

FOCUS

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Christiana Care Health System leaders and staff celebrate after hearing the news that Christiana Care is the first hospital in Delaware to be redesignated as a Magnet organization for nursing excellence by the American Nurses Credentialing Center.

Christiana Care Health System has earned redesignation as a Magnet organization for nursing excellence from the American Nurses Credentialing Center (ANCC), the preeminent recognition for hospital systems in the United States. Only 7 percent of the nation's hospitals hold the prestigious Magnet designation. Christiana Care was first in Delaware to achieve Magnet status in 2010 and is now first in the state to attain designation for the second consecutive time, demonstrating sustained excellence in nursing practice and adherence to national standards.

"It is my highest honor and privilege to notify you that, based on review of all of your submitted documentation and findings from your recent site visit, the Commission on Magnet has unanimously voted to credential Christiana Care Health System in Wilmington, Del., as a Magnet organization," said Brian Selig, MHA, BSN, RN, CEN, NEA-BC, of the Magnet Commission Executive Committee, via phone call. And with those words, cheers erupted among hundreds of clinical and professional staff



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“THIS HONOR VALIDATES THE TREMENDOUS PROFESSIONALISM DEMONSTRATED DAILY BY CHRISTIANA CARE’S NURSES AND PROVIDES INDEPENDENT EVIDENCE THAT WE CONTINUE TO RAISE THE BAR IN NURSING EXCELLENCE FOR OUR COMMUNITY.”

DIANE TALAREK, MA, BSN, RN, NE-BC
SENIOR VICE PRESIDENT, PATIENT CARE SERVICES,
AND CHIEF NURSING OFFICER

and leadership who heard the call live in conference rooms at Christiana and Wilmington hospitals and on patient units through a video simulcast.

“The achievement of Magnet redesignation is yet another indicator to the neighbors who daily put their trust in Christiana Care that Delaware’s leading health system is recognized nationally among the best for clinical excellence and adherence to national standards,” said Janice E. Nevin, M.D., MPH, president and chief executive officer of Christiana Care. “Our talented, dedicated and highly accomplished nursing team is truly deserving of this designation, which recognizes the excellent work they do every day as they partner with physicians and staff — and with our patients and their families — to provide respectful, innovative and expert care in The Christiana Care Way.”

Research shows clear benefits to communities served by Magnet hospitals, including improved quality and safety of patient care, greater patient and family satisfaction, and the recruitment and retention of top nursing talent. Magnet recognition is maintained for four years. During that period, the ANCC monitors facilities to ensure that high standards of care are sustained.

“Our second consecutive Magnet designation is a true team accomplishment for Christiana Care and a national recognition of the partnerships among nurses, physicians and the entire health care team on behalf of the neighbors we serve,” said Diane Talarek, MA, BSN, RN, NE-BC, senior vice president, Patient Care Services, and chief nursing officer. “This honor validates the tremendous professionalism demonstrated daily by Christiana Care’s nurses and provides independent evidence that we continue to raise the bar in nursing excellence for our community.”

Achieving and maintaining Magnet designation is a rigorous process. Applicants undergo an evaluation that includes extensive documentation and a multi-day site visit by Magnet nurse appraisers to review nursing services. Redesignation requires a unanimous vote by the appraisers.

“Magnet is an ongoing journey of excellence,” said Janet Cunningham, MHA, BSN, RN, NE-BC, CENP, vice president for Professional Excellence, associate chief nursing officer and Magnet program director for Christiana Care’s redesignation process. “Much



more than an award on a shelf, Magnet is something our more than 2,500 professional nurses and nursing leaders demonstrate every day through their commitment to providing safe, quality care, as well as to advancing the profession through continuing education, preparing the next generation of novice nurses and serving in leadership roles in both professional and community organizations. It is also a tremendous example of nurses partnering with physicians and staff from every service line throughout our health system to deliver value-driven care."

During the call, Selig cited several exemplars noted by ANCC in Christiana Care's Magnet appraisal. They included "exemplary data" regarding nurse satisfaction and engagement, an impressive number of nurses enrolled in BSN, MSN and doctorate programs, and a robust shared-governance structure giving clinical nurses a very strong voice in how care is managed.

"It is obvious to us that Christiana Care nurses are highly motivated, clearly able to articulate their role in quality improvement, and deliver the highest level of care and compassion to patients and their families," he said.

After the announcement, Samantha Ann K. Davis, MSN, RN-BC, nurse manager for Ortho-Neuro Trauma, was excited to get back to her unit to share the news: "This is about them, and I want to let them understand that everything they do every day impacts why we are Magnet."

It was a big moment for Oji Gibson, BSN, RN-BC, assistant nurse manager on 2C: "It's thrilling to see staff come together for this validation of what we do every day toward patient safety and quality of care. It's all about the teamwork."

Nancy Meier, BSN, RN-BC, RN III, of the Center for Advanced Joint Replacement at Wilmington, fully appreciates the ongoing journey and commitment involved in the redesignation announcement. She has been a nurse for 35 years and was part of the 2010 Magnet ambassador team.

"This news is tremendously exciting, but we can't rest on our laurels," Meier said. "As nurses, we always need to think creatively. Shared decision making, which is such an important part of Magnet, makes us all work better and safer to improve outcomes for our patients. Magnet empowers us, as nurses, to be engaged in the whole process."

Achieving Magnet redesignation is the "accomplishment of a dream" for Marsha Babb, MS, BSN, CNOR, RN IV, from the Cardiovascular Operating Room, one of Christiana Care's many Magnet ambassadors who worked with nurses to prepare for the redesignation process. A long-time Christiana Care nurse, Babb has been intricately involved in the Magnet journey from the start, particularly in mentoring nurses as an RN IV.

Joining Babb and hundreds of other staff for the big announcement was Stephanie Daneshgar, BSN, RN II, CNOR, also of the Cardiovascular OR and a Magnet ambassador, working her way up the clinical ladder. Babb mentored Daneshgar, who, in turn, will soon begin mentoring new Magnet nurses as she works toward RN III designation.

"Achieving Magnet is very satisfying because I was involved in the process this time — on council, participating in projects, and through mentoring," said Daneshgar. "I was a part of this!" ●



Partnering to create a restful environment for our patients

By Robert Mulrooney, Vice President, Facilities and Services



For many of our patients, getting a good night's sleep can be the tipping point that decides whether or not they have a great experience at Christiana Care.

It's not surprising. When we're sick, or when we're feeling bad, we naturally want to sleep. Sleep is an opportunity for our body and mind to recover and heal.

And when we sleep poorly, we usually feel worse — and maybe a little grouchy.

Hospitals are not naturally the best environments for getting a good night's sleep. They're full of noisy equipment and critically important round-the-clock activity. In the darkest hours of the night, new patients are admitted, patients are rounded on, staff handoffs occur, visitors come and go, and supplies are put in place for the next day. For anyone used to sleeping in a quiet home, any one of these activities is likely to make it hard to sleep.

But as respectful, expert, caring partners in the health of our neighbors, we understand the value of a good night's sleep for each of our patients, and that's why we're focused on doing the very best we can to make the hospital a peaceful, restful environment. We're tackling the causes of noise at night one-by-one, and our colleagues across the health system are innovating and collaborating to make a difference.

I and my colleague and co-chair of the Patient Environment Committee Shawn R. Smith, MBA, vice president, patient experience, have been privileged to work closely with nurses, physicians and essential services professionals to gain an understanding of the challenges we face around noise at night, and to begin to overcome them. Many of the most effective solutions have been the results of suggestions made by staff who work the evening and midnight shift. We've modified noisy carts, hampers and pneumatic-tube stations to make them quieter. We've reduced overhead paging at night. Staff are dimming lights and closing doors to patient

rooms, where appropriate, to create a quieter environment. We've posted messages to patients through the GetWellNetwork and in-room intercom announcements, and we've added visitor messages to the elevator doors to help everyone remember when quiet hours begin.

One of the most rewarding initiatives that we've undertaken is the Quiet at Night Challenge, in which we invite the patient care units and essential services to compete in improving their quiet scores. The competition has fostered creativity among leaders and staff. For example, 5C's idea to use the in-room intercom system to gently remind patients and visitors about quiet hours led to the development of multilingual recordings that we are in the process of making available to many other patient care units.

The third Quiet at Night Challenge is under way this month, and I look forward to seeing how my colleagues work together in new ways to make our hospitals peaceful, restful environments at night. We can't completely eliminate all noise at night, but we know that changing our behavior can make an enormous difference that our patients value. We can dramatically reduce staff noise by reminding each other to speak quietly at night, and by kindly coaching each other when our tasks can be accomplished less noisily. We can be supportive to patients and visitors by reminding them to silence phones and devices during quiet hours, and to use headphones when using the GetWellNetwork at night. Additional education and resources, including an online form that staff can use to request help with noise reduction, are available on the Advancing the Way intranet website at <https://way.christianacare.org/exceptional-experience/quiet-time/>.

I'd like to thank everyone who has helped to make our hospitals quieter at night. Congratulations to the nurses, physicians and essential services staff who helped to make patient care units 3D, 2E, 6B, 6E, 3/3C/4B and 4D winners of the second Quiet at Night Challenge.

Ultimately, the people who benefit the most from these efforts are our patients, and we are privileged to partner with them, using our creativity and determination to ensure that their time with us is the best experience that it can be. ●



U.S. News & World Report ranks Christiana Care Health System one of nation's Best Hospitals

Christiana Care Health System has been ranked one of the nation's best hospitals by U.S. News & World Report.

The publication ranks Christiana Care No. 1 in Delaware and No. 3 among the 96 hospitals in the Philadelphia region.

In its annual Best Hospital edition, the publication ranks Christiana Care's Department of Obstetrics and Gynecology, Christiana Care's Section of Endocrinology and Metabolic Diseases and Christiana Care's Section of Pulmonary and Critical Care Medicine in the top 50 in those specialties among hospitals nationwide.

Christiana Care is one of only 137 hospitals — 3 percent of the nearly 5,000 U.S. hospitals — that are ranked in at least one specialty for this year's U.S. News' Best Hospital list.

"This honor is a very special recognition that belongs to our employees, our physician partners, and our patient and family advisers," said Janice E. Nevin, M.D., MPH, Christiana Care president and CEO. "This award is a reflection of our steadfast commitment to advance the Christiana Care Way by helping the people we are privileged to serve achieve optimal health and an exceptional experience through the value-driven care we provide."

The publication evaluates hospitals in 16 adult specialties. In most specialties, it ranks the nation's top 50 hospitals and other high-performing hospitals.

Among the nation's hospitals, Christiana Care ranked:

- 26th in the specialty of diabetes a endocrinology.

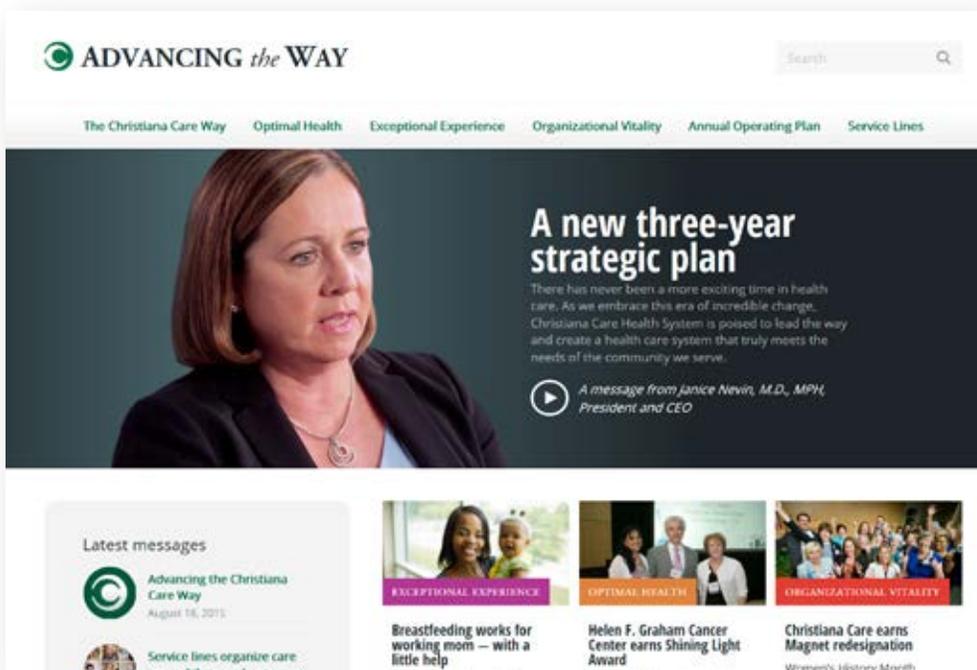
- 34th in the specialty of gynecology.
- 39th in the specialty of pulmonology.

U.S. News also rated Christiana Care as a high-performing hospital in the following eight specialties:

- Gastroenterology and gastrointestinal surgery.
- Geriatrics.
- Nephrology.
- Neurology and neurosurgery.
- Orthopaedics.
- Urology.

According to U.S. News, objective data stands behind the rankings in most specialties — survival rates, patient safety, volume of procedures, nursing care and other information. The publication also uses a reputation score from a national physician survey. ●

New intranet site: Advancing The Christiana Care Way



A new intranet site launched in September, serving up articles, videos and messages from Christiana Care leaders and colleagues aimed at advancing The Christiana Care Way.

Always at your fingertips, the more friendly "Advancing The Christiana Care Way" website demonstrates how the work that we do every day supports our strategic aims, and provides essential information and context to help everyone at Christiana Care understand and deliver on the promise of The Christiana Care Way. Find the new website on the green navigation bar at the top of the intranet portals, or visit from any logged-in PC or mobile device at <https://way.christianacare.org>. Add it to your bookmarks or favorites today! ●

Obstetrics triage area expands and upgrades to help patients achieve optimal health and have an exceptional care experience



Mothers-to-be are benefitting from significant improvements in Obstetrics (OB) Triage at Christiana Hospital, improvements that make women's health care more convenient, efficient and effective for patients and their families.

