

# CONNECTIONS

 **NorthShore**  
University HealthSystem

A health and lifestyle publication from NorthShore University HealthSystem

| VOLUME 2 | ISSUE 6 | FALL 2009



# Family Ties



A NorthShore University HealthSystem gynecologic oncologist detects genetically based ovarian cancer at an early stage when performing a preventive laparoscopic procedure on a patient with a strong family history of ovarian cancer.

Welcome to the Fall issue of *Connections*, a quarterly publication bringing you the latest in patient care, medical technology and advances in clinical research from NorthShore University HealthSystem (NorthShore). Each issue of *Connections* features articles about how caring for patients contributes to serving our communities and supporting our overall mission “to preserve and improve human life.”

History will likely record the lead story for 2009 as the worldwide downdraft in the economy. NorthShore is not somehow immune from this devastation in the economy. We have seen, for example, a 22-percent increase in our charity care and bad debts this year as more patients are unable to meet their healthcare expenses.

But at NorthShore, we are facing this challenge head on—by accelerating an investment in a true “HealthSystem.” Let me mention a few elements of this investment, and why it is important.

In 2009, NorthShore added a fourth campus to our Evanston, Glenbrook and Highland Park Hospitals—NorthShore’s Skokie Hospital. This addition provides the patients and families we are privileged to serve with additional clinical capabilities and geographic convenience. The HealthSystem was further enhanced with the recruitment of more than 100 additional physicians—both primary care and specialty—to support the patients’ needs.

During the past year, we have further invested in our academic community by successfully implementing an exciting teaching and research affiliation with one of the nation’s preeminent medical schools—the University of Chicago Pritzker School of Medicine. This investment helps to bring new knowledge and the latest technology

Although a relatively recent addition, the NorthShore-Connect portal already is allowing nearly 100,000 patients to schedule their visits to doctors, renew prescriptions and receive test results online.



from the bench to the bedside in a HealthSystem like NorthShore.

A key investment that ties the HealthSystem together is our commitment to electronic medical records (EMR). Launched way back in 2003, NorthShore became a national leader in the application of EMR technology across our entire system of Hospitals, medical offices and Emergency Departments. The benefits of this investment continue to accumulate, including improved communications, safety, cost improvements and, importantly, a higher level of personal service and access for patients. Although a relatively recent addition, the NorthShoreConnect portal already is allowing nearly 100,000 patients to schedule their visits to doctors, renew prescriptions and receive test results online.

At NorthShore University HealthSystem, we have redoubled our efforts to overcome the severe challenges in the economy and continue to serve you personally and professionally. Our 2009 investments in the HealthSystem have helped us deliver on this commitment.

Best regards,

Mark R. Neaman

# CONNECTIONS

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FRONT COVER: These photos are of some members of Sara Patterson's family who had or have the BRCA1 gene alteration. Clockwise from the top: Paul Rahr (grandfather); Ginny Rahr (aunt); Dottie and Ginny Rahr (mother and aunt); Sara Patterson and Dana Masek (sister); and Dottie Rahr (mother).

# Unsung Heroes

“To benefit the public, NorthShore mobilized an impressive, intense response to the H1N1 flu from many physicians and staff at our four Hospitals and multiple physician offices.”

*NorthShore University HealthSystem physicians and clinicians developed special genetic laboratory tests that discovered the new H1N1 (swine) flu virus in a Chicago patient before it was announced publicly. Quickly, they took significant steps toward preventing the flu from becoming more widespread and ensuring patient safety.*

By Sara S. Patterson

**W**ill the H1N1 flu become more dangerous during the regular flu season? No one knows. But if it does turn more virulent, physicians and clinicians at NorthShore University HealthSystem (NorthShore) are prepared to combat it. Through the spring and summer,

a multidisciplinary team at NorthShore has been functioning like a SWAT team of infection control.

“We chose NorthShore University HealthSystem as one of only six hospital systems in Illinois, among hundreds, to give us aggregated data on the H1N1 Real Time PCR Testing,<sup>1</sup>” said Kenneth Soyemi, M.D., As-



The NorthShore Lab uses a testing methodology that can accurately detect the H1N1 (swine) flu virus and is one of only six hospital systems in Illinois to be working with the Illinois Department of Public Health. As a result, the Lab has added more staff and is conducting 200 to 250 flu tests per day. In the center of the photo, Dr. Ari Robicsek (left) and Dr. Karen Kaul are pivotal members of NorthShore's SWAT team of infection control.

sistant Medical Director in the Office of Health Protection, Division of Infectious Disease at the Illinois Department of Public Health. “NorthShore is one of the few places where these tests are performed. Additionally, NorthShore physician Dr. Ari Robicsek has provided us with aggregated data on the prevalence of H1N1 (swine) influenza in our community.”

NorthShore’s preparedness started in the lab. A few months ago, three molecular pathologists, Karen Kaul, M.D., Ph.D., Kathy Mangold, Ph.D., and Jan Nowak, M.D., Ph.D., implemented a novel genetic test that can quickly distinguish one strain of flu from another. The test is useful in determining the proper antiviral agent to treat patients with flu. The week before the U.S. government announcement of the new H1N1 flu virus, Dr. Kaul noticed a different sequence of DNA on a flu sample from a young woman from Mexico who lived on Chicago’s north side.

The next week, NorthShore physicians tested its sample and methodology against the results from the Centers for Disease Control (CDC) and confirmed the sample’s positive identification for H1N1 flu. From that point forward the NorthShore Lab ramped up with extra staff to conduct 200 to 250 flu tests per day, seven days a week compared to a previous average of 20 tests per day. Additionally, the NorthShore lab is testing samples from other hospitals and physicians’ offices throughout the Chicago metropolitan area due to its superior capability to distinguish one flu strain from the other.

“The new testing puts us well ahead of other health systems regionally and nationwide. We can quickly diagnose different strains of flu and treat sick patients within 24 hours,” said Dr. Kaul, Director of Molecular Diagnostics, Board of Directors Chair of Molecular Pathology at NorthShore and on

## Gold Standard Testing for Flu

Conventional tests for flu either lack sensitivity in determining different strains of flu or are time consuming. NorthShore molecular pathologists, Karen Kaul, M.D., Ph.D., Kathy Mangold, Ph.D., and Jan Nowak, M.D., Ph.D., developed testing that uses the polymerase chain reaction (PCR) enzyme process to amplify the DNA and then to genetically distinguish one type of flu from another based on the genomic sequence of the virus. Their groundbreaking assay uses Melt Curve Analysis, in which the double stranded DNA of the flu virus is melted and becomes single stranded.

