



Every day is a (simulated) birth day

If she were a living person, NOELLE might qualify as one of the world's most unfortunate women. Stuck in a perpetual state of pregnancy, she spends her entire robotic life alternating between labor pains and delivery. The cycle continues over and over again—sometimes with rare and serious complications—until the lesson finally ends and someone turns off the computer that dictates her every bodily function.

By simulating a spectrum of complications—many of them unexpected—NOELLE helps nurses, students, physicians and other delivery room staff learn to navigate dire situations as a team. Housed in a nondescript room in the Phipps administration building, the robot was purchased last year by the Hospital's malpractice insurer in hopes of decreasing the risk of birth injuries caused by medical errors. For nurses, NOELLE provides a prime learning opportunity by training them to anticipate a physician's or a midwife's needs and to keep an eye out for potential complications when assisting with a delivery.

"Nurses, medical students, residents and physicians all train independently, and then suddenly you put them in the delivery room and expect them to work as a team," remarks Susan Will, the Hospital's obstetrical patient safety nurse who oversees NOELLE. "This is an opportunity for them to practice working together."

Minus the delivery pains and other more human elements of birth—and with the additions of computer-generated responses and a lot of wiring—the simulation offers a near-identical illustration of a live delivery. To start, an operator programs NOELLE for the birth, indicating which complications or crises to mimic and how long the delivery should take. The care team takes their places—with one person designated to act out the cries and dialogue of the robotic mom-to-be—and a motor installed in her pelvis gradually pushes the baby out.

"If the team doesn't respond well, or when they do respond well, we hold debriefings afterward so that everyone can ask questions," Will says. "We want to examine what we did well, what we could do better and what we learned."



Obstetrician Frank Witter and perinatal clinic coordinator and labor and delivery nurse Barbara LaMartina utilizes the NOELLE birth simulator robot during a demonstration. Behind them, nurses Valerie Sanford and Mary Evans monitor a robotic newborn.

With such a wide range of possible and sometimes unpredictable disasters—for instance, a nonreassuring fetal heartbeat or shoulder dystocia—childbirth is a delicate and high pressure experience. Nurses often play multiple roles, coaching the mother through labor, assisting the physician or midwife during delivery, and then caring for the baby. When any staff members are uncertain of their roles in the situation, Will says, it can hamper communication and cause trouble.

"Having NOELLE helps ensure that everyone's on the same page about things, working together and communicating effectively," says

labor and delivery nurse Barb LaMartina.

"When you look at the statistics about sentinel events, poor communication is the most common factor."

In fact, according to the Joint Commission, 70 percent of perinatal deaths and injuries involve poor communication. Poor organization plays a role in about 37 percent and poor leadership in 40 percent. And, with the responsibilities of administering medication and handling the newborn, nurses carry much of that burden. "We know that we're human and make mistakes," Will says. "But practice improves our ability to provide care." ■



ON THE INSIDE

2 Nursing's first endowed clinical position



3 The meaning of Magnet

5 Journal: Abstracts of publications authored by Hopkins nurses

6 Other Lives: Retzer Cariaga has never forgotten his roots

Abstracts of Publications and Presentations
 Authored by Hopkins Nurses

H O P K I N S N U R S E



Journal

Volume 19, Number 2

UAP JOB SCREENING

The competence of unlicensed assistive personnel (UAP) is essential to the quality and safety of patient care. In the United States, 2.3 million registered nurses work with a minimum of 2.2 million UAPs. And, with the recent focus on the current and future shortage of RNs, staffing patterns are changing to include even more unlicensed professionals, such as nursing assistants, nursing aides, patient care technicians or home health aides.

Because UAPs play an increasingly important role in nursing care, the participants in this study decided to formulate a screening assessment to measure their competencies. By compiling a test of 19 multiple-choice and four basic math questions, the researchers successfully assembled a comprehensive evaluation to determine the abilities and qualifications of potential UAPs before they're hired.

