, Carelink CareNow teamed with the staff from local and regional facilities. Strategies included weekly interdisciplinary conference-call patient rounds using a standard template, medication review and reconciliation and social work support. This effort reduced average length of stay by 17 percent, saving an estimated \$821,000, and reduced hospital readmission rates by almost 8 percent.

Carelink CareNow achieved these remarkable results through technology-enhanced care coordination. A well-connected network of Carelink CareNow team members supports patients across the continuum of care from hospital to home. Outpatient outreach starts as soon as patients return home, with a focus on symptom management, follow-up appointments and access to discharge medications, all while supporting primary care and sub-specialty physicians in the care of their patients.

Right care, right place, right time

The Carelink CareNow team emphasizes educating patients on the appropriate sites at which to access acute care and on minimizing unnecessary use of the emergency department or hospital. The predictive engine identifies patients at highest risk of utilization, allowing the team to customize the intensity of outreach to each patient.

Real-time admission alerts on patients from all emergency departments and hospitals through the regional health information exchanges, along with other health information and claims data, allow the team to interact with hospital clinical and care management teams, helping to avoid unnecessary hospitalizations and ensuring appropriate follow-through on clinical plans.

Created in 2012, Carelink CareNow was one of only 107 winners (out of over 3,000 applicants) of a Health Care Innovation Award by the U.S. Center for Medicare and Medicaid Services.

The patient safety awards program, launched in 2002 by National Quality Forum and The Joint Commission, honors John M. Eisenberg, M.D., MBA, former administrator of the U.S. Agency for Healthcare Research and Quality, who was a passionate advocate for patient safety and health care quality. ●

Carelink CareNow currently serves nearly 75,000 Medicare beneficiaries and health plan members in the greater Delaware region.



Accepting the Eisenberg Award for Christiana Care are: Donna D. Mahoney, MHCDS, CPHQ, project leader, Population Health Applied Analytics; Michele Campbell, MSM, RN, CPHQ, FABC, vice president, Patient Safety & Accreditation; Sharon L. Anderson, MS, BSN, RN, FACHE, chief population health officer, senior vice president of Quality and Patient Safety and president of Carelink CareNow; Tabassum Salam, M.D., FACP, CHCQM, senior physician adviser, Population Health, and medical director, Carelink CareNow; Patty Resnik, MBA, MJ, RRT-NPS, FACHE, CPHQ, vice president, Quality and Care Management; and Terri H. Steinberg, M.D., MBA, chief health information officer and vice president, Population Health Informatics.



Helping providers and patients ‘Choose Wisely’ for expert, effective health care

By Robert Dressler, M.D., MBA, Quality and Safety Officer, Academic and Medical Affairs



Our pledge to provide effective, affordable systems of care that our neighbors value is the cornerstone of the Christiana Care Way. By incorporating the American Board of Internal Medicine (ABIM) Foundation’s Choosing Wisely recommendations into our own culture of quality, safety and affordability, Christiana Care providers

are partnering statewide to put that promise into practice for all Delawareans.

Our partnership in the newly formed, statewide eBrightHealth network positions us to collectively leverage Choosing Wisely concepts to improve health care and safeguard resources throughout our state for more than 935,000 Delawareans.

The eBrightHealth partnership includes Bayhealth, Beebe Healthcare, Nanticoke Health Services, Nemours Children’s Health System and Christiana Care Health System, along with our Quality Partners Accountable Care Organization now called eBrightHealth ACO. These partners created a work group charged with the task of identifying what we can accomplish together that we cannot do apart.

Success begins with a conversation. Choosing Wisely encourages physicians to take the lead in meaningful conversations with patients about their health care and what medical tests, medications or procedures they truly need.

To guide these discussions, more than 100 national organizations representing the various medical specialties have posted lists of common tests or procedures whose use in their profession should be discussed or questioned. These “Things Physicians and Patients Should Question” lists provide specific, evidence-based recommendations that physicians and patients should discuss as they formulate decisions for an appropriate plan of care that is truly necessary, minimizes duplication and decreases the risk for potential harm.

Experts tend to agree on common tests or treatments that are often prescribed and provide no additional clinical benefit, such as imaging for patients with acute low back pain without specific indications or patients with uncomplicated headaches; bone density scans for women under 65 without osteoporosis risk factors; carotid artery stenosis screening in asymptomatic patients; and antibiotic usage for common viral conditions.

The concept was initially piloted by The National Physicians Alliance in “Promoting Good Stewardship in Clinical Practice,” offering three lists of specific steps physicians in internal medicine, family practice and pediatrics could take in their practices to promote the more effective use of health care resources. The ABIMF expanded on this concept with the Choosing Wisely campaign, launched in 2012.

Since January, the eBrightHealth working group has navigated the Choosing Wisely matrix to prioritize recommendations based on anticipated impact to our community and barriers to implementation, among other factors. We selected antibiotic stewardship for upper respiratory infections — everything from the diaphragm to the ear — as our first foray into statewide implementation. This includes adopting the recommendation that antibiotics should not be used for apparent viral respiratory illnesses (sinusitis, pharyngitis, bronchitis and bronchiolitis) along with several others on the Choosing Wisely list.

As we work to develop effective strategies that will change behaviors and create measurable improvement statewide, our process is three-fold: learn from each other’s individual Choosing Wisely experiences; assist one another in local implementation by sharing skills and resources; and work together to launch our statewide initiative. During the next several months, our tasks will include building a statewide Choosing Wisely awareness coupled with an integration of these recommendations into daily practice. In parallel over the next 12 months, the work group will develop the tools needed to measure the impact of changing behaviors and ultimately to incorporate electronic medical record support. We anticipate that the skills and knowledge acquired will be transferrable to future joint initiatives.

Because we want to make this a truly statewide effort, the group reached out to other key stakeholders for their input and participation, including the Delaware Health Information Network, the Delaware Division of Public Health, the state’s Healthcare-Associated Infections Advisory Committee, the Delaware Health Care Facilities Association, our own Carelink CareNow program and Quality Insights, a not-for-profit company focused on measuring and improving health care quality.

While it is true that Choosing Wisely is part of the ABIM Foundation’s drive to support and engage clinicians in being better stewards of finite health care resources, it is equally true that we as physicians hold the keys to helping patients get the best possible care at the lowest costs. Success hinges on our greatest resource — each other. ●

Carelink CareNow is patient Tony Bell's avenue to independent living

When he was a little boy, Tony Bell's grandmother called him Mister Independence "because I always wanted to do things on my own," he said.

But his independence was slipping away as he struggled with heart failure — and his challenge was growing ever more difficult.

He could no longer climb stairs and had to relocate from his third-floor apartment to a unit on the ground floor. He had to rely on his niece to go to the bank and shop for him.

"Carrying the trash from my apartment to the dumpster was an all-day job," he said.

In 2016, he was hospitalized three times, eroding his independence even more. He got back on the right track through Carelink CareNow, a program powered by Christiana Care Health System that connects patients with extra help so they can lead the healthiest, most productive lives possible.

Carelink CareNow's innovative model mines electronic health records, claims data and real-time data feeds from two powerful regional data repositories — the Delaware Health Information Network and Chesapeake Regional Information Program — to identify populations that are most at-risk and intervene to avoid unnecessary and costly emergency department visits, hospitalizations or skilled nursing care. The team includes doctors, pharmacists, nursing care coordinators and social workers.

Bell, 62, has had serious health issues for much of his adult life. He was on dialysis for 10 years before undergoing a successful kidney transplant in 2010. He was able to return to work for nearly five years before he developed unrelated heart failure.

With help coordinating care from Carelink CareNow, Tony Bell has seen steady improvement in his health and quality of life.

Brenda Walsh, MBA, MSN, RN-BC, a Carelink CareNow coordinator, calls him at his home in Wilmington on a regular basis as part of a program that assists heart failure patients for 90 days after hospitalization.

"We make sure he keeps his appointments and that his test results are reviewed with the doctor," she says. "Tony and I review his medications and talk about his menus to make sure he is avoiding salt."

Walsh also coordinated his care with a visiting nurse who saw him twice a week for 60 days.

"The visiting nurse got me from not even climbing a step to climbing two flights of stairs," he said.

Soon, he was walking longer distances and lifting weights. He resumed activities he enjoys, going to church,

cooking meals, shopping at the home improvement store and going to the bank.

He also has made strides in monitoring his weight, which is essential in helping keep heart failure patients on the right track.

"I had been keeping fluid in my legs from drinking more water than I should," he says. "Now that I am keeping my weight where it should be, I am doing real well."

As an active partner with the Carelink CareNow team, Bell is leading a healthier, happier, more independent life.

"Tony is very good about taking care of himself and he has his niece to help him," Walsh says. "All he needed was us to give him reminders, reassurance, and resources when he needs them." ●



Nurse-led research advances the science of nursing

A long-time nurse in maternal-child health services at Christiana Care, Linda Daniel, MSN, RN, CPHQ, director of quality and patient safety for the Women & Children's Service Line, is adding "principal investigator" to her list of accomplishments.

Daniel has long been involved in projects to improve quality and patient safety. Seeking to further improve outcomes and patient experience, she is leading a research project on diminishing pain in early labor in one of the health system's growing number of nurse-led research projects.

Nurses like Daniel leading nursing research projects are a growing group, and their discoveries are advancing the professional, scientific practice of nursing, said Chief Nurse Executive Ric Cuming, Ed.D., RN, NEA-BC, FAAN.

Cuming recalled earlier days of the profession when nurses practiced the way they were taught, in what was thought to be the best approach at the time.

Cuming said nursing research allows nurses to ask, "Is this the best way to do this?" and "How do I know?"



"In a culture of evidence-based practice, nurses need to be able to assess, appraise, translate and implement the evidence in our practice."

RIC CUMING, ED.D., RN, NEA-BC, FAAN

Daniel and nursing colleagues at Christiana Care are studying the use of a pain management option called transcutaneous electrical nerve stimulation (TENS), used to treat acute pain associated with labor. TENS is used in the United Kingdom, Australia and Canada but not yet in the United States. It is operated by a handheld unit that delivers electricity through electrodes placed on the skin, and it is thought to control pain by blocking pain perception by the brain (known as the gate theory) and through the release of endogenous endorphins (the body's natural pain relief).

In the study, Daniel and a team of OB Triage and Labor & Delivery nurses will offer TENS to eligible women at triage to see if it will foster continued mobility, reduce false labor encounters in triage and reduce the length of time women need to be in the hospital during their labor. It may also give more women the option to attempt delivery without an epidural.

"Research goes hand-in-hand with performance improvement," Daniel said. "I am delighted to see nurses taking an active role in improving patient satisfaction and honored to support my colleagues in their journey to help find alternative, drug-free pain options for their patients."

"Today, not only are nurses participating in research; in many cases, they are serving as the principal investigators in their own research projects," he said. "If the nurse isn't able to answer the 'how do I know' question by pulling up empirical evidence to support the intervention, then that is an opportunity for research to generate new knowledge to inform our practice."

Cuming acknowledged that in everyday practice, it can be easy to forget that nursing is a science based on the nursing process. What must inform that science, he said, is empirical data and evidence-based, scientifically rigorous information.

"That is one of the reasons nursing research is so important to Christiana Care, to our nurses and especially to our patients," he said.

Shaping a nursing research agenda

To help advance nursing practice, under Cuming's leadership, Christiana Care has re-examined the nursing research structure to help nurses succeed in research. Two part-time nursing research facilitator roles have recently been refined into nurse

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Linda Daniel, MSN, RN, CPHQ (left), director of Quality and Patient Safety for the Women & Children's Service Line, and Elizabeth S. Sushereba, MSN, CNM, a certified nurse midwife, demonstrate the transcutaneous electrical nerve stimulation (TENS) unit they are researching as a pain management option for women in early labor.

NURSE-LED RESEARCH | CONTINUED

scientist positions to actively help nurse colleagues conduct nursing research, and to advance the scientists' own research. The new structure also includes a full-time director of evidence-based practice and nursing research, who will work with Cuming to create a robust, strategic nursing research agenda.

"In a culture of evidence-based practice, nurses need to be able to assess, appraise, translate and implement the evidence in our practice," said Cuming. "When the question 'is this the best way to do that?' hasn't been answered, there lies the opportunity to conduct nursing research and develop and publish our own evidence.

"When another nurse anywhere in the country — in the world — asks the same question, he or she will find the answer because work done here at Christiana Care has contributed to the existing knowledge base of nursing science."

Advancing the knowledge

Nurses far and wide are more frequently finding those Christiana Care nurse-generated answers. Last year alone, Christiana Care nurses published nearly 50 peer-reviewed articles and presented on more than 100 local, regional, national and international stages. (See the complete listing in Nursing Annual Report 2016 at <https://christianacare.org/nursingannualreport/>.)

"The evidence to what we do is a passion of mine — not only doing the research, but using and disseminating it to help colleagues do the right thing and encourage them to always ask, 'But why?'" said Maureen Seckel, MSN, APRN, CCRN, FCCM, Christiana Care lead clinical nurse specialist in medical pulmonary critical care.

Seckel is internationally renowned for her leadership in sepsis research and has published and presented widely on the topic. She was appointed as a liaison by the American Association of

Critical Care Nurses to serve on the Surviving Sepsis Campaign Guidelines Revision Panel. Guidelines she co-authored with a renowned team of colleagues were published and presented earlier this year through the Society of Critical Care Medicine.

Zeroing in on unmet needs

At any given time, an estimated 350 Christiana Care nurses are advancing new knowledge through capstone research projects for master's and doctoral degrees.

As a family nurse practitioner, Patricia (Trish) McDonnell, MSN, FNP-C, JCC, saw an increasing number of female patients with health issues such as Type 2 diabetes, hypertension and hyperlipidemia struggling with their weight. Her research studies how to address work-life imbalance as a contributing factor to being overweight or obese. The goal for her doctorate in nursing practice health improvement project, titled "Work-Life Imbalance in Women: Negative Impact on Weight," is to improve healthy eating and weight loss.