OB Triage, which provides 24/7 emergency assessment and care for pregnant women and women with gynecologic problems, is now larger and more welcoming, after a newly completed renovation of the waiting area and patient treatment areas and the addition of on-site ultrasound testing. Christiana Care Health System is one of the highest-volume delivering hospitals in the U.S., with more than 6,000 babies born here each year.

"Triage plays a critical role as a safety net for pregnant women who are concerned about fetal movement, signs of labor and many other concerns," said Sherry A. Monson, MSN, MBA, RN, vice president of Women's and Children's Services. "The new Triage area strengthens our ability to help patients achieve optimal health for themselves and their babies and have an exceptional care experience."

At a ribbon-cutting for OB Triage, Gary Ferguson, chief operating officer, acknowledged the efforts of Christiana Care staff who formed a value-improvement team to gather input from patients, families and staff and translated that feedback into expert care that patients value. "You are incredible champions for improving what we do for our patients," Ferguson said.

To identify ways to make care more efficient, the value-improvement team used Lean Six Sigma processes that emphasized setting clear objectives, collecting data and analyzing results to streamline the delivery of services.

"OB Triage is making our vision of seamless, expert care a reality, from the patient arriving at the hospital through the postpartum period," said Richard J. Derman, M.D., MPH, FACOG, the Marie E. Pinizzotto, M.D., Endowed Chair of Obstetrics and Gynecology.

The experience starts with a new waiting room, designed with soothing, muted tones and outfitted with a wall of frosted glass for privacy. Wider chairs comfortably accommodate women in later stages of pregnancy. Patient flow has improved with the addition of five new triage rooms — for a total of 15 — and a more efficient process for assessments and discharges. A multi-disciplinary team now interacts together with patients.

"Previously, the patient was evaluated multiple times, with multiple people asking the same questions," said Dawn Johnson, BSN, RNC-OB, nurse manager. "With synchronized assessments and discharges, everyone goes into the room at the same time."

The most dramatic improvement is the addition of a dedicated triage ultrasound suite, which has greatly reduced wait time for diagnostic testing. Previously, staff called for escorts to transport patients to a central test center and back, a process that could take as long as two hours.

The new arrangement is convenient and enhances care and the patient experience, said Maria Soler, M.D., MPH, MBA, medical director for OB Triage. "I can communicate directly with the ultrasound technician and say 'this is what I am looking for,'" she said. "We get our results much more quickly, which is much better for our patients."

Patients are noticing, said Dr. Soler. "We are receiving compliments about the look of the Triage waiting room and treatment areas, and most of all about how quickly patients are seen and treated. Our new patient flow is already making a difference for our patients." ●

Zero Harm Awards earned by Transitional Care Unit and Patient Care Unit 5D

Two patient care units at Christiana Care received Zero Harm Awards for the achievement of zero patient harm for 12 consecutive months in a specific Christiana Care Focus on Excellence patient safety harm measure.

The Transitional Care Unit (TCU) at Christiana Hospital has achieved a full year without a central-line bloodstream infection (CLABSI). The medical unit 5D at Christiana Hospital was honored for achieving a full year without a major injury due to a patient fall.

“Congratulations to the Transitional Care Team for achieving 365 days CLABSI-free,” said Kimberly Talley, MSN, RN, CRNP CNML-BC, FABC, vice president, Patient Care Services, Surgical. “This is a monumental achievement and the result of hard work, commitment and dedication.

“Receiving the Zero Harm Award is a remarkable achievement for both the 5D and TCU nurses, physicians, staff, and leaders,” said Joanne McAuliffe, DNP, MSN/BA, BSN, RN, OCN, NEA-BC, vice president, Patient Care Services, Wilmington Hospital. “Quality outcomes and improvements in clinical practice are the direct result of vigilant adherence to evidence-based interventions. Sustainment of those improvements is the bedrock of Advancing The Christiana Care Way.”

The Zero Harm Award may be presented to patient care units, clinical departments or specialties, or other teams at Christiana Care’s Safety First Committee meeting and prominently displayed on the Quality and Safety intranet site. Awardees also are recognized at Christiana Care’s annual Focus on Excellence Award Ceremony. ●

“Quality outcomes and improvements in clinical practice are the direct result of vigilant adherence to evidence-based interventions”

JOANNE MCAULIFFE, DNP
VICE PRESIDENT,
PATIENT CARE SERVICES



The Transitional Care Unit at Christiana Hospital has achieved 12 consecutive months without a central-line bloodstream infection.



Patient Care Unit 5D earned a Zero Harm Award for achieving 12 consecutive months without a major injury from a patient fall.

Sold-out BioBreakfast attracts 170 Delaware industry experts for cutting edge bioscience news

A diverse audience representing all facets of the state's bioscience industry attended the Delaware BioBreakfast to network and hear about major research initiatives and other work under way at Christiana Care Health System.

The BioBreakfast, co-hosted by the Value Institute and Delaware BioScience Association, has been held annually at Christiana Care for nearly a decade, growing from a small roundtable discussion for Delaware's life science and biotechnical communities to the sold-out crowd of 170 attendees at this year's event at the John H. Ammon Medical Education Center.

This year's featured speakers were William S. Weintraub, M.D., MACC, FAHA, FESC, John H. Ammon Chair of Cardiology and director of the Center for Outcomes Research at the Value Institute; Heather Bittner Fagan, M.D., MPH, FAAFP, associate vice chair of Research, Family and Community Medicine and a Value Institute scholar; and Marci Drees, M.D., MS, FACP, DTMH, infection prevention officer and hospital epidemiologist, and Value Institute scholar.

Weintraub said, highlighting some of the accomplishments of the program since it began in 2013.

Delaware CTR-ACCEL has solicited, reviewed and funded four big-data grant projects from seven proposals. Two of the funded projects are from Christiana Care, including one looking at large data sets to study and improve care for patients in Delaware with chronic kidney disease. The program has solicited and funded 10 pilot project grants — including four from Christiana Care, three from Nemours, two from the University of Delaware and one from MUSC — to help test research ideas for a year and provide application assistance to investigators with projects that are strong contenders for future NIH funding. Three such projects from the grant's first fiscal year already have been renewed for a second year of funding. The program also has funded 18 Mentored Research Development Awards to allow investigators to spend at least 20 percent of their work time over a six-month period on a research proposal.

HEATHER BITTNER FAGAN, M.D.



MARCI DREES, M.D.



Weintraub and Bittner Fagan spoke about progress being made to advance clinical and translational research through the Delaware CTR-ACCEL program, while Drees talked about the responsibilities of a hospital epidemiologist.

Christiana Care and its CTR-ACCEL partners — the University of Delaware, Nemours/Alfred I. duPont Hospital for Children and the Medical University of South Carolina (MUSC) — are midway through a five-year, \$20 million grant from the National Institutes of Health that was supplemented by \$5 million from the state of Delaware and \$3.3 million from the partnering institutions.

“Our colleagues at major universities like Harvard, Stanford and Johns Hopkins have taken notice of this partnership,”

To enable potential researchers and engage the community, the program hosts the Innovative Discovery Series, a series of lunchtime presentations on topics ranging from research methodology and biostatistics to epidemiology and public health issues. The presentations are free, available online at <http://de-ctr.org> and open to all four participating institutions and the broader community.

Additionally, the program funds small awards of about \$20,000 each to promote research that involves and engages community members.

Dr. Bittner Fagan explained the importance of the ACCEL Community Engagement (ACE) Awards, which are available to teams — typically new research teams — that pair an academic



“OUR COLLEAGUES AT MAJOR UNIVERSITIES LIKE HARVARD, STANFORD AND JOHNS HOPKINS HAVE TAKEN NOTICE OF THIS PARTNERSHIP.”

WILLIAM S. WEINTRAUB, M.D.

researcher with a community researcher to tackle issues of importance to patients and the community.

Award recipients have included a behavioralist paired with a community leader in cancer survivorship researching the physical-activity needs of cancer survivors in Delaware; another paired health services researchers with community health workers and patients to develop a tool to demonstrate how patients value community health workers.

“Research is criticized for having a lack of impact,” Dr. Bittner Fagan said. “Community engagement is a powerful vehicle for bringing about environmental and behavioral change and impact. When we focus research on patients coming into academic health institutions, we’re getting a tiny percentage of the population. We are working to move research from ‘in’ or ‘on’ or ‘for’ to ‘with’ a community.”

Dr. Drees, the third speaker at the BioBreakfast, changed topics to focus on the array of infection-prevention and disease-control issues a hospital epidemiologist handles in the course of her job.

During a single week, Dr. Drees’ responsibilities can include such diverse tasks as: creating a staff vaccination plan for the upcoming flu season; looking at procedural changes to reduce infections a patient could acquire while in the hospital, such as central-line-associated bloodstream infections or *Clostridium difficile*; and tackling Christiana Care’s Ebola preparedness planning.

The planning pays off: Long before most people are even thinking about flu season, Christiana Care is prepared with an aggressive plan to improve voluntary vaccination among staff, including setting up shot stations at hospital entrances so that employees can get vaccinated on their way into work rather than traveling to a clinic. The work has increased the health system’s vaccination rate to beyond 90 percent.

Thanks to a plan that focused on cultural as well as procedural changes in the ways central lines are put in and managed by doctors and nurses, Christiana Care has seen a dramatic decrease in the incidence of infection.

“Transparency may sometimes feel like a curse, but it’s really a blessing; it helps galvanize the health system to continually improve,” Dr. Drees said. “If we can change the culture on a unit, that’s what makes the change. We can’t just institute policies and expect change; we need to think of the nurses and other staff who handle patients every day and find ways to improve that make their lives easier rather than harder.”

The BioBreakfast is co-sponsored by the Delaware Biotechnology Institute, Delaware Technology Park, Potter, Anderson & Corroon and VWR International.

“The information shared during these breakfasts often can lead to institutional collaborations, such as early stage companies incubating and working on new diagnostic tools and potential treatments with clinicians and researchers at the Helen F. Graham Cancer Center & Research Institute,” Delaware BioScience Association President Bob Dayton said. “In the end, the Christiana Care Delaware BioBreakfast collaboration is about providing better health care outcomes for patients, while at the same time fostering innovation and rewarding, well-paid jobs in the region.” ●



Delaware BioScience Association President Bob Dayton, Eric V. Jackson Jr., M.D., MBA, director of the Center for Health Care Delivery Science at Christiana Care Health System’s Value Institute, Marci Drees, M.D., MS, FACP, DTMH, infection prevention officer and hospital epidemiologist, Heather Bittner Fagan, M.D., MPH, FAAFP, associate vice chair of research, Family and Community Medicine, and William S. Weintraub, M.D., MACC, FAHA, FESC, John H. Ammon Chair of Cardiology and director of the Center for Outcomes Research at the Value Institute.



Eric Kmiec, Ph.D., reviews a prototype of the educational kit that the Gene Editing Institute is developing for undergraduate genetics laboratories through the U.S.

Genetics editing pioneer Eric Kmiec, Ph.D., directs Gene Editing Institute at Helen F. Graham Cancer Center & Research Institute

Christiana Care's Helen F. Graham Cancer Center & Research Institute has established the Gene Editing Institute at the Center for Translational Cancer Research (CTCR) under the direction of world-renowned molecular biologist and gene-editing pioneer Eric Kmiec, Ph.D.

"The installation of the Gene Editing Institute under the direction of Dr. Kmiec at the CTCR places our translational science program on equal footing with the very best in the nation," said

Nicholas J. Petrelli, M.D., Bank of America endowed medical director of the Helen F. Graham Cancer Center & Research Institute. "Bringing together scientists such as Dr. Kmiec and his team with our clinicians under one roof promises to be the catalyst that will skyrocket progress toward personalized genetic medicine for our patients."

The CTCR's Gene Editing Institute is dedicated to education, technology development and scientific research into the very core of the human genome. This means designing the tools scientists

need to more easily and efficiently manipulate and alter human genetic material, and to better understand and cure many genetic diseases, including cancer.

"Only in the last four or five years have scientists succeeded in putting together a genetic toolbox for us to manipulate and control the genetic material in human cells for therapeutic purposes," Dr. Kmiec said. "This could change everything from the way we develop treatments to how we impact patients."

Surgery on our genes?

Among the most important tools used in gene editing are designer proteins capable of honing genetic material into shears used to disrupt and repair rogue genes at work in many disease processes. With names like ZFNs, TALENs and CRISPRs, these are what scientists call programmable nucleases, genetically engineered in the lab from plants and bacteria, that enable researchers to essentially perform microsurgery on genes. They act like molecular scissors to precisely cut into and delete, add to or modify a particular faulty strand of DNA to restore it to normal, or to test new, targeted drugs. Scientists learned how to make these gene-editing tools by studying how bacteria defend against attacking viruses and nature's own programming for cell repair.

Among the newest tools in the box and currently in demand are CRISPRs, short for "clustered regularly interspaced short palindromic repeats." Some scientists have hailed CRISPRs as the biggest biotech discovery of the century, because they give scientists the ability to quickly and simultaneously make multiple genetic changes to a cell.

Dr. Kmiec says that although CRISPRs are easier to program and work more efficiently than the other models, they have a tendency (about 2 percent of the time) to cut off-target at sites other than those intended, a process called off-site mutagenesis.

"If you are designing treatment for an inherited disease like sickle cell anemia, for example, where targeted genes are surrounded by a family of close cousins, mistaking the target could be very serious and lead to permanent unwanted genetic defects," he said.

Gene editing to repair and prevent disease

Dr. Kmiec's pioneering research on sickle cell anemia has led to research and development of the next generation of CRISPRs and TALENs, and to even more promising variations such as single-stranded DNA oligodeoxynucleotides (ssODNs) to improve precision and reliability. In their largest research project to date, Dr. Kmiec's team is perfecting these tools to study chromosomal translocations — what happens when

bits of chromosomal DNA swap places in a cell, which is known to set off the chain of events leading to several types of leukemia.

"We are using CRISPRs to make the translocations in normal cells and changing them into leukemia cells in our lab," he explained. "This allows us to study in real time how the cell adapts, stage by stage, to that translocation event. In this way we hope to create a series of snapshots of how cancer progresses, and to model these events one by one."