Different types of flu have different melting temperatures. Just as important, the testing works in a matter of hours, instead of a few days. The determination of a specific strain of flu allows NorthShore physicians to provide the most effective treatment for their patients. **C**

faculty of the University of Chicago Pritzker School of Medicine. “The earlier we can treat patients with the H1N1 flu, the more likely their bout of flu will be mild, and the more we can limit the spread of the infection.”

But testing was just the start. Under the orchestration of Ari Robicsek, M.D., Medical Director of Infection Control, NorthShore took a specific and diagnostic approach to prevention at its four Hospital campuses and physicians’ offices. NorthShore Hospitals installed precautionary measures at the entrances—cleansing dispensers and employees who asked visitors and outpatients questions about flu symptoms. Hospital care-

givers were tested daily during the initial stage of the outbreak. Anyone diagnosed with the flu was sent home for seven days to prevent the spread to patients.

Systemwide, NorthShore infection control experts swiftly educated its thousands of physicians and clinicians how to perform the nasal swab on patients with flu symptoms and send the swabs to the lab for testing. Increased amounts of supplies of protective equipment—gloves, lab coats and swabs—were distributed at NorthShore facilities. And last but not least, the Infection Control team is using NorthShore’s electronic medical record system to perform large-scale influenza-like illness surveillance of patients for the Illinois Department of Public Health.

“To benefit the public, NorthShore mobilized an impressive, intense response from many physicians and staff to the H1N1 flu at our four Hospitals and multiple physician offices,” said Dr. Robicsek, who serves on faculty of the University of Chicago Pritzker School of Medicine.

“Like performing a drill, the early warning of the H1N1 flu virus during the nonflu season has given us the opportunity to implement real-life best practices for patients at NorthShore,” said Lance Peterson, M.D., FIDSA, FASCP, epidemiologist at NorthShore and on faculty of the University of Chicago Pritzker School of Medicine. “We are staying ahead of supplies, have implemented an effective organizational structure with daily updates and have learned a lot for the upcoming challenges if the H1N1 flu becomes more deadly.”

For more information on Infectious Disease at NorthShore, call (847) 492-5700 (Ext. 1278). **C**

<sup>1</sup> Polymerase chain reaction (PCR) enzyme testing process amplifies a patient’s DNA and then genetically distinguishes one type of flu from another.

# Improving Patient Care

NorthShore University HealthSystem is at the vanguard of a significant trend focused on improving care for hospitalized patients. Hospitalists—physicians who are dedicated to in-patient care and treatment—represent a growing specialty division at NorthShore providing 24/7 care for patients who are hospitalized.

By Susan J. White

**B**evela Dean did not have a personal physician when she was admitted to NorthShore's Evanston Hospital with a serious leg injury. A blood clot turned out to be the culprit, and Dean ended up being hospitalized for three weeks. During her stay, hospitalist David Lovinger, M.D., helped direct her care.

"I saw him from the time I came in, and he coordinated much of my care," Dean said. "He was very dedicated and easy to talk to, and explained every new step to me." She was impressed not only with Dr. Lovinger's compassion, but also his consistency, visiting her multiple times a day and ensuring a smooth transition to a new unit. "He was always aware of everything that was happening to me," she said.

As the first Division Chief of Hospital Medicine at NorthShore University HealthSystem (NorthShore), Dr. Lovinger exemplifies the first-rate care offered by his team. "Hospitalists are good, really efficient primary care physicians," Dr. Lovinger said. "What makes us most valuable is that we do this kind of care all the time. So we're more adept at interfacing with all the departments and services related to general medicine and subspecialty patient care."

Hospitalists have been shown to consistently hit quality markers while ensuring patients and families are appropriately treated. In addition to providing benefits in individual patient care, hospitalists can help improve hospital systems and processes.



Dr. David Lovinger (center) spearheads the program of hospitalists, who care for hospital patients and their families, at NorthShore's Hospitals.

"We interact with everyone at the hospital, we know where challenges are and we can offer strategies for improvement," Dr. Lovinger explained.

As the Hospital Medicine Division grows, Dr. Lovinger and his team are building bridges with different groups throughout NorthShore Hospitals. These bridges range from working with nurses to ensure all members of the care team are included in the treatment plan, to collaborating with staff in quality improvement studies related to glycemic control for inpatients and managing anticoagulation in hospitalized patients. Their shared goal is to continuously improve patient care.

Dr. Lovinger and other NorthShore hospitalists are also advancing research efforts. Currently, he is participating in a multispecialty collaborative study funded by the Agency for Healthcare Research and Quality

(AHRQ) to review the effectiveness and cost-effectiveness of pharmacogenetic dosing of anticoagulant medications and standardized anticoagulation management.

"We want patients to have as positive an experience as possible. We want to ensure that their disease is fully explained to them and that proper follow-up occurs," Dr. Lovinger said.

To that end, communicating with patient families is an essential part of what hospitalists do. As the population ages and physicians care for increasingly ill patients who are hospitalized for longer stays, it is very important to build relationships with those patients' families, according to Dr. Lovinger. "Facilitating how families understand the situation of their loved ones is critical as family members often become the surrogate decision makers," he said. [C](#)

# Hope Floats

An innovative treatment called Vagus Nerve Stimulation offered by NorthShore University HealthSystem offers life-changing results for patients with epilepsy, as well as for those suffering from depression.

By Susan J. White

**O**n a good day, Jamie Trecker was up for about four hours. Bedridden and basically incapacitated from his severe epilepsy, Trecker had so many seizures he couldn't walk unaided. He was plagued with numerous side effects and complications from the staggering amount of antiseizure medicine he needed.

In late 2006 at NorthShore University HealthSystem's Evanston Hospital, Trecker underwent Vagus Nerve Stimulation (VNS), a unique treatment for intractable epilepsy, under the direction of neurophysiologist Lawrence P. Bernstein, M.D., and neurosurgeon Jeffrey W. Cozzens, M.D.

Similar to a pacemaker, a VNS is a small device implanted under the skin near the collarbone connected with a thin, flexible wire to the vagus nerve in the neck. The device is programmed to send weak electrical signals from the vagus nerve to the brain at regular intervals to help prevent seizures.

"This device has been a lifesaver in no uncertain terms," Trecker said. The Senior Soccer Writer for Fox Sports, 40-year-old Trecker has now been free from seizures for almost a year. He has regained his life—embracing everything from being able to exercise to walking to the store and carrying home a bag of groceries—"things that would have been inconceivable 18 months ago," he said.