Patients who continued in McDonnell's study improved their weight status, either following a self-directed program or through Christiana Care's Weight Management Program. Follow-up visits allowed her to measure their weight loss and body mass index, evaluate successes and barriers and identify other needed support services.

"Through my research, I hope to identify work-life imbalance and its negative impact on weight as a population health issue and work toward evidence-based strategies to improve the health of the community served by modifying their lifestyle and improving their overweight or obese states," McDonnell said.

Michele Savin, MSN, APRN, NNP-BC, is also using research to address what she perceives as an unmet need among Medicaid-insured patients — babies with neonatal abstinence syndrome.

"The evidence to what we do is a passion of mine — not only doing the research, but using and disseminating it to help colleagues do the right thing and encourage them to always ask 'but why?'"

MAUREEN SECKEL, MSN, APRN, CCRN, FCCM





“As a practicing clinician, I want to contribute to the literature that my colleagues are using and I want to create value for our patients and for our system.”

MICHELE SAVIN, MSN, APRN, NNP-BC

“Research lets us ask the critical questions and be creative problem solvers at the bedside.”

LYNN BAYNE, PH.D., ARNP, NNP-BC



Her capstone research seeks to identify expected and non-expected use of care in the first year of life to help these babies avoid rehospitalization.

“As a practicing clinician, I want to contribute to the literature that my colleagues are using, and I want to create value for our patients and for our system,” she said. “Hopefully my research can inform our discharge process and education for parents by increasing what we know about these babies once they leave the hospital.

“If they never need the emergency department, that is wonderful, but if they never show up for immunizations, then that raises another concern. Is there something we should be doing to set parents up for more success with wrap-around care in helping link them to a medical home?”

Countless opportunities and resources

Nurse scientist Lynn Bayne, Ph.D., ARNP, NNP-BC, has spent much of her career helping nurse colleagues participate in research for capstone projects, such as McDonnell’s or Savin’s, and for what she describes as “organic,” employee-motivated improvement.

Bayne said opportunities and resources at Christiana Care to help nurses explore an interest in research include journal clubs, which teach how to conduct evidence-based literature

reviews, and service on unit-based or system councils, such as the Nursing Research or Evidence-Based Nurse Practice councils. For nurses interested in delving deeper into evidence-based practice, the Nursing Research Council sponsors Nursing Grand Rounds the third Thursday of each month, the annual Tell It In a Poster competition in May and the annual Nursing Research Conference in November.

Research doesn’t always have to come in the form of a pure, scientific study. It can also stem from a formalized program designed to improve the health of the community, documented so others can learn from and implement similar programs. The nurse-led Blood Pressure Ambassadors Program is an example. Led by Elisabeth Bradley, MS, APRN, clinical leader of the Cardiovascular Prevention Program, and Angela Parker, MSN, RN-BC, project manager, the program trains lay volunteer ambassadors from medically underserved neighborhoods in Wilmington to perform blood pressure screenings and educate their neighbors on the consequences of untreated high blood pressure.

“It was a big leap of faith to train lay people, and we were able to do it through a protocol developed from evidence-based practice,” said Bradley. Last year, the Blood Pressure Ambassadors screened 2,328 of their neighbors, laying the groundwork to educate and link the astounding 64 percent found to have high blood pressure to medical care.

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“Nursing has a lot to offer research. And research has a lot to offer nursing.”

KEVIN WALKER, MSN, RN III, CPAN

“That nurse-led research is becoming more accepted by the scientific community is a compliment to our profession,” said Kevin Walker, MSN, RN III, CPAN, of the Post Anesthesia Care Unit at Christiana Hospital. Walker is poised to expand the peppermint oil study first introduced at Christiana Care by nurses in the Cardiovascular Critical Care Complex.

A compliment to our profession

“That nurse-led research is becoming more accepted by the scientific community is a compliment to our profession,” said Kevin Walker, MSN, RN III, CPAN, of the Post Anesthesia Care Unit (PACU) at Christiana Hospital.

Walker is poised to expand the peppermint oil study first introduced at Christiana Care in the Cardiovascular Critical Care Complex by Helen Hawrylack, BSN, CCRN, RN III, and Patricia Briggs, MSN, RN IV, CCRN, HTCP, HTI/1. The premise of Walker’s research is that the use of peppermint oil will decrease drowsiness associated with Zofran, used to reduce postoperative nausea, decreasing length of stay in the PACU and ultimately increasing patient satisfaction.

Walker chairs the PACU’s Evidence-Based Practice Council, serves on the Perioperative Evidence-Based Practice Committee and is a member of the Nursing Research Council.

“Research is one of the keys to the future of nursing,” he said. “What we really need to do is get younger nurses excited about research, to become life-long learners, whether through advancing their degrees or enhancing the profession to improve patient satisfaction and outcomes.

“Nursing has a lot to offer research,” said Walker. “And research has a lot to offer nursing.” ●

Share the knowledge!

The Institute of Medicine has issued a challenge that by 2020, 90 percent of clinical decisions be supported by accurate, timely and up-to-date clinical information and reflect the best available evidence. Nurses who want to learn more about evidence-based practice or who have an idea for a research or capstone project may contact Lynn Bayne at 733-1583 or lbayne@christianacare.org. Nurses are also encouraged to submit information to Bayne on published articles, podium and poster presentations to be included in the 2017 Nursing Annual Report.

Mark your calendar!

Nursing Grand Rounds — third Thursday of each month at lunchtime in the Ammon Center (for a complete listing, visit the Nursing Research Council page on the Nursing Portal).

National Nurses’ Week Tell It In a Poster Competition — Cast your vote between May 8 and 12 in the Ammon Center or online.

12th Annual Nursing Research Conference
November 3 — Abstracts accepted through July 15 at <http://www.udel.edu/nrc>.

Christiana Care dietitians and UD researchers explore basic questions in human physiology

For University of Delaware researchers studying the physiological effects of dietary salt, precision is elementary. They need to know exactly how much sodium study participants consume in each meal to reach accurate conclusions about its effects on the body.

To find the skillset needed to prepare meals to meticulous specifications, these researchers rely a long-running collaboration with Christiana Care Health System's Eugene du Pont Preventive Medicine & Rehabilitation Institute. The dietitians at the Preventive Medicine & Rehabilitation Institute partner with the researchers by preparing food with clinical precision, weighing out ingredients to craft meals with specific and varying amounts of sodium.

"They're used to that level of precision when they educate and coach our patients," said Omar Khan, M.D., MPH, medical director of the Eugene du Pont Preventive Medicine & Rehabilitation Institute.

The collaboration helps university researchers collect data that is often more reliable than self-reports of diet, said William B. Farquhar, Ph.D., FACSM, professor and chair of the Department of Kinesiology and Applied Psychology at the University of Delaware.

"The other approach is to assess how much people habitually eat, but the challenge is that sodium intake varies widely," Dr. Farquhar said.

The partnership with Christiana Care allows him to establish control over the experimental variable — sodium consumption — while otherwise allowing people to normally live their lives.

"I think our studies are real-world," he said. "Participants are going through their normal daily activities."

Their most recently published work, in the *Journal of Human Hypertension*, investigates the connection between sodium consumption and a phenomenon called "blood pressure dipping." In healthy adults, blood pressure dips around 10 percent at night. However, adults whose blood pressure doesn't dip at night have a heightened risk of cerebrovascular and cardiovascular disease.

Participants were fed seven-day regimens of low-, normal- and high-salt diets. On the final day of each diet, they wore a 24-hour blood pressure monitor.

The study revealed some good news: Even after a week of a high-sodium diet — more than triple the safe limit — participants' nocturnal blood pressure dipping was not impaired. What's not clear, though, is the long-term effect of high sodium consumption on blood pressure dipping.

The researchers and dietitians will next focus on testing the physiological effects of dietary potassium and glucose.

The partnership is one of many areas in which two of the state's largest institutions are intertwined, said Karen Anthony, MS, senior program manager for nutrition services and diabetes primary care at the Preventive Medicine & Rehabilitation Institute. The University often sends students to Christiana Care to complete the more practical parts of their education. And Christiana Care physicians conduct bench research in cancer, immunology and other fields, Anthony said.

"The University of Delaware and Christiana Care are partners because of the work we do," Dr. Khan said. "I give Karen and her team a lot of credit — it's a well-oiled machine so that every time they call with a research idea, we're ready." ●



Regina Johnston, RD, and assistant Zoe McGonegal, precisely create a meal to be used in a University of Delaware Department of Kinesiology and Applied Psychology study of the physiological effects of dietary salt.



Wilmington resident Patricia Smith (seated left) with her Patient-Anchored Care Team at the Wilmington Adult Medicine Practice. At top: Sheila Ruger, BSN, RN-BC, clinical coordinator for Wilmington Adult Medicine, and Sherrie Mae, senior medical assistant. Seated: Resident Devin McKelvey, D.O. and physician Zehra Hussain, M.D. Smith says with affection that her team is helping her meet her health goals.

Primary care practices explore new team-based approach to patient care

To help patients achieve optimal health, Christiana Care Health System is employing a new, personalized approach to primary care, using a model called Patient-Anchored Care Teams (PACT).

PACT provides each patient with a team to provide care based on a close familiarity with the patient. Each team includes a primary care physician, a registered nurse, two or more medical assistants and usually a nurse practitioner or resident physician.

The PACT initiative began with a simple goal: make primary care better.

“Our mandate was really that broad and that exciting,” said Sarah Schenck, M.D., clinical leader for Primary Care Transformation. “Now we have a powerful model that is truly what primary care should be.”

Christiana Care launched the new model last fall in four primary care practices: Foulk Road Family Medicine, Lancaster Pike Internal Medicine, Smyrna Family Medicine and Wilmington

Adult Medicine. With a personalized care team that is very familiar with their needs, patients receive greater continuity of care, gain improved access to their primary physician and other caregivers, and can take advantage of a greater range of care settings, including office visits, group medical visits, telephone visits and patient portal interactions.

“PACT is reimaging and redesigning the way we deliver primary care in ways that benefit patients and the health care team,” said Francis A. Gott III, MBA, RRT, administrative team leader for the project and director of primary care and community medicine. “PACT allows caregivers to practice at the top of their license and realigns some of the computer-focused tasks and tasks of clinical care to different members of the team.”

According to Gott, patients report benefiting from PACT with a care experience designed to be more positive, welcoming, convenient, and patient-focused.

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“PACT is reimagining and redesigning the way we deliver primary care in ways that benefit patients and the health care team.”

FRAN GOTT III, MBA, RRT

Paul Wellborn, a patient advisor to the PACT initiative, agrees.

“I think this will really help make for a better patient experience,” Wellborn said. “It sets time aside for the whole team to go over patient care in detail, and it also frees up physicians from certain tasks to address more complex issues.”

Dr. Schenck noted the recent example of a physician at Smyrna Family Medicine who was able to devote her full attention to an elderly patient because of the staff support provided by the PACT model. During their conversation, the physician detected subtle symptoms that the patient herself hadn't noticed. She quickly initiated testing, and a CT scan revealed that the patient had acute appendicitis. The physician said that she likely would have missed the symptoms if she had been distracted by the task of entering data into her computer during the visit with the patient.

Using communication and data technologies, the PACT model is changing patient outcomes. At the Wilmington Adult

Medicine site, for example, the PACT team has focused on increasing the percentage of patients who follow through with getting mammograms. In just five months, they've seen that number rise from 55 percent to nearly 68 percent.

“That's pretty fantastic,” Dr. Schenck said. “And in one of those cases the mammogram revealed an abnormality, and it was breast cancer. It would not have been detected that early otherwise.”

Dr. Schenck noted another dramatic example at the Foulk Road practice where a patient, being seen for an unrelated issue, exhibited signs of depression to the medical assistant. Because of the team's new PACT workflow, the care team was able to immediately get the patient a behavioral health consultation and potentially avert a crisis. “It shows how profoundly workflow can affect patient care,” she said.

The PACT initiative, still in its early stages, is now developing a multi-pronged approach to assessing its success. This includes evaluating measures such as patient outcomes, care quality and safety, patient access and patient satisfaction. It also includes focus-group evaluations to learn more about changes in the clinical teams' experience in the new model.

“What we hear from patients and caregivers will inform refinements to the model,” said Gott. “We want to continue these success stories about this new way of providing care to the people we serve.” ●



In a PACT meeting at Christiana Care's Family Medicine Center at Foulk Road, resident Jeremy Cristol, M.D., Ebonique R. King, senior medical assistant, Shelby Lyn Carter, BSN, RN, resident Rebecca Martz, M.D., and physician Jamie Rapacciuolo, D.O., create personalized care plans for their patients to offer an exceptional experience as they work as a team toward optimal health.

Swank symposium focuses on dementia in younger adults

At the third annual symposium of Christiana Care's Swank Memory Care Center in March health care providers learned about caring for adults who are experiencing two kinds of early-onset dementia: chronic traumatic encephalopathy (CTE) and the Alzheimer's dementia that develops in many adults with Down syndrome. Attendees also learned about end-of-life care options for older adults with various types of dementia.

The symposium was supported in part by the Junior Board of Christiana Care Inc.

Dementia, a pressing public health problem, is a multifaceted condition with many causes. While it is most commonly associated with older adults, young and middle-age adults also can suffer from the effects of cognitive decline.



Mary M. Stephens, M.D., MPH, physician co-leader of the Adult Down Syndrome Clinic, said Alzheimer's disease

pathology is present in nearly all adults with Down syndrome, although many will never develop the clinical symptoms of dementia. Dr. Stephens and co-leader Louis Bartoszesky, M.D., MPH, collaborate with Swank Center clinicians in the care of adults with Down syndrome and dementia. Diagnosing dementia in adults with Down syndrome requires clinical experience and keen observation. For example, change in gait may be an early sign of cognitive decline, but many other treatable causes of gait change must also be considered. Dr. Stephens noted, for example, that gait changes might reflect such other factors as cervical spine problems or sore feet.