Robin P. Newhouse, nursing administration; Michele Steinhauser, Ron Berk. (2007). Development of an Unlicensed Assistive Personnel Job Screening Test. *Journal of Nursing Measurements*. (15) 34-45.

PREVENTING CARDIAC SURGERY RISKS

Coronary heart disease affects more than 13 million Americans, killing more Americans and causing more disabilities than any other disease. Clinical trials have shown that using secondary risk-reduction strategies—such as drug therapy and lifestyle counseling—can improve survival, reduce recurrent events and prevent the need for interventional procedures. Yet patients and care teams often neglect these options.

During a pilot study, researchers tested a packaged approach to medication prescriptions and lifestyle counseling to determine whether it would improve adherence to secondary risk-reduction guidelines in patients who underwent coronary artery bypass graft. Called the ABC Care Bundle, the approach proved effective and provided evidence for a systematic approach toward prevention and intervention when patients are hospitalized for coronary artery bypass surgery.

Stephanie Poe, nursing administration; **Patty Dawson**, nursing administration; **Christina Cafeo**, surgery; **Debra Sedlander**, surgery; Carol Curtis, **Pamela Meyer**, surgery; Roger Blumenthal, William Baumgartner, Jerilyn Allen. (2007). Use of ABC Care Bundle to Standardize Guideline Implementation in a Cardiac Surgical Population: A Pilot Study. *Journal of Nursing Care Quality*. (22) 247-254.

MEDICINE ADHERENCE

Ulcerative colitis is a lifelong disease causing inflammation and ulceration of the colon that requires long-term maintenance therapy. Yet many studies have shown that adherence to medications is poor.

Because gastrointestinal nurses are often the primary contacts for these patients, they are in a unique position to take simple steps that will improve medication adherence and effectiveness. Evidence shows that patients need to understand their disease and how it is treated in order to recognize the consequences of neglecting their medicine. By providing disease-related education, keeping abreast of the most recent advances in therapy and being aware of individual patient needs, GI nurses can improve patient adherence and provide the best possible care.

Lisa Turnbough, medicine, **Lindsay Wilson**, pediatrics. (2007). Take Your Medicine: Non-adherence Issues in Patients with Ulcerative Colitis. *Gastroenterology Nursing*. (30) 212-217

VIOLENCE AND EMERGENCY MEDICINE

Each year, approximately 1.5 million women and 834,000 men in the United States are physically or sexually assaulted by an intimate partner. Women are 60 percent more likely to be murdered and more than twice as likely to be injured by their partners as men. Meanwhile, the acute and long-term physical and mental consequences are profound.

Many victims seek health care either at acute injury or as a result of chronic health problems caused by the abuse. And in the health care setting, intimate partner violence has taken the heaviest toll on emergency departments. This study evaluated more than 1,000 patients and how the addition of an intimate partner violence screening to a computer-based health survey affected the detection, referral and treatment of this type of abuse in a single emergency department.

Deborah Trautman, emergency medicine, Melissa McCarthy, Nancy Miller, Jacquelyn Campbell, Gabor Kelen. (2007). Intimate Partner Violence and Emergency Department Screening: Computerized Screening versus Usual Care. *Annals of Emergency Medicine*. (49) 526-534.

COLORECTAL CANCER

Juvenile polyposis is characterized by gastrointestinal polyps and associated with colorectal cancer, but the actual risk of malignancy is unknown. Researchers compared the rates of colorectal cancer among juveniles with those of the general population.

The group found that patients with juvenile polyposis have a markedly increased risk for colorectal cancer and must be watched vigilantly beginning at a young age.

Lodewijk A. A. Brosens, Arnout van Hattem, **Linda M. Hyland**, medicine; Christine Iacobuzio-Donahue, Katharine E. Romans, Jennifer Axilbund, Marcia Cruz-Correa, Anne C. Tersmette, G. Johan A. Offerhaus and Francis M. Giardiello. (2007). Risk of Colorectal Cancer in Juvenile Polyposis. *Gut*. (56) 965-967.