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"BRINGING TOGETHER SCIENTISTS SUCH AS DR. KMIEC AND HIS TEAM WITH OUR CLINICIANS UNDER ONE ROOF PROMISES TO BE THE CATALYST THAT WILL SKYROCKET PROGRESS TOWARD PERSONALIZED GENETIC MEDICINE FOR OUR PATIENTS."

NICHOLAS J. PETRELLI, M.D.

BANK OF AMERICA ENDOWED MEDICAL DIRECTOR OF THE HELEN F. GRAHAM CANCER CENTER & RESEARCH INSTITUTE



Laboratory team members discuss progress in developing genetic tools for carrying out chromosomal translocations in mammalian cells for studying the genetic events underlying the progression of childhood leukemia.

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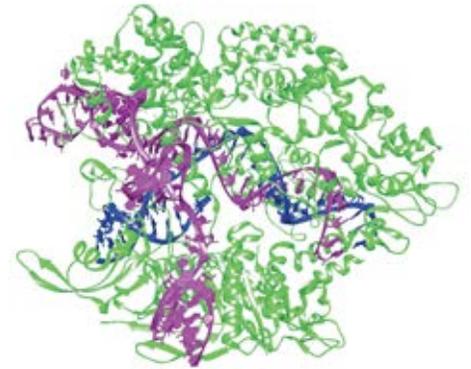
Although his team is focused on studying blood cell cancers at present, Dr. Kmiec said he plans ultimately to study chromosomal translocation factors in solid tumor cancers as well. "This work will probably be a major focus of our research over the next 10 years," he said.

The ability to map a cell's journey toward cancer would be a treasure trove for cancer drug development. Using such an atlas, scientists could change or disable target genes at any point along the cancer continuum to screen anti-cancer drugs for maximum therapeutic benefit.

He noted that this strategy could also be used to establish tester cell lines that contain genotypes from individualized patients who represent the most common genetic backgrounds of a particular cancer.

To this point, most of the work on human cells using gene-editing tools has been done in the lab or in small pre-clinical studies, but the potential and advantage for therapeutic development is clear and emerging.

"While setbacks are naturally expected, with enough momentum, coupled with robust science, investigators will push toward making significant and practical contributions to cancer and other disease research using these programmable nucleases," he said.



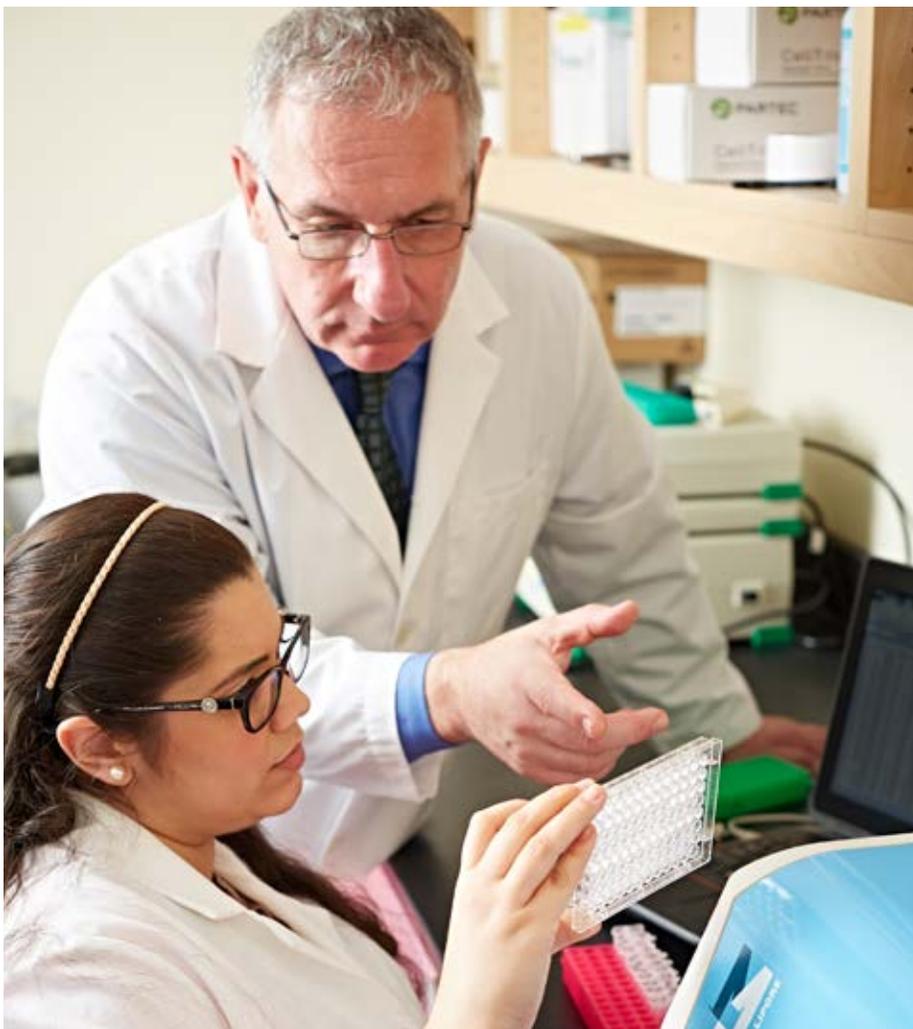
3D rendering of CRISPRs.

The challenge centers on the complexity of the human genome. "Clearly, caution must be taken in assuming that these tools operate and act at only one site throughout the genome. Off-site mutagenesis is of particular concern to those of us who are developing these tools for clinical application." If scientists can perfect the delivery system of these high potential gene-editing tools, Dr. Kmiec predicts they will open the door to a whole new age of molecular medicine.

Technology development and customized services

The CTCR Gene Editing Institute will also design and manufacture gene editing tools on-demand for outside research projects and teach other researchers how to design and use the tools effectively.

"What distinguishes the Gene Editing Institute is our ability to offer clients assistance in developing their experimental protocols and to select the appropriate gene-editing tools that



Dr. Eric Kmiec and Natalia Rivera-Torres, a doctoral student at the University of Delaware, examine human cells that have been genetically reengineered using tools produced by the Gene Editing Institute.

will work best to achieve their research goals," Dr. Kmiec said. "Our discovery work puts us at the forefront of this sophisticated technology, and we are willing to share our expertise to model these tools for our clients."

The client list extends as far as the University of Hawaii, the University of North Dakota and Dartmouth College in New Hampshire, as well as to our own region at The Wistar Institute in Philadelphia, Delaware State University and Nemours/Alfred I. duPont Hospital for Children. In-house, scientists at the Helen F. Graham Cancer Center & Research Institute are using TALENs to study BRCA1 gene activity in breast cancer and CRISPRs to study cancer stem cell function.

The Gene Editing Institute also offers on-site workshops and webinars to train scientists, students and faculty in gene editing methodologies. A summer student internship program is under development, and a project is under way with commercial biomedical engineering and educational partners on a kit to help teach gene-editing techniques to students in laboratory courses at universities, community colleges and high schools. The kit models the work done at the CTCR to develop and test gene-editing systems.

"During the course of a two-week lab assignment, students can use a CRISPR to target a piece of DNA in a mutated cell and replace it with a corrected copy right in their own Petri dish," said Dr. Kmiec. The cell changes color if the experiment is done correctly in what promises to be another highly useful tool for educating a whole new generation of genomic engineers. ●



Eric Kmiec, Ph.D., joins Christiana Care as director of the Helen F. Graham Cancer Center's Gene Editing Institute at the Center for Translational Cancer Research

Eric Kmiec, Ph.D. is widely recognized for his trail-blazing work in molecular medicine and gene editing. He joins Christiana Care as director of the Gene Editing Institute he founded, now installed at the Helen F. Graham Cancer Center & Research Institute's Center for Translational Cancer Research (CTCR).

For more than a quarter century, Dr. Kmiec has led research teams studying the reaction mechanics, biochemistry and molecular genetics of gene editing in human cells. In the late 1990s, his lab began a long-term investigation centered on understanding the mechanism and regulation of gene editing using single-stranded DNA oligonucleotides (ssODNs). The lab was a pioneering force in developing the use of these specialized ODNs for the treatment of inherited disorders.

Dr. Kmiec has been the primary mentor and Ph.D. thesis advisor for 18 doctoral students, all of whom have successful careers within the discipline. Dr. Julia Engstrom, who received a Ph.D. from the Kmiec lab in 2008, was recently appointed director of Scientific Affairs for Roche. The generation of new scientists who develop successful careers is a well-accepted, credible metric of the quality of his research program.

Dr. Kmiec founded the Gene Editing Institute to build the next generation of genetic tools for gene editing and to provide instruction in the design and implementation of these tools for collaborators and colleagues nationwide. He also founded two biotechnology companies, including Orphagenix Inc. in Delaware, which focuses on gene editing in inherited diseases such as sickle cell disease. His first company, Kimeragen, was the first gene editing company ever built and now forms part of Cibus, located in San Diego, Calif. Most recently, he is senior scientific adviser to ETAGEN, in Cambridge, Mass., where he also sits on the scientific advisory board to explore development of therapeutic uses for gene editing.

Throughout his career, Dr. Kmiec has received many research awards from the National Institutes of Health (RO1s, R21s), the American Cancer Society and private foundations, including the 2012 Proudford Foundation Unsung Hero Award in Sickle Cell Disease. He was honored as the eminent scholar in residence at Marshall University (Huntington, West Virginia) in 2009 – 2010.

He has authored more than 145 scientific publications, and he holds 18 issued and licensed patents. He sits on numerous editorial and review boards.

Dr. Kmiec is a graduate of Rutgers University (1978), with a master's degree in cell biology and biochemistry from Southern Illinois University (1980). He holds a Ph.D. in molecular biology and biochemistry from the University of Florida, Gainesville (1984).

He has held numerous administrative and academic posts, most recently as professor and chair of the Department of Chemistry at Delaware State University, and served as lead on various NIH regional and state biomedical research grants, including INBRE and COBRE. He is currently an affiliated professor with the University of Delaware College of Health Sciences. ●

First State School alumni returned for a 30th year celebration in August.



“It’s a family, not just a school.”

DANIELLE TIBERI

For 30 years, First State School serves students’ minds and bodies

Christiana Care is home to unique school for chronically ill children

Danielle Tiberi was only 13 when she was diagnosed with myasthenia gravis, a chronic disease that causes muscles to tire and weaken easily. It’s rare in adults — and almost never seen in children.

By the time she was 15 she was having difficulty walking and performing such tasks as feeding herself.

“School was difficult because I was so weak,” she recalled. “I thought there was no way I would be able to finish high school.”

A nurse suggested First State School, located in Christiana Care Health System’s Wilmington Hospital. For 30 years, the school has provided education in a medically supportive setting for children with such serious illnesses as HIV, type 1 diabetes, cystic fibrosis, cancer, sickle cell anemia and osteogenesis imperfecta, a genetic disorder that causes brittle bones.

“Every child at First State School has health issues. That is why they are here,” Tiberi said at an anniversary celebration on Aug. 9 in the hospital atrium for students, alumni and staff. “The student next to you could be getting a blood transfusion, an insulin injection or chemotherapy.”

Today, Tiberi is 37 and in good health, thanks to surgeries and advancements in treatment. She has a degree in behavioral science and a job at Nemours/Alfred I. duPont Hospital for Children. She is the mother of a young daughter.

“I would not have the education and the career path I have today without First State School,” she said.

Tiberi, who required frequent blood work, remembered that school nurses helped her to overcome her fear of needles. A social worker offered encouragement and daily hugs. “It’s a family, not just a school,” she said.

Founded in 1985, the school is the brainchild of Janet Kramer, M.D., former director of Adolescent Medicine at Christiana Care.

“We were seeing adolescents who were chronically ill, missing school and getting left back,” Dr. Kramer said. “In a school setting where they can also receive medical care, they aren’t stuck. They can get an education and learn to take care of themselves in terms of social interaction and future employment.”



Celebrating 30 years of providing high-quality education to kids with chronic illnesses, staff, students and alumni of First State School gathered for a reunion at Wilmington Hospital's atrium.

In the beginning, First State School served only high school students. The program was expanded in 1991 to grades K-12, with students age 5 to 21. The school is a partnership between Christiana Care and Red Clay School District, which provides teachers and other educational staff.

"Our staff of teachers, nurses, doctors, psychologists and social workers collaborates to meet the educational, physical, emotional and social needs of the children we serve," said Elizabeth Houser, MSN, RN, program director. "We also work closely with parents, primary care providers, specialists and resources in the community that can help our students to thrive."

It is the first such school and one of only three schools in the U.S. that focuses on educating chronically and seriously ill students. The school has grown from two classrooms and an office at Christiana Hospital to its state-of-the-art Wilmington campus, where classrooms are equipped with interactive whiteboards, laptops and tablets, as well as devices that help students with mobility issues.

First State School's mascot is the osprey, and the school offers activities that help students to soar socially, including a chorus, steel drum corps and The Talon, the school yearbook. Students dance at the prom, swim at the YMCA and spread their wings on field trips.

Coleen O'Connor, M.S., NCC, LPCMH, who retired as program director in December, returned for the celebration. She embraced former students, many of whom she stayed in touch with after graduation through Facebook.

"It's truly inspiring to see these young people learn to manage their illnesses, overcome challenges and succeed in life," O'Connor said.

Over the years, the school has served 300 students. About 30 were so ill they died before graduation. Many of their pictures were displayed in remembrance for the anniversary event.

"When a child died the staff cried along with the students," O'Connor recalled. "With advances in treatment, we are not losing as many kids as we did in the early days. Still, we are all very much aware that these students are seriously ill."

Isaiah Green, who graduated in 2013, came to First State School as a high-school sophomore, when he could no longer attend traditional public school due to chronic kidney disease. At 20, he recently received a transplant and is researching colleges.

"They accommodated my visits to dialysis," he said. "They helped me with my diet restrictions and medications, which I could not have done on my own."

Ariana Gibson, a 2009 graduate, suffers from severe Crohn's disease. Her hips had deteriorated due to steroids used to treat the disease, limiting her flexibility. At 5 feet, 5 inches tall, she weighed only 100 pounds.

"They understood my disease and connected me with a diet that enabled me to put on some healthy weight," Gibson said.