Medications, at times, can interfere with cognitive functioning. Patients who are taking unnecessary or poorly tolerated medications can appear confused or demented. One example of an unnecessary medication is the use of antipsychotic drugs to treat "self-talk" that can be a normal activity in people with Down syndrome.

"Self talk is a good way to problem-solve and can persist in adulthood in adults with Down syndrome," she said. "In itself it is not a bad thing, but the quality of the self talk may be an indicator of the state of the patient's well-being — does the person with Down syndrome sound angry, afraid, sad?"

By contrast, young adults with previously normal cognitive functioning can be put at significant risk for early cognitive decline as a result of repetitive, sub-concussive or concussive head injuries. Often, people with CTE are misdiagnosed as having Alzheimer's disease, said Michael L. Alosco, Ph.D., of Boston University's Alzheimer's Disease and CTE Center.

"These types of head injuries are very common in football," he said. "Football linemen can have up to 1,500 of these hits to the head in a single season. We are seeing a relationship between hitting your head a bunch and problems with clinical function later in life."

CTE was first described in 1928 in boxers, who were described as "punch drunk." The condition is characterized by lesions that develop around small blood vessels in an irregular pattern in the brain. Football players who experience their first tackle before age 12 and who have little recovery time between hits are at higher risk.

Alosco said preventive measures, such as eliminating heading drills in soccer, will help to reduce cases of CTE. He also called for the development of objective biomarkers so providers can intervene early and slow progression of the disease.

The symposium concluded with a panel discussion about end-of-life care options for people with dementia.

Palliative care for adults with dementia should include the whole family, said Linsey O'Donnell, D.O., medical director, Community Based Supportive & Palliative Care. She recommends incorporating the patient's personal joys and goals of care into the end-of-life plan of care.

Mark Komrad, M.D., psychiatrist and chair of ethics at Sheppard Pratt Health System in Maryland, talked about a growing trend in Europe of euthanasia performed by physicians at the request of their patients with dementia. He said 6 percent of all deaths in Belgium are now caused by euthanasia; one in four of those patients have dementia. In Holland, legislation is in process that would permit pharmacies to dispense over-the-counter euthanasia medication. He expressed deep concern that the rights of patients with dementia are being eroded and encouraged providers to be vigilant regarding attempts to introduce euthanasia laws in the United States. "It has transformed me into an activist," he said.

Timothy Langan, M.D., medical director, VITAS Hospice, described the many benefits that hospice care offers in improving the quality of remaining life in terminally ill patients. Hospice care provides greater comfort, pain relief and emotional support to patients at the end of life, assisting those who face bereavement with a range of services that includes post-bereavement counseling. ●

Achieving Competency Today graduation showcases improvement science projects

Achieving Competency Today: Issues in Health Care Quality, Cost, Systems, and Safety (ACT), one of Christiana Care's leading graduate-level improvement science courses combining experiential learning and outcomes analysis, held its winter graduation April 5 at the John H. Ammon Medical Education Center.

"Creating successful change is built on relationships, which lead to teams, which lead to shared vision—and that's what you are doing" said Omar Khan, M.D., MHS, FAAFP, Service Line physician leader, Primary Care and Community Medicine to the graduating learners. "We must improve. We must add value. Your action changes things."

"The best thing about ACT is the ability to engage in interprofessional teamwork."

NEIL JASANI, M.D., MBA, FACEP



Christiana Care's iLead team conducted another successful Achieving Competency Today program, graduating four distinct groups in April.

Neil Jasani, M.D., MBA, FACEP, vice president, Medical Affairs, and chief learning officer, congratulated the ACT program teams for advancing The Christiana Care Way through their systematic, interprofessional team approach to problem solving. He thanked the program facilitators for skillfully guiding the teams on their improvement journeys.

"The best thing about ACT is the ability to engage in interprofessional teamwork," Dr. Jasani said. "We have a strong commitment to develop our extraordinary people, and we encourage you to use the knowledge and skills you have learned to help create innovative, effective, affordable systems of care."

CONTINUED



"Creating successful change is built on relationships, which lead to teams, which lead to shared vision — and that's what you are doing"

OMAR KHAN, M.D., MHS, FAAFP

ACHIEVING COMPETENCY TODAY | CONTINUED

As part of the ceremony, the four graduate teams presented their projects:



ACT graduates Rebecca Martz, M.D., Michael Farrell, M.D., Lauren Warren, RN, Andrew Tee, M.D., Jordan Assadi, D.O., Dana Marchetto, D.O., and Nicole DiBattista, BSN, RN, CEN.



ACT graduates DeLea Jacobs, BSN, RN, James Thomas, MSN, RN, Trisha Pascall-Lopez, D.O., Nicholas Rosenfeld, M.D., Tamer Amer, D.O., and Courtney Cruz-Castaneda, RN.



ACT graduates Sarah Himmelstein, M.D., Jennifer L. Shiu, MSN, MBA, RN, PCCN, CEN, Scott Holmes, D.O., Tobias Banks, D.O., Ania Rodney, M.D., Stephen Donnelly, M.D., and Valerie Perrine, BSN, RN, CEN.



ACT graduates Tenisha Cameron, MHA, Michelle Lee, Avalon Mertens, D.O., Evan Bilheimer, M.D., Kelsey Capron, Peter Block, Michelle D'Souza, and Michael Maguire, M.D.



ACT project facilitators Carol Kerrigan Moore, MS, APRN-BC, Barbara Henry, MLS, Brian McGee, MBA, Theresa Fields, MSM, and Loretta Consiglio-Ward, MSN, RN.

Goals of Care: Do We Know Our Patient's Wishes?

This project aimed to increase and sustain documentation and knowledge of goals of care by 50 percent for Christiana Care Hospitalist Partners inpatients on Acute Care of the Elderly Unit 6A within 24 hours of arrival to unit by April 2017. The overall goal was to assure that clinical team members can accurately identify their patients with limitations of treatment as well as patients for whom goals-of-care discussions need to take place. By engaging unit-based champions, integrating separate workflows for nurses and physicians and standardizing communication of goals-of-care status in nurse report, charge nurse report, interprofessional rounds and with individual hospitalists, goals-of-care documentation increased from 13 percent pre-intervention to 53 percent post-intervention.

Lost in Translation: Improving Interpreter Utilization Documentation

This project was designed to increase the rate of appropriate documentation of interpreter use with limited English proficiency (LEP) patients by Emergency Medicine residents to 35 percent in two weeks.

According to Christiana Care policy, appropriate documentation means recording the language spoken, the in-person interpreter's name, or the interpreter identification number for phone or video use in the patient's chart. Pre-intervention, Emergency Medicine residents self-reported documenting use of interpreters 64 percent of the time. A pre-intervention chart review revealed that EM residents appropriately documented use of an interpreter only 10 percent of the time. The results of the team's intervention increased appropriate documentation to 40 percent for EM residents. This was accomplished by providing information about how to appropriately document interpreter use to the EM resident physicians, placing purple "interpreter required" signs on the doors of patients identified as LEP, and attaching reminder signs and pre-printed notes to all the Cryacom (blue) phones.

HOST: Health Outreach Service Team

The HOST team complemented a larger health system and prior ACT team effort to engage a population of underserved homeless adults (age 55 and older) who use St. Patrick's community center to better manage their hypertension, diabetes or mental health.

They began by learning about the specific health needs of this population, performing personal interviews with patrons as part of an ongoing community health needs assessment. Knowing that lack of access to healthy food is associated with poor outcomes in virtually every area, the team hosted a lunchtime healthy food session on March 15. Approximately a dozen patrons participated and shared their challenges with access to and perceptions surrounding healthy food. Every patron interviewed stated interest in formal education sessions on dedicated health topics. This session provided important information to build from to guide future interventions.

Secondary goals included improving access to health services by providing connections to appropriate primary and community care services, and increasing the number of opportunities for community health experiential rotations for medical students and residents by July 2017.

Trauma T for IV

The "Trauma T for IV" team sought to improve trauma team members' ease of obtaining IV access during trauma alerts/codes at Christiana Hospital by 25 percent by March 23, 2017.

Pre-implementation surveys and direct observation revealed that one of the most common problems during traumas was workflow inefficiency to gain IV access, which is crucial for diagnostic testing, resuscitation and administration of medications. The team found that IV access was often delayed because of room crowding, position of the patient and role clarity. With the support of the Emergency Department's trauma physicians and nurses, the team implemented, when feasible, repositioning a patient's arm to a "T" position during transfer from the ambulance stretcher. This 90 degree repositioning of the patients' arms allowed easier and faster access to extremities for IV insertion, which facilitated optimal care. ●

Breast Surgical Oncology Fellowship Program will enhance breast cancer expertise in Delaware

To improve the health of women in Delaware, Christiana Care's Helen F. Graham Cancer Center & Research Institute has developed a new Breast Surgical Oncology Fellowship Program that recently earned a five-year approval from the Society of Surgical Oncology.

The Program director is Diana Dickson-Witmer, M.D., FACS, breast surgeon and medical director of the Breast Center at the Helen F. Graham Cancer Center & Research Institute. She led the development of the program and worked with a core faculty at Christiana Care to advance expertise in breast disease and

The multidisciplinary program encompasses a team approach in breast care. Dr. Dickson-Witmer explained that the fellows not only advance their knowledge and skill in breast surgery, but they also will learn about breast imaging and diagnosis, radiation and medical oncology, plastic surgery, genetics, research techniques, clinical trial initiation, pathology, psychology, social services, supportive care and rehabilitation.

Breast surgeons will work with certified genetic counselors to help spread information about the rapidly changing role of germline mutations in patients.

"Breast surgeons are also needed to work with translational cancer researchers to design and carry out clinical trials, and to increase patient enrollment to national clinical trials," Dr. Dickson-Witmer said.

The program could accept its first fellow as early as August 2017.

Those playing a key role in supporting the program include Christiana Care physicians Gerard J. Fulda, M.D., FACS, FCCM, FCCP, chair of the Department of Surgery, Frederick Giberson, M.D., FACS, MACM, vice chair of surgical education and a member of Christiana Care's Trauma/Critical Care Services, and Neil Jasani, M.D., MBA, FACEP, chief learning officer, chief academic officer, and vice president of Medical Affairs. ●

"Breast surgeons are needed to care for very complex cases, and to be leaders in interpreting results of clinical trials and implementing practice-changing results at their institution." DIANA DICKSON-WITMER, M.D., FACS



The fellowship is open to general surgeons nationwide. Fellows will spend one year developing a strong knowledge of all aspects of breast disease, breast oncology and breast surgery.

"This fellowship program will enable us to prepare surgeons to become experts in breast disease and in the implementation of the latest, evidence-based breast cancer treatments, creating optimal health for patients throughout Delaware," said Nicholas J. Petrelli, M.D., Bank of America endowed medical director of Christiana Care Health System's Helen F. Graham Cancer Center & Research Institute. "Receiving approval from the Society of Surgical Oncology for five years underscores the quality of the curriculum and the faculty."

The program is one of only 50 the Society of Surgical Oncology has approved in the nation. It will meet an important need in Delaware, where breast cancer is still the No. 1 cancer diagnosed in women statewide, and where there are only three Christiana Care surgeons who specialize in breast surgery. There are no surgeons in either Kent or Sussex counties whose practice is devoted exclusively to breast disease.

in breast cancer research, as well as in breast surgery, and in the comprehensive and coordinated care of breast cancer patients in Delaware. Core faculty members included medical and radiation oncologists, surgeons, genetic counselors, pathologists, psychologists, radiologists and cancer researchers.

"Many general surgeons do a very good job caring for patients with breast disease, but a community needs to have a few surgeons who dedicate their time exclusively to the care of breast diseases," Dr. Dickson-Witmer said. "Breast surgeons are needed to care for very complex cases, and to be leaders in interpreting results of clinical trials and implementing practice-changing results at their institution."

"This fellowship program will enable us to prepare surgeons to become experts in breast disease and in the implementation of the latest, evidence-based breast cancer treatments, creating optimal health for patients throughout Delaware." NICHOLAS J. PETRELLI, M.D.



Christiana Care and Thomas Jefferson University launch new genetic counseling master's degree program

With the rapid growth in genetic research and its expanding role in disease diagnosis and future treatments, the Helen F. Graham Cancer Center & Research Institute at Christiana Care is partnering with Thomas Jefferson University's Jefferson College of Biomedical Sciences in a Human Genetics & Genetic Counseling master's degree program to prepare people to become genetic counselors.

"Genetic counseling is one of the fastest growing professions in the medical field," said Zohra Ali-Khan Catts, MS, LCGC, director of Genetic Counseling and Gene Testing at the Graham Cancer Center and co-director of the new program, along with Rachael Brandt, Ph.D., MS, LCGC. The demand for these professionals is growing in almost every medical specialty, including cardiovascular, neurology, pediatrics, prenatal, reproductive and psychology.

The master's degree program earned accreditation in January 2017 from the Accreditation Council for Genetic Counseling. Students will do academic work primarily at Jefferson and then rotate into Christiana Hospital and Wilmington Hospital and various outpatient settings to gain hands-on experience with patients.

The medical director of the program is Louis Bartoshesky, M.D., MPH, senior pediatric clinical geneticist at the Graham Cancer Center, professor of pediatrics at Jefferson and a member of the medical staff at Nemours Children's Health System.

Only 37 genetic counseling degree programs exist in the United States, and only four in Canada.

"The role of genetic counselors is critical as we move forward in advancing medicine through genomics," said Nicholas J. Petrelli, M.D., Bank of America endowed medical director of the Helen F. Graham Cancer Center & Research Institute. "We have only experienced the tip of the iceberg as to what this science will allow us to accomplish in our effort to improve the health of our patients."