ASSESSING FALL RISK

In October 2003, the Johns Hopkins Fall Risk Assessment Tool was implemented in adult critical care units across the institution and evaluated at the end of a year.

Staff members were asked to evaluate the tool's relevance to assessing and reducing fall risk. Additionally, a review of whether particular items performed for varied patient populations provided rich data about the differential interpretation of the wording of current choice selections in a few of the major scale categories. This review assisted in crafting alternative language for the risk identification choices to be more clearly interpreted across clinical departments.

Stephanie S. Poe, **Maria Cvach**, **Patricia B. Dawson**, nursing administration, Harriet Straus, Elizabeth E. Hill. (2007). The Johns Hopkins Fall Risk Assessment Tool. *Journal of Nursing Care Quality*. (22) 293-298.

VITAL LINES



As nurses, we often see ourselves as care-givers, not care-seekers. Still, we are only human, and eventually we all struggle to handle life's difficulties. While some deal with distress through constructive means like therapy or yoga, it's an unfortunate reality that an estimated 10 percent to 15 percent of nurses turn to substance abuse.

Of course, alcohol and drugs aren't the only causes of nurses' impairment. Like the patients we serve, we are equally susceptible to all sorts of challenges: mourning, divorce, depression, eating disorders or other illnesses and injuries. Now, to assist and support our nurses, we've established the Nursing Professional Assistance Committee (NPAC). Modeled after a similar program to help physicians, NPAC provides intervention and support and offers consultations, evaluations and referrals to help nurses dealing with depression, grief, loss, addiction or any other illness.

It's not just patients who are put at risk when a nurse's stress, suffering or substance abuse seeps onto the job. Co-workers and careers may be in jeopardy as well.

If you or a nurse you know is dealing with addiction or any other life- or career-threatening issue, contact the Nursing Professional Assistance Committee at 410-614-2961. Inquiries are treated confidentially within legal limits. Make the call and save a nursing career—yours or someone else's.

Karen Haller
Vice President for Nursing

Nurse receives first endowed clinical nursing position

When the grandparents of a pediatric diabetes patient decided they wanted to find a way to give back, they had one major stipulation. "They didn't want to give money to a research project that might not reach fruition for a decade or more," says pediatric endocrinologist Leslie Plotnick. "They wanted to do something more immediate."

It didn't take long for them to find the perfect beneficiary in Loretta Clark, the diabetes nurse educator who has worked with their grandson and countless other patients through the years. So the donors decided to fund Clark's position, making her the first clinical nurse in Hopkins history to hold an endowed position.

"Years ago, we were in danger of losing my position," Clark recalls. Back then, finding the wherewithal to keep a diabetes nurse educator on board was an annual struggle for her department; there was no long-term reassurance that her job would survive the next year's budget. "The endowment allows me to spend my time working directly with my patients and provides an opportunity to help more people."

Not that Clark's patients have ever lacked her attention. Even before the endowment allowed the department to bump her from part to full time, Clark often worked well past the 32 hours she was paid for each week. She follows every newly diagnosed patient for several months, holding daily conference calls with parents and patients and teaching them how to manage their disease, which requires minute-to-minute decisions regarding insulin and food adjustment. And



Loretta Clark has inspired many of her young patients to follow in her footsteps.

every patient has her home phone number in case an emergency should arise after hours.

Plotnick can recite countless stories of children whose lives have been shaped by Clark's care. One, she says, is especially touching.

About 10 years ago, Plotnick and Clark were seeing a diabetes patient who played football at a local high school. He planned to continue playing in college, but influenced by Clark's caring example, he decided he also wanted to become a nurse. There was just one hitch: Because of the

time required to pursue both, the university wouldn't allow him to play football and study nursing at the same time.