At 25, Gibson is a preschool teacher. Healthy habits she learned at First State School help her to keep her illness under control, and she is looking forward to furthering her education.

Janay Laws, a 2015 grad, is heading to Neumann University and is the recipient of a youth achievement scholarship. She enrolled at First State School at 12, where she learned about her medications in addition to academics. She represented the school as a finalist in the state Poetry Out Loud contest.

"I am interested in creative writing, and I want to be a teacher," said Laws, 18. "At First State School, I learned how to achieve my goals." ●

With her new baby Mikayla, Tina Jennings wasn't sure she'd be able to breastfeed, balancing the demands of work and family. But the patient care technician at Christiana Care found that she had a lot of support to help her succeed.



Breastfeeding works for working mom, with support from Christiana Care

“

Christiana Care is very supportive of breastfeeding. My supervisor helped make it work for me.

”

TINA JENNINGS
PATIENT CARE TECHNICIAN

When Tina Jennings became pregnant with her third child and decided to try breastfeeding for the first time, she wondered if she would be able to manage it. As a patient care technician at Christiana Care, she was accustomed to balancing the demands of work and family, but adding breastfeeding to the mix seemed daunting.

Today, eight months after giving birth to her daughter, Mikayla, Jennings is working full-time while continuing to breastfeed, thanks to a supportive work environment and the encouragement she received from Christiana Care lactation consultants.

“I knew I wanted to breastfeed Mikayla,” said Jennings. “My other children are older, and breastfeeding wasn’t encouraged as much when they were born. With Mikayla, I was better informed and heard other mothers talking about the benefits of breastfeeding. So I made the decision to do it, but it was very difficult at first.”

Breastfeeding was challenging at first, because Mikayla spent her first five days in the Neonatal Intensive Care Unit. But Christiana Care lactation consultants guided her through the rough spots like teaching Mikayla to latch-on, and getting Jennings’s breast milk flowing.

“When it finally worked, the bonding feeling I got from nursing was so special,” Jennings said.

By the time Jennings came back to work, Mikayla was breastfeeding exclusively, and Jennings was delighted to find the assistance she needed to pump during the work day and a supportive supervisor — Beth Rathmanner, MSN, RN-BC, nurse manager of the heart failure unit at Christiana Care.

“She has been wonderful,” said Jennings. “I work my breaks around the times I need to pump, and Christiana Care provides a private lactation lounge where breastfeeding moms can have privacy. There are

CONTINUED

other new moms who use the room, too, and it's great to have a quiet place to pump. A refrigerator in the room gives us a safe place to store our milk."

Now that Mikayla is getting older, she is beginning to transition to baby food, and Jennings needs to pump less frequently. She hopes to continue breastfeeding until Mikayla reaches her first birthday.

"I am so happy that I stuck with breastfeeding," she said. "It makes me feel close to her, and I think the breast milk has kept her healthy. She seems to fight illness better than my other babies did, and teething has been easier too."

Asked what she would tell other moms who may worry about returning to work and breastfeeding, Jennings said, "Talk to your supervisor. Christiana Care is very supportive of breastfeeding. My supervisor helped make it work for me."

When she looks at her baby, she knows that breastfeeding has been worthwhile.

"Mikayla is always smiling," she said. "She's a happy, healthy baby, and we have a wonderful mother-daughter bond. I have to believe that breastfeeding has a lot to do with that." ●

PEEPS recognized as national leader in safe patient handling, education and program development

Christiana Care Health System has been recognized by the Tampa VA Research & Education Foundation Inc. (TVAREF) with the Audrey Nelson Best Practices Award in Safe Patient Handling.

The award acknowledges Christiana Care's comprehensive safe patient handling (PEEPS) program as a national leader for its commitment to staff education and development of safe patient handling best practices.

The Employee Injury Prevention/PEEPS team efforts began at Christiana Care 15 years ago, with multiple initiatives to enhance employee safety during patient handling and mobilization tasks.

Christiana Care PEEPS educators are credentialed professionals dedicated to the safety and comfort of caregivers and their patients. The PEEPS team has set the trend in safe patient handling with their successful collaborative efforts with other departments.

"The PEEPS staff not only provides the initial and ongoing evaluation on safe patient handling practices, but also serves as a day-to-day resource for addressing individual patient challenges," said Diane Talarek, MA, RN, NE-BC, senior vice president, Patient Care Services and chief nursing officer.

"The PEEPS department is credited with introducing the transformational safe patient handling practices that are now considered best practices in health care," said Bob Mulrooney, vice president of Facilities and Services. "Their exceptional collaborative efforts keep our caregivers safe and prevent countless debilitating injuries."

The TVAREF is a nonprofit organization established to advance the research and education missions of the Department of Veterans Affairs through the support of research and education activities at The James A. Haley VA Healthcare System and other VA entities in the Tampa, Florida region. ●

Jennifer Binkley, DPT, OCS, CSPHA, CEAS II, Kavitha Edupuganti, MSN, RN, CSPHP, CEAS III, Rick Zock, MPT, CSPHP, CEAS II, Theresa Burgess, MSPT, CSPHP, CEAS II, and Elizabeth Potts, BSN, RN-BC, CEAS II, display Christiana Care's Audrey Nelson Best Practices Award in Safe Patient Handling.



Health ambassadors educate parents on safe, healthy babies



Nicole Obiesie had lots of questions about breastfeeding for the health ambassadors.

Farah Hernandez has a son, 19, and a daughter, 17. Now, the 36-year-old Wilmington woman is expecting her third child. This time, she has learned important new information about pregnancy and caring for a baby from Christiana Care Health System’s Health Ambassadors, a specially trained team that guides families on the path to good health.

“When I gave birth to my daughter, it was common to put babies to sleep on their side,” Hernandez said. “Today, I learned that babies should always sleep on their backs.”

Christiana Care leads a city-wide team of Health Ambassadors in partnership with Bellevue Community Center, Henrietta Johnson Medical Center and Westside Family Healthcare. Health Ambassadors connect pregnant women and new parents to health care, social services, education and home health visiting programs.

Now in their third year, Health Ambassadors share educational information with Delawareans in their communities and at dozens of events year-round. In July, they promoted the benefits of breastfeeding and the importance of safe sleep to the 170 parents and parents-to-be at a special community baby shower at Bayard Middle School in Wilmington, held by partners Christiana Care Health System, Child Inc., Saint Francis Healthcare and the Delaware Division of Public Health.

At the event, Health Ambassador Shirley Ibrahimovic connected mothers-to-be with Cribs 4 Kids, which provides families with free portable cribs so babies have a safe place to

sleep. She stressed that sharing a bed is never safe because it greatly increases the risk of suffocation. Additionally, breastfeeding reduces the risk of sudden infant death syndrome (SIDS) by 50 percent. “We explain to parents that they can stay close to their babies by having them in the same room with them, but not in the same bed,” said Ibrahimovic.

Easily identifiable in their bright purple shirts, Christiana Care’s health ambassadors partner with community members to help them achieve optimal health, said Omar Khan, M.D., MHS, medical director for Community Health and the Eugene duPont Preventive Medicine & Rehabilitation Institute. “They embody The Christiana Care Way by connecting patients to care in ways that patients value.”

The Women’s and Children’s Leadership Council, a group of highly engaged volunteers who support Christiana Care’s efforts to improve the health of women and children, donated gifts and prizes for the baby shower, including breast pumps and baby clothes for attendees who participated in health screenings.

“We looked for items that will help parents to give their babies a good start in life,” said Barbara Burd, co-chair of the council, who volunteered at the event.

Nicole Obiesie, 20, who is expecting a baby girl, had lots of questions about breastfeeding for the health ambassadors.

“How do I know the baby is getting enough? Will my breasts keep their shape? How will I manage things after I go back to work?” she asked. “It was very reassuring to get answers to all my questions.”

Health Ambassador Venus Jones encouraged attendees to take what they learned into their lives as new families.

“This is knowledge that will help to keep your babies safe and healthy,” Jones said. ●



Healthy Lifestyle Coordinator Venus Jones speaks to attendees at a community baby shower.



Christiana Care pediatric hospitalist Janette Marston-Nelson, M.D., FAAP, cares for newborn Rylee Rangel and mother Jackie Rangel at Kent General Hospital.

Pediatric hospitalists expand services for Kent and Sussex county residents through partnership with Bayhealth

Christiana Care is partnering with Bayhealth to expand pediatric health coverage in central and southern Delaware. Fifteen Christiana Care pediatric hospitalists will increase the availability of on-site pediatric care at Bayhealth Kent General hospital in Dover to 24 hours a day, seven days a week. These physicians who work exclusively with infants, children and teens will provide round-the-clock inpatient care and emergency consultations.

“With our pediatric hospitalists on-site at Bayhealth Kent General, children will receive expert, respectful care and an exceptional experience that is comforting and reassuring to both parents and children in a setting that is close to their own home,” said David A. Paul, M.D., FAAP, chair of Pediatrics at Christiana Care.

Christiana Care’s board-certified pediatric hospitalists oversee all medical treatment from admission to discharge, including examining children, ordering tests and medications, and answering any questions a family may have.

Hospitalists also care for newborns after birth. They communicate closely with each family’s pediatrician or primary-care physician to ensure a seamless continuum of care from hospital to physician’s office to home.

“Working closely with each family and the child’s physicians, our inpatient pediatricians provide the specialized care families count on for their children’s health and well-being,” said Laura A. Lawler, M.D., FAAP, Christiana Care’s chief of pediatric hospitalists. ●

“With our pediatric hospitalists on-site at Bayhealth Kent General, children will receive expert, respectful care and an exceptional experience that is comforting and reassuring to both parents and children in a setting that is close to their own home.”

DAVID A. PAUL, M.D., FAAP
CHAIR OF PEDIATRICS, CHRISTIANA CARE



Campaign stresses two patient identifiers for patient safety

Phlebotomist Denora Carter has an important job to do before she begins drawing blood from patient John Doe. She first needs to verify that the patient from whom she is collecting the sample is not only Mr. Doe, but the *right* Mr. Doe.

It's a straightforward responsibility not just for Carter but shared by every health care provider who comes in direct contact with patients throughout the health system — greeting the patient, introducing herself, checking the patient's wristband and asking him to verify his name and date of birth. It's also a key step toward achieving the Joint Commission's National Patient Safety Goal of reducing preventable harm.

Christiana Care is launching a new patient identification initiative called "It Takes Two" to help underscore the importance of properly verifying a patient's identity using two unique identifiers — patient's full name and date of birth — before administering medication, performing diagnostic tests or procedures, or sharing personal health information.

"Proper patient identification is fundamental to patient-centered care and helping patients achieve optimal health."

STEPHEN PEARLMAN, M.D., MSHQS
QUALITY AND SAFETY OFFICER, WOMEN'S AND CHILDREN'S SERVICES

"Medicine today is a very complex system of care, with many providers involved in the care of a patient they do not know personally. We need to do the right thing for the right patient at the right time," said Stephen Pearlman, M.D., MSHQS, quality and safety officer for Women's and Children's Services.

Dr. Pearlman, physician champion for the Patient Identification Implementation Team, said that accurate patient identification is a health system goal and one of the Joint Commission's National Patient Safety Goals.

Education for all providers on patient identification, he said, is fundamental to its success. Patient identification is being stressed in Christiana Care's Virtual Education and Simulation Training Center to further raise awareness and accountability with every provider. The health system educates all incoming nurses, residents and physicians on the importance of proper patient identification using two identifiers. And the new systemwide effort — "It Takes Two" — aims to improve awareness.

Providers aren't the only ones being educated on the importance of verifying a patient's identification. The "It Takes Two" catchphrase has a dual meaning. It underscores that accurate patient identification involves two parties — the provider and the patient.

"To be successful, we must engage our patients and their families and help them understand that asking their name and date of birth is ultimately helping us to provide safer care for them," said Valerie Starrett, MSN, RN, CPHQ, project manager for Patient Safety and team leader for "It Takes Two."

"We want patients to be engaged and be active partners in their care — as with hand-washing — that this is an expectation, where they expect us to ask their name and date of birth each time we enter the room, and remind us if we don't do it," she said. "Patients are a really important aspect of the success of this initiative, and it will be important for them to know they can — and should — speak up if we fail to properly verify their identification."

Identification verification should start at registration, Starrett said, and continue through all phases of care, including hospital and outpatient care.