Genetic counselors specialize in assisting families to understand the risk of genetic disorders. These clinical professionals are skilled at eliciting a detailed family history that includes personal, family and medical histories. They work in collaboration with clinical geneticists and other physicians, providers and families. Genetic counselors also may collaborate with others in health care research around genetic issues.

In addition to working in hospital settings and cancer centers, genetic counselors are integrated into health care management and laboratory settings where they can help decide what tests are appropriate so that health care dollars are used wisely.

"Jefferson has widely respected academic programs in the biomedical sciences, as well as in its medical and health science colleges," Dr. Bartoshesky said. "Students will have the opportunity to work inter-professionally with other students in other health care professions and in other master's and doctoral programs." He cited such complementary programs as molecular diagnosis and cancer genetics.

Applications for the new program are being accepted for September 2017. ●



"Genetic counseling is one of the fastest growing professions in the medical field."

ZOHRA ALI-KHAN CATTI, MS, LCGC



"Students will have the opportunity to work inter-professionally with other students in other health care professions and in other master's and doctoral programs."

LOUIS BARTOSHESKY, M.D., MPH

Philanthropist sparks enhancements for older adults needing Emergency Department care



“A specialized environment and expert care attentive to the needs of older patients will make a difference in their health trajectory and their health care experience.”

JANE COPELAND

With the nation’s baby-boom generation aging and its senior citizen population growing at a rate nearly three times that of the general population — to an estimated 80 million by 2050 — the number of older patients receiving care in emergency rooms is on the rise. Alzheimer’s disease and other dementias among older patients present additional challenges in navigating the emergency department environment.

Christiana Care Health System is addressing the unique needs of geriatric patients needing emergency care with the generous support of philanthropist Jane Copeland. The Copelands designated a \$500,000 gift to Christiana Care to enhance geriatric services at the Wilmington Hospital Emergency Department.

The gift was made in honor of her late husband, William “Bill” Copeland, a Christiana Care Trustee from 1983 to 2012, former chair and CEO of Continental American Life Insurance Company and an executive with Bell Atlantic Corporation.

The Copelands have been devoted supporters of Christiana Care over the years and, after her husband’s passing, Jane Copeland extended their philanthropy by establishing the Copeland Emergency Geriatric Enhancement Fund.

The fund is now making a real difference in people’s lives as it supports important initiatives to enhance the comfort and safety of emergency services for older patients.

Reflecting on the reason for her gift, Copeland said, “I made my gift to Christiana Care to provide support for the needs of geriatric patients and families, with an understanding of how challenging emergency department visits can be for them. A specialized environment and expert care attentive to the needs of older patients will make a difference in their health trajectory and their health care experience.”

Thanks to her generosity, Wilmington Hospital’s Emergency Department now features several initiatives that make emergency care safer and more welcoming for older patients.

According to Charles L. Reese IV, M.D., FACEP, chair of the Department of Emergency Medicine and director of the Emergency Medicine/Internal Medicine Residency Program, these initiatives are based on best practices in emergency care such as those identified in the Geriatric Emergency Department Guidelines developed jointly by the American College of Emergency Physicians, The American Geriatrics Society, Emergency Nurses Association and the Society for Academic Emergency Medicine.

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Christiana Care's elder emergency care initiatives are the result of a careful assessment of its services and consultation with an architect of those guidelines, identifying three core areas needing specific attention: education, physical modifications and follow-up.

"Thanks to the generous and thoughtful Copeland gift," said Dr. Reese, "we have actively invested in all three areas."

Education initiatives

The Copeland Fund assists several education-related initiatives that support the Emergency Department's geriatric services. These include education and training programs for the department's attending physicians, residents and nurses.

"This focus on geriatric emergency care has not been a traditional part of medical training in the past," explained Dr. Reese. "But now we are raising the level of awareness of our staff to the special needs of older patients and integrating a geriatric-specific approach into our care model."

The Emergency Department is also bolstering its education outreach to older patients and their families, according to Linda Laskowski Jones, MS, APRN, ACNS-BC, FAWN, FAAN, vice president for Emergency and Trauma Services.

"We're working closely with our Patient Experience and External Affairs departments and staff nurses to get safety information out to our older patients," said Jones. "We're also reaching out to the people who accompany them — family and friends — about how they can partner with us to keep their loved ones safe in the Emergency Department."

Physical modifications and patient follow-up

The Copeland Fund is also supporting a number of ongoing physical improvements in the Wilmington Hospital Emergency Department designed to enhance safety and comfort for older patients and for patients with dementia. These improvements include soothing colors and safety handrails, plus furniture designed for older patients and artwork appealing to a range of generations.

"We have used this assessment process to look at everything we do from the older patient's perspective," said Jones. "We are devoted to making their experience safer and more comfortable."

But of all the initiatives they've implemented, said Dr. Reese, "the one thing that has the most impact on geriatric emergency care is ensuring that patients get good follow-up care. That is something the Copeland Fund really helps to make possible."

The Wilmington Emergency Department, with support from the Copeland Fund, has initiated an extensive call-back program to check in with patients over the age of 60 who have been discharged from the Emergency Department. To date, the program has reached more than 1,000 patients.

"We check in to be sure our patients aren't experiencing barriers that would prevent them from healing or getting follow-up care," said Sarah Flanders, MSN, RN-BC, CEN, nurse manager of the Wilmington Hospital Emergency Department, who oversees the program.

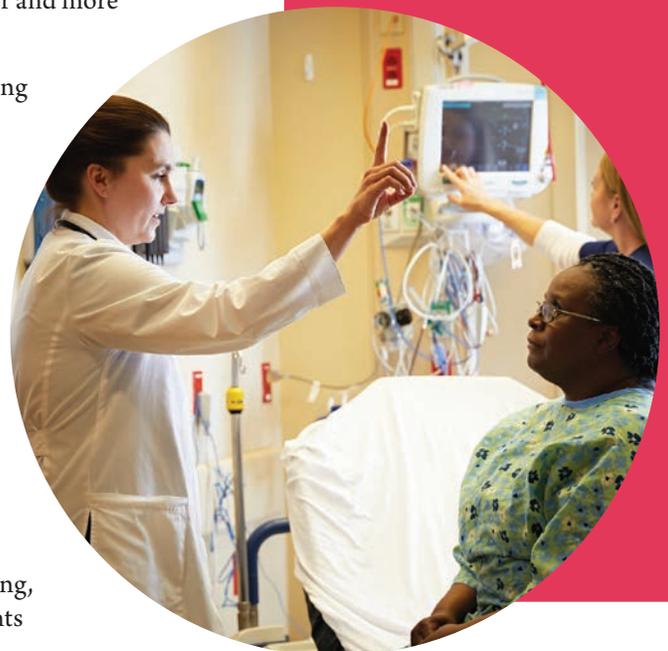
During the calls, Emergency Department nurses see how patients are doing, help schedule appointments, arrange transportation and find out if patients need any additional help or resources.



"We are raising the level of awareness of our staff to the special needs of older patients and integrating a geriatric-specific approach into our care model."

CHARLES L. REESE IV, M.D., FACEP

With the average age of baby boomers increasing each year, the volume of geriatric/emergency care is expected to rise commensurately.



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PHILANTHROPIST SPARKS ENHANCEMENTS | CONTINUED

“We also started a geriatric discharge clinic in conjunction with Family Medicine for discharged patients who don’t have a primary physician or can’t get to one in a timely manner,” said Ellen C. Finney, M.D., medical director of the Wilmington Emergency Department Geriatric Discharge Clinic. “Our goals are to improve access to care and to prevent emergency department revisits.”

The next step, said Dr. Finney, is to gather concrete data on the program’s effectiveness and on the impact of the follow-up services on readmission rates. “We’re already getting a lot of positive feedback and patient satisfaction data from the calls,” she said.

Meeting the diverse needs of older patients

The Copeland-supported emergency care initiative dovetails with other geriatric services offered at Christiana Care.

Some of these include:

- The collaborative services offered through the We Improve Senior Health (WISH) Program.
- The Acute Care for the Elderly (ACE) Unit devoted to improving outcomes and preventing complications with older patients.
- The Geriatrics Consult Program for assessing the overall health and well-being of individuals over the age of 65.
- The comprehensive outpatient services of the Swank Memory Care Center.

But Laskowski Jones stressed that the emergency-care experience presents special challenges for older patients, and she praised the Copeland gift not only for its impact on services, but also for the cultural change it has nurtured in the Emergency Department.

“Aging for many brings physical challenges and impairments,” she said. “We have to see the world through their eyes and address their specific needs. Even simple things — like safer surfaces or informational literature with larger type — can make a big difference in providing better care for older patients.”

Dr. Reese agreed: “The Copeland Fund has helped to bring about a substantial shift in the culture of the Emergency Department. There’s a much greater awareness of the needs of geriatric patients and a much greater sense of happiness and effective care on the part of our patients as a result. That has exponential impact.” ●



“We check in to be sure our patients aren’t experiencing barriers that would prevent them from healing or getting follow-up care.”

SARAH FLANDERS, MSN, RN-BC, CEN



“We have to see the world through their eyes and address their specific needs. Even simple things ... can make a big difference in providing better care for older patients.”

LINDA LASKOWSKI JONES, MS, APRN, ACNS-BC, FAWN, FAAN

Center for Provider Wellbeing examines 'burnout' phenomena among doctors

More than half of physicians in the United States experience symptoms of burnout, according to several studies. That includes depersonalization, emotional exhaustion and feeling that their accomplishments don't make a difference.

"We acknowledge the challenges providers face every day, and we are committed to addressing burnout and fostering well-being," said Heather Farley, M.D., FACEP, director of Provider Wellbeing. "When providers are supported and feel fulfilled in their work, they can do their best in providing high-quality care."

To that end, Christiana Care Health System is a leader in initiatives to promote provider well-being. The Center for Provider Wellbeing symposium held on March 27 and 28 was the latest in a comprehensive strategy to support providers and address burnout.

Keynote speaker Colin West, M.D., Ph.D., of the Mayo Clinic, a researcher and national expert on physician burnout, said evidence indicates burnout is increasing for health care providers, undermining their feelings of value about their work. He described the personal, economic, and patient-care-related consequences of burnout.

Resilience — the ability to bounce back from adversity — has been described as a protective factor against burnout that can be cultivated in individuals and integrated into an organization's culture. Dr. West noted that improving personal resilience is important but it is not sufficient. An essential component is also creating a work environment that enables providers to truly flourish.

Dr. West talked about shifting from health care's Triple Aim — improving population health, increasing patient satisfaction and reducing per-capita

health care spending — to the Quadruple Aim, which includes the goal of enhancing the provider experience. Christiana Care's expression of the Quadruple Aim is found in the Diamond: Optimal Health, Exceptional Experience, Organizational Vitality and Extraordinary People.

A panel discussion and question-and-answer session on the causes of burnout and ways to nurture well-being followed. Panelists included: Joseph Bennett, M.D., president-elect, Christiana Care Medical-Dental Staff; Nathan Merriman, M.D., chair, Physician Leadership Network Governance Committee and co-chief, Gastroenterology Section; Patricia Moore, M.D., chair, Surgical Service Line Exceptional Experience Team; and Margot Savoy, M.D., medical director, Department of Family & Community Medicine.

Already, Christiana Care has implemented provider well-being initiatives including:

- The Care for the Caregiver peer support program for adverse events and medical errors.
- The Provider Litigation Program, which provides support and educational resources for providers in medical malpractice litigation.
- Vital Worklife, a provider-focused program offering coaching, counseling, and work/life concierge services.

The center also offers executive coaching and leadership skills training for physician leaders. In February, interns learned ways to cope with stress, enhance mindfulness and care for themselves at WinternFest, part of a series for physicians in training.



A panel discussion on the causes of burnout and ways to nurture well-being followed speaker presentations.

The center is working with the Value Institute to investigate burnout among the Medical-Dental Staff, which includes physicians, advanced practice nurses and physician assistants, and to establish baseline measures for provider well-being. The Value Institute helped tailor a provider well-being survey, developed by Stanford University's WellMD program, for Christiana Care. More than 1,100 physicians, nurses and other staff completed the survey, which will be administered annually.

Data gathered will be used to establish provider well-being as a key quality metric for the institution. The center will utilize this data to assist clinical areas in decreasing burnout and improving the provider experience. Additional programs are being developed. ●

Christiana Care has contracted with Vital WorkLife for behavioral health, peer coaching and professional development. The service is completely anonymous and free to all members of the Medical-Dental Staff. To learn more, call 877-731-3949.

Clinician Transparency Program offers most accurate information for consumers

Consumers often search online reviews when considering new products or services.

So when it comes to one of their most important decisions, selecting a health care provider, Christiana Care is ensuring consumers have the most accurate information they need to make informed choices.

In January, Christiana Care launched the Clinician Transparency Program, in which patients' reviews of about 115 primary care and women's health providers are posted on Christiana Care's website. By June, consumer feedback will be available for other outpatient clinicians, including medical specialists and surgeons, for a total of about 400 clinicians.

"Sharing this information will improve the experience of our patients," said President and CEO Janice E. Nevin, M.D., MPH. "Top-performing health systems around the country are

"SHARING THIS INFORMATION WILL IMPROVE THE EXPERIENCE OF OUR PATIENTS."

JANICE E. NEVIN, M.D., MPH



increasing the transparency they provide — transparency around quality, safety, financial performance and also what to expect from the people who provide care.

"This initiative will help the people we serve in respectful, expert, caring partnerships make informed choices about their provider. I am deeply appreciative to all of our clinicians who understand that clinical transparency will push us to be even better."

Clinician reviews already are available online at sites such as Yelp, Facebook and Healthgrades, Dr. Nevin noted. By posting more accurate and comprehensive feedback, Christiana

Care can ensure that it adheres to the Seal of Integrity upheld by partner Press Ganey Associates, which has helped health care providers improve patient experience for more than 30 years.