About five years later, Plotnick and Clark ran into the young man in the Hospital cafeteria. He wore an employee ID badge and was working as a nurse on another floor. "He could have played college football," Plotnick says, "but he was so moved by Loretta that he chose nursing instead. In fact, there are a lot of people she's inspired to pursue careers in nursing. I just ran into another one of them on the ninth floor." ■

Noted with Pride

Lynn Billing, pathology, has received a \$5 million grant to launch the Henry J. Duffy Pain and Palliative Care Service. The service should be functional by spring. **Deborah Hobson**, surgical

intensive care unit, has received the American Association of Critical Care Nurses Excellence in Leadership Award. Baltimore's Seton Keough High School has endowed a scholarship in honor

of Kimmel Cancer Center nurses **Amy Goodrich** and **Marybeth Halter**. Baltimore will have the pleasure of hosting the Philippine Nurses Association of America for the annual convention in 2009. ■

The Meaning of Magnet

NURSES PONDER THE SIGNIFICANCE OF THE NATION'S MOST COVETED NURSING AWARD.

Sitting among fellow newcomers on her first day of orientation, Leonie Farrington listened in confusion while a veteran nurse explained that her new employer, The Johns Hopkins Hospital, was a Magnet nursing institution. “I had never heard of Magnet before,” recalls Farrington, who’d worked as a nurse in her native Ireland, and later in Canada, for the past 12 years. “But I knew it was something wonderful, because everyone seemed to be incredibly proud.”

Stories like Farrington’s aren’t uncommon. Despite a nationally growing emphasis on achieving and maintaining Magnet status, there are still many nurses—whether because of age or education—who remain unfamiliar with what the term means. “I know the hospital’s changed over time, but I don’t know how,” says new labor and delivery nurse Michelle Frances, who, two years into her first nursing job, is still learning the significance of Magnet status. “I think the older, more experienced nurses should talk about

what things were like before we became Magnet. What’s changed? What’s different? Sometimes if you know what exactly it is you appreciate, you appreciate it that much more.”

For Farrington, Magnet remained a mystery until last year, when her nurse manager asked that she represent her unit on the Magnet Ambassador Committee—a team of 77 nurses, one per unit, charged with educating their co-workers about maintaining the Hospital’s Magnet status. “Once I learned more about it, I saw that it was a really special thing,” Farrington says. “I was honored that people would think I should be a part of that.”

Awarded by the American Nurses Credentialing Center, Magnet designation first entered the health care scene in 1990 as a means of recognizing hospitals that offer excellent nursing care. Since then, only 258 of the nation’s 7,569 hospitals have received the honor, and only one in Maryland—The Johns Hopkins Hospital, which applied for and received the designation in 2003. This year, the

Hospital’s Magnet status is up for review.

“Nursing has always had a strong presence at Hopkins,” says Magnet ambassador Martha Conlon, an NC-III in the Wilmer Eye Care Pavilion. “Receiving Magnet designation really proves that the nursing care here is above and beyond.”

Nurses whose careers are just beginning at Hopkins have a shorter point of reference when it comes to appreciating the value of working at a Magnet hospital. Veteran nurses, however, have firsthand knowledge.

Twenty or 30 years ago, “there wasn’t as much interaction between nurses,” says Martha Conlon, a 28-year nurse and NC-III in the Wilmer Eye Care Pavilion. “Today, nurses really take much more responsibility for themselves. We develop our own standards and policies, have more interaction with other departments and focus more on furthering our education.”

The starkest difference between past and present-day nursing exists in the care environment. Back then, Conlon says, nurses sometimes had more than a dozen patients in their care and, as a result, their duties were much different. Nurses were often more task-oriented and focused on basics like assisting patients with bathing and changing bandages. Because no one returned home with their sutures still in, patients stayed in the hospital longer, and there was little coordination between inpatient and outpatient practices. And while such interactions allowed nurses to build strong relationships with patients, they also prevented nurses from taking on the academic and leadership-oriented roles that are so prized at Hopkins.

