CHRISTIANA CARE HEALTH SYSTEM

# FOCUS

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

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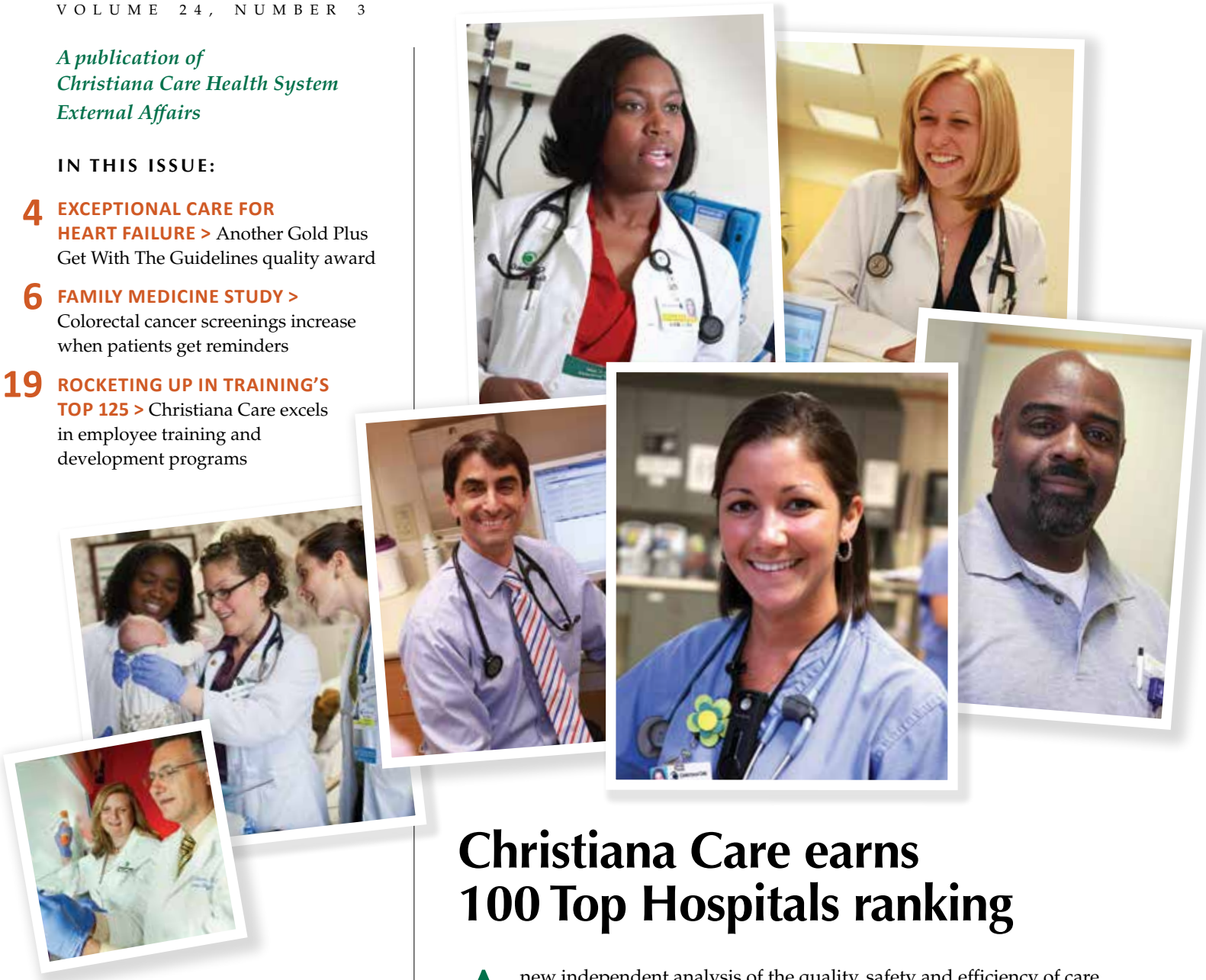

## The Christiana Care Way

**We serve our neighbors as respectful, expert, caring partners in their health. We do this by creating innovative, affordable systems of care that our neighbors value.**

**See article on page 3.**

# Christiana Care earns 100 Top Hospitals ranking

A new independent analysis of the quality, safety and efficiency of care provided by nearly 3,000 hospitals across the country rates Christiana Care Health System in the top 100.

In the 100 Top Hospitals list released by Truven Health Analytics (formerly Thomson Reuters), Christiana Care is one of only 15 major teaching hospitals to earn a place.

Christiana Care was the only hospital in Delaware and one of only two in the entire Philadelphia region to make the prestigious list. Christiana Care also received the distinction in the year 2000.

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# Christiana Care earns 100 Top Hospitals ranking

The award recognizes the 100 Top Hospitals that have achieved excellence in 14 areas, including patient outcomes, patient safety, treatment standards, patient satisfaction, efficiency and financial stability. The study compares hospitals only against similar facilities in terms of size and teaching status.

"This honor is a tribute to our doctors, nurses and frontline staff who transform care every day," said Robert J. Laskowski, M.D., MBA, Christiana Care president and CEO. "Such recognition fundamentally speaks to our commitment to serve our neighbors as respectful, expert caring partners in their health."

Researchers based the 100 Top Hospitals on public information — Medicare cost reports, Medicare Provider Analysis and Review (MedPAR) data, and core measures and patient satisfaction data from the Centers for Medicare and Medicaid Services (CMS) Hospital Compare website. Hospitals do not apply, and winners do not pay to market the honor.

"This year's winners have brought even higher value to their local communities – better quality, higher efficiency and high patient perceptions of care, while confronting the challenges of massive industry-wide transformation to implement health care reform," said Jean Chenoweth, senior vice president at Truven Health Analytics.

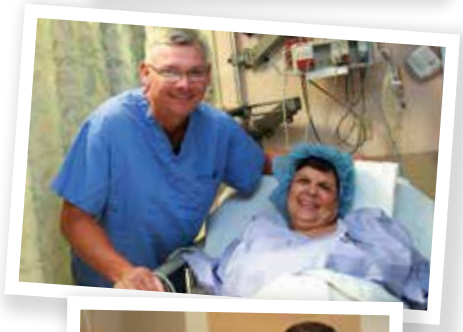
Truven Health reports that 100 Top Hospitals outperform their peers by demonstrating excellence and operating effectively across all functional areas. Based on comparisons between the study winners and a peer group of similar high-volume hospitals that were not winners, they found that if all hospitals performed at the level of this year's winners:

"This year's winners have brought even higher value to their local communities – better quality, higher efficiency and high patient perceptions of care..."

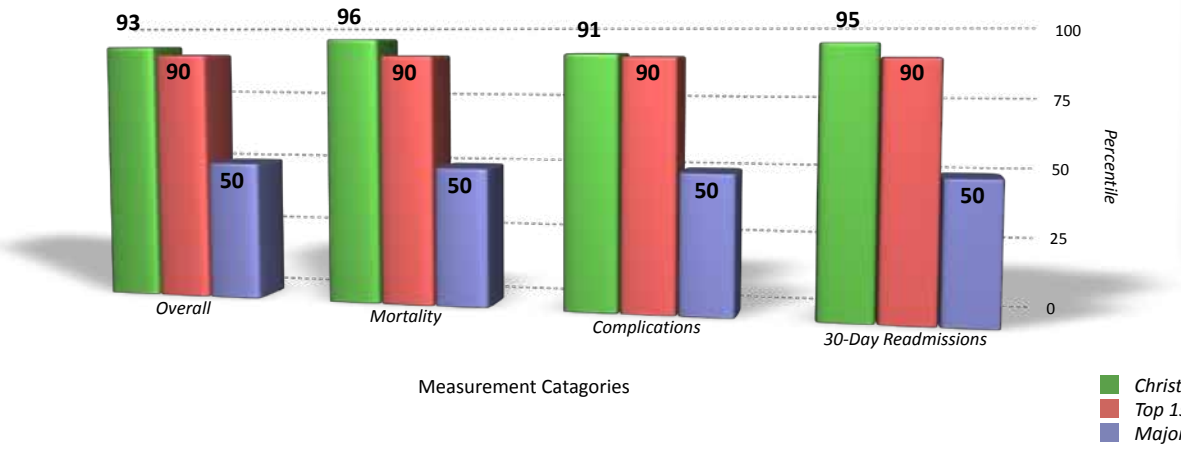
—Jean Chenoweth
*Truven Health Analytics*

- More than 164,000 additional lives could be saved.
- Nearly 82,000 additional patients could be complication free.
- $6 billion could be saved.
- Typical patients could be released from the hospital half a day sooner.

This analysis is based on Medicare patients. If the same standards were applied to all inpatients, the impact would be even greater. ●



## COMPARISON OF CHRISTIANA CARE TO TOP 15 TEACHING HOSPITALS AND MAJOR TEACHING HOSPITALS




Among major teaching hospitals graded in the 100 Top Hospitals ranking, Christiana Care was in the top 10 percent in overall score, mortality, complications and 30-day readmissions.

# Separated by geography, united by The Christiana Care Way

By **Sharon Kurfuerst, Ed.D, OTR/L, FAOTA**
Vice President, Rehabilitation & Orthopaedic Services

The Christiana Care Way is relevant to all of us at Christiana Care — at our satellite facilities and in our hospitals. Wherever the Christiana Care logo appears, it signals that patients and visitors should expect us to fulfill our promise to be expert, caring partners in health.

We have outstanding people at our satellite locations. They provide outstanding care and service. But it can be challenging in these locations for staff to feel connected to each other, because we are separated by geography and by differing work environments. This feeling of isolation means that we need to pay extra attention to the experience we are creating for our patients and for each other.

If a patient's first experience at Christiana Care is at one of our satellite facilities, as it often is, are we making a good first impression? Are we ensuring they feel connected to Christiana Care's full spectrum of services? Are we developing the same connection to The Christiana Care Way that is taking hold on our hospital campuses?