A leader in providing VNS therapy, Dr. Bernstein, on faculty at the University of Chicago Pritzker School of Medicine, has attracted patients nationwide. He programs and monitors the VNS in patients after surgery. Dr. Bernstein and Nurse Coordinator Mardee Weber, RN, are passionate advocates for the treatment. VNS leads to a substantial decrease in seizures for at least 60 to 70 percent of patients whose epilepsy is resistant to treatment with medication, according to Dr. Bernstein. He has seen firsthand the dramatic results VNS makes in

epilepsy treatment. Now as the Principal Investigator in a clinical trial using VNS to treat severe clinical depression, he has seen equally life-altering results.

## Restoring Hope

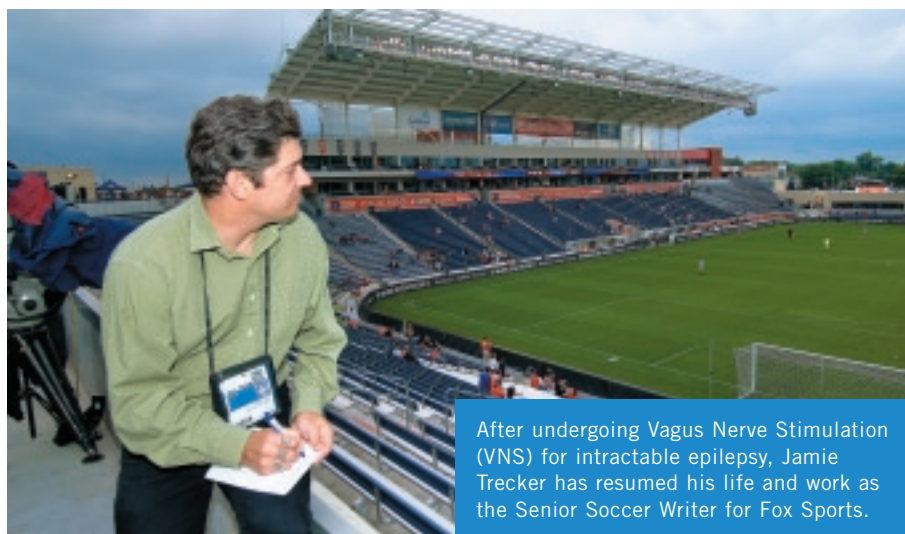
Diane Schuler battled debilitating depression much of her adult life as doctors prescribed a variety of antidepressants—none of which provided significant relief. Twice Schuler was suicidal and said only thoughts of the pain it would cause her mother kept her from taking her own life.

Clearly running out of options, Schuler heard about VNS from a friend and immediately began researching the procedure. "For me, depression is a potentially fatal disease," Schuler said. "I was tired of driving home from work crying every day wondering if life was worth living."

Finding the clinical trial at NorthShore was nothing short of a miracle, according to Schuler. Since the VNS surgery in May 2008, she has found more hope, energy and peace within herself.

"It's a blessing. I can actually look forward to the future, whereas before I wasn't even open to the possibility of a future," Schuler said. She credits Dr. Bernstein, Weber and the VNS team with "incredible compassion."

Schuler also hopes the results of this trial will lead to VNS availability for others. "I was used to living without hope; I want others to have this hope," she said. For more information on Vagus Nerve Stimulation at NorthShore, call (847) 492-5700 (Ext. 1279). **C**

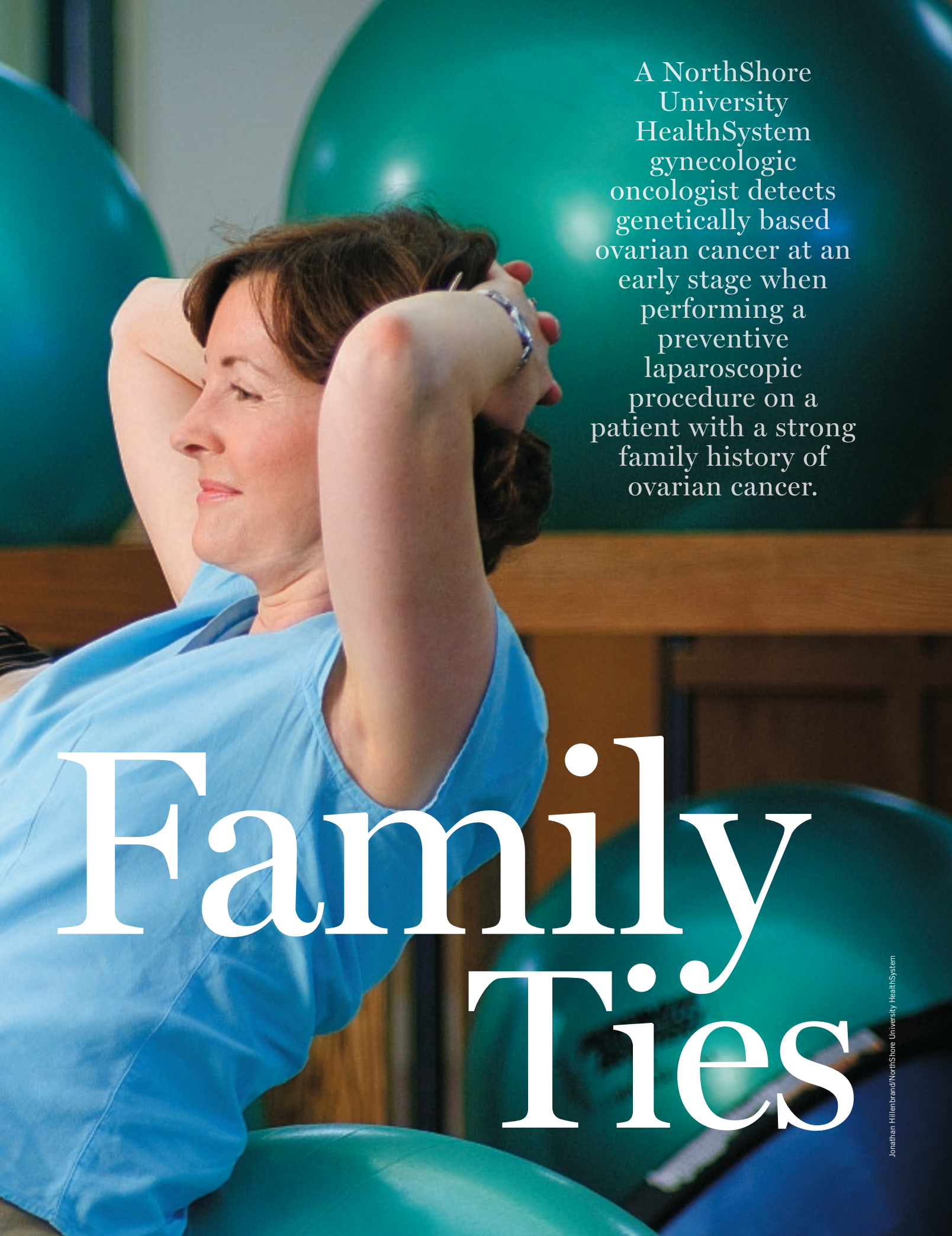


After undergoing Vagus Nerve Stimulation (VNS) for intractable epilepsy, Jamie Trecker has resumed his life and work as the Senior Soccer Writer for Fox Sports.