“I’ve definitely seen the other side of the fence, and it’s very different,” explains Farrington, whose nursing experience in Ireland offers a vivid example of a nurse’s role in a non-Magnet institution. “I think if you start out at Hopkins, it’s probably easy to believe that nursing is the same everywhere,” she says. “But it’s not, it’s truly not.”

In Ireland, where Magnet rankings don’t exist, she says, nurses have less authority and autonomy over their practices. Their opinions carry little weight with physicians, research opportunities are scarce, salaries are lower and nurses are often viewed as non-influential, matronly figures—hardly the integral role they play at Hopkins.

“Back home you could go for years and never have the opportunities you have at Hopkins,” Farrington says. “For me, it’s very exciting to constantly be told, you can do all of these things.”

The situations that Farrington remembers from her years in Ireland are similar for nurses in non-Magnet U.S. hospitals. Conlon, for example, describes the job of a colleague she knows who doesn’t work at Hopkins: “She’s a nurse manager, and she has to do everything. She’s auditing charts, doing evaluations, managing the finances. One person can’t possibly do all that work and still maintain her patient practice.”

Now that she’s accustomed to working in a Magnet hospital, Farrington can’t imagine going anywhere else. “I came here and found a totally different nursing



Martha Conlon, an NC-III in the Wilmer Eye Care Pavilion, has witnessed Johns Hopkins' evolution into a Magnet institution.



environment,” she says. “I don’t think I could ever go back.”

The reasons are all Magnetic.

There are 14 “Forces of Magnetism,” requirements that an institution must meet to be considered for the honor. Among them are strong leadership, supportive management, promoting nurses as educators and providing opportunities for professional development—all a prevalent part of Hopkins nursing culture. With an extensive list of hospital-sponsored classes, as well as a tuition reimbursement program, Hopkins nurses receive numerous opportunities to extend

Leonie Farrington learned about Magnet through her training as a Magnet Ambassador.

their education and receive promotions. They also take part in research and serve on important committees. And, most importantly, their opinions matter to the rest of the care team.

“If you’ve never worked anywhere else, you might think, Isn’t every place like this?” says Lisa Phifer, Pediatrics’ director of nursing. “And the answer is no. No, no, no. There are only about 250 hospitals in the country like this.”

The ANCC doesn’t just hand out Magnet designations to institu-

tions based on reputation alone, nor is the title bestowed without considerable effort made by the institution in question. Hospitals must take the initiative upon themselves, and the process can take a full year or longer. Furthermore, earning Magnet status once is no life-time guarantee. Some institutions have found themselves stripped of their Magnet title upon re-evaluation, which is required every four years.

When the ANCC first announced the new credentialing system in 1990, Hopkins’ nursing department leadership thought little of it. “We decided we didn’t need that level of designation,” says Phifer. “We felt like we already met the criteria and didn’t have anything to prove.”

Over time, though, a question kept arising among job applicants and competing hospitals: Why wasn’t Hopkins a Magnet nursing organization? Nursing students and veterans alike were beginning to look at Magnet designation as a must-have for their employers, and a growing—albeit still small—number of hospitals across the country were seeking and receiving the title. So in 2003, Phifer says, Hopkins decided to do the same.

“The opportunity to validate that we did indeed meet Magnet nursing standards was a wonderful journey,” Phifer recalls. “We looked at every single standard and said, Yes, we do that. And we could give specific examples.” Unlike some institutions that need two or three attempts before they make the cut, Hopkins was granted Magnet status on its first try. Now, Phifer says, the task is to keep it.

While administrators assemble the thousands of pages of paperwork needed for the re-designation application, Magnet ambassadors are holding monthly meetings with co-workers to build enthusiasm and talk about how to prepare their units for the inevitable site visit—when a Magnet investigator comes to the Hospital to conduct an inspection. Phifer has no doubt that their hard work will once again pay off.