The evaluation measures have been nationally tested, 100 percent of patient responses are validated and no comments or star ratings are published for a provider until there are at least 30. Every comment is posted as long as it is not vulgar, does not reveal personal information about the anonymous respondent and is not completely off-topic (for example, about a different physician).

"It's increasingly important for consumers who are potentially patients to have information when they're making their choices about their health care," said Julie Silverstein, M.D., FACP, clinical director for primary care and a member of the nine-member transparency steering committee, which includes two patient advisers. "Those other sites have taught us that people are interested in reviews, so it makes more sense to give them accurate information."

"It gives us the opportunity to proactively provide meaningful and first-account information from patients back to the community that we serve," said Doug Azar, senior vice president of the Medical Group and a steering committee member.

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"IT'S INCREASINGLY IMPORTANT FOR CONSUMERS WHO ARE POTENTIALLY PATIENTS TO HAVE INFORMATION WHEN THEY'RE MAKING THEIR CHOICES ABOUT THEIR HEALTH CARE."

JULIE SILVERSTEIN, M.D., FACP



A random sample of a provider's patients receives a survey about their office experience, which includes an advisory that their comments might be published.

Comments are shared with clinicians first, and they have 14 days to review them before they are posted online. An appeals process is in place for any questionable content.

"In the past, providers pushed back against a comparative system that ranked them against each other," said cardiologist Roger Kerzner, M.D., FACC, clinical director for specialty services in the medical group and a steering committee member.

In the new program, each clinician stands independently with a rating of up to five stars and comments based on a rolling set of the past 12 months' responses. After 12 months, comments drop off the profile.

As with any new initiative, the group was prepared for clinicians' concerns. But, Dr. Kerzner said, "What was remarkable was how really open to the content people were. There was really a genuine sense that we just want to be open with what we're doing."

Jennifer Czerwinski, senior program manager for Patient Experience, echoed his impression. "We went in thinking we'd get heels in the sand," she said. "It was really amazing, eye opening and speaks volumes to the types of folks we have working at Christiana Care. They absolutely embraced it, arms wide open, that this is information our consumers must have."

In fact, she said, some clinicians are itching to reach 30 responses so they can share their reviews with patients, friends and family.

It doesn't hurt that by and large, the reviews are overwhelmingly positive.

"The reality is most people really like their doctors," Dr. Kerzner said. "And we are really working to maximize that relationship."



Jennifer Czerwinski, senior program manager for patient experience (left), says providers like Kelly Ann Lopez, M.D., are embracing the Clinical Transparency Program.

"It is a source of pride to be able to share those reviews with consumers," said Dr. Silverstein.

For the first wave of published ratings, about 5,500 surveys had to be reviewed. "It was a heavy lift," Czerwinski said.

Deirdre E. Mylod, Ph.D., senior vice president for research and analytics for Press Ganey, spoke at a recent Christiana Care symposium about the importance of measuring patient satisfaction.

"Efforts to improve experience are efforts to reduce patient suffering," she said, noting that patient surveys measure critical components of care — like quality, safety and interaction — not amenities.

"Patients have a lot to say about the amount of time spent with them," said Shawn Smith, MBA, vice president for patient experience, who also serves on the steering committee. "They're also concerned about wait times. They want to know, 'Why are we waiting? And what's the status of our plan of care?'"

The ratings are especially important because, unlike choosing a new lawn mower or local restaurant, people's health is at stake.

"Medical care is unique in the sense that the people who are receiving the care are vulnerable," Dr. Kerzner said. "For success, you can't just have the best person fixing the car. First, you have to have trust that this person is going to be a partner and look out for your interest. Transparency enhances the sense of partnership." ●



**"FOR SUCCESS,
YOU CAN'T JUST
HAVE THE BEST
PERSON FIXING THE CAR.
FIRST, YOU HAVE TO HAVE TRUST THAT
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TRANSPARENCY ENHANCES THE SENSE
OF PARTNERSHIP."**

ROGER KERZNER, M.D., FACC

Graduates demonstrate power of Lean Six Sigma to reduce waste and raise quality



Thirty-two Christiana Care employees celebrated their Lean Six Sigma certifications during a graduation ceremony in March.

The Christiana Care Organizational Excellence department held a graduation celebration in March for 32 candidates who recently completed Lean Six Sigma requirements for Green Belt and Black Belt certifications.

“This represents our fourth cohort of practitioners who have completed this rigorous training program, and I couldn’t be more impressed with the contributions that these 32 individuals have made to Christiana Care,” said Vernon Alders, MHCDS, MBA, MSW, corporate director Organizational Excellence.

Lean and Six Sigma are proven quality-improvement methods that have been used across industries for decades as a way to improve customer experience. Lean seeks to eliminate all forms of waste from our health care system in order to satisfy the needs of our customers. Six Sigma reduces variation and defects in our processes. Together these two approaches provide a powerful methodology to improve both efficiency and effectiveness of our services.

In addition to celebrating the accomplishments of these 32 individuals, Organizational Excellence hosted a panel discussion with several recent graduates to discuss the application of their

training to help spread their new skills and knowledge across the system to achieve even greater improvements.

“In spreading the culture of process improvement, I look forward to partnering with my colleagues in applying the Lean Six Sigma methodology to strive for patient care with the highest possible value,” said Brian Matson, project planner, Rehabilitation Services. “With the focus on continuous, sustainable gains as a team, it is exciting to look ahead and envision even greater patient experiences and outcomes in the future.”

Using a method known as the Cost of Poor Quality, Lean Six Sigma quantifies the cost of errors and waste in our daily work. As a result of these 16 projects, Christiana Care has eliminated nearly \$2.7 million dollars in waste and defects.

“A well-designed Lean workflow is both efficient and pleasing to those involved in the process, including patients and staff,” said Linda Laskowski Jones, MS, APRN, ACNS-BC, CEN, FAWM, FAAN, vice president of Emergency and Trauma Services. “No one wants to spend precious time on tasks or activities that are wasteful or non-value added.” ●

Women's History Month speaker offers advice on how to thrive amid change in the workplace

Shedding is essential. Ask Lenny the Lizard. "If a lizard doesn't shed its skin, it dies," said Kathy Dempsey, MED, RN, CSP. "Change is essential to survival."

Dempsey, a former trauma nurse and a behavioral change expert, was the speaker at a Women's History Month event presented by the Multicultural Heritage Committee on March 16 at Christiana Care's John H. Ammon Medical Education Center. Her topic was "Shed or You're Dead: How to Stay Alive in the Midst of Health Care Change."

She was accompanied by Lenny, a green plastic lizard that symbolizes adapting to change. She compared a lizard's skin to outdated thoughts, bad habits and unhealthy relationships.

"You shed the typewriter because it didn't serve you any more," she said. "The same concept applies to behaviors that no longer have value."

It was a lively presentation with lots of audience participation. Attendees took a brief survey to determine their personal "shed style" in the workplace:

- Stabilizers create a stable and harmonious environment. They cooperate with others, are patient and good listeners.
- Hedgers are orderly and systematic. They provide attention to detail, accuracy and logical solutions.
- Energizers inspire others. They are positive and focus on unlimited possibilities. They are enthusiastic about change.
- Drivers create results. They are action-oriented, setting goals and acting on them. They accept multiple challenges and solve problems.

Dempsey said change does not require a lengthy period of time. And it need not be frightening.

"Sometimes our worst days are our best days because we learn something," she said.

Dempsey's worst days began when she was diagnosed as HIV positive after treating a patient with AIDS in the Emergency Department. She lost her job, was deeply depressed and briefly considered suicide. Several months later she learned her test results were wrong.

"I had my life back at 26 years old."

After that experience, she resolved to live in the present. She learned to focus her energy on things she can influence or control, not on things she can't.

Dempsey outlined the five stages of change: loss, anger, discouragement, acceptance and celebration. She encourages leaders and employees to visualize that they have met their goal and celebrate their accomplishments in advance.

"Celebration accelerates shedding. You can program your brain for success because the brain believes what you tell it."

KATHY DEMPSEY, RN, MED, CSP

"Celebration accelerates shedding," she said. "You can program your brain for success because the brain believes what you tell it."

Andrea Stewart, HIMS supervisor, has long been interested in self-improvement. She attended the session to explore strategies for making positive changes.

"Learning new ways to look at challenges is a valuable experience," Stewart said.

Dempsey handed out wristbands printed with the phrase: "I am allergic to negativity." She encouraged attendees to shed complaining and embrace change.

"We get attached to our roles. We have to realize that all roles end some day," she said. "So what are you doing today to prepare for your next role?" ●



Career expo excites the next generation of health professionals



High school senior Brandon Holly already is on his way to a career in health. He'll be heading to the University of Delaware this fall to study nursing. But within that broad field, he's not sure what kind of job he wants to pursue.

He was among hundreds of students who signed up for Christiana Care's Health Career Exploration Program in March at the John H. Ammon Medical Education Center, to learn about the wide array of opportunities open to them.

Brandon was accompanied by his brother, Sean, a high school sophomore who also is interested in medicine.

"I'm trying to decide what path I want to take," Sean said.

The event was designed to attract just such inquisitive young people. As part of ensuring future quality care for Delaware's residents, Christiana Care is engaged in an ongoing effort to cultivate the state's next health professionals.

"We want to educate and employ our local talent so they don't have to leave Delaware. This is one way we serve our neighbors," said Dana Beckton, director of Diversity and Inclusion for Christiana

Care. "We look at this as a continuum — how do we connect students to education and jobs?"

The first step, she said, is showing them the bigger picture of health careers, which aren't filled only by doctors and nurses. This was demonstrated by the variety of more than 40 vendors — including departments within the health system — who manned tables and held a half-dozen information sessions. Among them were the U.S. Navy, Christiana Care Public Safety, patient interpreters, paramedics, nutrition and dietetics, pastoral services and more. They informed students about what educational qualifications their careers entailed, and institutions that provide that education were on hand to talk about the programs they offer and their requirements.

"We want to show them what's outside the traditional box," said event organizer Consuella Petty, Diversity and Inclusion specialist at Christiana Care. "If you're studying marketing or developing computer software, there's an opportunity here to find out how to practice your skills in a hospital."

Cherelle Chambers, a student in the University of Delaware's accelerated

Bachelor of Science in Nursing Program, who was staffing a table, was eager to tell how rewarding and versatile a health career can be.

"You can do anything you really want to do," said Chambers, who was inspired by the nurses who cared for her grandparents at the end of their lives. "You can be a politician, a doctor — you can put your skills to use doing anything."

Christiana Care radiation therapists Susan Day, RT (T), and Kathy Aufiero, RT (T), spoke with students at a table displaying some of the technological equipment used to treat people with life-threatening tumors. Their jobs involve a lot of caring and giving, they said, which also is what they find rewarding.

"Our patients are very sick and very scared," Day said.

"It's life-changing for them," Aufiero added. Students who aspire to their discipline tend to be good at math and physics, she said. "You have to understand how the linear accelerator works," she said, speaking of the machine they use to deliver radiation therapy to a tumor.

Kylie Lavelle, a University of Delaware freshman who has not yet declared a major, said she was drawn to radiology and occupational therapy but was surprised to learn how varied the opportunities for a health career could be. She hadn't before thought of patient interpreters or pastoral services, for example.

"I'm hoping to find some shadowing opportunities," she said.

Her father, state Sen. Greg Lavelle, said such events are important for the future of health care in Delaware and its residents.

"It's good to provide this opportunity for young people who might not know what's out there," Sen. Lavelle said. ●

Community members become med students for a day at Mini Medical School

“**M**edicine changes so quickly you can never have enough information,” said Jackie Poore of Wilmington, a family practice manager who attended the 2017 Mini-Medical School at Christiana Care. The Mini-Medical School, six weekly, free lectures each spring, is an annual partnership between Christiana Care and the Delaware Academy of Medicine/Delaware Public Health Association, and has been in operation for nearly a decade.

“Each year we collaborate with Christiana Care to pick topics of timely interest for our attendees, and we see strong public support for the offerings,” said Timothy Gibbs, MPH, executive director of the Academy of Medicine/Delaware Public Health Association.

Each lecture is attended by 50 to 75 adults and teens. Many high-school students come to explore careers and add something distinctive to a high school resume.

Juliette Cipolla of Newark, a high-school junior, attended with her cousin, Airman First Class Brooke Bedell of Dover.

“I am thinking I might like to become a nurse practitioner,” said Cipolla. “The Mini-Medical School is helping with that decision.”

This year’s lecture topics included minimally invasive robotic surgery in urology, how breast cancer research is translated into bedside treatments, adventures in global health and tropical medicine, advances in structural heart therapy and maxillofacial prosthetics, a branch of dentistry dealing with congenital and acquired defects of the head and neck.

On March 23, David A. Paul, M.D., FAAP, physician leader of the Women and Children’s Service Line and chair of the Department of Pediatrics, spoke on the history of infant mortality in

Delaware and why it has been such a vexing problem. He talked about trends in premature births, which are the leading cause of infant mortality, and about the social determinants of health. He also highlighted successes of Delaware and Christiana Care in supporting infant health.