As we fulfill the promise of The Christiana Care Way, we must focus on one aspect of care that always has the potential for problems: handoffs.

My colleagues in the Emergency Department and on patient care units in the hospital are well versed in the critical importance of handoffs — those moments when the care of a patient is transferred from one team to another. But handoffs happen in many ways.

Handoffs occur when patients leave the hospital and seek care at our outpatient rehabilitation or imaging locations. Handoffs occur when new mothers leave the hospital and begin to rely on the care of their pediatrician and follow-up calls from the Parent Education nurses. We use a different phrase to describe these events — transitions of care — but isn't the process fundamentally the same?

And handoffs occur among all of us, as colleagues, as we create the culture that defines Christiana Care Health System. Daily, as we communicate and partner with each other, we have opportunities to create that great experience that we promise in The Christiana Care Way and instill it in those around us.

Our guide is that word in The Christiana Care Way: "respectful." When we treat each other with genuine respect, every communication is an opportunity to build up our colleagues. A phone call to communicate lab results or schedule an appointment can include a sincere thank-you spoken with a smile. A staff meeting is an opportunity to pay a compliment or publicly thank a colleague for being a valuable partner. And every interaction that involves a patient is an opportunity to show them that their trust in Christiana Care is well placed.

"It was a pleasure serving you today, Mrs. Smith. I understand you have an appointment with our Imaging Services for an MRI. They're an outstanding team, and they're going to provide you with a great experience. Is there anything else I can do to help you today?"

If you heard that as a patient, wouldn't it make you feel so much better than if someone just handed you a prescription and a phone number?

Every one of us at Christiana Care has an opportunity to create these positive experiences every day. If you don't interact with patients, you can create these experiences with your colleagues. Every communication, in a way, is a handoff. It's an opportunity to demonstrate The Christiana Care Way, and to pass on your good example to someone else.

I hope you will accept this challenge today: Reflect on your own behavior and how you communicate to your patients and colleagues. Where are your opportunities to exemplify The Christiana Care Way? We may be separated geographically, but The Christiana Care Way unites us in the way we deliver care to patients and the way we interact with each other. ●

### The Christiana Care Way

We serve our neighbors as respectful, expert, caring partners in their health. We do this by creating innovative, effective, affordable systems of care that our neighbors value. Christiana Care Health System

# Christiana Care earns AHA Heart Failure Gold Plus quality award

Christiana Care Health System has received the Get With The Guidelines® — Heart Failure Gold Plus Quality Achievement Award from the American Heart Association. The recognition signifies that Christiana Care has reached and maintained an exceptional goal of treating patients who suffer from heart failure, according to the guidelines of care recommended by the American Heart Association/ American College of Cardiology.

This marks the sixth consecutive year Christiana Care has been recognized with a quality achievement award for the treatment of heart failure and the third consecutive year the program has been recognized at the Gold level.

Get With The Guidelines — Heart Failure helps Christiana Care's staff develop and implement acute and secondary prevention guideline processes to improve patient care and outcomes. The program provides hospitals with a web-based patient-management tool, best-practice discharge protocols and standing orders, a robust registry and real-time benchmarking capabilities to track performance.

The quick and efficient use of guideline procedures can improve the quality of care for people with heart failure, save lives and ultimately reduce health care costs by lowering the recurrence of heart attacks.

"Christiana Care is dedicated to making our care for people suffering from heart failure among the best in the country."

— Timothy J. Gardner, M.D.
*Medical Director, Center for Heart & Vascular Health*

"Christiana Care is dedicated to making our care for people suffering from heart failure among the best in the country," said Timothy J. Gardner, M.D., medical director of the Center for Heart & Vascular Health. "The American Heart Association's Get With The Guidelines — Heart Failure program helps us to accomplish this goal."

"This quality-achievement award is the culmination of a tremendous team effort by all my colleagues within the Center for Heart & Vascular Health and throughout Christiana Care," added Mitchell Saltzberg, M.D., medical director of the Heart Failure Program. "Our program continues to strive to do the right things for congestive heart failure patients to define our program as a regional and national center of excellence."

"Recent studies show that patients treated in hospitals participating in the American Heart Association's Get With The Guidelines — Heart Failure program receive a higher quality of care and may experience better outcomes," said Lee H. Schwamm, M.D., chair of the Get With The Guidelines National Steering Committee and director of TeleStroke and Acute Stroke Services at Massachusetts General Hospital in Boston, Mass.

Following Get With The Guidelines — Heart Failure treatment guidelines, patients with heart failure are started on aggressive risk-reduction therapies if needed, including cholesterol-lowering drugs, beta-blockers, ACE inhibitors, aspirin, diuretics and anticoagulants while in the hospital. Before discharge, they also receive education on managing their heart failure and overall health, including lifestyle modifications and follow-up care. Hospitals must adhere to these measures at a set level for a designated period of time to be eligible for the achievement awards.

The American Heart Association has recognized the Center for Heart & Vascular Health with Get With The Guidelines Awards for sustained quality achievement and exceeding national standards in the treatment heart attack, heart failure and stroke. ●


"This quality-achievement award is the culmination of a tremendous team effort by all my colleagues within the Center for Heart & Vascular Health and throughout Christiana Care."

— Mitchell Saltzberg, M.D.
*Medical Director, Heart Failure Program*

# WomenHeart support group empowers women to share their heart-disease experience

From left, Elisabeth Bradley, APN, Michele Wingrave and Cecelia Stoeckicht facilitate discussions and provide support for women who have heart disease in the new WomenHeart support group at Christiana Care.

There are 41 million women in America living with heart disease. But after Michele Wingrave of Wilmington underwent surgery at Christiana Care to repair a valve in 2011, she couldn't find a support group just for women.

"I had lots of wonderful support years before when I was treated for breast cancer — and yet there was nothing specifically for women with heart disease," she said. "After a lot of research online, I found WomenHeart."

On Feb. 19, Wingrave and heart patient Cecilia Stoeckicht of Wilmington, also a heart patient, led the first meeting of WomenHeart of New Castle County at the John H. Ammon Medical Education Center at Christiana Care.

WomenHeart: The National Coalition of Women Living With Heart Disease, is a support group that empowers women to share experiences, explore ways to cope, learn about their health and embrace behaviors that are good for their hearts.

More than 20 women, most of them patients at Christiana Care's Center for Heart & Vascular Health, gathered to talk about their feelings and concerns. Several of them have high blood pressure and are focused on preventing heart disease, the number-one killer of women in the United States.

Elisabeth Bradley, APN, the clinical leader for the Cardiovascular Prevention Program at Christiana Care, and Renay Stoutmire, RN, BSN, a registered nurse in Interventional Radiology, coordinated the event with Wingrave and Stoeckicht. The group plans to meet from 6 to 7:30 p.m. on the first Tuesday of each month.

"When someone asks a medical question, Beth and Renay can answer it," Wingrave said. "This group would not be possible without the support of Christiana Care."

She and Stoeckicht are volunteer support group coordinators for WomenHeart, a nonprofit advocacy group, and trained at the Mayo Clinic to educate women so they can work in partnership with their medical team.

Donna Miller, 52, of Stanton, who has diabetes, was diagnosed with heart failure in her 40s. Now Miller is proactive about learning all she can about her condition.

"I have learned a lot by attending lectures on diabetes and women's health," she said. "I want to learn all I can about women's heart health, too."

The group also discussed the depression and lack of energy patients often feel after a serious illness. And they discussed their feelings about having a scar from the incision made for open heart surgery.

"Men don't seem to mind having a scar, but many women do," Wingrave said.

Stoeckicht recalled having a lariat-style necklace made to cover her incision soon after her operation six years ago to correct a congenital defect.

"Now, I don't mind showing my scar," she said. "It's an exposed zipper, very much in fashion — except it's on my skin instead of my dress." ●

*To learn more about WomenHeart of New Castle County, contact Cecilia Stoeckicht at 302-351-4595, womenheartncc@comcast.net or Michele Wingrave at 302-547-3652, wh-newcastleco@womenheart.org.*

# Have you been screened for colorectal cancer? A reminder helps, study says

Patients who receive reminders by phone or mail are three times more likely to be screened for colorectal cancer, according to a recently published study of patients in primary-care practices affiliated with Christiana Care Health System.

Heather Bittner-Fagan, M.D., MPH, leading co-investigator, said of the study published in Cancer Epidemiology, Biomarkers and Prevention in January: "It's exciting when we can use our own data to proactively reach out to patients and ask 'how can we help you to get screened?'" Dr. Bittner-Fagan is also the director of research in Family and Community Preventive Medicine and a Value Institute Scholar at Christiana Care.

The American Cancer Society (ACS) and the United States Services Task Force recommend colorectal cancer screening for all normal-risk individuals beginning at age 50. Both the ACS and the task force offer several options for screening method. In the United States, the most commonly used test is colonoscopy followed by stool blood testing.

From 2007 to 2011, the team of researchers identified and recruited more than 900 patients who were at normal risk, age 50-79, not up-to-date for colorectal cancer screening and who had a relationship with one of the primary-care practices at Christiana Care.

In the study, a baseline survey determined the patients' readiness to screen and any test preference (stool blood testing vs. colonoscopy). About one-third of the patients did not receive any additional contact; one-third received tailored materials based on their initial responses; and the final one-third received phone calls from a nurse navigator to assist them in completing colorectal cancer screening.