“Our staff nurses shine, they just shine,” Phifer says. “Part of the beauty of our receiving Magnet status the first time was that we didn’t have to do or change anything to achieve it. It’s part of who we are—Hopkins nursing equals Magnet nursing.” ■

MAGNETIC PRACTICES

Magnet designation first emerged in 1990 as a way to recognize hospitals that successfully attracted and retained high-quality nurses, even during periods of nursing shortages. At Hopkins, a quick read of the Department of Nursing’s 2006 R.N. satisfaction survey shows why the Hospital measures up.

Called the National Database of Nursing Quality Indicators, the survey polls more than 76,000 nurses across the country to determine their overall job satisfaction, monitor their progress through the years, and evaluate how individual institutions compare to their competitors. With the predicted shortfall in nurses, it’s an important question, particularly for any hospital hoping to improve its recruitment. Fortunately, Hopkins made a good showing—receiving high scores that fared above the national averages in most categories.

At Hopkins—where 1,612 nurses and 71 units participated—nurses registered a higher level of satisfaction with their professional development opportunities, co-worker interactions, decision-making abilities and physician relationships. Hopkins’ nurses also showed increased satisfaction with co-worker teamwork, job satisfaction and leadership between 2005 and 2006.

“This is one of the most important assessment tools we have,” says Nursing Vice President Karen Haller. “It’s so gratifying to see that we didn’t have any low scores, and in many areas we saw improvement.” ■

From the Philippines and Back Again

The day he left the Philippines to work as a nurse in the United States, Retzer Cariaga vowed to return. His family, he says, worked hard to provide his education, and he needed to repay them. Now, eight years after he finished nursing school, his promise has evolved to include an entire village.

Growing up in an impoverished mountain town on the island of Mindanao, Cariaga spent his childhood in a house made of bamboo and coconut lumber, without running water or electricity. To support his family, Cariaga's father harvested rubber—a valuable crop at the time—and later drove a taxi. But his wages couldn't cover Cariaga's college education. So his mother moved to Hong Kong to work as a maid, only returning to her village every two years. Finally, four years ago, she returned for good.

Last spring, for the first time since he moved to America, Cariaga returned as well. Accompanied by his wife, Lewelyn, he arrived home ready to use his hard-won nursing skills volunteering in a free clinic, which he plans to do again next year. "Coming from a poor background, it was a struggle for me to go to get an education,"



Retzer Cariaga, an NC-IIM in the hospitalist program, and his wife, Lewelyn, an NC-I on Weinberg 5, came to the United States from the Philippines. They devote much of their free time to helping family and friends back home in their native villages.

Cariaga says. "My family made huge sacrifices so that I could go to nursing school."

Soon after the Cariagas accepted jobs at Hopkins and moved to Baltimore, they found a Seventh Day Adventist church, a denomination Cariaga had belonged to since age 13, tied to the mission group SULADS (Socio-economic Uplift Leading to Anthropological and Developmental Services). Based out of Mountain View College in the Philippines—where Cariaga and his wife attended nursing school—the group takes on volunteer projects in impoverished villages, teaching residents about farming, sanitation, literacy, nutrition and other health needs. With his nursing training, Cariaga was in a prime position to teach the villagers about health issues and help provide nursing care.

Aside from his volunteer work, Cariaga also donates a substantial portion of his income to the mission project and to provide his own family with food, shelter, clothes and other necessities. He's currently trying to buy land for his parents and siblings so that they can earn a living by planting crops. "The whole family depends on me, and their needs are getting heavier to me," he explains. "But having the background that I do, I really have an obligation to return to where I came from and help the people who are not so privileged." ■

Nurse

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Hopkins Nurse is published twice a year by The Johns Hopkins Hospital. For more information, call 410-955-5160 or write to the above address.

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