Dr. Leslie Mendoza Temple (left), the Director of Integrative Medicine at NorthShore, helped Sara Patterson (right) better manage treatment for ovarian cancer and has aided Patterson in speeding up her recovery through exercise and nutrition.



A woman with brown hair, wearing a light blue hospital gown, is sitting on a large green exercise ball. She has her hands clasped behind her head and is looking off to the side with a calm expression. The background is a blurred clinical setting with more green exercise balls.

A NorthShore  
University  
HealthSystem  
gynecologic  
oncologist detects  
genetically based  
ovarian cancer at an  
early stage when  
performing a  
preventive  
laparoscopic  
procedure on a  
patient with a strong  
family history of  
ovarian cancer.

# Family Ties

By Susan J. White

Sara Patterson had just turned 11 years old when she lost her mother to ovarian cancer. While Patterson inherited the BRCA1 gene responsible for her mother's cancer, her proactive course of advanced genetic testing and leading-edge treatment has stopped the deadly legacy.

Astutely interested in her family's medical history, Patterson learned that the BRCA1 gene could be traced back to her great, great grandfather, who was an Ashkenazi Jew. Unfortunately, the genetic mutation cut a wide swath through the women in her family. Patterson's mother was only 36 when she succumbed to ovarian cancer. Her mother's identical twin sister and a great grandmother had cancer as well.

Focused on a healthy lifestyle, Patterson had annual ultrasound exams beginning in her mid-20s. But she realized, however, that there is no effective screening for ovarian cancer. When her gynecologist Anthony Cirrincione, M.D., suggested she consider genetic testing at NorthShore University HealthSystem's (NorthShore) Center for Medical Genetics, Patterson and her husband, Mike Feisthammel, agreed it was the best course of action.

"I just thought it would show I didn't have the gene," Patterson said. But her meeting with the genetic counselor following the test proved otherwise. "I knew as soon as I walked in the room that I had the gene. I could see it in their faces. And I was in shock," she said.

Faced with an array of life-changing decisions, Dr. Cirrincione, a NorthShore-affiliated obstetrician/gynecologist, referred her to Gustavo Rodriguez, M.D., Director of Gynecologic Oncology at NorthShore and on faculty at the University of Chicago Pritzker School of Medicine. She ultimately opted for what she assumed would be a prophylactic procedure to remove her ovaries.

"He basically told me it was a no-brainer. I had the gene; I had to do something," Patterson said. "I trusted his direction. He did tell me there was a 1-percent to 2-percent chance he would find ovarian cancer."

Patterson woke from anesthesia to learn that she had ovarian cancer and was distraught for the first few days. What was scheduled as an outpatient laparoscopic procedure became major surgery that required a four-day stay at NorthShore's Evanston Hospital and the beginning of a new journey. Thankfully, her cancer was caught early at stage 2, which is rare since screening methods are not effective and symptoms are not distinctive. Only one cancerous nodule was found on her pelvic wall in addition to her two ovaries. Fortunately, tissue samples from her lymph nodes indicated it had not spread further.

### Genetic Testing for the Family

While Patterson began preparing herself for chemotherapy, she also embarked on a mission to spare the rest of her family. When Patterson first told her younger sister, Dana Masek, of her plans for genetic testing, Masek was supportive but didn't feel the need to pursue testing for herself.

Armed with her new cancer diagnosis, Patterson went back to her sister urging her to be tested. She encouraged her aunt's four daughters and also tracked down a maternal aunt (her mother's much younger half-sister) whom she only had intermittent contact with previously, and urged them to be tested as well.

"Her major concern when she found out she had cancer was for all of us," Masek said. A busy mother of five, Masek said it was easy to put off genetic testing until her sister's cancer was discovered.

"I don't know that I would have done it before that. But, obviously, there was sud-

Dr. Gustavo Rodriguez offers both skill and compassion to the ovarian cancer patients he treats. The Director of Gynecologic Oncology at NorthShore is also pursuing studies to prevent ovarian cancer.



denly more urgency," she said. Genetic testing revealed that Masek, their aunt and two of their first cousins carried the BRCA1 gene. Within nine months of Patterson's ovarian cancer diagnosis, each of them opted for some form of preventive surgery. "In hindsight it was really great of Sara to push us," Masek said.

Gratified that she had helped others take important action to stay healthy, Patterson



began battling cancer with her trademark optimism. “I was lucky to be diagnosed early, although I was initially terrified of chemo,” she said. “To me, it was like a death sentence. I remember watching my mom going through it before she died.”

Arming herself with as much positive energy as possible, Patterson began seeing Leslie Mendoza Temple, M.D., Integrative Medicine Director at NorthShore and on

## Preventive Strategies for Ovarian Cancer

In addition to his passion for treating cancer patients, Gustavo Rodriguez, M.D., the Matthews Family Chair of Gynecologic Oncology Research and on faculty of the University of Chicago Pritzker School of Medicine, is a nationally recognized leader in innovative ovarian cancer research.

Among his studies are projects focused on oral contraceptives as preventive agents for ovarian cancer. With the discovery that contraceptive progestins activate cancer preventive molecular pathways in the ovary, the next step is to use these findings to develop effective and more broadly applicable pharmacologic prevention strategies.

Dr. Rodriguez and his team are also pursuing research related to vitamin D as an ovarian cancer preventive. “I think we know enough already to begin to implement safe and effective strategies to lower ovarian cancer risk,” he said. “We are definitely making good progress, though it is never fast enough.”

For more information about gynecologic oncology at NorthShore, call (847) 492-5700 (Ext. 1280).

faculty of the University of Chicago Pritzker School of Medicine, who recommended weekly acupuncture treatments during chemotherapy and specific vitamins and supplements to aid her healing.