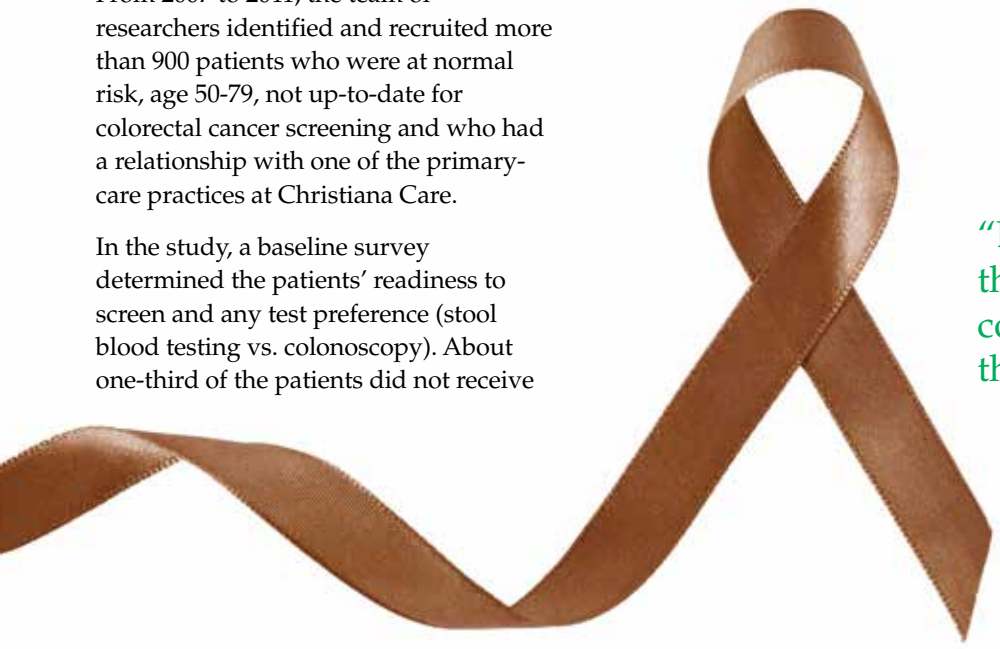
Overall, patients who were contacted were far more likely to be screened, the researchers found. Thirty-eight percent of patients who got tailored phone interventions and 33 percent of patients who received mailings completed tests. Without a reminder, only 12 percent of patients were screened.

"We know that interventions have been shown to make a difference in cervical and breast screenings," said Nora Katurakes, RN, OCN, Christiana Care's manager of Community Health Outreach & Education and a co-author of the study. "This study reinforces that these interventions can make a difference in screening for other cancers."

At Christiana Care, the lessons learned from the study are put into practice on a regular basis when nurse navigators reach out to patients in primary-care practices with an informative reminder to get screened for colorectal cancer.

Heather Bittner-Fagan, M.D., MPH

"Delaware has gone from near the bottom to near the top for colorectal cancer screening, and there is no disparity," Dr. Bittner-Fagan said. "The outcomes show that being proactive results in many more patients receiving screenings that can save their lives."●



"Delaware has gone from near the bottom to near the top for colorectal cancer screening, and there is no disparity."

— Heather Bittner-Fagan, M.D., MPH

# Plan to be outside all day? Grab your umbrella – rain or shine

In dwindling March, as the diminishing lion bleats like a lamb, daytime grows longer and the lingering wind fills with murmurs, harbingers, that say: Here comes the sun.

It's a good time for dermatologist Dawn E. Hirokawa, M.D., MPH, to plan another preventive- and early-detection campaign against the most common cause of skin cancer.

"Any time is a good time to be concerned about the harmful effects of excessive sun exposure," Dr. Hirokawa said. "In spring, people begin to spend more time outdoors. That can be a good thing, if you take the necessary precautions."

"But if you are among many who already have had routine exposure to the sun or have had sunburn at any time in your life, it is important to have regular screenings to detect skin cancer early, while is it easiest to treat and cure."

A multidisciplinary skin-screening event takes place from 9 a.m. to 11 a.m. on the last Friday of every month at the Helen F. Graham Cancer Center.

Call 302-623-4509, today for an appointment to visit the Skin-Screening Multidisciplinary Center at the Helen F. Graham Cancer Center. ●

Dawn E. Hirokawa, M.D., MPH

# Direct mail ad wins cancer awareness advertising award


**Christiana Care Health System won a Gold Award in the 2012 Cancer Awareness Advertising Awards competition, a national competition of cancer marketing and communication materials. Christiana Care's entry, titled "3D Mammography - Welcome to the Future," was in the Direct Mail – Single category for health systems. Congratulations to Jennifer Johnston, MA, APR, senior communications manager. ●**

# *Going for the gold*
# Magnet journey continues toward redesignation in 2014

While Olympic athletes around the world spend the coming year tirelessly training to win gold next February in Sochi, Russia, Christiana Care will be eyeing its own gold honors pursuing Magnet redesignation.

Christiana Care in 2010 became the first Magnet-designated health system in Delaware — and to date is among 395 hospitals and health systems internationally — to achieve prestigious Magnet status from the American Nurses Credentialing Council (ANCC).

While there is significant work to do to prepare the application paperwork for Magnet redesignation, Chief Nursing Officer Diane Talarek, MA, RN, NE-BC, points out that Magnet is "a never-ending journey toward continuous excellence."

"We train to be the very best that we can be and continuously provide exceptional health care to our patients, always reaching for the gold."

Talarek credits Christiana Care nurses with delivering excellent quality care to patients every day. She sees Magnet as a way of recognizing the care they deliver at increasingly higher levels.

"Patients tell us their care was exceptional, and that's extremely important feedback on an individual basis. Magnet designation tells us that our nurses and our entire interdisciplinary care team are working together to deliver the best care," said Talarek.

The new unit-based Value Improvement Team structure testifies to this joint approach to success, Talarek said. "Magnet is not just about Nursing improving care and outcomes. It's about Nursing working in concert with Environmental Services and Patient Escort, Respiratory Care and Food & Nutrition Services, Pharmacy and physicians; and many other collaborations in harmony with The Christiana Care Way."

In many ways, the Magnet journey follows the same path as health care reform and the value-based purchasing initiative, calling for improvements in care and improved outcomes based on evidence-based care, Talarek said.

"Much of the work done in these areas is driven at the unit level by nurses," she said. "Nursing has always looked at the plan of care for patients. Now, through our Nursing Quality and Safety Council, which is part of our shared-decision-making structure, we look at outcomes of the care we provide and ask ourselves, "'Does what we're doing make a difference to our patient? Does it add value?'"

Christiana Care earned Magnet designation in February 2010 by citing evidence from 2007 through early 2009. The redesignation application that will be submitted next February will cite examples of care from 2012 and 2013.

"The whole delivery of health care has evolved to a much different place than it was [when we first received Magnet designation]," Talarek said. "Patient care is more complex today and many patients are no longer followed by a primary care physician who knows their whole history.

"A core compentency for today's nurses is to be able to synthesize the patient's present and past history and work collaboratively with the health care team to move the patient safely along the continuum of care."

Nurses are active members of unit councils and continue to work on opportunities to improve care. The challenge for the year ahead in seeking redesignation is making sure we're prepared to tell that story to the Magnet Steer group and to the ANCC appraisers who will review our application and visit our campuses in 2014.

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"A core compentency for today's nurses is to be able to synthesize the patient's present and past history and work collaboratively with the health care team to move the patient safely along the continuum of care."

— Diane Talarek, MA, RN, NE-BC

*"Receiving the phone call that we had achieved Magnet in 2010 was a moment none of us in those rooms will ever forget."*

The continued evolution of the unit-based Value Improvement Teams dovetails nicely with the Magnet journey. In both cases, we ask ourselves, Why are we doing this? Why did it happen? How can we make it better? How can we get an A+?

Likewise, the relationship with the unit-based medical directors and the many departments throughout the health system that support Nursing's efforts speaks to the importance of interdisciplinary relationships achieved by Magnet hospitals.

"It's all about the relationships," said Talarek.

She believes that our systemwide commitment to patient- and family-centered care, along with our collective quest for delivering value and searching for ways to transform the work we do as we partner with our patients in The Christiana Care Way, will be pivotal to achieving Magnet re-designation.

"We have exceptional staff here at Christiana Care, in Nursing and throughout our system," said Talarek. "Receiving the phone call that we had achieved Magnet in 2010 was a moment none of us in those rooms will ever forget."

"I'm confident we're on the path to a repeat of achieving that golden moment next spring." ●

# Cooling technology and NICU team come to the rescue for Plank family


Waylon Plank and his parents are doing well after a close call and dramatic rescue that brought him to Christiana Care's NICU and the neonatal hypothermia program team.

Justin Plank had imagined what the first moments of fatherhood might be like. His wife Brenda would give birth, their newborn son would wail upon gulping his first breath of air, and Justin would cut the umbilical cord, as if to celebrate the grand opening of a new life.

But when Waylon Plank was born Sept. 29 at a Delaware hospital, his father heard no crying. His newborn son looked purple. The doctor immediately knew something was wrong.

Someone pressed a yellow button and within 60 seconds a group of nurses entered the room, providing Waylon with oxygen and letting the new parents kiss their ailing son as they rushed him to the neonatal intensive care unit.

Baby Waylon was suffering hypoxic ischemic encephalopathy (HIE), which means his brain was not receiving enough oxygen. Five minutes of such deprivation can begin killing brain cells. The long-term effects can include intellectual disability, seizures, delayed development and cerebral palsy.

Reducing the brain and body's temperatures can slow damage. Though it may seem counter-intuitive to those accustomed to seeing newborns placed in incubators beneath warm lamps, the doctors and nurses tending to Waylon in his earliest moments told the Planks their son was a candidate for a cooling technology that could be applied even as they transported him by ambulance to Christiana Hospital, where the most qualified personnel and advanced technology would give him a fighting chance.

Justin and Brenda agreed. Waylon was wrapped in a CritiCool blanket, which circulates cold water regulated by a microprocessor that responds to the baby's temperature.

The cooling process must occur within the child's first six hours of life, says Michael Antunes, M.D., medical director of Christiana Care's neonatal hypothermia program.