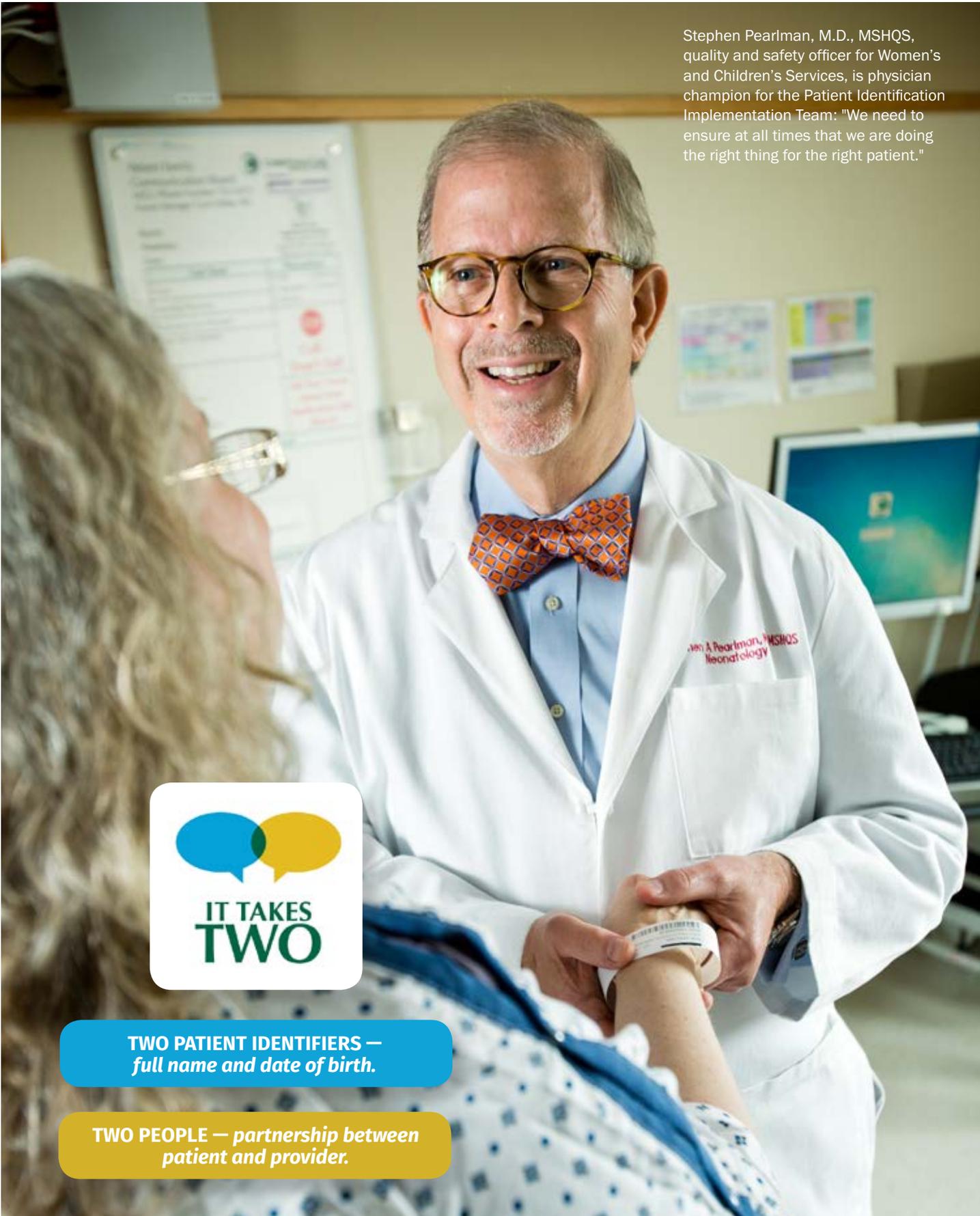
Dr. Pearlman said for hospitalized patients, the moment the patient identification bracelet is put on is "an important teachable moment in explaining to patients and their families why we are going to be asking them again and again for their name and date of birth." Newly admitted patients will also have the opportunity to view a video explaining the importance of staff verifying their identity via GetWellNetwork.

While patients and their families play a key role, Dr. Pearlman emphasized the heightened need for awareness and accountability on the part of providers, especially with vulnerable patient populations, such as those with limited English proficiency, children and newborns, patients with dementia and those who are unconscious.

Starrett explains that when caring for patients unable to verbally participate in the verification process, it is the provider's responsibility to match the patient's full name and date of birth on the patient's wristband with the lab slip, medication label or medical record.

"Proper patient identification is fundamental to patient-centered care and helping patients achieve optimal health," Dr. Pearlman said. "It reduces the potential for patient harm and is a critical partnership between providers and patients that very clearly aligns with The Christiana Care Way." ●

Stephen Pearlman, M.D., MSHQS, quality and safety officer for Women's and Children's Services, is physician champion for the Patient Identification Implementation Team: "We need to ensure at all times that we are doing the right thing for the right patient."



TWO PATIENT IDENTIFIERS —
full name and date of birth.

TWO PEOPLE — *partnership between patient and provider.*

Zohra Ali-Khan Catts, MS, LCGC, director of Cancer Genetic Counseling, helped patient Sandra Aguilera by providing genetic counseling, along with access to tests and treatments focused on saving her life and potentially the lives of other members of her family, which includes a history of colon cancer.



Genetic counseling program brings life-saving treatment to our neighbors

5,700

NUMBER OF PATIENTS THAT
HAVE BEEN COUNSELED
ABOUT GENETIC TESTING BY
THE GRAHAM CANCER CENTER
SINCE 2002

Sandra Aguilera was worried about her health and did not know how to overcome what seemed like insurmountable barriers to care. A native of Mexico, Aguilera is a 36-year-old mother of two who lives in Wilmington. She does not speak English. She has no health insurance.

She also has a family history of colon cancer. Her maternal grandfather, maternal aunt and cousin on her mother's side of the family died from the disease. Her mother had surgery in 2011 to prevent thousands of polyps in her colon from progressing to cancer.

"I had some bleeding and thought it was hemorrhoids," Aguilera said, speaking through a Christiana Care certified medical interpreter. "But the medications weren't helping and I needed a colonoscopy."

CONTINUED

At the Helen F. Graham Cancer Center & Research Institute, Aguilera gained access to tests, treatment and genetic counseling, all focused on saving her life and potentially the lives of other family members.

Medical interpreters kept the lines of communication open. She had a colonoscopy, paid for by the Screening for Life program. The test revealed multiple polyposis syndrome, a condition that occurs in as many as one in 7,000 individuals.

“People with this syndrome tend to form hundreds to thousands of polyps in the colon,” said Zohra Ali-Khan Catts, MS, LCGC, director of Cancer Genetic Counseling. “When you have that many polyps it’s extremely difficult for a surgeon to remove them all.”

Ali-Khan Catts leads a team of five genetic counselors at the Graham Cancer Center. The team is extending access to care to underserved neighbors throughout the state, working closely with Christiana Care’s Wilmington Family Medicine practice, the HIV program and the Community Health Access Program, Beebe’s Tunnell Cancer Center in Lewes and Nanticoke Cancer Center in Seaford, and federally qualified health centers such as Westside Family Healthcare. Since 2002, the team has provided genetic counseling to more than 5,700 patients across Delaware, with more than 3,400 choosing to be tested.

“We are trying to make sure there are no barriers to care,” she said. “Reaching out to Hispanics and other populations is equalizing access, allowing us to identify high-risk patients and take action.”

Based on the results of her tests, Aguilera underwent preventive surgery to remove her colon and rectum before they became cancerous. “The surgeon said that they needed to be removed as soon as possible,” she said.

She also had an endoscopy, in which a lighted flexible instrument was guided into her stomach. “The stomach had a whole lot of polyps, too,” she said. Aguilera now gets an endoscopy every six months to monitor the number of polyps in her stomach. Health coaches at Christiana Care’s Community Health Access Program identified resources to help pay for her care. They also guided her to a low-cost prescription program at Walmart.

“Without Screening for Life and the other programs, she would not have had access to the care she needs,” Ali-Khan Catts said. The genetic counseling team at the Graham Cancer Center is now working with four other branches of Aguilera’s family to determine who is at risk for multiple polyposis syndrome, as well as hepatoblastoma, a childhood liver cancer. Aguilera has two sons, ages 9 and 14. It is not yet known what gene is producing the polyps that have devastated the family. So the team recruited a partner to help crack the code.

“We are working with a lab company to see if we can get testing done to identify the mutation,” Ali-Khan Catts said.

Aguilera and her extended family will continue to receive expert, respectful care at the Graham Cancer Center. “Everyone explains things to me so that I understand, and that helps a lot,” she said. “I am thankful for the caring people at Christiana Care.” ●

“We are trying to make sure there are no barriers to care. Reaching out to Hispanics and other populations is equalizing access, allowing us to identify high-risk patients and take action.”

ZOHRA ALI-KHAN CATTI, MS, LCGC
DIRECTOR OF CANCER GENETIC COUNSELING

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.

Camp FRESH helps teens learn to be healthy adults



**“ WE LOOK AT THE
WHOLE YOUNG
ADULT – SOCIALLY,
EMOTIONALLY,
MENTALLY, PHYSICALLY
AND SPIRITUALLY.”**

ISAAC HICKS
REGISTERED DIETITIAN, CHRISTIANA CARE

Ashley Hill enrolled in Christiana Care’s Camp FRESH to learn more about becoming a healthy adult who eats foods that are good for her, exercises regularly and makes wise choices for the future.

The 16-year-old from Wilmington took those lessons — and more — home with her.

“She asked me to buy ingredients for quesadillas she learned to make at camp,” said her mother, Shannon Nicholson. “Ashley not only made dinner; she cleaned up the kitchen afterward.”

This year, 51 campers — the largest group ever — completed the eight-week program at Eugene duPont Preventive Medicine & Rehabilitation Institute in Wilmington.

Campers ages 12 to 18 took on some weighty topics. They talked about ways to prevent gun violence with Attorney General Matt Denn. They learned about the “3 H’s:” herpes, hepatitis and HIV. They challenged themselves with a six-mile hike along the Brandywine River.

“We talk a lot about setting goals and turning dreams into reality, such as going to college,” said Isaac Hicks, a Christiana Care registered dietitian and community educator. “We look at the whole young adult — socially, emotionally, mentally, physically and spiritually.”

On Parents Night, campers and their families shared a healthy meal of skinless chicken breasts, brown rice, vegetables and green salad. Parents said their teens showed heightened maturity and an awareness of how their choices will impact their futures.

Ashley’s mom had been concerned about her daughter taking the bus to camp.

“As it turned out, she showed a lot of responsibility in getting herself up in the morning and off to camp,” she said.



Camp FRESH students show off their certificates of completion at the end of the 2015 session.



Delaware Attorney General Matt Denn visited Camp FRESH for a discussion about violence prevention and conflict resolution.

Ashley said Camp FRESH helped to open the lines of communication on such topics as making wise choices regarding sexuality.

“Me and my mom talk about keeping your body safe,” she said.

Tamara Swain of Wilmington said her 12-year-old son Victor Stokes started making suggestions for their household budget after a session at Camp FRESH taught about managing money. Victor took on responsibility for getting ready for camp.

“He was so excited that he started washing his own clothes,” Swain said. “That is an activity that he will continue to do.”

The first Camp FRESH was held in 2007, when 37 young people from urban neighborhoods learned how to become ambassadors for healthy eating and exercise in their communities to help others reduce their risk of obesity, diabetes and cardiovascular disease.

Since then, the evidence-based program has grown to include other lifestyle choices, such as resolving conflicts, avoiding drugs and alcohol, safe sex and planning for the future.

Daisy Santiago’s son Gregg Graves began attending Camp FRESH when he was 13. A few years later, his younger brother Anthony enrolled.

“They came home, and we had discussions about looking at the labels of the foods we eat,” she said. “We stopped drinking soda and started drinking water. We exercise 30 minutes a day.”

Everyone in the family lost weight. Santiago lost more than 100 pounds. Each son shed more than 40 pounds. Today, Gregg is 20 and was employed as a counselor at Camp FRESH.

“This experience made a positive impact on our entire family,” Santiago said. ●



Camper Anthony Graves, right, receives his camp certificate from Isaac Hicks, registered dietitian and program leader.



“Ashley showed a lot of responsibility in getting herself up in the morning and off to camp.”

SHANNON NICHOLSON
ASHLEY'S MOM



Ashley Hill



Patient recliners receive mass upgrade to improve safety and comfort



Christiana Care Chief Operating Officer and Executive Vice President Gary Ferguson, and Diane Talarek, MA, RN, NE-BC, senior vice president, Patient Care Services and chief nursing officer, helped move some of the new, upgraded patient recliners into place at Christiana Hospital.

Two hundred and sixty-nine new patient recliners delivered to Christiana and Wilmington replaced older recliners in a measure to improve patient safety and comfort and prevent falls.

Christiana Care Chief Operating Officer and Executive Vice President Gary Ferguson, and Diane Talarek, MA, RN, NE-BC, senior vice president, Patient Care Services and chief nursing officer, joined a group of Christiana Care Summer VolunTEENS July 27 at Christiana Hospital to help maneuver some of the new recliners into place.

The comfortable chairs — purchased in two different models — are an example of the innovative tools and strategic partnerships that enable Christiana Care to achieve optimal health and provide patients with an exceptional experience to support The Christiana Care Way.

“Early ambulation for hospitalized patients is one of the key drivers for getting patients back to their previous level of

function,” said Talarek. “Our staff reported they did not have enough recliners and [what they had] lacked many important safety features. We soon realized that we had to purchase more than a few recliners so we asked our staff for input.

“These chairs have more safety and comfort features than the existing chairs,” said Ferguson. “This was largely a patient safety issue. The old chairs wouldn’t stay in the foot-rest-up position and posed a risk of patient falls. Many staff members reported that we needed to upgrade to the right equipment.”

Denise L. Lyons, MSN, RN, AGCNS-BC, FNGNA, WISH/NICHE program coordinator, said vendors came to both hospitals to demonstrate their products in March of this year. Staff from Nursing, Maintenance, Physical Therapy/Occupational Therapy and Patient Escort had the opportunity to see eight different recliners, and “based on their feedback we selected two.” ●

Nurse educates internationally on cord blood program

Dubai center reaches out for expertise on lifesaving collections

Kim Petrella, BSN, RNC-OB, of Christiana Care's Labor and Delivery Unit, has a passion and commitment for public cord blood banking that resonated halfway around the globe this spring.

It started with leadership by Christiana Care and Petrella to research cord blood banks around the country. This work culminated in a partnership in 2013 with CORD:USE, an organization that prepares cord blood and stores stem cells that eventually can be harnessed to treat diseases that require stem cell transplants. With colleague Mark Gooss, BS, lab coordinator of the cord blood program, Petrella educates expectant couples on the benefits of banking and donating cord blood, which would otherwise be discarded.

Three years ago, a visit to her brother, who lives in the United Arab Emirates, proved another turning point for Petrella. "He asked me if I wanted to go to the mall in Dubai," she recalled. "I said I would rather go to the cord blood center."

Petrella had been reading about the Dubai Cord Blood and Research Center and the work of Fatma Al Hashimi, head of education and development and a clinical scientist.

She learned that there was a shortage of public cord blood in Dubai, the most populous city in the UAE. That was especially problematic because about half the people in the UAE are carriers for thalassemia, an inherited blood disease that is more common in people of Mediterranean and Arab descent, and that can be treated with cord blood.

After she returned to Delaware, Petrella kept Al Hashimi up-to-date on cord blood developments at Christiana Care. Since the CORD:USE program was introduced, samples have been collected from more than 2,000 patients.

Al Hashimi was so impressed with Christiana Care's results that she asked her to consult with the Dubai center.

Petrella traveled to the UAE for 18 days in May. She taught 16 classes of up to 100 nurses and midwives at eight different hospitals.