Patterson was comforted that Dr. Rodriguez trusted Dr. Mendoza Temple, and that the two physicians were in regular communication through NorthShore’s electronic medical record system. “Complementary practices help manage symptoms, support the immune system and provide patients with a therapeutic sense of more control over their health,” Dr. Mendoza Temple said.

“I am a big fan of Integrative Medicine, and we are lucky to have an expert like Leslie [Dr. Mendoza Temple] here,” Dr. Rodriguez said. “There is a growing body of evidence that shows lifestyle changes, dietary and other life interventions improve cancer outcomes.”

Patterson credits her husband, mother-in-law, family, friends and coworkers with helping her get through months of increasingly brutal chemo. A love of her job as a writer and corporate communications profes-

sional gave her additional strength. Returning to work two weeks after surgery and throughout her six rounds of chemotherapy provided Patterson with a sense of normalcy.

“My biggest fear was that I would die young like my mother,” Patterson said. “I’ve faced that fear, and now I am focused on moving forward with a positive attitude and healthy lifestyle.”

One of the many aspects of NorthShore’s collaborative and multidisciplinary care for cancer patients is its innovative Living in the Future (LIFE) Survivorship program that Patterson took part in and found extremely helpful. The program includes an individualized risk adapted visit and a one-on-one session aimed at a personalized plan for survivorship, as well as several group education sessions.

“I found it so beneficial to be reminded of the importance of adhering to a healthy diet and exercise, and to have LIFE’s expert resources at my disposal,” Patterson said.

For more information about Integrative Medicine at NorthShore, call (847) 492-5700 (Ext. 1281). [G](#)



A top Illinois official with degenerative arthritis in her left knee has a successful partial knee reconstruction by a skilled NorthShore University HealthSystem-affiliated physician using robotic-assisted and 3-D computerized surgical technology.

# Back in the Game

Patty McConnell has regained full range of motion in her left knee after an innovative partial knee reconstruction by a NorthShore-affiliated surgeon, Dr. Michael O'Rourke. Now her golf game is better than ever.

By Sara S. Patterson

**P**atty McConnell, 53 years old, was reluctant to resort to surgery, even as she started limping during the day and experiencing pain every night. Her 27 years on the police force and many years on the golf course and bike path had destroyed the cartilage in her left knee, resulting in limited range of motion and adversely affecting her quality of life. For example, McConnell felt her left knee was going to give out when she pivoted on it to swing her golf club.

In describing her busy professional and personal lifestyle, “active” would be an understatement. McConnell is the Director of Investigations for the Office of Inspector General, which is part of Illinois Attorney General Lisa Madigan’s office. She continues to serve as a police officer and works part time for Bannockburn on the Northern Illinois Police Alarm System (NIPAS), a multijurisdictional SWAT team that is used for high-risk arrest and other emergency situations, including hostage-barricade, barricaded gunman, high-risk warrant service and hostage negotiations during tense situations.

On the personal side, she competes in a golf league and bikes five to 10 miles per day. Her Volkswagen Beetle has a stick-shift, and that places more pressure on her left knee when she uses the clutch to shift gears.

“Initially, I thought surgery was extreme for my condition,” McConnell said. “My mother had her knees replaced, but she is 84 years old. After her total knee replacements, her range of motion is limited. I was worried about whether I could ride a bike or still do my police work. But I also did not want to walk with a limp anymore.”

Her physician referred her to Michael O’Rourke, M.D., an orthopaedic surgeon and the Director of the Total Joint Replacement

Center at NorthShore University HealthSystem’s (NorthShore) Glenbrook Hospital. The MRI and X-ray of her left knee showed Dr. O’Rourke that McConnell had no cartilage left. But her anterior cruciate ligament was still intact.

“Patty was a perfect candidate for minimally invasive partial knee reconstructive surgery,” said Dr. O’Rourke, a NorthShore-affiliated physician and on faculty at the University of Chicago Pritzker School of Medicine. With this surgery “the joint functions much more like a real knee compared to total knee replacement. Recovery time is quicker with partial knee replacements. The robot allows the surgery to be performed more accurately. Most important, the surgery allowed a greater chance of restoring Patty’s full range of motion.”

### Speedy Recovery

Once McConnell had discussed the minimally invasive surgery with Dr. O’Rourke, she changed her mind about having an operation. She was confident in her physician’s skills with the new robotic technology and was eager for the surgery to take place after the holidays. She deliberately scheduled her recovery to coincide with the start of the golf season in Illinois.

The process began when Dr. O’Rourke ran a preoperative CT scan of McConnell’s left knee through the robotic system to create a 3-D live-action virtual view of her bone surface. That allowed him to identify the exact alignment, position and size of the implant as it relates to her individual anatomy and knee function. The system then mapped the 3-D image to the interactive robotic arm.

Dr. O’Rourke used the robotic arm and



Dr. Michael O’Rourke uses robotic-assisted and 3-D computerized surgical technology for a minimally invasive partial knee replacement.

its tactile directions—voice, visual and touch—which limited the surgery to the degenerative arthritis only on McConnell’s knee and then provided for optimal implant positioning and placement of the bionic parts of her knee. “The robot provided the information interoperatively and allowed for a window of safety,” Dr. O’Rourke said.

“This was the easiest surgery anyone can ever have,” McConnell reported. She spent three days in Glenbrook Hospital, underwent physical therapy at home for two weeks with the aid of a visiting nurse and attended outpatient physical therapy for an additional four weeks. Throughout the recovery, McConnell set goals like climbing the stairs in her home (about a week), returning to her job part-time (three weeks) and driving her stick-shift car (about a month).

In just a few months, she regained full range of motion for her knee. “My posture is so much better now,” McConnell said. “A bad knee affects your hips and your entire structure. Overall, the quality of my life has greatly improved. The surgery changed my life—not to mention helping my golf game. My new knee will help add 50 yards to my drive.” **C**

## ONCOLOGY

# Saving Two Lives

A NorthShore University HealthSystem oncologist successfully treats a pregnant woman with breast cancer, so she can deliver a healthy baby.