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The temperature reduction must be sustained for 72 hours. The choice to do so resides with the parents, but it is the job of doctors such as Antunes — he didn't work directly with the Planks — to explain the harrowing scenario and the most hopeful medical response, all while cautioning that for at least the next few years, the parents must monitor their child closely for signs of lasting damage.

At about 24 inches tall with a footprint of about 15-by-15 inches and weighing 30 pounds, the CritiCool device is a mobile version of larger, stationary devices that serve the same purpose. Christiana Care has two CritiCool units and is the only delivery hospital in Delaware that has the equipment.

"Internationally," Dr. Antunes says, "this has become the standard of care."

Justin Plank, whose family lives in Greenwood, spent that first night of his son's life at his wife's side at the hospital where he was born. The next morning, while his wife continued to recover, Justin went to Christiana Hospital to see Waylon, who would remain hospitalized there for nearly two weeks. Upon his body's return to its normal temperature, Waylon's blood sugar would have to stabilize.

*The Planks were told Justin was a candidate for a cooling technology ... they transported him by ambulance to Christiana Hospital, where the most qualified personnel and equipment would give him a fighting chance.*

"One of the hardest things was to see him lying there, cold," Justin said. "You know it had to be hurting, even though they had him on morphine to reduce the pain of the cooling process.

"You expect your baby to cry and to be overwhelmed with joy when they're born, and we didn't get that. When I got up there, he was on the cooling pad, and when he heard me talk, he opened his eyes. The nurse said that was the first time he had opened his eyes. I'm sure he heard lots of other people's voices, but to me, it seemed he recognized my voice."

That night, Justin again stayed with Brenda at the hospital where their baby was delivered. The next evening they stayed at the Christiana Hospital NICU.

Every morning, as doctors checked in on the Planks' child, Justin would ask questions about the process. It eased his concerns to know that he or his wife could call the staff at any time for updates on Waylon's progress.

Waylon has met his milestones in the time since his stay at Christiana Hospital. His parents say the respect and care they felt from the Christiana Care staff went beyond access to information.

"I think that we got the best care that we could've gotten," Justin says. ●

WOMEN'S & CHILDREN'S HEALTH

## Annual 'STORK' Day for maternity professionals flourishes

**More than 100 participants turned out for the STORK Day and Poster Fair Feb. 12, sponsored by Christiana Care Women's and Children's Health Services team at the John H. Ammon Medical Education Center. The third annual educational event — dubbed STORK as a short form for Sharing Topics of Research and Knowledge — has grown increasingly popular among women's health care professionals from Christiana Care, statewide hospitals, and neighboring facilities as well as students from surrounding universities. ●**

Cheryl Swift, BS, RNC, MSN (left), and Joyce Swisher, RN, coordinated the full-day educational event that drew nurses from Delaware, Maryland and Pennsylvania to the John H. Ammon Medical Education Center.

# Clinical study tests benefits of progesterone therapy for reducing swelling after brain trauma

The prognosis for patients who have suffered traumatic brain injuries has not improved for more than 50 years, but this could change dramatically if the results of a clinical trial currently in progress prove effective.

Typically, patients who receive head trauma suffer from the initial injury and secondary swelling after the injury, which can cause brain damage and contribute to long-term disability. Christiana Care is participating in an international trial to study the effectiveness of the hormone progesterone in preventing secondary swelling in patients who have suffered traumatic brain injury.

"The cost of care and treatment for a head trauma patient, especially a younger person, is tremendous because they require a high level of care for the rest of their lives," said Gerard Fulda, M.D., director of Christiana Care Surgical Critical Care and Surgical Research and principal investigator in the trial.

Patients in the study must receive progesterone therapy intravenously within eight hours of the injury. Previous preliminary clinical trials suggest that the earlier progesterone therapy is started, the better the patient responds, said John Getchell, RN, a member of the Surgical Critical Care Research team and Christiana Care's Clinical Research Nurse Council.

"There is a limited window of opportunity," Getchell said. When a patient is identified who may be appropriate for the study, the care team and a research nurse move quickly to present the options to the patient's family and obtain consent if the family wishes to participate, because the patient is generally too severely injured to make an informed decision regarding their care.

The eight-hour time limit to enroll in the study must include any time taken to transport the patient from a distant location. Christiana Care is the only Level I trauma center between Philadelphia and Baltimore.

Patients enrolled in the study continue to get the same level of care they would have received had they opted not to participate in the trial. In addition to this standard of care, they receive either progesterone or a placebo.

As part of the trial, patients with severe head trauma treated with progesterone or placebo are followed to assess the their ability to resume activities of daily life at three months and six months after their injuries. These activities include arranging their own transportation, managing money and functioning on their own in a safe manner.

"This study looks at not just a decrease in mortality but at the ability of the patient to resume a meaningful life, one not dependent on others for every aspect of care," Getchell said.

Researchers started looking at progesterone as a possible treatment because women, whose bodies produce progesterone naturally, have historically had better outcomes recovering from head trauma than men. In preliminary animal testing, researchers found progesterone therapy reduces the amount of secondary swelling associated with traumatic brain injury. In early human studies, patients with moderate head injuries who received progesterone had less disability than patients who received a placebo.

Further studies in patients with more severe injuries demonstrated significantly more favorable outcomes in functional ability at three and six months. ●

John Getchell, RN (left), a member of the Surgical Critical Care Research team and Christiana Care's Clinical Research Nurse Council, and Gerard Fulda, M.D., director of Christiana Care Surgical Critical Care and Surgical Research and principal investigator in the trial, discuss a patient's X-ray and qualifications for the study.

# Patient safety expert Richard Shannon, M.D., delivers business case for quality

Eliminating patient harm and waste in health care not only saves lives, but boosts the financial performance of health care institutions, according to Richard Shannon, M.D., the Frank Wister Thomas Professor and chair of the Department of Medicine at the University of Pennsylvania.

Dr. Shannon delivered his address "Building a Better Case for Quality" Feb. 5 at the John H. Ammon Medical Education Center at Christiana Care.

Dr. Shannon is a nationally recognized expert in patient safety. His pioneering work is chronicled in the chapter "First, Do No Harm," in the book titled "The Best Practice: How the New Quality Movement is Transforming Medicine" by Charles Kenney. He has been featured on CNN and in the Wall Street Journal and the New York Times.

By eliminating errors and waste, health care providers fulfill their moral imperative to do no harm, said Dr. Shannon, who is a board member of the American Board of Internal Medicine. "That's the starting point. It can take 1,000 days through process and systems improvement to get to the point where you have eliminated, not merely reduced, hospital-acquired infections," he said.

Improving the quality of care can dramatically impact the bottom line. "That can be vitally important for hospitals during times of limited resources," he said.

It is unfortunate that health care providers rarely stop to consider the lost financial opportunity associated with poor performance, Dr. Shannon said. "Embedded in inefficiency and harm are significant opportunities. Health care providers have almost a complete lack of understanding of the costs to deliver care. This inability to understand and measure cost is a barrier to improvement."

While at Christiana Care, Dr. Shannon met with clinical scholars at the Christiana Care Value Institute, with clinical chairs and with Department of Medicine unit-based clinical leaders.

"Christiana Care gets it," he said. "The leadership at Christiana Care understands what it takes to be great. You can be more successful in eliminating errors because you are more rooted in the community... . Having patients as your neighbors provides an added incentive."

He noted that the Christiana Care Value Institute is creating a systems infrastructure to gather and analyze data that can motivate and drive improvement. "The Value Institute will create a disciplined problem-solving approach — a common language whereby everyone in the organization sees and solves problems."


"Christiana Care gets it. You can be more successful in eliminating errors because you are more rooted in the community... . Having patients as your neighbors provides an added incentive."

— Richard Shannon, M.D.
*University of Pennsylvania*

This is not always the case, according to Dr. Shannon. Health care today is awash in meaningless measures, and providers are infatuated with reportable — not actionable — data. Moreover, they don't share a common language. Finally, he noted that "it is critical that we give people the time and space to learn how to be better."

Dr. Shannon provided examples of how eliminating hospital-acquired infections saves money. More than 70 percent of one patient's hospital bill of $246,000 was directly attributable to a needless hospital-acquired infection. That hospital lost more than $41,000 as a result. "When care is compromised by infection, you lose money."

The University of Pennsylvania's 1,000-day journey to eliminate central-line infections brought a financial improvement of more than $10 million. By reducing the average length of patient stay the hospital was able to care for an additional 623 patients, resulting in more than $3.6 million in revenue.

More importantly, Dr. Shannon said, the elimination of infections saved 65 lives. ●

# Medical interpreters ensure language isn't a barrier to high-quality health care

Medical interpreter Angelica Reyes-Hull interprets Spanish to English for Jennifer Painter, RN, at Christiana Hospital. Prescheduled requests for interpreter services rose to 360 in December 2012 from 26 in March.

In any given month, patients treated at Christiana Care speak from 30 to 40 different languages.

That's why Christiana Care provides qualified staff interpreters and Cyracom telephonic interpreting service.

According to Christiana Care Cultural Competency Manager Jacqueline Ortiz, prescheduled requests for interpreters rose from 26 in March 2012 to 360 in December 2012.

Interpreters are dispatched regularly to the Emergency Department, the Helen F. Graham Cancer Center, maternity and many other areas of the hospitals when the need arises, Ortiz said.

"Demand is exploding — and that is a very good thing," she said. "Interpreters are tremendously dedicated to making certain that patients understand their care so that they can make informed decisions."

Christiana Care Language Services has 10 interpreters, including seven who speak Spanish and three who are fluent in American Sign Language. There are plans to hire more.

About 80 percent of the population with limited proficiency in English speaks Spanish, Ortiz said. Aside from Spanish, top requested languages include Arabic, Mandarin Chinese, Haitian Creole and Korean.