In addition to training nurses and midwives about educating patients, Petrella taught collection techniques and proper packaging to keep the cells healthy before they are frozen.

"Before the training, almost all the donations were private — parents saving cord blood in case there was a genetic disease in the family," Petrella said. "Now, the nurses and midwives report

70+

number of diseases currently treated with stem cells from umbilical cord blood, including leukemia, lymphoma and sickle-cell anemia.



that they are very busy collecting cord blood to be donated to others and now doing so more effectively."

More than 70 different diseases are currently treated with stem cells from umbilical cord blood, including leukemia, lymphoma and sickle-cell anemia. Some of the cord blood collected at Christiana Care goes to research on curing or preventing Type 1 diabetes, spinal cord injuries, deafness, Alzheimer's and other diseases and injuries.

Before she returned home, Petrella's new colleagues in Dubai expressed their thanks by painting a traditional henna design on both her arms. The body art faded after about two weeks, but the memories of her time in Dubai are indelible.

"If people have the opportunity to help another person, they will," Petrella said. "They just have to know how, which is why it's so important to educate people about donating cord blood." ●

During a 2014 visit marking a successful partnership between Christiana Care and CORD:USE, the country's leading program for banking umbilical cord blood: Richard J. Derman, M.D., MPH, FACOG, Marie E. Pinizzotto, M.D., Endowed Chair of Obstetrics and Gynecology; Kim Petrella, BSN, RNC-OB; Edward Guindi, M.D., president and CEO, CORD:USE; John Wagner, M.D., chief clinical scientific adviser, CORD:USE; Sherry A. Monson, MSN, MBA, RN, vice president of Women's and Children's Services; and Mark Gooss, lab coordinator.



Chief of Clinical Physics Firas Mourtada, M.S.E., Ph.D., D. ABR, will lead first Prostate Brachytherapy Simulation Workshop



A new Prostate Brachytherapy Simulation Workshop is the brainchild of Firas Mourtada, M.S.E., Ph.D., D. ABR, chief of Clinical Physics at the Helen F. Graham Cancer Center & Research Institute.

Hosted by the American Brachytherapy Society (ABS) and the American Society of Radiation Oncology (ASTRO), the workshop will be presented for the first time at ASTRO's 57th Annual Meeting, Saturday, Oct. 17, in San Antonio, Texas.

Dr. Mourtada is a recognized expert in the field of low dose rate brachytherapy (radioactive seed implants), a leading-edge treatment for localized prostate cancer. Christiana Care is one of only a few centers to develop a unique training program using a phantom-based simulator to teach the process of prostate brachytherapy.

"The invitation for Dr. Mourtada to present an advanced, highly specialized training course for radiation oncologists at the ASTRO annual meeting is one more example of how our team is guiding the future of cancer medicine," said Nicholas J. Petrelli, M.D., Bank of America endowed medical director of the Helen F. Graham Cancer Center & Research Institute. "Leadership in education is key to our mission goal of excellence in cancer care and treatment in Delaware and on a national level."

Dr. Mourtada led the design and development of the workshop and proposed the idea to both the ABS and ASTRO. This will be the first prostate brachytherapy simulation workshop offered by ASTRO or ABS to their membership at a national meeting. The theme this year is "Technology Meets Patient Care."

"Simulation is an effective tool to assist in training radiation oncologists in the skills they need to safely and effectively deliver

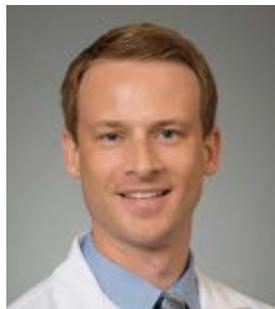
prostate brachytherapy," Dr. Mourtada said. "Our ability to offer workshop training in this leading-edge technology on a national stage at the ASTRO annual meeting is a huge step forward toward our goal of improving patient outcomes with consistent, high quality implants in clinical practice."

The full-day workshop, to be held at the Henry B. Gonzales Convention Center, will cover the principles of LDR brachytherapy physics, treatment planning, treatment outcomes and quality assurance procedures. Course highlights include "hands on" simulation instruction implanting "dummy seeds" and practice in pre-implant ultrasound and post-implant CT and MRI contouring using MIM and VariSeed™ (Varian) planning systems. VariSeed LDR Treatment Planning is state-of-the-art with real-time, intra-operative visualization features online at Christiana Care.

At the workshop, Dr. Mourtada will teach the principles of LDR brachytherapy physics and serve as co-director with Mira Keys, M.D., of the British Columbia Cancer Agency in Canada. Faculty hail from several distinguished institutions including the Mount Sinai School of Medicine, Eastside Radiation Oncology, and Bon Secours Health System in New York City; MD Anderson Cancer Center at the University of Texas; and the University of British Columbia, Canada.

The Prostate Brachytherapy Simulation Workshop is approved for AMA PRA Category 1 credits but limited to 30 participants who are ASTRO or ABS members only. Five spots are reserved for resident members. For more information about the Prostate Brachytherapy Simulation Workshop contact the ASTRO Education Department at education@astro.org. ●

Matthew S. Rubino, M.D., FACS, appointed chief of Surgical Services, Wilmington Hospital



Matthew S. Rubino, M.D., FACS, was appointed chief of Surgical Services, Wilmington Hospital, effective July 1.

Dr. Rubino is now a member of The Medical Group of Christiana Care and faculty attending for the Department of Surgery. His elective general surgery practice

will be based out of the Rocco A. Abessinio Family Wilmington Health Center.

He will remain involved in surgical education and has also been appointed associate program director for the General Surgery Residency Program. He will continue to serve as the director of undergraduate surgical education for the Department of Surgery.

Dr. Rubino earned his medical degree from and now holds a faculty appointment as an assistant clinical professor of surgery at Sidney Kimmel Medical College at Thomas Jefferson University. He is board-certified in general surgery by the American Board of Surgery and completed his general surgery residency at Christiana Care.

He is a fellow of the American College of Surgeons (ACS), a New Castle County representative of the Delaware Chapter of ACS, and a member of the Medical Society of Delaware and the Association of Program Directors in Surgery. ●

Alan Schwartz, Psy.D, appointed director of Behavioral Health for Medical Group



Alan L. Schwartz, Psy.D, director of psychology for the Christiana Care Center for Comprehensive Behavioral Health, has been named director of Behavioral Health for Christiana Care Medical Group.

Dr. Schwartz provides psychotherapy, psychological

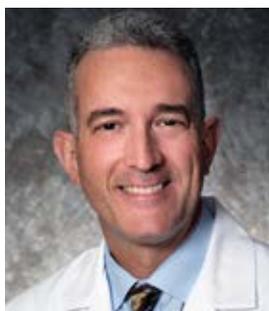
assessments and testing to diagnose and plan treatment for people who are experiencing anxiety, mood and trauma-

related disorders, relationship conflicts and other conflicts and concerns.

Dr. Schwartz joined Christiana Care in 1993. He received his doctoral degree from the Institute for Graduate Clinical Psychology at Widener University.

He regularly presents at professional organizations in the areas of psychological assessment and psychotherapy. He is a member of the Society for Personality Assessment and associate editor of its newsletter, The Exchange. He also is a member of the American Psychological Association. ●

Jeffry T. Zern, M.D., FACS to provide office hours at Wilmington Hospital



Jeffry T. Zern, MD, FACS, will begin seeing patients at a new office at Wilmington Hospital on Oct. 5.

Dr. Zern, director of Minimally Invasive Surgery, General Surgery, and a member of the Medical Group of Christiana Care, is a board-certified, fellowship trained, minimally invasive surgeon who

has been practicing since 1997. He trains residents on techniques of advanced laparoscopic surgery.

Certified in the Fundamentals of Laparoscopic Surgery (FLS), Dr. Zern is the FLS Champion for the Christiana Care Virtual Education & Simulation Center, a credentialed national testing site.

He is co-chair of the Minimally Invasive Surgery Committee, a member of the Christiana Care Robotics Committee and participates in the Care for the Caregiver project.

Dr. Zern is a member of the American College of Surgeons and the Society of Laparoendoscopic Surgeons. He is an active member of the Society of American Gastrointestinal and Endoscopic Surgeons and is a representative on the Society's committee for resident education.

He completed his general surgery residency training at Christiana Care, and he is a 1991 graduate of Temple University School of Medicine. After completing a minimally invasive surgical fellowship at St Joseph Medical Center in Baltimore, he returned to Delaware to serve members of this community. ●

Linda Laskowski Jones honored for contributions to wilderness medicine specialty



Linda Laskowski Jones, MS, RN, ACNS-BC, CEN, FAWM, demonstrates some of the specialized skills needed to transport a patient in the wilderness.

For her leadership and commitment to wilderness medicine through volunteerism, teaching and publishing, Linda Laskowski Jones, MS, RN, ACNS-BC, CEN, FAWM, received the Warren D. Bowman, M.D., Award from the Wilderness Medical Society in July at the international organization's annual meeting in Colorado.

The award recognizes a non-physician health professional for outstanding contributions in support services to wilderness medicine.

Jones, Christiana Care's vice president of Emergency and Trauma Services, says her most unforgettable outdoor emergency care experience happened several years ago on the Blue Mountain ski slopes in Palmerton, Pennsylvania.

The emergency involved a patient having tonic-clonic or grand mal seizures.

As volunteer members of the Blue Mountain Ski Patrol, Jones and her husband, Larry, arrived to find a woman whose

airway was completely blocked. She cleared the skier's airway, but every time she tried to turn the woman on her back, her airway became blocked with secretions and the seizure continued.

They had to get the skier down the slope to the emergency care facility. The only way to do so safely and quickly was to position and secure the skier on her side in a ski patrol transport toboggan while lying behind her, squeezing a hand-held portable suction device to keep her airway open. As husband Larry Jones hauled the toboggan down the steep, bumpy slope and Linda held on tight, the patient continued to have tonic-clonic seizures.

Once at the aid room on the slopes, Jones asked someone to call for a medical evacuation helicopter to transport the skier to a local Level I trauma center. Jones later learned that the seizure was the first manifestation of a brain tumor. The skier made it through, not in small part because of Jones' quick, expert action and years of training.

CONTINUED

The wilderness medicine specialty involves patient care and treatment provided in an outdoor environment where access to medical care is limited or not available — usually in a remote location such as the woods, mountains or desert, or a disaster situation without access to traditional medical equipment and resources.

Jones, a fellow in the Academy of Wilderness Medicine, traces her interest in this area back to her childhood. “My favorite place was the woods,” she said. “I would do anything to camp or hike, or spend time outside.”

Through the years, she has backpacked 100 miles in one trip on the Appalachian Trail, and hiked halfway across England through the Lake District on the Coast-to-Coast Walk, the British equivalent of the Appalachian Trail. Travelling with her husband, they rely on each other and the contents of their packs for survival.

She attended her first wilderness medicine conference in Santa Fe, New Mexico, in 2005, and she was inspired.

“LINDA HAS DEVOTED HER CAREER TO TRAUMA AND EMERGENCY CARE, AND SHE HAS A PASSION AND TRUE LOVE FOR THE FIELD OF WILDERNESS MEDICINE. SHE IS CONSTANTLY LOOKING FOR OPPORTUNITIES TO VOLUNTEER HER SERVICES AND SHARE HER EXPERTISE.”

RICHARD BOUNDS, M.D.
WILDERNESS MEDICAL SOCIETY MEMBER

“There were lectures in everything from survival in the desert to using improvised materials to fashion splints to recognizing and managing diseases endemic to certain islands and developing countries,” recalled Jones. “The things they talked about were things that we enjoyed doing and learning about, and the perspectives were different than anything in my traditional nursing education or health care education, so I was hooked.”

The Wilderness Medical Society, established in 1983, welcomes members with varied backgrounds willing to work with non-traditional tools in unconventional settings to provide emergency care.

“Typically when I speak at nursing conferences on wilderness medicine, people are interested and they want to know how they can get involved,” said Jones. “A number of physician

colleagues here at Christiana Care are interested and involved in outdoor activities. There is [an informal] wilderness medicine interest group within our Emergency Medicine residency.”

Jones oversees the operations for one of the nation’s busiest Emergency Departments, ranked 24th in the U.S. and 12th on the East Coast in number of patient visits, according to data from the American Hospital Association. Jones also oversees Christiana Care’s trauma program, including the Level I trauma center at Christiana Hospital — the only trauma center in Delaware and between Baltimore and Philadelphia to provide this highest level of care for adult and pediatric patients.

“Linda has devoted her career to trauma and emergency care, and she has a passion and true love for the field of wilderness medicine,” said Richard Bounds, M.D., a fellow member of the Wilderness Medical Society who works in Christiana Care’s ED with Doctors for Emergency Services. “She is constantly looking for opportunities to volunteer her services and share her expertise.” ●



Linda Laskowski Jones, MS, RN, ACNS-BC, CEN, FAWM, a 27-year volunteer member of the National Ski Patrol, has contributed to research and education in wilderness medicine through 17 regional and national publications. With her is her husband, Larry Jones, FAWM, an EMT, environmental scientist and member of the Medical Reserve Corps at Christiana Care.

Lanny Edelsohn, M.D., receives award for distinguished teaching

Sidney Kimmel Medical College recognizes 42 years of teaching excellence



Lanny Edelsohn, M.D.,
with Sidney Kimmel
Medical College Dean,
Provost and Executive
Vice President for
Academic Affairs, Mark
L. Tykocinski, M.D.

“HE’S THERE FOR HIS
PATIENTS, AND YET HE
BRINGS HIS STUDENTS
IN SO THEY GET AN
UNDERSTANDING OF
WHAT A PATIENT AND
PHYSICIAN RELATIONSHIP
IS ALL ABOUT.”

DAVID PASKIN, M.D.
VICE DEAN, SIDNEY KIMMEL MEDICAL COLLEGE

Working a rotation at the old Philadelphia General Hospital as a young medical student in the 1960s, Lanny Edelsohn, M.D., couldn’t have predicted that 50 years later, he would be honored with the facility’s namesake award for excellence in teaching in clinical medicine.