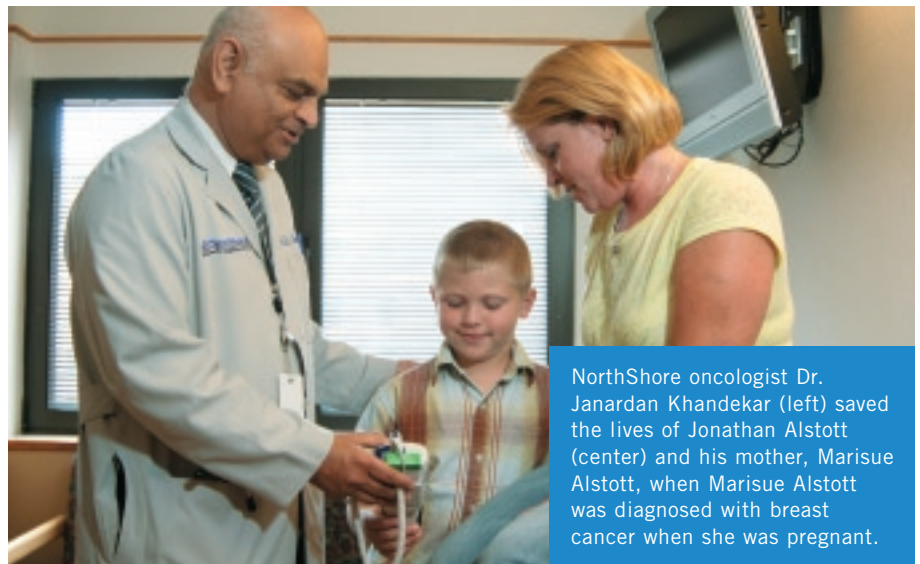
By Susan J. White

**M**arisue Alstott was 32 years old and joyfully pregnant with her first child when she discovered a breast lump that she was sure would turn out to be nothing. A diagnosis of breast cancer was the last thing she expected. Even more devastating was her physician's suggestion that terminating her pregnancy might be necessary.

For Alstott, ending her pregnancy was not something she was prepared to consider. She immediately began looking for another physician who would help her beat the cancer and give birth to a healthy baby. NorthShore University HealthSystem's (NorthShore) Janardan Khandekar, M.D., was that physician; eight years later he is like family to Alstott and her son Jonathan.

Just 15 weeks into her pregnancy, Alstott said Dr. Khandekar began treating both patients right away, managing her chemotherapy and closely collaborating with NorthShore's high-risk physicians in Maternal-Fetal Medicine. "He immediately made me feel very comfortable, and I always felt like I was in safe hands," Alstott said.

Alstott had a modified radical mastectomy and began chemo treatments during her pregnancy, enduring a regimen of two weeks on and two weeks off. Dr. Khandekar found the most important thing was careful monitoring of the medications to ensure that the baby was not harmed during the mother's treatments. Alstott jokes that she is the only person she knows who has a photo album of all her ultrasounds, taken through-



NorthShore oncologist Dr. Janardan Khandekar (left) saved the lives of Jonathan Alstott (center) and his mother, Marisue Alstott, when Marisue Alstott was diagnosed with breast cancer when she was pregnant.

out the pregnancy to monitor his progress.

"Marisue never thought she was going to die from this cancer," said her mother, Jeannie Prombo. "I think she is incredibly strong. If you know you are loved, you can do just about anything."

Alstott, Prombo and their entire family drew tremendous strength from Dr. Khandekar and the team of compassionate caregivers working together to keep the mother and baby healthy. "I remember crying the day he was born, and one of the doctors telling me 'we were all crying,'" Prombo said. At 5 pounds, 12 ounces, Jonathan was tiny but by all accounts beautiful and strong.

"I believe that every life is a miracle," Prombo said. "But when they put that little boy in my hands, I thought this is what a miracle looks like." Now an active eight-year-old, Jonathan is smart, athletic and "perfect," according to both his mother and grand-

mother. "The fact that he's here is because of the doctors and nurses at NorthShore," Alstott said.

Two weeks after Jonathan's birth, Alstott began a course of "hard-core" chemo, which was followed by a series of radiation treatments. Doctors prepared her for the likelihood of a cancer recurrence. But eight years later, she remains cancer free.

"I've been very lucky, I wouldn't go anywhere else for care," Alstott said. She continues to see Dr. Khandekar every six months and generally brings Jonathan with her.

"It's one of the most gratifying feelings to see them together," said Dr. Khandekar, Chairman of the Department of Medicine, Louise W. Coon Chair of Medicine and on faculty of the University of Chicago Pritzker School of Medicine. As treatment for breast cancer continues to improve, care for pregnant women like Alstott is no longer an impossibility, he added. **C**

## PEDIATRIC ENDOCRINOLOGY

# Growing Concern

NorthShore University HealthSystem pediatric endocrinologist views his role as a “partner in care” for children with diabetes.

By Patricia Bates McGhee

In 1997, the parents of four-year-old Nicholas (Nick) Espevik learned that he had Type 1 diabetes. Now a 10th grader at Maine South High School in Park Ridge, Nick feels great and doesn't even remember the day a pediatric endocrinologist at NorthShore University HealthSystem (NorthShore) diagnosed him with the life-threatening disease.

What Nick does remember are the four insulin shots he required daily until he switched to a pager-size insulin pump when he was 11. “It [the pump] helps regulate my blood sugars much better than insulin shots, and I can have long-term insulin throughout the day that I can control,” he explained. “With Type 1 diabetes, if your blood sugar is under good control, it's what your body would be doing on its own.”

Once called juvenile diabetes, Type 1 diabetes is a chronic condition in which the pancreas produces little or no insulin—a hormone needed to convert sugar into energy. It can develop at any age but typically strikes children or adolescents.

In Type 2 diabetes, a child's body becomes resistant to insulin's effects and produces some—but not enough—insulin to maintain normal blood sugar levels.<sup>1</sup> Until recently, the disease claimed mainly overweight adults ages 40 and older. Now, as more children and adolescents in the United States become overweight and inactive, Type 2 diabetes claims them, too.

When Nick's physician, Stephen Duck, M.D., Director of the Division of Pediatric

Endocrinology at NorthShore and on faculty of the University of Chicago Pritzker School of Medicine, began his career in pediatric endocrinology in 1975, one statistic stuck in his mind: one in 1,000 children would develop diabetes. Today one in 400 to 500 children will develop the debilitating disease due to greater prevalence of obesity,<sup>2</sup> less time devoted to physical education and recess at schools, and more time spent playing video games, according to the Centers for Disease Control.



Dr. Stephen Duck is seeing more children with diabetes than when he started his career in 1975. Here the Director of Pediatric Endocrinology at NorthShore is weighing his patient, Samuel Inmon.

Still, Dr. Duck considers himself as a “partner in care” for his “kids” from infancy through their teens. He and NorthShore pediatric endocrinologist Stephanie Drobac, M.D., share a practice of 430 kids—400 with Type 1 diabetes and 30 with Type 2.