But Christiana Care patients speak dozens of other languages. Most of those patients communicate with interpreters through ubiquitous, blue telephones placed throughout the health system and through interpreters from local agencies when the encounter requires an in-person interpreter.

"By using a blue Cyracom phone or by dialing extension 6000 from any phone with a speakerphone at Christiana Care, you can access interpreters in 150 languages," Ortiz said.

Sometimes, a language is so rarely encountered in the United States that even Cyracom is stumped.

For example, an elderly patient at Christiana Hospital could communicate only in a Creole dialect spoken by a few thousand people in the African nation of Sierra Leone. When Cyracom indicated they did not offer this language, Bonnie Osgood, RN, nurse manager of 4 Medical at Wilmington Hospital, contacted Language Services, and they found another telephonic interpretation company that was able to provide an interpreter in that language.

"Bonnie, her staff and the patient were very pleased," Ortiz said.

A recent pilot research project led by Deborah Ehrenthal, M.D., director of Health Services Research for Women and Children

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## Medical interpreters

and medical director of the OB-GYN Department women's health programs, discovered that among 391 mothers who delivered babies at Christiana Hospital during a six-week period, patients spoke 19 different languages — including seven different tongues originating in India.

The study found that of the mothers who communicated in a language other than English, 76.7 percent had used a family member or friend as an interpreter at some time during their stay.

"When providers rely on patients' family or friends, important information often gets lost in translation," Ortiz said.

Having access to a qualified, in-house individual who speaks the patient's language is an essential step in improving patient safety, education and quality of care, she said.

For example, she described a situation in which a daughter interpreted for her Vietnamese-speaking mother, who had been diagnosed with hepatitis C. Doctors asked if the mother had any history of risky sex or drug abuse. The daughter spoke to her mother and then responded "no."

In truth, the daughter asked her mother another unrelated question and gave the doctor what she assumed was an accurate response. Why? Culturally she felt it would have been inappropriate for her to ask her mother about such personal information. She worried the question might make her mom feel uncomfortable. It wasn't until the medical interpreter arrived that the care team was able to get accurate information about the patient's medical history.

In 2011, the Joint Commission developed new standards for effective communication that require the use of qualified interpreters.

"With a qualified medical interpreter, both patients and providers benefit from clear communication," Ortiz said. ●

# Best practice review:

## SAFETY AND QUALITY OF CARE

**Q.** HOW MAY PATIENTS VOICE THEIR CONCERNS ABOUT THEIR QUALITY OF CARE OR SAFETY?

**A.** Patients may voice their concerns about their safety and quality of care to the following:

1. Their doctor.
2. Their nurse.
3. The nurse manager.
4. A nursing supervisor.
5. The Patient Relations Department.
6. The Delaware Office of Health Facilities Licensing and Certification.
7. The Joint Commission Office of Quality Monitoring.

**Q.** HOW MAY EMPLOYEES OR PHYSICIANS REPORT CONCERNS OR ASK QUESTIONS REGARDING QUALITY OF CARE OR SAFETY?

**A.** Employees and physicians may report their concerns or ask questions regarding quality of care or safety through:

1. Their immediate supervisor.
2. The Safety and The Joint Commission Resource Hotline. Dial 7233 (SAFE) within the hospitals and 623-SAFE outside the hospitals.
3. The Safety First Learning Report system.
4. The Delaware Office of Health Facilities Licensing and Certification, 800-942-7373.
5. The Joint Commission Office of Quality Monitoring, 800-994-6610; or by e-mail, complaint@jointcomission.org.

REFERENCE: RIGHTS AND RESPONSIBILITIES POLICY

*If you have questions about this Best Practice Review, please contact the Content Expert: Dominic Kayatta, 733-2302; or Chris Carrico, 623-4968, Safety Hotline: dial 7233 (SAFE) from within the hospitals; outside – dial 623-7233(SAFE).*●

# Dean Bennett, R.Ph, CPHQ, appointed medication safety officer

Dean Bennett, RPh, CPHQ, has been appointed medication safety officer, a newly established post at Christiana Care.

In this role, Bennett will lead Christiana Care initiatives to improve patient care by broadening the Medication Safety Program from a priority centered mainly in the pharmacy to a system-wide multi-disciplinary approach.

His experience as a medication safety consultant for the Institute of Safe Medication Practices (ISMP) and project lead on eMar and smart-pump implementations qualify him uniquely for this new position.

"Dean Bennett now moves out of the Pharmacy Department to a role that focuses on developing and implementing a strategic plan to prevent medication errors and minimize patient harm," said Ray Seigfried, senior vice president, Adminstration.

Bennett will report to both Sharon Anderson, RN, BSN, MS, FACHE, senior vice president for Quality and Patient Safety, and Terri Corbo, Pharm.D., BCPS, FASHP, vice president of Pharmacy Services. He came to Christiana Care in 2006 from Nemours/A.I. du Pont Hospital for Children. He served most recently as a medication safety specialist.

Bennett is a graduate of Temple University School of Pharmacy, where he serves on the faculty. He lives in Delaware County, Pa., and is an avid guitarist and a licensed glider pilot. ●

# Committee takes medication safety beyond the pharmacy

*Always deliver the right dose of the right drug at the right time*

In his new role as medication safety officer, Dean Bennett is intent on making sure patients get the right drugs, at the right time, in the right dosage.

It's a monumental responsibility in the state's largest health system, which logged more than 2 million patient encounters in 2012. But Bennett expects to have lots of help from colleagues in multiple disciplines on the revitalized Medication Safety Committee.

"The idea is to take medication safety beyond the pharmacy because everyone has a role in patient safety," Bennett said. "It's an effort that requires the benefits of technology, plus human initiative."

He notes that the mandate for a strategic plan was empowered by both the Safety First Committee and the Pharmacy and Therapeutics Committee, in the true spirit of collaboration. The goal is to establish a systemwide medication program that centers on patients, is measurable, and encompasses the entire process of providing medications.

"There is no one who comes to our door who does not receive at least one medication during his or her stay," said Nicholas Gagliano, M.D., medical director, Christiana Hospital OR, and co-chair of the committee. "Making certain that those medications are delivered safely is our primary focus — something we live and breathe every day."

To illustrate, Bennett describes two scenarios, one the result of smart-pump safety technology and the other of professional vigilance.

During one week, smart pumps prevented 11 potentially serious programming errors of heparin infusions. In six of the programming errors, the user was attempting to program a dose that called for 100 times more heparin than was ordered. In five other cases, the smart pumps also prevented similar underdosing of heparain.

In another case, an order for a concentrated form of insulin (U-500) was reduced, but the original order was not discontinued. A nurse detected the error during her routine review of orders and notified the doctor.

"By taking a multidisciplinary approach, we are working together and looking closely at how these events occur to come up with ways to make the medication process safer and more efficient," Bennett said. "Medication safety truly is everyone's concern."●

## Mark McDermott, MBA, promoted to vice president

Mark McDermott, MBA, was promoted to vice president, Materiel Services in February.

McDermott joined Christiana Care in 2000 as director, Materiel Management. He previously worked at the University of Pennsylvania Health System. He earned his MBA from Wilmington College in 1992.

He has been responsible for implementing many transformative changes at Christiana Care, ranging from the first comprehensive value analysis process for medical supply decision-making with clinical staff in 2002, to the implementation of the Movable Equipment Tracking System in 2009, to implementation of a LEAN 6 Sigma process in 2011, while significantly improving service levels and staff engagement and containing operating expenses.

"The profession of materiel management is critical to the effective delivery of health care services," said Ray Seigfried, senior vice president, Administration. "Mark and his team are responsible for the purchase and distribution of thousands of products and services necessary to serve our patients. They will have an increasingly important role in the future as we strive to improve the value of the care we deliver."●

## Deborah Learn Alchon promoted to corporate director

Deborah Learn Alchon, MS, RD, LDN, has been promoted to corporate director of Food and Nutrition Services.

Alchon has been the acting director of Food and Nutrition Services since 2012 and had been associate director since 1992.

"Deborah has had management responsibilities in every section of the department," said Ray Seigfried, senior vice president, Administration. "Her experience, knowledge and leadership will provide the department with the skills needed to advance it to the next level for both quality patient nutrition and employee cafeteria dining."●

## 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. All reports go directly to Compliance Officer Ronald B. Sherman. Callers may remain anonymous. The toll-free number is: 877-REPORT-0 (877-737-6780).

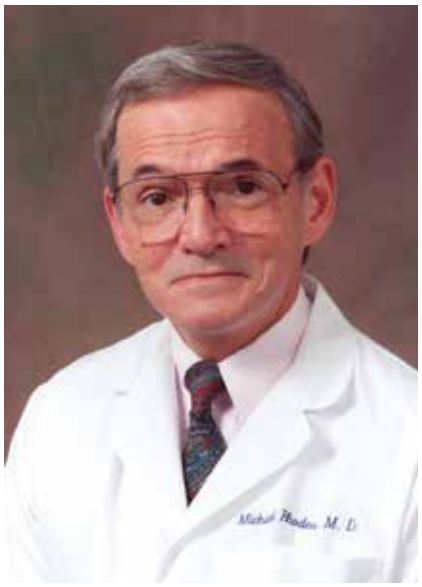
✔ *To learn more about Corporate Compliance, review the Corporate Compliance Policy online or* **contact Ron Sherman** at 302-623-2873.

# Michael Rhodes, M.D., and Lanny Edelsohn, M.D., to receive Drexel University College of Medicine alumni awards

Michael Rhodes, M.D., chair of the Department of Surgery, and Lanny Edelsohn, M.D., of Christiana Care Neurology Specialists, will receive distinguished alumni awards from Drexel University College of Medicine at a special luncheon at the Drexel Queen Lane campus in Philadelphia on Saturday, May 4, at 1:30 p.m.