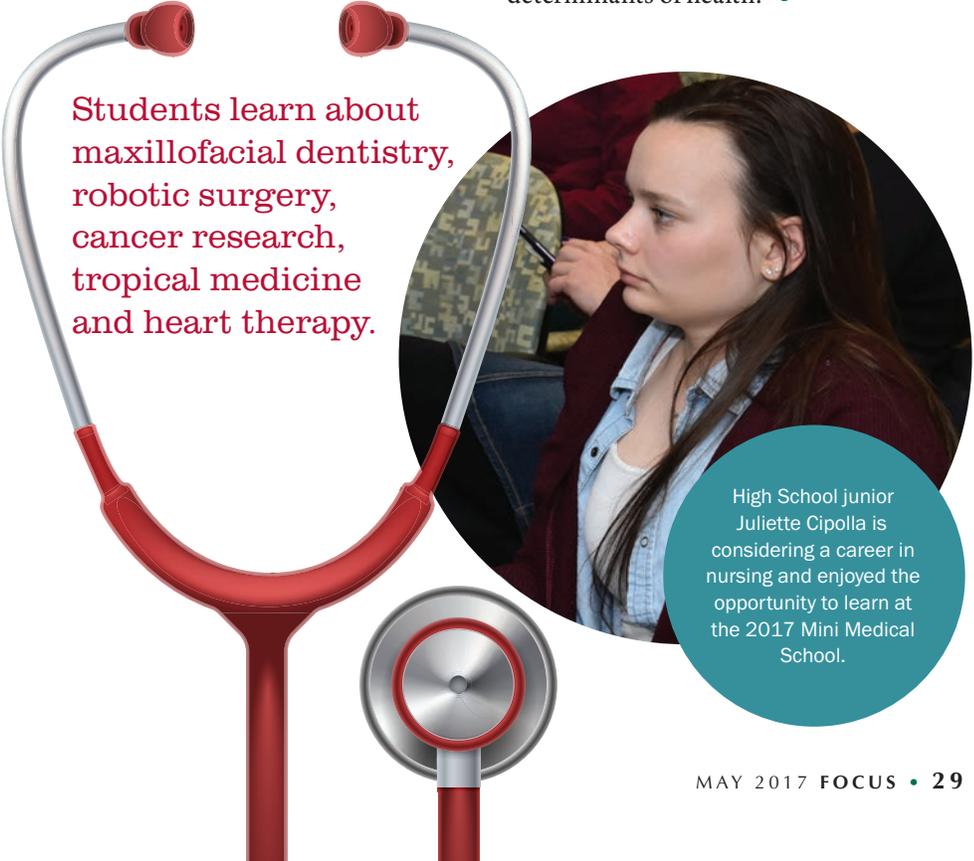
Traditionally, he said, Delaware has had an infant mortality rate higher than the national average, when measured in deaths per thousand of live births. However, through a variety of interventions, Delaware has lowered its deaths from 9.3 deaths per thousand (measured from 2000 to 2004) to 7.5 deaths per thousand (measured from 2010 to 2014).

“Our state programs are holistic,” said Dr. Paul, who also chairs the Delaware Healthy Mother Infant Consortium, which has worked to lower the infant mortality rate. “Our programs run the gamut, from providing care to mothers, who otherwise would not receive care,

to providing medications that prevent premature births, to conducting increased data surveillance of congenital anomalies. The good news is that our infant mortality rate has dropped 19 percent since 2005. However, racial disparities are still an issue, in that African-American mothers are 2.2 to 2.5 times more likely to have a premature baby than Caucasian mothers.”

Dr. Paul explained that the Robert Wood Johnson Foundation has a model showing that clinical care accounts for only 20 percent of health, which means that personal behaviors and the social determinants of health play a far larger role. Such determinants include tobacco use, exercise, obesity, alcohol intake, income, education, employment, community safety and the physical environment.

“A high premature birth rate is reflective of the health of the mother, and if we want to take our work on this issue to the next level we have to target the social determinants of health.” ●



Students learn about maxillofacial dentistry, robotic surgery, cancer research, tropical medicine and heart therapy.

High School junior Juliette Cipolla is considering a career in nursing and enjoyed the opportunity to learn at the 2017 Mini Medical School.



North Wilmington-based Dance Delaware dance school brought their special, fun-filled program to the Dance Your Heart Out event.

Delawareans get fit and fun at 7th Annual Dance Your Heart Out

Each year, Elizabeth James kicks up her heels at Dance Your Heart Out, an event sponsored by Christiana Care Health System to promote women's health.

But her aerobic workout doesn't stop there. James, 73, maintains an active lifestyle all year-round, inspired by the results she received from health screenings at the event. "Last year, I learned that I need to lose weight," she said.

The Wilmington woman took that advice to heart. In early March, she participated in her first 5K race "and I am determined to do it again," she said.

More than 500 guests, volunteers and vendors, most of them women, attended the March Dance Your Heart Out event at the Chase Center on the Riverfront in Wilmington. The event combined high-energy dancing with health screenings and education on topics ranging from nutrition to deep-vein thrombosis, a potentially deadly condition in which blood clots form in the leg.

Dancing Through the Decades was the theme for this 7th annual event, which stresses dance as a fun form of cardiovascular exercise. Volunteers and participants were encouraged to dress in an outfit from their favorite era, from the tie-dyed T-shirts of the 1960s to the big hair and "Flashdance" style sweats of the 1980s.

Participants received 513 free screenings in all, including 154 for blood pressure, 107 for stroke risk, 109 for diabetes risk and 143 for body-fat analysis.

Of the participants screened for blood pressure, nearly two in three were found to have hypertension. Thirty-eight percent of those screened for diabetes were considered high-risk, and over 70 percent of those screened for body-fat analysis were

overweight or obese. The stroke screenings increased awareness of less commonly known risk factors for stroke such as diabetes, atrial fibrillation and a history of stroke in the family. All community members who did not have a primary care provider were connected with care.

"Screenings can save lives," said Karen Anthony, MS, senior program manager, Community Health and Preventive Medicine. "When individuals are aware of their risk factors, they can partner with their primary care physicians to create a plan to keep them as healthy as possible."

Christiana Care provides high-quality care for women at every age and stage of life and is the only National Community Center of Excellence for Women's Health in the region.

Dance Your Heart Out and other events sponsored by Christiana Care break down barriers to care by taking screenings and education directly to the people. That impressed Rosie Staten, 27, who recently relocated to New Castle.

"I just recently moved to Delaware and want to know what the community has to offer," Staten said. "There are a lot of people who don't know what their blood pressure is, and this event is an opportunity for them to get that important information."

Alyssa Atanacio, a registered dietitian, educated participants about healthy choices in diet by comparing the amounts of food that contain 100 calories. "You get three cups of vegetables versus 11 potato chips," Atanacio said. "It's a real eye opener."

Margaret Purnell, 53, of Wilmington, has become a partner in her own health. She keeps her hypertension under control with medication, a low-fat, low-salt diet and exercise to reduce her risk of stroke and heart attack.

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"I have learned to maintain my blood pressure, and exercising makes me feel great," Purnell said.

Himani Divatia, D.O., Christiana Care Internal Medicine-Pediatrics co-chief resident, said screenings and education help people to discover health problems when they are in their earliest, most treatable stages.

"These types of events help people to feel motivated and engaged to be partners in their health and know that their providers are on this journey with them," Dr. Divatia said.

Michael Waite, guest emcee, kept the vibe upbeat and moving for hundreds of enthusiastic dancers.

Dance Your Heart Out is made possible in part through the commitment and dedication of the planning committee and more than 150 volunteers. Participating Christiana Care programs and service lines included The Center for Heart &

Vascular Health, Women & Children's Health Services, Primary Care & Community Medicine, Cardiac Rehabilitation/Secondary Prevention, the Blood Pressure Ambassador Program, Cancer Health Outreach and Education Program, Nutrition Services, Exercise Services, Christiana Care Cardiology Consultants, Camp FRESH, Health Ambassadors, The Swank Memory Care Center, Pulmonary Hypertension, Non-invasive Lab, Imaging Services, Breast Center, Metabolic Health Services, Weight Management Center, Stroke Program, Language Services, Christiana Care Health Guides, and External Affairs.

Dance instruction and performances were presented by Dance Delaware, Anytime Fitness and the YMCA of Delaware. ●



Lorie Meck, BSN, RN-BC, TNCC, uses a body fat analyzer to check body mass index for Elizabeth James, who returns each year.



Dancing Through the Decades was the theme for the annual event, which stressed dance as a fun form of cardiovascular exercise.

Volunteers donated time and enthusiasm for the annual Dance Your Heart Out event at a variety of health screening stations. Pictured here are team members who ran a body-mass index station to help individuals know exactly where they stand.



Christiana Care employees Grace Duffy, dietetic intern, Juliana Yi, RD, LDN, and Alyssa Rose Atanacio, RD, LDN, shared their expertise in diet and nutrition.



Delaware Women’s Hall of Fame honors Dr. Janice Nevin



“Always, I am grateful for the camaraderie and support of the women in my life, for my role models, my colleagues and for upcoming generations, including my own daughters. They all teach me something every day.”

DR. NEVIN

Christiana Care President and CEO Janice E. Nevin, M.D., MPH, has been named to the Hall of Fame of Delaware Women for her visionary, collaborative leadership in transforming health care. Presenting the award to Dr. Nevin are Governor John Carney and Sherese Brewington-Carr, chair of the Delaware Commission for Women.

Recognized for her visionary, collaborative leadership in transforming health care in Delaware, Christiana Care President and CEO Janice E. Nevin, M.D., MPH, was inducted into the Delaware Commission for Women’s Hall of Fame of Delaware Women on March 22.

“Dr. Nevin exemplifies The Christiana Care Way and means it when she tells us, ‘We take care of people,’” wrote Christiana Care Board member Lolita Lopez, FACHE, a fellow Hall of Fame inductee and president and CEO of Westside Family Healthcare, in nominating Dr. Nevin for the Hall of Fame. “In a time of great uncertainty in health care, Dr. Nevin rises to the occasion with grace, resilience and a positive outlook.... She constantly assures those of us serving the people of Wilmington, ‘We will do what we always do.’”

Dr. Nevin is a family medicine physician and the first female CEO of Delaware’s largest health system and largest private employer. She continues to lead Christiana Care to regional and

national prominence, including its ranking among the nation’s best hospitals by U.S. News & World Report.

Recognized for her commitment to the community, Dr. Nevin is making a lasting impact on the health of Delawareans and the value of health care through pioneering programs such as Christiana Care’s Carelink CareNow, which coordinates care and addresses not only a patient’s medical needs but also the social and behavioral determinants of health, and Project Engage, a nationally recognized addiction recovery program at Christiana Care.

Joining Dr. Nevin as 2017 inductees honored by the Delaware Commission for Women in the Hall of Fame’s 36th year were retired Delaware Supreme Court Justice Carolyn Berger, State Representative Debra Heffernan and the late Kendall M. Wilson, who was honored posthumously for her contributions as a social activist and the first executive director of the Delaware chapter of the American Civil Liberties Union.

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“I am most honored to be inducted with three difference-makers in Delaware,” said Dr. Nevin. “We are in esteemed company as we follow more than 140 of our ‘foremothers’ and ‘sisters’ into the Women’s Hall of Fame,” she said.

Christiana Care Board Chair Doneene Keemer Damon, Esq., described Dr. Nevin as “a servant leader and a visionary — the right leader at the right time. Her every effort is in service to the health of our community.”



Janice E. Nevin, M.D., MPH, with Christiana Care Board Chair Doneene Keemer Damon, Esq., who described Dr. Nevin as “a servant leader and a visionary — the right leader at the right time. Her every effort is in service to the health of our community.”

In accepting the honor, Dr. Nevin encouraged her fellow female leaders to take care of themselves as they care for others.

“It’s easy for us as women to find ourselves at the bottom of our own to-do lists,” she said. “To accomplish anything, we need to take care of ourselves, too. Health has a lot to do with our individual and collective success. We know that the well-being of women can predict the well-being of a family and of a community. I applaud the Delaware Commission for Women for recognizing that and making women’s health a priority.”

Dr. Nevin was named among “Top Physician Leaders to Know” in 2015 and 2016 by Becker’s Hospital Review. She serves on the board of directors of the United Way of Delaware and the Delaware Community Foundation, and is a member of the Delaware Public Policy Institute, Delaware Business Roundtable Executive Committee and Delaware Chamber of Commerce Board of Governors. She is a founding member of the Wilmington Leaders Alliance and was named the 2016 Woman of Distinction by the Girl Scouts of the Chesapeake Bay.

“Always, I am grateful for the camaraderie and support of the women in my life, for my role models, my colleagues and for upcoming generations, including my own daughters,” said Dr. Nevin. “They all teach me something every day.” ●

Janice Nevin recognized as
‘Trendsetter’ by Philly Biz’s

Best of
Health Care
2017



Janice E. Nevin, M.D., MPH, president and CEO of Christiana Care Health System, was recognized by Philly Biz as a Trendsetter in the regional publication’s Best of Health Care 2017.

For her innovation in value-based care across the continuum to ensure optimal health outcomes and an exceptional health care experience, Dr. Nevin was named among 14 Philadelphia-area health care leaders who “continue to push the scope of care for local residents forward” and who are “on the forefront of medicine.” ●

Publishing

Edward Goldenberg, M.D., FACC, Elisabeth Bradley, MS, APRN, Denise Taylor, MS, RD, and **Janice Anderson, RN.** “Cardiovascular Disease in Delaware.” *Delaware Journal of Public Health.* March 2017.

Matthew K. Hoffman, M.D., MPH, et al. “Racial or Ethnic and Socioeconomic Inequalities in Adherence to National Dietary Guidance in a Large Cohort of US Pregnant Women.” *Journal of the Academy of Nutrition and Dietetics.* March 2017.

Matthew K. Hoffman, M.D., MPH, et al. “Racial/Ethnic Disparities in Measures of Self-reported Psychosocial States and Traits During Pregnancy.” *American Journal of Perinatology.* December 2016.

Margot Savoy, M.D., and Jamie Rapacciuolo, D.O. “The Role of Primary Care Physicians in Managing Chronic Disease.” *Delaware Journal of Public Health.* March 2017.

Alan Schwartz, Ph.D., and David York, Ph.D. “Strangers in a Strange Land: Is There a Role for Psychological Assessment in Integrated Care?” *Society for Personality Assessment Exchange.* Winter 2017.