“I’ve been involved with teaching students and residents for 42 years,” said Dr. Edelsohn, a neurologist with Christiana Care Neurology Specialists and a clinical professor of neurology at the Sidney Kimmel Medical College of Thomas Jefferson University in Philadelphia. “The students inspire me, they really do. To be chosen as their teacher of the year was very humbling.”

Dr. Edelsohn is the recipient of the 2015 Blockley-Osler Award for Distinguished Teaching. Blockley is the informal name of the defunct facility, which began as the Blockley Almshouse charity hospital. It was there that William Osler, M.D., pioneered the modern-day teaching

method of bedside clinical training, taking students out of the lecture hall.

The annual award is presented to an affiliate faculty member who exemplifies, among other traits, “graceful humility, tireless, unselfish service, kindness, sympathy, generosity and charity to all men, capacity for exact observations, patience and avoidance of shortcuts, a life steeped in tireless and unselfish service.”

“He takes the time and he has an interest which is motivated purely by what doctors are supposed to be made of,” said David Paskin, M.D., vice dean of the Medical College. “He’s really a throwback to the physician that has been for centuries, one who passes on knowledge person-to-person in a very warm and understanding way. Here’s a guy who’s been teaching our students for years and year and years with high acclaim, and no one’s really said thank you in a formal, very respectful and elegant way. This award has done that.

“He’s there for his patients, and yet he brings his students in so they get an

understanding of what a patient and physician relationship is all about.”

Dr. Edelsohn said his students inspire him. “I’ve had hundreds of students over the course of my career. I’m amazed at their intelligence, motivation, enthusiasm and excitement on becoming physicians.

“I probably would have retired long ago had it not been for the energy I feel when these future doctors, with smiles on their faces, present their findings, come up with a diagnosis and develop an appropriate treatment plan.”

Dr. Edelsohn joined Christiana Care Health System in 1973 and from 1987 to 2010 served as chief, Section of Neurology. In 2013, the system opened the Lanny Edelsohn, M.D., Neuro Critical Care Unit — the only one of its kind in the state, devoted to patients with immediate, life-threatening problems affecting the brain, spinal cord or peripheral nerves. ●

Publishing

Eric V. Jackson Jr., M.D., MBA, et al. “Engaging Staff to Improve Quality and Safety in an Austere Medical Environment: A Case–Control Study in Two Sierra Leonean Hospitals.” *International Journal for Quality in Health Care Advance*. August 2015.

Novneet Sahu, M.D., Brad Sandella, D.O., et al. “Olecranon Stress Injury in an Adolescent Overhand Pitcher: A Case Report and Analysis of the Literature.” *Journal of Sports Health*. July/August 2015.

Seema S. Sonnad, Ph.D., et al. “True “Meaningful Use”: Technology Meets Both Patient and Provider Needs.” *American Journal of Managed Care*. May 2015.

Dana R. Thompson, MPH, et al. “Time of HIV Diagnosis and Engagement in Prenatal Care Impact Virologic Outcomes of Pregnant Women with HIV.” *PLoS ONE*. July 2015.

Susan Coffey Zern, M.D., CHSE, Ryan S. Calvi, D.M.D., MS, John S. Vorrasi, D.D.S., and Daniel J. Meara, M.D., D.M.D., MS. “Incorporating Simulation Into Oral and Maxillofacial Surgery Residency Education and Training: Christiana Care’s Method.” *Journal of Oral and Maxillofacial Surgery*. Published online February 2015.

Presentations

Mark Cipolle, M.D., Ph.D., Danielle Mosby, MPHc, et al. “Lower Extremity Duplex Surveillance Does Not Reduce the Incidence of Pulmonary Embolism: A Prospective Study of Two Centers.” *American Association for the Surgery of Trauma and Clinical Congress of Acute Care Surgery 74th Annual Meeting*. Las Vegas, Nev. September 2015.

At the Joint Statistical Meeting, Seattle, Wash. in August 2015:

- **Paul Kolm, Ph.D., Daniel Elliott, M.D., MSCE, Joanne Brice, M.D.** “Searching for Non-linearity Using Fractional Polynomials.”
- **Pan Wu, Ph.D.**, et al. “On Causal Mediation Analysis for Non-normal Outcomes.”
- **Zugui Zhang, Ph.D.** “Model Selection for Parsimonious Models via Conceptual Predictive Statistic.”

Stephen A. Pearlman, M.D., MSHQS. “QI for the Pediatrician: What’s in Your Toolbox?” at Hot Topics in Pediatrics meeting. Orlando. July 2015.

Stephanie Rogers, BSN, RN. “Generating Equity of Our mothers: The GEM Breastfeeding Project,” a poster at the Building Bridges Across the Chasm of Breastfeeding Inequities conference. Atlanta. August 2015.

Awards

A paper titled “Towards Improving Transurethral Prostate Surgery: Development and Initial Experiments with a Novel Concentric Tube Robotic Platform,” by **Christopher R. Mitchell, M.D.**, director of Robotic Surgery at the Helen F. Graham Cancer Center & Research Institute, won first place in the basic science category of the Endourological Society & the Journal of Endourology’s annual essay contest. Dr. Mitchell will present the paper at the Society’s 33rd World Congress Meeting in London on Sunday, Oct. 4.

Three Christiana Care nurses received The DAISY Award for Extraordinary Nurses, presented each month by the Professional Nurse Council in recognition of a nurse’s exceptional care and the difference that nurses make every day in the lives of our patients and their families. The winners are: **Katie Melville, RN-BC**, in July; **Debra Lovejoy-Bland, BSN, RN, CNII**, in TCU WIP position; **PCCN Kate Armstrong, BSN, RNII**, Wilmington ICU, in May. ●

Best practice review

APPROVED DISINFECTANTS

Q. WHEN SHOULD DISINFECTION BE PERFORMED ON MEDICAL EQUIPMENT?

A. Disinfection is performed **after every patient contact**.

Q. WHAT DISINFECTANTS ARE USED AT CHRISTIANA CARE?

A. Approved disinfectants used at Christiana Care include PDI Wipes, Virex 256 (for floor cleaning only), and Clorox.

Q. CAN ALL OF THE DISINFECTANTS BE USED ON ALL SURFACES?

A. No. The selection of the product will depend on the area being cleaned and manufacturer recommendations.

- PDI Super Sani-Cloth (high-alcohol formula in purple-top container) can be used on most equipment, computer keyboards/mouse, glucometers, and other high-touch surfaces.
- PDI Sani-Cloth (low-alcohol formulas in red-top and gray-top containers) is used only in certain departments on equipment as required by the manufacturer. Be aware of the longer contact times.

- Virex 256 is for use by Environmental Services for floors.
- Clorox is used by Environmental Services and stocked by the Medical Office Practices and Outpatient Services for C-Diff.

Q. WHAT IS THE CONTACT TIME AFTER WIPING WITH A DISINFECTANT FOR IT TO BE EFFECTIVE?

- A.
- PDI Wipes (Purple top) – 2 minutes.
 - PDI (Red top) – 5 minutes.
 - PDI (Gray top) – 3 minutes.
 - Virex 256 – 10 minutes.
 - Clorox – 2 minutes, but 5 minutes for C-Diff. ●

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If you have questions about this Best Practice Review, please contact content experts Carol Briody, 733-3508, or Infection Prevention, 733-3506, or call the Safety Hotline, 7233 (SAFE) from within Christiana and Wilmington hospitals. Outside call 623-7233 (SAFE).

Value Institute recognizes first Lean Six Sigma Black Belts



Lean Six Sigma Black Belts Michelle Collins, MSN, RN-BC, ACNS-BC, John Emberger, BS, RRT, FAARC, June Estock, MSN, RN, CPHQ, LBB, Janet Cunningham, MHA, RN, NE-BC, CENP, Luz Reyes-Laureano, MLS, ASCP, Adrian Fedyk, Susan Mascioli, MS, BSN, RN, CPHQ, NEA-BC, and Kevin Hawkins.

Eight employees are completing certification to become the first improvement science leaders at Christiana Care to earn Lean Six Sigma Black Belts.

The year-long program is a customer-focused model of quality improvement that both trains and coaches staff in performance improvement. Candidates are taught a systematic method for applying data-driven analysis to focus on a problem while enlisting allies within Christiana Care to bring about lasting improvement.

“The Lean Six Sigma Black Belt program is a rigorous experience that builds on earlier Green Belt training and prepares candidates to be quality-improvement leaders by preparing them to identify and initiate projects that will make patient care better, safer and more efficient,” said Vernon Alders, MHCDS, MBA, MSW, corporate director of Organizational Excellence and director of the Value Institute’s Center for Organizational Excellence, which provides a source of leadership and expertise to help Christiana Care reach its full organizational potential in achieving its mission.

Earlier this year, Christiana Care received an Everest Award, an honor bestowed on a prestigious group of 17 hospitals setting national benchmarks for the fastest five-year rate of

improvement. Quality management such as that fostered by Lean Six Sigma has a role to play in achieving this level of excellence, said Alders.

Those completing the new Black Belt certification and their project titles are:

- Luz Reyes-Laureano, MLS, ASCP, a medical laboratory scientist; and Kevin Hawkins, a senior business analyst. Their project dealt with “Wound Care Packing.”
- Michelle Collins, MSN, RN-BC, ACNS-BC, director of Nursing Development and Education, as well as Wound Ostomy and Continence Nursing; and Adrian Fedyk, medicine finance manager, whose project improved “Inter-unit Transfers.”
- Janet Cunningham, MHA, RN, NE-BC, CENP, vice president of Professional Excellence and associate chief nursing officer; and June Estock, MSN, RN, CPHQ, LBB, a senior consultant in Organizational Excellence. They worked to “Transform Care at the Bedside.”
- Susan Mascioli, MS, BSN, RN, CPHQ, NEA-BC, director of Nursing Quality and Safety, and John Emberger, BS, RRT, FAARC, a respiratory therapist recently named performance improvement program manager for the Department of

Medicine. Their team worked on a project called “Admission Order to Bed Ready.”

As an example of the Black Belt projects, Mascioli and Emberger analyzed a year of data on patients arriving at the Emergency Department and the average time that elapsed from a physician writing an admission order to a bed being assigned to a patient. The average time was 156.5 minutes. Wanting to significantly reduce this period, Mascioli and Emberger met weekly with a team of employees who play key roles in admissions. Through focused analysis and collaboration, the interdisciplinary team reduced average times for a bed assignment to 99.5 minutes — a 36.4 percent reduction. And since the period of project, this time has been further reduced.

“It’s very rewarding to utilize the Lean Sigma Black Belt tools to improve complex system problems such as patient flow in this way,” said Mascioli.

The Black Belt Lean Six Sigma certificate is issued by the Juran Institute, an internationally recognized quality-management company. Lean Six Sigma is defined as two sciences brought together — one focused on eliminating waste (Lean) and other focused on performance improvement (Six Sigma), said Emberger. The Black Belt program builds on the Lean Six Sigma Green Belt, a training that was launched at Christiana Care in 2013.

The training includes a five-step process known as the DMAIC Toolkit, which is a way to define, measure, analyze, improve and control a problem. At present, more than 100 employees have been trained in Lean Six Sigma techniques.

“Our goal is to have a thousand employees trained in using these methods and helping us build our capacity for quality improvement,” said Alders. ●

THERAPEUTIC NOTES

Glucose-6-phosphate dehydrogenase deficiency By Lisa Kletter, Pharm.D

Glucose-6-phosphate dehydrogenase (G6PD) deficiency is a genetic disorder linked to the X chromosome and is fully expressed in hemizygous males, homozygous females and a portion of hemizygous females. The expression of G6PD deficiency is a spectrum of hemolytic syndromes. It affects 200 to 400 million people worldwide. Affected persons are usually asymptomatic unless exposed to oxidative stress leading to destruction of the erythrocytes from infection, drugs or consumption of fava beans. Symptoms may present as episodic anemia or less frequently chronic hemolysis.

The two most common variants are G6PD Mediterranean (Class II) and G6PD A- (class III). The World Health Organization (WHO) has classified the variant types of G6PD based upon the magnitude of the enzyme deficiency and the severity of hemolysis:

- Class I variants have severe enzyme deficiency and have chronic non-spherocytic hemolytic anemia.
- Class II variants have severe enzyme deficiency (<10% residual enzyme activity), but usually only intermittent hemolysis.
- Class III variants have moderate enzyme deficiency with intermittent hemolysis, usually associated with infection or drugs.
- Class IV variants have no enzyme deficiency or hemolysis.
- Class V variants have increased enzyme activity.

All affected individuals should avoid exposure to drugs that trigger hemolysis. In addition, a pregnant or nursing female who is

heterozygous for G6PD deficiency can transmit the drug to the fetus through blood or the newborn in the mother’s milk. There are a variety of lists of drugs to avoid in patients with G6PD deficiency. These lists are not all in agreement. The G6PD Deficiency Favism Association website (www.g6pd.org) provides a list of drugs to be avoided as well as a list of drugs considered safe at normal therapeutic doses. A partial list of drugs to be avoided for all deficiency types includes:

- Dapsone
- Dimercaprol
- Methylene blue
- Nitrofurantoin
- Phenazopyridine
- Primaquine
- Rasburicase
- Toluidine blue

At Christiana Care Health System prescribers are to document G6PD deficiency in the electronic medical record (EMR) problem list. This information is viewable to the patient care team in the Problems and Diagnoses section. Documentation in the Allergies section of the EMR as Other-Allergen is also recommended to ensure safe prescribing of medications in our G6PD deficient patients. ●

References:

1. WHO Working Group. Glucose-6-phosphate dehydrogenase deficiency. *Bulletin World Health Organ* 1989;67:601-11.
2. Youngster I, Schechmaster R, Akayzen Y, et al. Medications and glucose-6-phosphate dehydrogenase deficiency. *Drug Saf* 2010;33(9):713-726.
3. G6PD deficiency favism association website: Accessed online May 2015 at www.g6pd.org.
4. Glader B. (2015) Diagnosis and treatment of glucose -6-phosphate dehydrogenase deficiency. In J.S. Tirnauer (ED). UpToDate. Retrieved from <http://www.uptodate.com/contents/diagnosis-and-treatment-of-glucose-6-phosphate-dehydrogenase> (accessed May 2015).