Drexel University College of Medicine is the successor institution to Hahnemann University and Medical College of Pennsylvania.

Dr. Rhodes will receive the Hahnemann Distinguished Alumnus award that "recognizes a Hahnemann University graduate who is highly acclaimed for excellent service and accomplishment in his/her respective professional field, leadership in the medical profession, participation in professional organizations and scholarly activity that brings recognition to the medical school and the association."



Michael Rhodes, M.D.

Lanny Edelsohn, M.D.

Dr. Edelsohn, also a Hahnemann graduate, will receive the Outstanding Alumni Mentor Award that "recognizes graduates of the Drexel University College of Medicine or any of the predecessor schools for significant accomplishment and excellence in mentoring."●

# Social Work supervisor Debra Kling named 2013 NASW Delaware Chapter Social Worker of the Year

Debra Kling was named the 2013 NASW - Delaware Chapter Social Worker of the Year. Kling, who joined the Department of Social Work in 1990, has been the Social Work supervisor at Wilmington since 2007.

Social Work Department colleague Kim Jackson, who nominated Kling for the award, said "Throughout her career, Debra has worked in various capacities of social work and exhibits the kind of social work ethic and professionalism that everyone on her team strives for.'

In addition to her duties as a social worker at Christiana Care, Kling participates in community service in her spare time. She participated in Premier Charities' "From Our Kitchen" program last year, where she helped serve the homeless in Wilmington. She also has planned and coordinated fundraising efforts for a local Girl Scout Troop."

Kling will receive her honor at the 2013 NASW - Delaware Chapter Annual Celebration and Awards Ceremony March 21 at the Duncan Center in Dover. In addition, the Social Work Department will host a luncheon at Wilmington Hospital to honor her accomplishment. ●

# Christiana Care 22nd on Training's annual Top 125 list

Christiana Care ranks 22nd among Training Magazine's Top 125 annual listing of organizations offering employer-sponsored training and development programs.

Christiana Care is the only health system ranked in the top 25. This is the second year Christiana Care has made the prestigious list. Last year our ranking was number 60.

The magazine bases its ranking on a range of qualitative and quantitative factors, including financial investment in employee development, the scope of development programs, and how closely such development efforts link to business goals and objectives.

"This national award recognizes the excellent work of all our faculty and educators in education, learning and development," said Rosa M. Colon-Kolacko, Ph.D., MBA, senior vice president, System Learning, executive director, Learning Institute and chief diversity officer. "Our educators work every day to foster learning to enable us to serve our neighbors as respectful expert partners in their care."

For more information, visit www.trainingmag.com.

Accepting the Training 125 honors in Atlanta were (from left) Jill E. Hewitt, M.Ed., director, Learning Institute and Development; Michelle Collins, MSN, RN-BC, ACNS-BC, manager, Nursing Professional Development and Education; Rosa M. Colon-Kolacko, Ph.D., MBA , senior vice president, System Learning, executive director, Learning Institute, and chief diversity officer; Ann-Marie C. Baker, BSN, RN, CPAN, BC, staff education specialist, Nursing Professional Development and Education; Jennifer Painter, MSN, RN, OCN, staff education specialist/Nursing orientation coordinator/faculty liaison, Nursing Professional Development and Education; Robert Dressler, M.D., MBA, vice chair, Department of Medicine and director of Patient Safety, Quality and Performance Improvement, Department of Medicine; Carrie Young, senior education coordinator, Information Technology; Lonie Sculley, manager, Information Technology; Vaughn V. Wright, Ed.D., director, Graduate Medical Education; and Loretta Consiglio-Ward, MSN, RN, safety/quality education specialist.

## March

**23** Christiana Care's Community Health Outreach and Education team is hosting a wellness conference for **African American breast cancer survivors on Saturday, March 23, from 8 a.m. to 2:15 p.m., at the Helen F. Graham Cancer Center.**

The **Sisters Surviving** event will provide insights into life after treatment. Survivors will learn about genetics, the link between breast cancer and obesity and ways to cope with cancer-related fatigue. Speakers also will talk about sexuality after treatment, lingering fears of cancer patients and how to develop a positive attitude and enjoy life. Feel free to pass this information along to your family and friends who are breast cancer survivors.

The conference is free and includes continental breakfast and lunch. Seating is limited and registration is required at www.christianacare.org/survivingsisters or by calling 800-693-CARE (2273).

## April

### *Event features career development learning opportunities*

**2** **The Christiana Care Learning Institute Center for Employee and Career Development** is hosting a career event to give employees and their family members an opportunity to learn more about different careers in health care and speak with representatives from universities, colleges and Christiana Care staff.

The event will be from **5 to 7 p.m., Tuesday, April 2, in the John H. Ammon Medical Education Center auditorium.**

Representatives from nursing, allied health, physical therapy, respiratory care, histotechnology, diagnostic medical sonography, pharmacy, radiation oncology/therapy, perioperative services, nuclear medicine and the Christiana Care Explorer Post will be present, along with representatives from Delaware Technical and Community College, Wilmington University, the University of Delaware, Widener University, Cecil College, Arcadia University and Goldey Beacom College.

**18** **The 13th Annual ThinkFirst 5K Run/Walk & Fun Run for Children,** to benefit Delaware's ThinkFirst Injury Prevention Programs, will be at **6:30 p.m.,Thursday, April 18.** Registration begins at 5:30. The start and finish line is near the Emergency Department at Christiana Hospital.

Awards will be presented to the top overall male and female runners, the top three runners in 10-year age categories, and the top male and female walkers.

Participants must pay a $20 fee if registered before April 17. The fee is $25 on the day of race. Registration for the Children's Fun Run is $5. Register online at www.active.com/running/ (keyword ThinkFirst) or send a check payable to Christiana Care to: Christiana Care Health System, Trauma Program, Attn: ThinkFirst 5K, 4755 Ogletown-Stanton Road., Suite 1320, Newark, DE 19718. For more information, call 302-733-4280.

## May

**2** **2013 Delaware Trauma Symposium, from 7 a.m. – 4 p.m., Thursday, May 2, at the Chase Center on the Riverfront, Wilmington,** features a keynote address, "Trauma Drama: Bizarre and Unusual Trauma Case Studies." Sessions include complex wound management; collaboration in trauma care — Level I and III hospitals working together; confronting family violence; dogs and kids; blunt carotid injury; and personal accounts from the parent of a child trauma survivor. The Edward F. Quinn III, M.D., Excellence in Trauma Care Lectureship Award will be presented.

**7** **The 50th annual William J. Holloway Infectious Disease Symposium, 7:30 a.m. – 4 p.m., Tuesday, May 7, at the John H. Ammon Medical Education Center.** This is a landmark event in the history of this prestigious conference. In commemoration of the outstanding contributions of William J. Holloway, M.D., MACP, the selection committee has again assembled a world-renowned faculty.

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## *May events (cont'd)*

Topics include historical reviews of some of human history's most important diseases: smallpox, tuberculosis, legionella and HIV, as well as the history and controversies in the fields of vaccinations and antibiotic usage.

Faculty: Paul Volberding, M.D. – *HIV;* Paul Offit, M.D. – *Vaccines;* Donald Henderson, M.D. – *Smallpox;* Brad Spellberg, M.D. – *Antibiotic Usage;* Victor Yu, M.D. – *Legionella;* David Schlossberg, M.D. – *Tuberculosis.*

**10** The inaugural **Neurovascular Disease Symposium, from 7:30 a.m. to 4:15 p.m., Friday, May 10, at the John H. Ammon Medical Education Center.** Register online at cchs.cloud-cme.com/neurovascular2013.

**23** Don't miss the 22nd year of a Christiana Care tradition. The annual **Christiana Care Golf & Tennis Classic** happens this year on **Thursday, May 23.** Save that date for an exciting day of golf and tennis on the magnificent, natural surroundings of the **DuPont Country Club,** 1001 Rockland Road, Wilmington. Participants will enjoy a boxed lunch, buffet dinner, on-course refreshments, awards and prizes.

CHRISTIANA CARE GOLF & TENNIS CLASSIC

Call 302-327-3305 or e-mail DevelopmentOffice@christianacare.org to register and learn about sponsorship opportunities. Proceeds will support the mission of Christiana Care.

**24** **The 7th annual Concepts in Respiratory Critical Care conference will be from 7:30 a.m. to 2:15 p.m., May 24, in the John H. Ammon Medical Education Center.** The conference features a lecture on esophageal monitoring and an update on Lung Protective Ventilation by Michael Gentile, RRT, FAARC, FCCM, from Duke University Medical Center; a module covering early mobilization and rehab of mechanically ventilated ICU patients, with Michael Benninghoff, D.O., James Halbert, PT, and Adrienne Trzonkowski, RRT; a presentation titled "Breathe in, Breathe out: Responding to the Difficult Emotions in the Room," by psychologist Scott Siegel Ph.D.; and a variety of hands-on afternoon workshops. ●

# Update in Cardiology draws more than 225 participants

**Hosted by Christiana Care Cardiology Consultants in March, the 24th annual Update in Cardiology drew more than 225 participants, including physicians, residents, nurses and physical therapists. The event provides a forum for discussing emerging technology, the latest clinical news and research for managing and treating cardiovascular disease. It featured more than a dozen experts in cardiology and related disciplines. ●**

From left, Peter Stone, M.D., codirector of the Samuel Levine Cardiac Unit, Brigham & Women's Hospital; Zoltan Turi, M.D., director, Cooper Vascular Center; Andrew Doorey, M.D., symposium program director and clinical cardiologist, Christiana Care Cardiology Consultants; and Thomas H. Lee, M.D. M.Sc., professor of medicine at Harvard Medical School, associate editor of the New England Journal of Medicine.