Anthony Sciscione, D.O., et al. “Maternal Stress and Neonatal Anthropometry: The NICHD Fetal Growth Studies.” *American Journal of Obstetrics & Gynecology.* March 2017.

Presentations

At the Institute of Industrial & Systems Engineers (IISE) Annual Conference & Expo. Pittsburgh, Pennsylvania. May 2017.

- **Tze Chiam, Ph.D., MS.** “Optimization of Language Interpreters Staffing at a Large Healthcare System.”
- **Danielle L. Mosby, MPH, Elizabeth J. Brown, M.D., MSHP, Sarahfaye Hecker, MPH, MTA, Richard Caplan, Ph.D., Jacqueline Ortiz, MPhil, Claudia A. Reyes-**

Hull, MA, Adebayo Gbadebo, MBA, Tze Chiam, Ph.D., MS, et al. “Time-and-motion Study of Hospital Interpreters to Inform Optimization of Staffing.”

- **Muge Capan, Ph.D., Stephen Hoover, MS, Eric V. Jackson, M.D., MBA, David Paul, M.D., and Robert Locke, D.O., MPH.** “Integrating Nurse Preferences and Organizational Priorities into Nurse Schedules – Application to the Neonatal Intensive Care Unit.”
- At the Society of Academic Emergency Medicine Research Forum. Orlando. May 2017.
- **Ryan Arnold, M.D., MS, Muge Capan, Ph.D.,** et al. “Impact of Disease Severity Assessment on Performance of Heparin-Binding Protein for the Prediction of Septic Shock.”
 - **Muge Capan, Ph.D., Pan Wu, Ph.D., Ryan Arnold, M.D., MS,** et al. “Quantifying the Added Value of Endotoxin Activity Assay to Risk Stratify Emergency Department Sepsis Patients.”

• **Ryan Arnold, M.D., MS,** et al. “Ability of Heparin-Binding Protein (HBP) to Predict Clinical Deterioration in Emergency Department Sepsis Patients.”

• **Ryan Arnold, M.D., MS, Kristen E. Miller, Dr.PH., MSPH,** et al. “Outcomes Associated with the Compliance of Mandated Weight-Based Fluid Resuscitation of Septic Shock.”

• **Vanna Albert, M.D., John Powell, M.D., Kathryn Groner, M.D., Zugui Zhang, Ph.D., Kimberly Williams, MPH, Debra Marco, BSN, RN, CCRC, Ryan Arnold, M.D., MS,** et al. “72 Hour Return and Skin Infection.”

At the March 2017 Eastern Society for Pediatric Research Meeting in Philadelphia:

- **Ursula Guillen, M.D., Amy Mackley, MSN, RNC,** et al. “Randomized Controlled Trial Evaluating the Use of a Decision Aid for Parents Facing Extremely Premature Delivery.”

• **Stephen Hoover, MS, and Robert G. Locke, D.O., MPH.** “Predicting Pediatric Asthma-Related Admissions Using Public Air Quality Data.”

• **Kaitlin Kenaley, M.D., Elizabeth O'Donnell, D.O., Monica Castellano, MSPH, and Robert Locke, D.O., MPH.** “Improving Neonatal Resuscitation in the Delivery Room Using Video Recording.”

• **Kaitlin Kenaley, M.D., Neal Goldstein, Ph.D., David Paul, M.D., and Robert Locke, M.D., MPH.** “Impact of Timing of Antenatal Corticosteroid Treatment on Neonatal Outcomes.”

• **Lisa Strouss, Neal Goldstein, Ph.D., David Paul, M.D., and Robert Locke, D.O., MPH.** “Vascular Placental Pathology and the Relationship Between Hypertensive Disorders of Pregnancy and Neonatal Outcomes in Very Low Birth Weight Infants.”

• **Perri Donenfeld, M.D., Neal D. Goldstein, Ph.D., Stephen C. Eppes, M.D., Amy Mackley, MSN, RNC, and Deborah Tuttle, M.D.** “Temporal Trends and Predictors of Organisms Isolated From the Endotracheal Tubes of Intubated Neonates.”

Margaret R. Hines, M.D., and Howard B. Goldstein, D.O. “Risk of Needing Surgery for Vaginal Mesh Erosion in Patients with a Diagnosis Of Breast Cancer: A Retrospective Case Series.” *Society of Urodynamics, Female Pelvic Medicine & Urogenital Reconstruction Winter Meeting.* Scottsdale, Arizona. March 2017.

Margaret R. Hines, M.D., and Babak Vakili, M.D. Video. “Abdominal Cerclage Erosion Into the Bladder: Case Report and Description of Surgical Revision.” *Society of Gynecologic Surgeons Annual Meeting.* San Antonio. March 2017.

Muge Capan, Ph.D., Kristen Miller, Dr.PH., MSPH, Stephen Hoover, MS, Ryan Arnold, M.D., MS, et al. “If (Integrating Data, Design, and Technology): Print (“Value Institute Design Lab).” *iHealth 2017 Clinical Informatics Conference.* Philadelphia. May 2017.

At the Medicine-Pediatrics Program Directors Association Annual Meeting. Anaheim, California. April 2017:

- **John Donnelly, M.D.** Plenary co-speaker, “GME Finance Reform, the IOM and the Future of GME Funding: ‘How to Avoid the Hunger Games for Med-Peds Training.’”
- **Allen Friedland, M.D.** Plenary co-speaker. “Med- Peds 50 Years Looking Back.”
- **Allen Friedland, M.D.** Workshop co-presenter, “Cultivating Med-Peds Interest: Interest Group Development, Expansion and Innovation.”

Kristina Lauderback, MSS, MLSP, LCSW. “The Importance of Data and Community Health Programs.” LaSalle University Department of Social Work Undergraduate Studies. Philadelphia. March 2017.

Kristen Miller, Dr.PH., MSPH, et al. “Achieving Expert Consensus on Prenatal Counseling for Congenital Pulmonary Airway Malformation and Congenital Diaphragmatic Hernia Using the Delphi Method.” American Pediatric Surgical Association. Hollywood, Florida. May 2017.

Stephen A. Pearlman M.D., MSHQS. At the American Academy of Pediatrics Perinatal Strategies meeting in Scottsdale, Arizona, March 2017.

- A workshop: “Coding for the Neonatologist.”
- A seminar: “Safe Communication in the NICU.”

Denise Taylor, MS, RD, Elisabeth Bradley, MS, APRN, Dominique Comer, Pharm.D, MS, Adebayo Gbadebo, Zugui Zhang, Ph.D., Claudine Jurkowitz, M.D., MPH, Edward Goldenberg, M.D., FACC, et al. “Helping Inpatient Tobacco Users Stay Quit After Discharge.” The Society of Behavioral Medicine Annual Meeting. San Diego. March 2017.

Appointments

The Professional Advancement Council congratulates the following new RN III nurses:

Janelle Thomas, MSN, RN-BC, CEN, Middletown ED; **Nicole DiBattista, BSN, RN, CEN,** Wilmington ED.

Awards & Achievements

Stephanie Jean, M.D., FACOG, is now a Fellow of the American Board of Obstetrics and Gynecology with subspecialty certification in Gynecologic Oncology.

At the Delaware HIV Consortium’s annual fundraiser – the 13th annual Wow Awards Celebration – slated May 12 at Hockessin Memorial Hall, Hockessin, two honorees from Christiana Care will be among those who will receive awards:

- **Kelly Cantwell-McNelis, Pharm.D., AAHIVP,** clinical pharmacy specialist with the HIV Community Program, will receive the Consortium’s annual Ryan White Award.
- **Susan Wilson, MSN, ACRN,** HIV nurse coordinator at the Christiana Care HIV Program-Wellness Clinic in Georgetown, will receive the Sr. Dolores Macklin Guardian Angel Award.

The celebration is a source of funding that allows the consortium to continue its statewide services to people with HIV/AIDS.

Nora Katurakes, RN, MSN, OCN, Christiana Care’s manager of Community Health Outreach & Education, received the Finer Womanhood Award from the Epsilon Rho Zeta Chapter of Zeta Phi Beta Sorority, Inc., at the sorority’s 11th Annual Katherine B. Ross High Tea in March. ●

Alainna Ramlochan named nurse manager, 4A Pediatrics



Alainna Ramlochan, MSN, RN-BC, has been appointed nurse manager of Pediatrics, patient care unit 4A, Christiana Hospital.

Ramlochan received her Master of Science in nursing leadership and education from Wilmington University. She earned her Bachelor of Science in nursing from the University of Delaware, where she is a clinical instructor in nursing and member of the adjunct faculty.

She began her career with Christiana Care as a student nurse extern in the MICU stepdown unit in 2005 and then worked as a registered nurse on the Stroke Treatment and Recovery Unit.

She has been assigned as a nurse on 4A since February 2012 and has served as interim nurse manager since December 2016. ●

May 11

SKIN CANCER EDUCATION AWARENESS AND SCREENINGS FOR QUALIFIED PARTICIPANTS

5:30 – 7:45 p.m.

Helen F. Graham Cancer Center & Research Institute

The educational programs include information on how to conduct a self exam, risk factors for skin cancer and how to protect yourself and your family.

Participants may attend a screening session if any of the following apply:

- You have not attended a free skin cancer screening before.
- You have never had a skin cancer screening by a physician or dermatologist.
- You do not have health insurance.
- You have a family history of skin cancer, or if you have a sore that won't heal.

Call to schedule an appointment at 302-623-CARE (2273). Pre-registration is required.

May 15

ACCEL COMMUNITY RESEARCH EXCHANGE

7 a.m. – 4 p.m.

**University of Delaware
Clayton Hall Conference Center**

Conference features include:

- Invited guest speakers — members of the 2014 Team Science Award winners from the Association for Clinical and Translational Science — including Bowen Chung, M.D., MS, associate professor-in-residence, Department of Psychiatry and Biobehavioral Sciences, Harbor-UCLA Medical Center; and Loretta Jones, MA, founder and CEO of Healthy African-American Families.
- A panel discussion on behavioral health will include local experts Rita M. Landgraf, Department of Health and Social Services/ University of Delaware; and Gerard Gallucci, M.D., MHS, Delaware Department of Health and Social Services; and Jim Martin, CPSS Council Chairperson, Governor's Advisory Council of Division of Substance Abuse and Mental Health.
- Five afternoon workshops.

Contact accelceo@de-ctr.org or 302-320-6796 with questions.

May 17

87TH ANNUAL MEETING OF THE DELAWARE ACADEMY OF MEDICINE / DELAWARE PUBLIC HEALTH ASSOCIATION

5:30 – 9:30 p.m.

Dupont Country Club

Keynote Speaker: Victor Dzau, M.D., President, National Academy of Medicine.
For additional information and to register: www.delamed.org/2017.

May 24

INJURY PREVENTION 5K RUN/WALK & FUN RUN FOR CHILDREN

Registration opens at 5:30 p.m. Events begin at 6:30.

Christiana Hospital campus. Start/finish near the Emergency Department, Parking Lot D.

Cost: \$20 before May 24, \$25 day of race, \$5 for the Children's Fun Run.

Awards: Presented to top overall male and female winners, top three runners in 10-year categories and top walkers.

Send registration, with check payable to Christiana Care, to Christiana Care Health System-Trauma Program, Attn: Injury Prevention 5K, 4755 Ogletown-Stanton Rd., Suite 1320, Newark, DE 19718. Or register online at www.active.com/running/ (key word Injury). Call 302-733-4280 for more information. All proceeds benefit the Christiana Care Injury Prevention Programs and Delaware ThinkFirst.

May 25

CHRISTIANA CARE GOLF CLASSIC

Registration opens: 9 a.m.

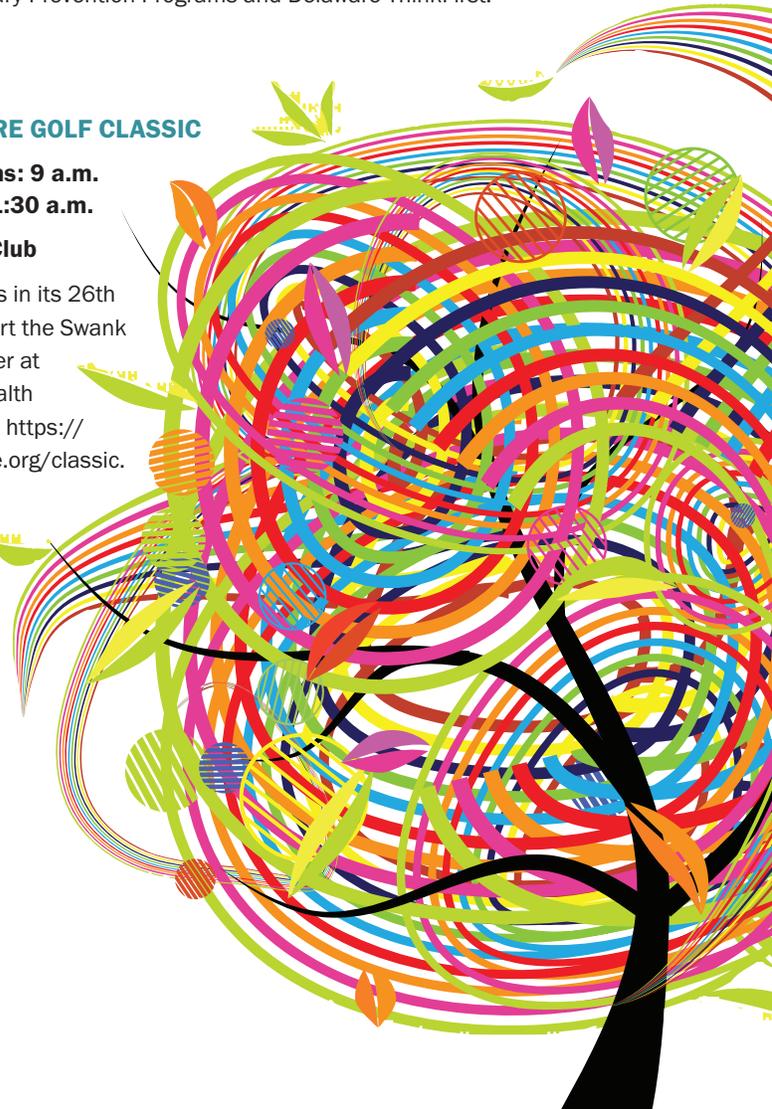
Shotgun start: 11:30 a.m.