September

Medication Take Back Day

Saturday, Sept. 12, 10 a.m. – 2 p.m. (rain or shine)
Christiana Hospital Campus

Prescriptions, over-the-counter pills, pet medicines, vitamins, liquid medications and creams will be accepted. Leave all medications in their original containers. Syringes/sharps will not be accepted.



2015 Wilmington Heart Walk

Saturday, Sept. 12, registration opens at 8 a.m.
Bellevue State Park, 800 Carr Road, Wilmington

The 24th Annual American Heart Association Heart Walk has a new location and new day – Saturday, Sept. 12, at Bellevue State Park. The walk promotes awareness about heart disease and stroke while raising funds to fight the diseases.

Register at <http://www.heartwalk.kintera.org/wilmingtonde>. Individuals can start a team or join one of the several teams from Christiana Care already listed on the website. The first 1,000 Christiana Care employees and their team members to register receive a one-of-a-kind T-shirt.

An Insider's Peek into the OR

Sunday, Sept. 13, 11 a.m. – 2 p.m.
Christiana Hospital SurgiCenter

This open house, sponsored by the Perioperative Professional Nurse Council, gives Christiana Care employees and their children the opportunity to explore a real operating room with hands-on activities and fun contests. For more information, contact Jessica Donnelly, RN, at jedonnelly@christianacare.org.



Women's Health Lecture Series: Million Hearts Delaware – Your Passport to Health

Thursday, Sept. 17, 6:30 – 8 p.m.
John H. Ammon Medical Education Center

Learn about heart health and stroke prevention, and participate in balance testing and screenings. To register, call 800-693-2273 or go to www.christianacare.org/lectures.

October

Celebration of Hope

Saturday, Oct. 3, 7 p.m. – 11 p.m.
Wilmington Country Club

Attend an enchanted evening to celebrate hope for a vibrant future. Delight in bountiful cuisine, live music and award-winning a cappella talent. Watch a celebrity chef create a fantastic sculpture in sugar and enjoy the opportunity to win an exquisite diamond from A.R. Morris Jewelers.

Ticket Prices: \$150/per person or \$300/per couple. Proceeds will support the Psychosocial Oncology & Survivorship Program at the Helen F. Graham Cancer Center & Research Institute, helping patients and their families navigate their journey through cancer. For sponsorship information, contact the Office of Development at 302-327-3305.



Moving Freely Without Pain: Shoulders

Wednesday, Oct. 14, 2015, 6 - 7 p.m.
John H. Ammon Medical Education Center

Your shoulders offer a wide range of movement for your arms and hands, and are also strong enough to allow for actions such as lifting, pushing and pulling. They should move freely without restriction or pain; sometimes they do not. Join orthopaedic surgeons and physical therapists to discuss shoulder pain and techniques and treatment options. Call 800-693-2273 or visit <http://www.events.christianacare.org> to register.



Every Woman Matters: Breast Health and Women's Wellness Conference

Saturday, Oct. 17, 8 a.m. – 2:30 p.m.
John H. Ammon Medical Education Center

This conference for all women, including breast cancer survivors who would like to learn more about breast health, genetics, breast cancer screenings, treatment and survivorship, is free and includes continental breakfast and lunch. Registration for the conference and scheduling an appointment (before day of the event) is required. Call to 302-623-4200 to schedule a mammogram. Seating is limited, so register today by calling 302-623-2273. The Breast Center will be open the day of the conference for mammograms from 8 a.m. to noon.



10th Annual Latina Conference

Saturday, Oct. 24, 9 a.m. – 3 p.m.
Bayard Middle School, 200 South DuPont St., Wilmington

The 10th Annual Strong and Healthy Latinas (Latinas Fuertes y Saludables): Love Yourself, Love Your Family, a special program presented entirely in Spanish for women of all ages and their families, provides information on breast cancer, importance of family history, raising healthy babies and creating healthy homes. Local health experts will answer questions. Flu vaccines will be available for those ages 9 and older from the Delaware Division of Public Health. Participate in new-this-year activities including Zumba. Certified medical interpreters and bilingual staff will be on hand to help. Register at events.christianacare.org/latinaconference or call en Espanol 302-623-2273.

Moving Freely Without Pain: Hip and Knee

Tuesday, Oct. 27, 6:30 - 8 p.m.

John H. Ammon Medical Education Center

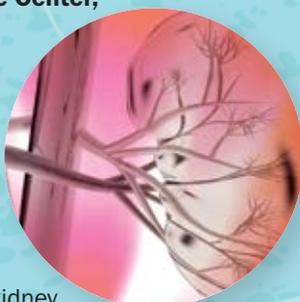
Your hips and knees should help you move freely without restriction or pain; sometimes, they do not. Join us when our orthopaedic surgeons and physical therapists explain surgical treatment options for hip and knee replacement. Call 800-693-2273 or visit <http://www.events.christianacare.org> to register.

Kidney Transplant Symposium for Nurses and Dialysis Technicians

Wednesday, Oct. 28, 7:30 a.m. – 4 p.m.

**Executive Banquet and Conference Center,
 205 Executive Drive, Newark**

This symposium, themed “Setting the Stage,” will provide nurses caring for potential kidney transplant patients knowledge of how the selection process works for both recipient candidates and potential donors. Register by Oct. 14 in the Education Center or at www.christianacare.org/kidney-symposium2015.



Arthritis Foundation 6th Annual Bone Bash

Friday, Oct. 30, 2015, 6:30 – 10:30 p.m.

DuPont Country Club, Wilmington

A semi-formal affair and auction to raise funds for critical arthritis research, advocacy and community-based education programs that help improve the quality of life for people with arthritis. For more information visit: <https://arthritismar.ejoinme.org/DelawareBoneBash>.



November

10th Annual Nursing Research Conference

Friday, Nov. 6, 7:15 a.m. – 4 p.m.

John H. Ammon Medical Education Center

Sessions include:

- Candy Wilson, Ph.D, APRN, WHNP-BC, Lt. Col., USAF, NC, “Supporting Women as They Answer the Nation’s Call: Building a Military Women’s Health Research Interest Group,” and “Building a Program of Research Regarding Women’s Health Needs in the Deployed Setting.”
- Mastery sessions on EBP Literature Searching Skills and Writers’ Workshop.
- Poster sessions.

Registration at <http://www.udel.edu/nrc>.

2nd Annual HVIS Conference

Saturday, Nov. 7, 7:30 a.m. – 1 p.m.

John H. Ammon Medical Education Center

“Go with the Flow,” this year’s Second Annual Heart and Vascular Interventional Service Conference, will feature an exciting agenda, including:

- Current State of Heart and Vascular Interventional Services.
- Trends/Technological Advances in the Electrophysiology Lab.
- Trending in Cardiac Catheterization Lab/Electrophysiology Labs.
- What’s Trending in Vascular Interventional Radiology.
- Plus more.

Light breakfast and mid-morning refreshments are included.

Register by Oct. 23 at www.christianacare.org/HVISconference.

Moving Freely Without Pain: Hands

Thursday, Nov. 12, 2015, 6 - 7 p.m.

John H. Ammon Medical Education Center

Your hands are an important part of who you are, how you communicate and how you perform your daily tasks. They should move freely without restriction or pain; sometimes they do not. Join us when our orthopaedic surgeons and physical therapists discuss hand pain and techniques and

treatment options to help you get back to your best self. Call 800-693-2273 or visit <http://www.events.christianacare.org> to register. ●

Partner in Wellness Incentive Program to receive reward for health goals

Starting on Sept. 8, benefited employees and their spouses can schedule a biometric screening, an important component of Christiana Care's new Wellness Incentive Program that offers financial rewards for achieving health-related goals.

This voluntary, short health screening provides information about your risk for certain medical conditions and diseases. This is powerful knowledge. Knowing your numbers helps you to understand your own personal risks so that you can take action to improve your own health. Or it could provide assurance that you are on the right track in keeping as healthy as you can.

To preserve the integrity of our benefits plan, we also are testing this year for

tobacco use as part of the biometric screening process, and offering compelling financial incentives to motivate people to quit.

The biometric screening is even more powerful when it's combined with a Health Assessment (HA), a web-based questionnaire that focuses on personal lifestyle practices, such as emotional well-being, exercise and diet.

It's important because:

- You can improve your health and learn how to maintain a healthy lifestyle.
- You can receive a financial incentive.
- To be eligible for the health benefit premium contributions in 2016, you need to complete the activities the program measures in 2015.

Biometric screenings are quick and easy. Screenings involve taking body measurements and a blood sample. That provides you with these essential numbers:

- Total cholesterol, HDL (good cholesterol), LDL (bad cholesterol), and total cholesterol to HDL ratio.
- Fasting glucose and or A1c, triglycerides.
- Systolic and diastolic blood pressure.
- Height, weight, BMI (body mass index, a ratio of height to weight).
- Waist size/circumference when indicated (because waist size is a predictor of risk for obesity-related conditions, such as heart disease).

Biometric screenings are good for both employees and employers. Data from the screenings is reported to the employer in aggregate to identify opportunities to improve the overall health and well-being of the organization.

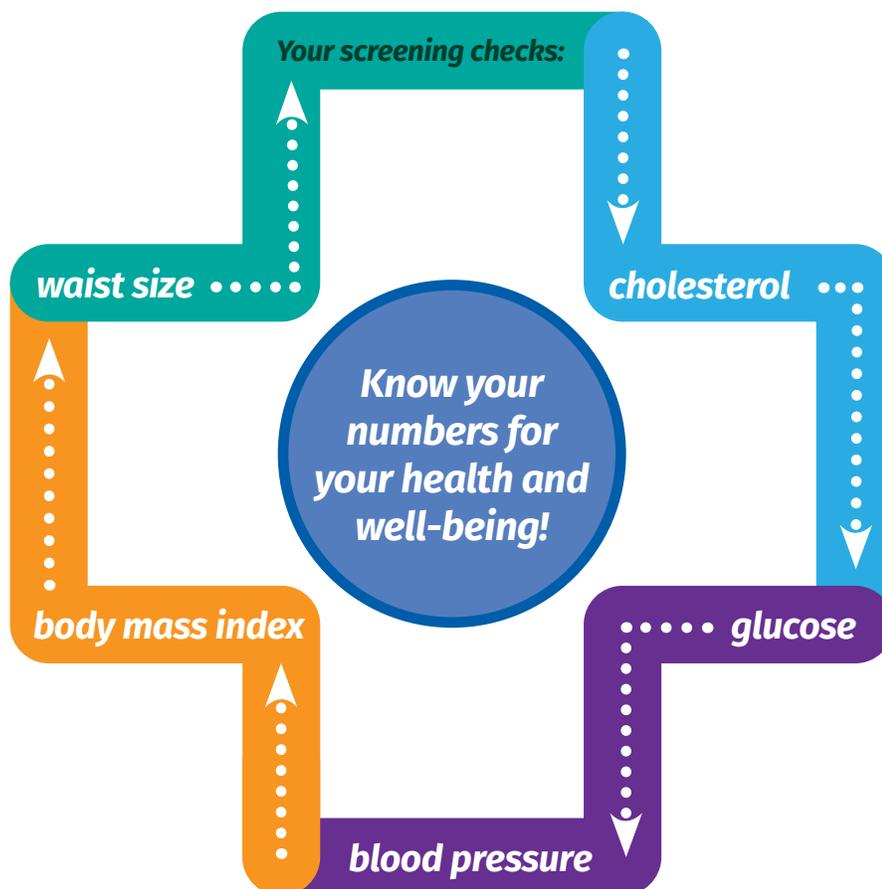
For example, in previous years, we learned that as a community we are overweight and that the employee rate of Type 2 diabetes is slightly higher than the average in Delaware.

Because the information is provided in aggregate, there are no worries about confidentiality. No individual results are reported.

Under HIPAA (Health Insurance Portability and Accountability Act), health providers are bound by law to keep your information and results secure. No one but you or someone you designate will be able to receive your results or personal information.

As leaders in health care, we set an example for others to follow. Getting a biometric screening is a great place to start.

Register on the Christiana Care Wellness Portal, hosted by our partners at Geisinger Health, beginning Sept. 8. ●



myStrength offers stress and mental health programs

Christiana Care is boosting its stress toolkit for employees through a partnership with myStrength, a confidential health and wellness portal offering evidence-based resources to individuals experiencing stress, anxiety, mild or moderate depression and other mental health issues. Locate the myStrength portal on the Wellness: Caring for Yourself website.

Like a health club for the mind, the portal provides personalized eLearning programs, simple tools, trusted resources and daily motivation to improve mental health and overall wellness each day. There are eLearning programs for depression, anxiety and addiction. Plus, there are additional resources that address self-esteem, anger management and obsessive compulsive disorder. All of these clinically based online modules offer proven guidance for improving emotional mindset.

The Wellness Caring for Yourself website offers other resources to manage stress and mental health issues, such as the Employee Assistance Program and a range of wellness programs.

Look for more information about myStrength on the Portals and in Focus. ●



Here are some advantages of myStrength:

- ▶ **Online availability 24/7 in a highly secure and confidential setting, with free mobile apps for iOS and Android devices.**
- ▶ **A personalized home page with daily refreshes.**
- ▶ **Clinically based programs centered in cognitive behavioral therapy and adapted from acclaimed depression and anxiety self-help titles.**
- ▶ **A valid choice to complement in-person psychotherapy that can be used for as long as necessary without costly utilization reviews and approvals.**
- ▶ **Treatment of the whole person with content for physical, mental and spiritual health.**
- ▶ **Engaging, individualized programs based on a brief initial wellness assessment.**

myStrength

The health club for your mind™



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Christiana Care is a private, not-for-profit regional health care system that relies in part on the generosity of individuals, foundations and corporations to fulfill its mission. To learn more about our mission, please visit christianacare.org/donors.

Being healthy is a team effort



Elena Delle Donne and Christiana Care are partnering to help Delawareans be inspired to improve their health. In addition to ads and billboards that feature motivating messages encouraging everyone to lead an active lifestyle, the former University of Delaware basketball star and 2013 WNBA Rookie of the Year is blogging at <http://wellness.christianacare.org>. Check it out — and get up and get moving! •