## Publications

**Ursula Guillen, M.D.,** et al., "Relationship between attrition and neurodevelopmental impairment rates in extremely preterm infants at 18-24 months," Archives of Pediatrics and Adolescent Medicine. 166, 178-184. 2012.

**David A. Paul, M.D., Amy Mackely,** et al., "Volumetric MRI and MRS and early motor development in premature infants," Pediatric Physical Therapy. 24, 38-44, 2012.

**Ursula Guillen, M.D.,** et al., "Development and pretesting of decision-aid to use when counseling parents facing imminent extreme premature delivery," Journal of Pediatrics. 160, 382-387, 2012.

**Ursula Guillen, M.D.,** et al., "International survey of transfusion practices for extremely low birth weight infants." Seminars in Perinatology. 36, 244-247, 2012.

**Michael Antunes, M.D., Robert Locke, M.D., Amy Mackley, David A. Paul, M.D.,** et al., "Decreased incidence of pneumothorax in very low birth weight infants following increased monitoring," Pediatrics.130, e1352-1358, 2012.

R**obert Locke, M.D., David A. Paul, M.D., Matthew Hoffman, M.D.,** et al., "The differential effect of maternal age, race/ethnicity and insurance on neonatal intensive care unit admission rates. BMC Pregnancy and Childbirth." Sep 17, 12:97, 2012.

**David A. Paul, M.D.,** "Field Trips as a Novel Means of Experiential Learning in Ambulatory Pediatrics," Graduate Medical Education 4, 246-249, 2012.

**Robert Locke, M.D.,** and **David A. Paul, M.D.,** "Knowledge of preconception health care among primary care physicians in Delaware," Delaware Medical Journal. 84 349-352, 2012.

**Amy Mackley, Melissa Bollinger, RN, MBA,** and **Stephanie Lynch, RN, BSN,** "Clinical Research Nursing: Evidence today, better practices tomorrow," Nursing for Women's Health, 16, 326-329, 2012.

**Kathy E. Gallagher, FNP, FACCWS,** et al., "Negative pressure wound therapy in acute, contaminated wounds: documenting its safety and efficacy to support current global practice," International Wound Journal, 2013 Feb; 10(1): 13-43. [Epub ahead of print].

**Jon F. Strasser, M.D.,** et al., "Get accelerated partial breast irradiation: Strengthen your program by providing another option for early-stage breast cancer patients," Oncology Issues, March/April 2013

**Kevin A. Copeland, M.D., Jon F. Strasser, M.D., Vinay Hosmane, M.D., Michael K. Banbury, M.D.,** and **Andrew Doorey, M.D.,** "Frequency of severe valvular disease caused by mediastinal radiation in a community-based regional academic medical center," accepted, Clinical Cardiology, 2013.

**Abhirup Sarkar, Viroon Donavanik, M.D., Hungcheng (Hank) Chen, Christopher Koprowski, M.D., Firas Mourtada, Jon F. Strasser, M.D., Adam Raben, M.D.,** et al., "Prostate implant dosimetric outcomes and migration patterns between bio-absorbable coated and uncoated brachytherapy seeds, accepted, Brachytherapy, 2013.

**Jon F. Strasser, M.D.,** et al., "Results of the SAVI Research Collaborative Group Registry: Correlation clinical toxicity with dosimetric parameters in patients treated with APBI using strut-based brachytherapy," International Journal of Radiation Oncology, Biology, and Physics, 84:S186, 2012.

**Sunjay, Shah, MD.,** "RTOG 0320: A Phase III Trial of Whole Brain Radiation Therapy (WBRT) and Stereotactic Radiosurgery (SRS) Alone vs. WBRT and SRS with Temozolomide (TMZ) or Erlotinib for Non-Small Cell Lung Cancer and 1 – 3 Brain Metastases," accepted for publication in the International Journal of Radiation Oncology.

**Peter Muench, M.D.,** "Happy Birthday Viagra," Delaware Medical Journal, May 2012.

## Presentations

**Swati Pradhan-Bhatt, Ph.D., Robert Witt, M.D.,** et al., "Functional Assembly of Salivary Glands to Relieve Xerostomia," at the Salivary Gland and Exocrine Biology Research Meeting in February.

**Kathy E. Gallagher, FNP, FACCWS:**

- "Assessing the Risk of Toxic Shock Syndrome from Negative Pressure Therapy: A Review of Acute, Contaminated Wound Literature to Document and Support the Safety of Contemporary, Global Negative Pressure Wound Therapy Practice," American Professional Wound Care Association National Clinical Conference, March, 2012.
- "Horrible to Happy Wounds: Case Management Comprehensive Approach," Case Management Society of America 22nd Annual Conference & Expo, June, 2012.
- "Split Thickness Skin Grafting as Soft Tissue Coverage of Sacral Decubiti: a Novel Approach Addressing a Complex Problem in Hospitalized Patients," Surgical Critical Care's 42nd Critical Care Congress, February, 2013.

**Kathy E. Gallagher, FNP, FACCWS** and **Erica Harrell-Tompkins, BSN, RN,** "Noncontact Low-Frequency Ultrasound (MIST Therapy) Accelerates Wound Healing," 9th Annual Regional Conference For Health Care Professionals: 21st Century Visions of Nursing-Excellence Through Knowledge, September, 2012; National Pressure Ulcer Advisory Panel Biennial Conference, February, 2013; American Professional Wound Care Association National Clinical Conference, April 2013.

**Jon F. Strasser, M.D.,** "Results of the SAVI Research Collaborative Group Registry: Correlating clinical toxicity with dosimetric parameters in patients treated with APBI using strut-based brachytherapy," Poster session at the American Society of Radiation Oncology, 2012.

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## Presentations (cont'd)

**Jon F. Strasser, M.D., Christopher Koprowski, M.D.,** et al., "Accelerated partial breast irradiation using a Strut-based Brachytherapy Device for the Treatment of Ductal Carcinoma In Situ of the Breast," Poster at the American Society of Breast Surgeons annual meeting, 2012.

**Jon F. Strasser, M.D., Dayee Jacob,** "Brachytherapy for breast cancer patients with implanted pacemaker using multi-lumen applicator," Poster at American Association of Physicists in Medicine July 2012 meeting.

**Jon F. Strasser, M.D., Dayee Jacob,** et al., "Excellent/Good Cosmetic Outcomes in Patients Treated with a Strut-Based Brachytherapy Applicator (SAVI) for Accelerated Partial Breast Irradiation." Poster session presented at the National Consortium of Breast Centers, Inc. annual meeting, 2012.

**Sunjay Shah, M.D:**

- "Phase II Double-Blind Placebo-Controlled Study of Armodafinil for Brain Reduction Induced Fatigue," has been accepted for presentation at the American Society of Clinical Oncology (ASCO) March 2013 meeting in Chicago.
- "CyberKnife Radiosurgery with Concurrent Bevacizumab in the Management of Recurrent Malignant Glioma," at the 2012 SRS/SRT Scientific Meeting of the Radiosurgery Society.
- "RTOG 0320: A Phase III Trial of Whole Brain Radiation Therapy (WBRT) and Stereotactic Radiosurgery (SRS) Alone vs. WBRT and SRS with Temozolomide (TMZ) or Erlotinib for Non-Small Cell Lung Cancer and 1 – 3 Brain Metastases," at the 2012 American Association of Cancer Research annual meeting.

**Adam Raben, M.D.,** was a discussant at the 4th International Conference on Innovative Approaches in Head and Neck Oncology in Barcelona, Spain.

## Appointments

The Professional Advancement Council congratulates and welcomes Amanda Lennon (2C) as a new RN III. ●



# Easy-to-digest weight loss tips

For lots of folks, losing weight is not easy.

But the reality is that weight loss does not have to be complicated. It all comes down to burning more calories than you consume.

Eat less and exercise more and you will lose weight. It's that simple.

If you want to take off a few pounds, don't think of weight loss as a mountain you must climb. The prospect is much less daunting if you break the process into small, easily digestible bites.

Every journey starts with one step. Here are a few to start you on the path to a fitter, healthier lifestyle:

✔ Write down everything you eat in a food journal. This will make you more mindful of what you are eating and drinking, as well as when you are more likely to get off the healthy-eating track.

✔ Control your portions. Limit a serving of meat to a size no larger than your cellphone. Reserve at least half your plate for veggies. Exchange your dinner plate for a smaller salad plate, which will automatically limit the amount of food you take.

✔ Plan ahead. Cross sweets and salty snacks off your grocery list. If you don't have unhealthy foods in the house, you are far less likely to eat them. Instead, stock up on fresh produce and whole grains.

✔ Embrace the buddy system. Form your own personal support network with other people who want to reach a healthy weight. Spouses who share the same healthy meals will both shed pounds. We are more likely to hit the gym or go for a walk if a friend is counting on us to be there.

### LOOKING FOR A GOOD PLACE TO START?

Sign up for the American Heart Association's Start Walking campaign, which kicks off April 3, at startwalkingnow.org.

Reducing to a healthy weight and keeping the pounds off is a lifestyle change, not a diet. If you stop exercising and start eating fatty, high-calorie foods, the weight will come back.

The good news is we are just as capable of forming good habits as we are bad behaviors. In time, reaching for an apple instead of a doughnut at snack time will become second nature. You will look forward to your daily workout.

### WANT TO LEARN MORE ABOUT HEALTHY FOODS?

Go to www.christianacare.org/healthyliving. ●

## Wilmington Police salute wounded officer's return

**Amid the roar of bagpipes, Wilmington Police saluted fellow policeman, Officer Justin Wilkers, during his discharge from Christiana Hospital on Saturday, Feb. 10. Wilkers had undergone a successful operation at Christiana Hospital for injuries to his jaw that he suffered after being shot six days earlier in the line of duty. Both The News Journal and 6ABC News were on hand for Wilkers' departure. Lauren Scales of Patient Escort Services was selected for the honor of transporting Wilkers from his patient room in 7E to the van set to take him home.** ●

## Avon grant helps fund breast cancer outreach program

Christiana Care's Helping Hands for Breast Health at the Helen F. Graham Cancer Center received a $50,000 grant — for the 12th consecutive year— from the Avon Foundation for Women to increase awareness of the life-saving benefits of early detection of breast cancer.