“Starting in the 1990s, we became aware of the consequences of massive obesity within the general adult population and the resulting emergence of relatively large numbers of periadolescents and adolescents developing Type 2 diabetes,” he said. “Now we're seeing an unsettling increase in the number of very young children—younger than five—being diagnosed with Type 1 diabetes.” Experts are not sure why Type 1 diabetes is increasing among children, but they advocate more physical exercise for children of all ages.<sup>3</sup>

For Dr. Duck, diagnosing, treating and researching the disease in such young patients is rewarding because he can positively affect quality of life for the children and their families. “When a young child is diagnosed with a disease as challenging as Type 1 diabetes, the disease becomes the family's disease, too,” he said.

For more information about pediatric endocrinology at NorthShore, call (847) 492-5700 (Ext. 1282). [C](#)

<sup>1</sup> Source: American Diabetes Association. 2009. <http://www.diabetes.org/type-2-diabetes.jsp>

<sup>2</sup> Source: Centers for Disease Control and Prevention. 2009. <http://www.cdc.gov/Features/Livingwithdiabetes/>

<sup>3</sup> Carolyn Butler, “Generation Exercise,” *Diabetes Forecast* magazine, American Diabetes Association, October 2008.

## RESEARCH INSTITUTE

## PURLs of Wisdom

A physician develops an innovative method for primary care physicians to stay informed about the latest developments in family medicine, enabling them to enhance patient care at NorthShore University HealthSystem and beyond.

By Susan J. White

Some 10,000 to 12,000 applicable professional journal research articles are published each year. That would take roughly the equivalent of four full-time primary care physicians doing nothing but reading—without spending any time seeing patients—to keep up with the exhaustive literature.

Bernard Ewigman, M.D., MSPH, wanted to create an efficient way for primary care physicians to stay on top of the most important research—the studies that should result in immediate practice changes. The Chairman of Family Medicine for the combined program at NorthShore University HealthSystem (NorthShore) and the University of Chicago Pritzker School of Medicine developed the Priority Updates from the Research Literature surveillance (PURLs) system. This method is a practical way for primary care physicians at NorthShore and nationwide to

stay up-to-date on newly published information relevant to their patients.

Through a systematic and targeted review of new research, PURLs generates new evidence-based practice recommendations for family medicine that are disseminated online and increasingly used in Continuing Medical Education venues. PURLs are more than a simple literature review. Dr. Ewigman and his team rigorously survey the literature each month and identify the few articles that might warrant a change in clinical practice.

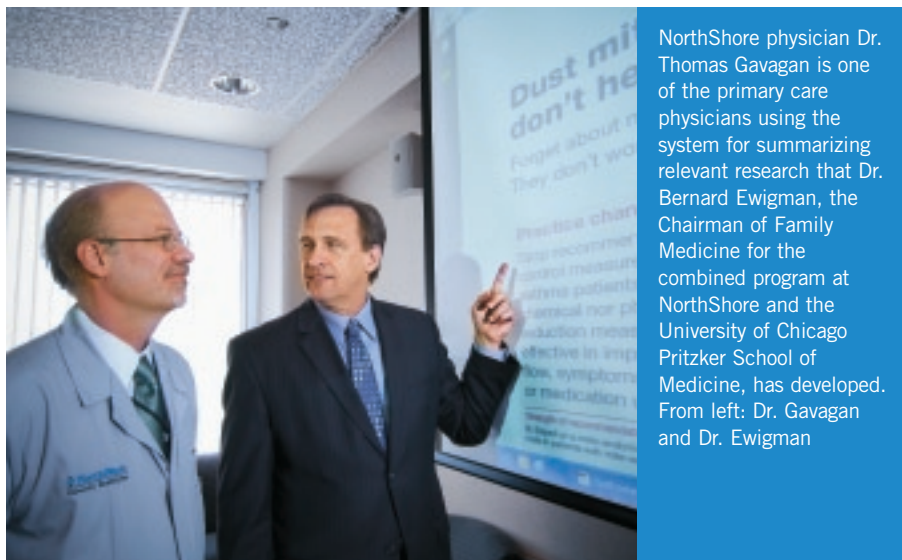
The articles are assessed for scientific validity and for applicability to the usual family practice setting, and findings are reviewed in the context of current clinical recommendations. PURLs authors ask questions like, “What are the barriers to implementing of this change into daily routine? Are there challenges in reimbursement? Who is responsible for this change?”

PURLs now involves a growing network of academic physicians from around the country, and NorthShore’s Thomas F. Gavagan, M.D., MPH, was among the system’s early fans and recently helped publish a PURL related to Zofran use for children with gastroenteritis.

“It’s a great program. It provides the mechanics to review medical literature, the thousands upon thousands of articles published every year, and find the most important articles, which will help change and improve practice,” said Dr. Gavagan, on faculty of the University of Chicago Pritzker School of Medicine.

Citing Dr. Ewigman’s prominence as “one of the top researchers in our specialty,” Dr. Gavagan has great confidence in this system as it uses the highest level of methodology and puts forward only those that lead to new recommendations that are expected to benefit patients.

Dr. Ewigman, who is the Director of the Knowledge Transfer Unit at the University of Chicago’s Institute for Translational Medicine, points toward the National Institutes of Health’s (NIH) increased emphasis on the ongoing translation of research to practice as another indicator of the need for a system like PURLs. In fact, funding from a Clinical Translational Science Award from the National Center for Research Resources at the NIH helped support the development of the PURLs system, which has been recognized as a model translational research program. **C**



NorthShore physician Dr. Thomas Gavagan is one of the primary care physicians using the system for summarizing relevant research that Dr. Bernard Ewigman, the Chairman of Family Medicine for the combined program at NorthShore and the University of Chicago Pritzker School of Medicine, has developed. From left: Dr. Gavagan and Dr. Ewigman



## COMMUNITY RELATIONS

# Close Collaboration

NorthShore University HealthSystem and the University of Chicago have a shared commitment to medical education, clinical investigation and excellent patient care that bridge the distance between their campuses for the physician-faculty and medical students, residents and fellows.

By Janet Franz

To NorthShore University HealthSystem (NorthShore) patients, the University of Chicago medical students, residents and fellows they encounter during hospital stays or clinic visits may seem a long way from their school's campus in Chicago's Hyde Park neighborhood. But any physical distance between the NorthShore Hospitals and University of Chicago Pritzker School of Medicine is being bridged by a close and collaborative academic partnership.

This new teaching affiliation makes NorthShore the primary off-site learning environment for Pritzker Medical School students, residents and fellows, who now receive a portion of their training under the guidance of NorthShore physicians.