DuPont Country Club

This annual event is in its 26th year and will support the Swank Memory Care Center at Christiana Care Health System. Register at <https://www.christianacare.org/classic>.



**CHRISTIANA CARE
GOLF CLASSIC**



June 1

NOMINATIONS DUE FOR MEDICAL-DENTAL STAFF 'COMMENDATION FOR EXCELLENCE'

The Commendation for Excellence honors current and former members of the Medical-Dental Staff who have made exceptional contributions to the community through their clinical, scholarly, educational or humanitarian activities. Medical-Dental Staff members can nominate an eligible physician or dentist for the award. Nominations require:

- A letter outlining the reasons for the nomination.
- Qualifications of the nominee.
- The nominee's curriculum vitae.

Send nominations by June 1 via e-mail to Cheryl Klecko at cklecko@christianacare.org.

June 12

VALUE INSTITUTE 2017 SPRING SYMPOSIUM "CELEBRATING FIVE YEARS OF SUCCESS"

8 a.m. – noon

John H. Ammon Medical Education Center

Keynote speaker will be Brent C. James, M.D., MStat, chief quality officer and executive director, Institute for Health Care Delivery, Intermountain Healthcare.

June 26

11TH ANNUAL CONCEPTS IN RESPIRATORY CRITICAL CARE CONFERENCE

7 a.m. – 3 p.m.

John H. Ammon Medical Education Center

This conference will provide respiratory care practitioners and other health care professionals continuing education on cutting edge critical care topics.

Register online at <https://www.eventbrite.com/e/11th-annual-concepts-in-respiratory-critical-care-conference-tickets-31751798484?aff=es2>. Contact Jmixell@christianacare.org with questions. ●

Learn about upcoming events at Christiana Care and register online at <https://events.christianacare.org/>.

Professional Events

Classes & Seminars

Community Events

Support Groups

Best practice review

CORRIDOR CLUTTER

Q. WHY IS STORAGE PERMITTED IN SOME CORRIDORS AND NOT OTHERS?

- A. All corridors are not the same; they have different classifications. Those classified as Egress Corridors are required to be clutter free for fire rescue and prompt escape during evacuation. Not having to wheel a patient around equipment in the corridor during an emergency has proven to save lives.

Q. WHAT DOES EGRESS MEAN?

- A. Egress is a continuous and unobstructed path of exit from a place inside the hospital to a place of safety outside or to an area with access to the outside.

Q. WHAT IS PERMITTED IN A CORRIDOR?

- A. Equipment that is IN USE may be kept in the corridor. Examples of equipment permitted in the corridor:
- Code carts (code carts are always considered IN USE).
 - Isolation carts associated with a specific patient.
 - EMAR carts IN USE.
 - Equipment that is IN USE and has not been idle for more than 30 minutes.

Q. DOES THE IN USE EQUIPMENT LOCATED IN THE CORRIDOR NEED TO BE MOVED IN THE EVENT OF A FIRE?

- A. Yes. Each department's Fire & Safety plans must address how and where the equipment will be relocated in the event of an emergency.

Q. DO THE MEDICAL OFFICE PRACTICES AND OUTPATIENT SERVICES NEED TO KEEP THE EGRESS CLEAR OF CLUTTER?

- A. Yes. The Medical Office Practices and Outpatient Services must also keep the Egress clear and unobstructed.

Q. ARE THERE ANY SUGGESTIONS TO HELP MY DEPARTMENT WITH COMPLIANCE?

- A.
- Do a visual inspection of your area; if it looks cluttered, it probably is.
 - Review your equipment, remove anything that is not IN USE.
 - Review your department's Fire & Safety plans.
 - Do not obstruct access to fire extinguishers, pull stations, and medical gas shutoff valves. ●

If you have questions about this Best Practice Review, please contact the Content Expert, Safety & Emergency Management: 733-3914, or call the Safety Hotline: dial 7233 (SAFE) from within Christiana or Wilmington hospitals, or 623-7233 from outside.

THERAPEUTIC NOTES

Gabapentin for multi-modal pain management

Vivek Kataria, Pharm.D

Pain is a multifactorial sensation that combines emotion, perception, and previous experiences to affect an individual's response to nociceptive stimuli.¹ Acute postoperative pain is a challenge that many providers must confront, as inadequate management may result in chronic persistent pain, psychological disturbances, and socioeconomic consequences.¹ Its management therefore requires an innovative approach to obtain an optimal outcome after surgery. Multimodal pain management is an alternative approach to treating postoperative pain, through the administration of two or more analgesics with different mechanisms of action.² This strategy maximizes the effectiveness of individual agents through a synergistic effect and therefore may reduce the required dose of any given medication when compared to monotherapy alone.² Several guidelines have endorsed its use, as randomized trials have demonstrated superior pain management and decreased opioid consumption compared to monotherapy.² Gabapentin, an anticonvulsant is most commonly used for the treatment of neuropathic pain; however it may have an additional analgesic utility when used in the perioperative setting.

Gabapentin is structurally related to the inhibitory neurotransmitter gamma-aminobutyric acid (GABA) and therefore primarily exerts its effect within the central nervous system (CNS).¹ Although its mechanism related to analgesia is not well understood, it's believed to reduce the release of excitatory neurotransmitters, resulting in neuronal hypoactivity.¹ Gabapentin is generally well tolerated, with the most common side effects being drowsiness, dizziness, weight gain, and nausea.¹

Over 20 randomized controlled trials have evaluated the administration of gabapentin as a part of a postoperative multimodal

pain regimen.¹ Philip Peng and colleagues conducted a meta-analysis of 18 trials, which included 1,181 patients that underwent surgery and received gabapentin in combination with other treatments.³ Twelve studies dosed gabapentin at 1,200 mg daily, whereas the remainder used doses as low as 300 mg daily.³ Of note, these primarily administered gabapentin as a single dose within one to two hours of surgery.³ Overall, gabapentin was found to reduce the total analgesic consumption by 35% and postoperative pain at rest by 27% over the first 24 hours following surgery.³ Despite these beneficial findings, gabapentin was most prominently associated with increased sedation and dizziness.³

Currently, the American Society of Anesthesiologists (ASA), the American Pain Society (APS), and the American Society for Pain Management Nursing (ASPMN) support the use of a multimodal analgesia approach in managing postoperative pain.² Treatment may consist of an intravenous opioid in combination with acetaminophen, nonsteroidal antiinflammatory drugs (NSAIDs), ketamine, or an anticonvulsant (such as gabapentin).⁴ Regimens should be individualized for each patient, with considerations including side effect profile and pre-existing medical conditions.⁴ Gabapentin, dosed at 300mg -1,200 mg one to two hours prior to surgery should be considered as an adjunct to traditional postoperative pain management regimens. Nonetheless, it is imperative that we evaluate the risks as well since gabapentin is not a benign agent and is associated with several side effects such as CNS depression, somnolence, and dizziness. Those side effects are especially prominent in vulnerable populations such as geriatrics, and patients with hepatic or renal impairment where a lower dose may be appropriate. ●

References

1. Kong V, Irwin M. Gabapentin: A Multimodal Perioperative Drug? *British Journal of Anaesthesia*. 2007;99(6):775-86.
2. Pasero C, Stannard D. The Role of Intravenous Acetaminophen in Acute Pain Management. *Pain Management Nursing*. 2012;13(2):107-24.
3. Peng P, Wijeyesundera D, Li C. Use of Gabapentin for Perioperative Pain Control. *Pain Res Management*. 2007;12(2):85-92.
4. Buvanendran A. Multimodal Analgesia for Perioperative Pain Management. *Current Opinion in Anaesthesiology*. 2009;22(5):588-93.

CHRISTIANA CARE COMPLIANCE HOTLINE



Christiana Care's Compliance Hotline can be used to report a violation of any regulation, law or legal requirement as it relates to billing or documentation, 24 hours a day, 7 days a week. Callers may remain anonymous. The toll-free number is: 877-REPORT-0 (877-737-6780).

✓ To learn more about Corporate Compliance, review the Corporate Compliance Policy online or contact Christine Babenko at 302-623-4693.

FORMULARY UPDATE | MARCH 2017

FORMULARY ADDITIONS

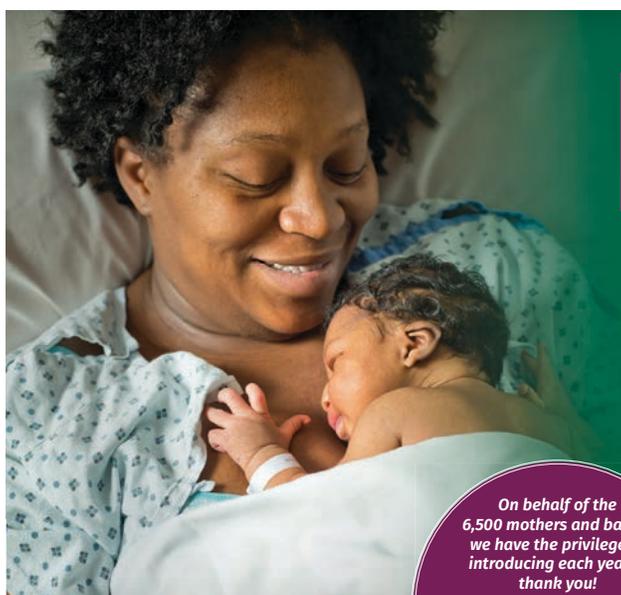
Medication – Generic/Brand Name	Strength/Size	Use/Indication	Comment
Pembrolizumab Injection/Keytruda	25 mg/mL 4 mL vial	Treatment of: <ul style="list-style-type: none"> • Non-small cell lung cancer. • Melanoma. • Urothelial cancer. • Squamous cell head & neck cancer. • Relapsed/Refractory Hodgkin’s lymphoma. 	<ul style="list-style-type: none"> • Only hematologists and oncologists are permitted to prescribe. • Administration limited to the Helen F. Graham Cancer Center.
Valganciclovir Solution	50 mg/mL	Prevention and treatment of cytomegalovirus infection.	Line-item extension.

CHRISTIANA CARE MEDICATION POLICY CHANGE

Medication Administration-Transitional Neurology Unit (TNU) & Epilepsy Monitoring Unit (EMU)	The Transitional Neurology Unit and the Epilepsy Monitoring Unit are designated Level C units for the purpose of medication administration.
Isosorbide Dinitrate (e.g. Isordil) Administration Times	A change to the standard administration times for isosorbide dinitrate has been approved to allow for a nitrate-free interval during a 24-hour period. The new administration times are: <ul style="list-style-type: none"> • Isosorbide dinitrate immediate-release oral dosage forms BID 0800 & 1300 • Isosorbide dinitrate immediate-release oral dosage forms TID 0800, 1300 & 1800 • Isosorbide dinitrate sustained-release oral dosage forms BID 0800 & 1300

FORMULARY DELETIONS

Clorazepate 15 mg Tablet/Tranxene	The 3.75 mg tablet remains available on the Christiana Care Formulary.
Menomune Vaccine	Manufacturer will be discontinuing production. Menactra and Menveo vaccines remain available on the Christiana Care Formulary.
Prempro Tablets	The component medications conjugated estrogens and medroxyprogesterone acetate remain available on the Christiana Care Formulary.
Povidone Iodine 10% Ointment, 30 gm Tube	This product has been replaced with unit-of-use packets.



Life-changing moments happen every day at Christiana Care, and they happen because of you.

Through your generosity as our philanthropic partners, including our board, trustees, grateful patients, foundations, corporations, and others, you have made a measurable difference in our neighbors’ lives each and every day — on our hospital campuses, in doctors’ offices, labs and treatment facilities, in homes and through our transformational community outreach programs. From high-tech diagnostic and treatment equipment to recruitment of the most qualified clinical experts, your support positions us as one of the nation’s leading health care systems.

On behalf of the 6,500 mothers and babies we have the privilege of introducing each year — thank you!





CHRISTIANA CARE
HEALTH SYSTEM

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Christiana Care Transplant Program and Gift of Life Donor Program reprise memorial event

Christiana Care's President and CEO Janice E. Nevin, M.D., MPH, and Gift of Life Donor Program CEO Howard Nathan reunited again to raise the Donate Life flag at Christiana Hospital, recognizing April as Donate Life Month.

After the flag ceremony and words memorializing all of the organ and tissue donors over the past year, the patients, donors, loved ones, physicians and surgeons gathered at a special event in the hospital cafeteria to unveil "Threads of Love," a quilt made from squares designed by family members in memory of their loved ones.

Together, Gift of Life and Christiana Care also recognize and remain grateful for the hospital staff who supported and cared for these donors and their families.

Nationally, more than 123,000 people are waiting for organ transplants and a second chance at life.

The 42-year-old Gift of Life Donor Program is Christiana Care's partner in helping to optimize organ and tissue donations and distribution in our community. ●

In 2016 Christiana Care's Transplant Program:

- ✓ *Helped 35 men, women and children share a lifesaving gift of a heart, lung, liver, pancreas or kidney.*
- ✓ *Another 58 individuals donated tissue, such as bone, skin, corneas and heart valves, with the potential to save or enhance the lives of more than 3,000 patients.*



Christiana Care Transplant Program leaders joined with organ recipients, donors and officials from the Gift of Life Donor Program to help hoist the Donate Life flag and unveil a memorial quilt April 12 at Christiana Hospital.