Through the program, New Castle County women benefit from education and referrals to low-cost or free mammograms and clinical breast exams in their own communities.

An outreach coordinator enrolls women into an annual reminder system and helps them transcend barriers to completing a breast screening. The coordinator also can help enrollees find transportation or financial resources through state and local funds to pay for services. Local Avon representatives help make the program successful by bringing information and education about breast health to women in the community through Avon's Pink Tool Kit project.

Since January 2002 the Helping Hands for Breast Health Program at Christiana Care has reached more than 8,000 women about the importance of early detection of breast cancer. In 2012, 700 women were referred for mammograms and clinical breast exams. ●

# Girl Scouts taught to "Think First"

**Kathy Boyer, BSN, RN, CCRN, the injury prevention coordinator for Christiana Care's Trauma Department and ThinkFirst program coordinator, visited the Girl Scouts of Troop 133 to teach them about safety and how to protect themselves from common injuries. Boyer, who has been certified in critical care nursing for 20 years, used models of the human brain, spinal cord and skull as visual aids to show the girls how injuries affect the body. She had the girls conduct an "egg drop" exercise to demonstrate how helmets protect against brain injury.** ●


The Christiana Care Outreach and Education team speaks to the Avon representatives at their monthly meeting about the Helping Hands for Breast Health at Christiana Care's Helen F. Graham Cancer Center and Pink Tool kit project. From left to right: Nora Katurakes, RN, OCN, manager, Christiana Care Outreach and Education, Terry Wilde, Christiana Care Avon outreach assistant, and Renitia Pulliam, Christiana Care and Avon Outreach coordinator.

# Heparin-Induced Thrombocytopenia

**By Devon Lee, PharmD, BCPS**

## Pathogenesis

Heparin-induced thrombocytopenia (HIT) is an immune-mediated reaction to heparin characterized by thrombocytopenia and a hypercoagulable state. It occurs when immunoglobulin G (IgG) antibodies form against an antigen complex of heparin and platelet factor 4 (PF4), triggering activation and aggregation of platelets. Up to 8% of patients on heparin will form antibodies but only 1-5% develop HIT; and only one-third of these experience thrombotic events. "Early-onset HIT" may occur 24 hours after starting heparin (if circulating antibodies from recent exposure are present) while "delayed-onset HIT" may present as long as three weeks after completion of heparin therapy.[1] Occasionally thrombosis may actually precede a fall in platelets.[2]

## Risk factors

HIT is ten times more common in patients treated with unfractionated heparin (UFH) than with low-molecular-weight heparin (LMWH). There is no difference in risk between therapeutic and prophylactic doses of UFH. Other risk factors include: exposure to heparin within the last 100 days, cardiac surgery, and cancer.

## Identification and diagnosis

Calculating a "4T's score" is one of the most widely used tools to help differentiate HIT from non-immune- mediated thrombocytopenia. Please refer to page 31 of the CCHS Anticoagulant Formulary for the scoring guide (http://inet/PharmacyHP/anticoagulants2012.pdf). While the 4T's score can be a helpful tool, scores have not always proven to accurately predict the presence or absence of HIT.

Laboratory tests can help confirm or dispute the presence of HIT. At CCHS (via Mayo Clinic), the HIT assay measures the presence of heparin-PF4 antibodies (a sensitive, but not specific test). Upon receiving a positive assay, an additional sample is sent to Wisconsin where a serotonin release assay confirmatory test can be performed (48-hour turnaround time).

## Treatment

Upon suspicion of HIT, UFH/LMWH should be **immediately** discontinued and treatment should be initiated **regardless of the presence of thrombosis.** Warfarin monotherapy is contraindicated in acute HIT due to the risk of warfarin-induced skin necrosis and gangrene. Platelet transfusion is also not recommended.[2] Treatment options at CCHS are as follows:

Argatroban (restricted to hematology)

- Direct thrombin inhibitor
- Dose: Initial IV rate of 2 µg/kg/minute adjusted to achieve aPTT 1.5 to 3 times baseline
- Undergoes hepatic elimination – not recommended in severe liver disease
- Preferred in renal insufficiency since it is not renally cleared and not significantly dialyzed
- Prolongs INR – discontinue when INR > 4 AND overlap with warfarin > 5 days

Bivalirudin (off-label for acute HIT)

- Direct thrombin inhibitor
- Dose: 0.15-0.2 mg/kg/hr adjusted to achieve aPTT 1.5 to 2.5 times baseline
- 20% renally cleared – requires rate reduction in renal insufficiency

The current guidelines recommend initiating warfarin at a dose no higher than 5 mg when platelets have recovered to at least 150/nl. Warfarin should be overlapped with the therapeutic anticoagulant for at least 5 days and until two consecutive therapeutic INR values are achieved. In patients with isolated HIT without thrombosis, warfarin should be continued for up to 4 weeks. In patients with thrombotic HIT, warfarin should be continued for three months.[2]

**References:**

1. Franchini M. Heparin-induced thrombocytopenia: an update. Thrombosis Journal. 2005; 3(14): 1-5.
2. Linkins L, Dans AL, Moores LK, et al. Treatment and prevention of heparin-induced thrombocytopenia. Chest. 2012; 141(2)(Suppl):e495s-e530s.

## FORMULARY UPDATE—FEBRUARY 2013

### FORMULARY ADDITIONS

| MEDICATION—GENERIC/BRAND NAME | STRENGTH / SIZE | USE / INDICATION | COMMENT |
|---|---|---|---|
| **Carfilzomib /Kyprolis** | 60 mg vial | Treatment of refractory multiple myeloma | Prescribing restricted to hematologists and medical oncologists |
| **Regadenoson / Lexiscan** | 0.4 mg/5-mL syringe | Pharmacologic stress agent for radionuclide myocardial perfusion imaging (MPI) in patients unable to undergo adequate exercise stress | • First-line use limited to Christiana Care-owned outpatient office practices<br>• Second-line agent for inpatient test when dipyridamole cannot be used or is unavailable |

### THERAPEUTIC INTERCHANGES

| | |
|---|---|
| **l-asparaginase (Elspar®)** (no longer manufactured) | l-asparaginase (Elspar®) 6,000 units/m$^2$ SC 3 times a week for 2 weeks ➔ Pegaspargase (Oncaspar) 2,000 units/m$^2$ SC, IM or IV once |
| **Calcium chloride injection** (supply unavailable currently) | When calcium chloride injection is unavailable calcium gluconate injection will be substituted as follows:<br>• Use during SLEDD: 10 grams calcium chloride ➔ 29.2 grams calcium gluconate<br>• IV infusion: 1 gram calcium chloride ➔ 3 grams calcium gluconate |

### FORMULARY DELETIONS

| | |
|---|---|
| **Aluminum hydroxide gel 600 mg/5 mL (e.g. AlternaGEL)** | No longer manufactured. Remains available on the Christiana Care Formulary at a 320 mg/5 mL concentration |
| **Bimatoprost ophthalmic solution 0.03% (Lumigan)** | No longer manufactured. The 0.01% concentration remains available on the Christiana Care Formulary |
| **Indomethacin injection** | Replaced with ibuprofen lysine injection (NeoProfen) for treatment of patent ductus arteriosus |
| **Potassium chloride 8 mEq controlled-release tablet** | Not prescribed. The 10 mEq and 20 mEq tablets remain available on the Christiana Care Formulary |

# Book-ordering deadlines for FY13

**The Medical Libraries offer a reminder about deadlines for placing book orders for Fiscal Year 2013. The deadlines below allow books to arrive — and the payment of invoices — before the end of the fiscal year, June 30, 2013.**

- **Departments should submit book purchases to the library by Wednesday, May 15. Use the Departmental Book Purchase form: http://inet/webforms/medlib/deptbookpurchase.asp.**
- **Graduating/departing residents: Ordering deadline is Monday, April 8.**
- **Returning residents: Ordering deadline is Wednesday, May 1.**
- **Pastoral Care residents: Ordering deadline is Thursday, Aug. 1.**

**All residents should use the Resident Book Purchase Form. http://inet/webforms/medlib/DeptBookPurchaseResident.asp.**

**If you have questions about ordering books, call Roberta Repetti at 733-1118 or RRepetti@christianacare.org. There is also information on our Book Purchasing site. http://inet/holdings/BookLinks.htm ●**

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# AstraZeneca HealthCare Foundation provides continuing support

**The AstraZeneca HealthCare Foundation awarded Christiana Care's Center for Community Health a $195,809 grant to support its Cardiovascular Outreach Prevention Program. This was the second consecutive year Christiana Care received funding from the Foundation, for a total of $348,463.**

**"This is a program that folds perfectly into The Christiana Care Way, which is to serve our neighbors as respectful, caring, expert partners in their health," said Omar Khan, M.D., MHS, medical director of Community Health and the Eugene duPont Preventive Medicine & Rehabilitation Institute. "We understand the value of having teens engage their families in their health, and we are so grateful to the AstraZeneca HealthCare Foundation for their work in our community."**

**"Christiana Care Health System's program was one of only 22 programs in the United States that were chosen, out of hundreds of applications," said James W. Blasetto, M.D., MPH, FACC, chairman of the AstraZeneca HealthCare Foundation. "This program exemplifies why we exist, which is to respond to the urgent, unmet needs of the cardiovascular community." ●**


A $195,809 donation by AstraZeneca HealthCare Foundation provides continuing support for Christiana Care's Cardiovascular Outreach Prevention Program, which is working to improve the cardiovascular health of teens and families in New Castle County.