"The affiliation gives all of our trainees the opportunity to work in a first-class hospital facility with a highly regarded electronic infrastructure and a hospital system that is different from the one they're accustomed to working in on campus," said Holly J. Humphrey, M.D., Dean for Medical Education at the University of Chicago. "The opportunity to see a different patient population in a high-quality facility with expert physician teachers is a huge benefit."

And the partnership is a plus as well for NorthShore patients, whose physicians, as teachers, stay up to date with the latest research and technological advances as they help train the next generation of doctors. In such a culture of ongoing inquiry,



NorthShore and the University of Chicago have developed a close and collaborative teaching and research partnership. Here the University of Chicago Pritzker School of Medicine medical students, residents and fellows are taking a tour of the facilities at NorthShore's Evanston Hospital.

patients have direct access to individuals "who are not just reading it through journals. They're participating in the clinical trials and the research that's helping to define what's going on in areas like cancer care treatment," said J.P. Gallagher, President at NorthShore's Evanston Hospital. "They're conducting new surgical procedures that are being done only at a handful of institutions across the United States."

NorthShore patients are likely to come into contact with the University of Chicago doctors in training in almost every specialty, be it surgery, medicine, obstetrics and gynecology, pediatrics or family medicine. The medical students and residents may be part of a team that is making daily rounds on a unit, providing follow-up coverage after surgery or performing a diagnostic evaluation during a clinic visit—all under the supervision of NorthShore-based physician-faculty members.

That means "there's another pair of eyes, another set of hands to be asking and answering the questions that arise in the course of a patient's illness," Dr. Humphrey said.

One key to making this affiliation work is a new infrastructure that brings together all of the NorthShore departments that are active in the education of medical students, residents and fellows under one academic affairs umbrella, according to Richard Silver, M.D., Associate Dean at the University of Chicago Pritzker School of Medicine and Chief Academic Officer at NorthShore. The new structure sets consistent expectations across departments and ensures that training opportunities complement those in Hyde Park.

"Medicine is all about continuing education and training—not stagnation," Dr. Silver said. "The reality is that if you are sufficiently knowledgeable to teach others your craft, it elevates the level of care for all concerned." **C**

# Commitment to Community

NorthShore Foundation is extending the act of goodwill for patients and reaching out into the community.

By Barb Hailey

In 2009, despite the challenging economy, NorthShore University HealthSystem (NorthShore) Foundation continues to experience an outpouring of generosity from its donors—individuals, foundations and corporations. Challenging economic times have not necessarily equaled cuts in philanthropy. The extraordinary willingness of donors to continue giving ultimately benefits NorthShore's patients. Contributions from donors enable NorthShore to remain on the leading edge of research and to care for those who are underserved.

"NorthShore's empathetic donors recognize there are individuals in our communities who have lost their jobs and, often as a result, their health insurance," said Colleen D. Mitchell, President at NorthShore Foundation. "They want to help them. They wish their own patient experience to be replicated for thousands of others. And they recognize NorthShore's outstanding system of care is ever changing and has to be continuously improving."

The goodwill from members of NorthShore's community—in other words, philanthropy—comes in many different shapes and sizes. "Sometimes we receive monetary gifts," Mitchell said. "We also receive the gift of time from volunteers, who, despite other obligations and responsibilities, regard NorthShore Foundation as a priority. Almost always their motivation is through the experience of being a NorthShore patient, a family member or a close friend of a patient."

The resulting philanthropy inspires gifts, funds NorthShore's future and keeps great



NorthShore organized the Medicare BINGO event through its partnership with Whitehall of Deerfield, a provider of post-hospital rehabilitative care, long-term care and care for Alzheimer's patients. Medicare BINGO gave the participants a detailed overview of Medicare benefits in a fun, engaging format. Tamitha Smith (right) served as the facilitator for Medicare BINGO.

care close to home. It also makes for a healthier community.

Among these friend-raisers are leaders like those who serve on the NorthShore

Corporate Board of Directors, the NorthShore Foundation Board of Directors and co-partners like the members of The Auxiliaries, the Associate Board and the new NorthShore Student Healthcare Board that comprises student volunteers from New Trier High School. Their commitment includes telling others about the quality of NorthShore's incredible system of care.

NorthShore Foundation's philanthropic efforts are focused in these four areas: patient care programs; academic medical education fellowships; scholarships; and research and community partnerships for the medically underserved. This focus enables NorthShore to more clearly articulate its need for private support, as well as inspire continued individual generosity. NorthShore Foundation helps extend the reach of NorthShore out into the community and generate essential contributions that help drive improvements in health for all in our community.

To help support NorthShore's commitment to its patients and families through a philanthropic gift, we invite you to contact NorthShore Foundation at (847) 492-5700 (Ext. 1283) or kindly use the envelope enclosed in this issue of *Connections*. **C**

## NorthShore Foundation Launches Improved Web Pages

NorthShore University HealthSystem (NorthShore) Foundation has updated its Web pages on NorthShore's Web site, making it easier for readers to access information about its mission and philanthropy. Through its "Portraits in Philanthropy" feature and NorthShore's Community Benefits Report online, readers will be inspired about how donors and volunteers make a difference at NorthShore and in our communities.

To see NorthShore Foundation's new Web pages and learn more about philanthropic giving. Or to make a gift online, please visit [northshore.org/foundation](http://northshore.org/foundation).

# Ensuring Good Health by Dental Care

Interviews with Michael Harada, D.M.D., and Leslie Reeder, D.D.S., NorthShore University HealthSystem-Affiliated Dentists

By Sara S. Patterson

**T**o ensure their best health, patients need regular dental care. Michael Y. Harada, D.M.D., and Leslie Reeder, D.D.S., serve on the dental staff at NorthShore University HealthSystem (NorthShore) and on faculty at the University of Chicago Pritzker School of Medicine. For 20 years, Dr. Harada has served as a NorthShore-affiliated dentist. Dr. Reeder is the Chief of the Dental Division at NorthShore and works at NorthShore's Evanston Hospital, often caring for oncology and cardiac patients.

**Question: Why is good dental health vital to your overall health?**



Dr. Michael Harada

**Answer from Dr. Harada:**

Many people see dentists more often than physicians. A patient's mouth can reveal clues about other health issues. For example, excessive bleeding of gums can be early signs of

some forms of cancer. Out-of-control periodontal disease can dangerously raise the sugar levels for diabetic patients.

It's important for dentists to know their patients well and give them thorough exams. If dentists find a patient's mouth condition is changing, then dentists can address the issues in the mouth and refer a patient to other physicians if necessary. For instance, periodontal disease is a silent disease. But if a dentist discovers periodontal disease at an early stage, it's much easier to control it.

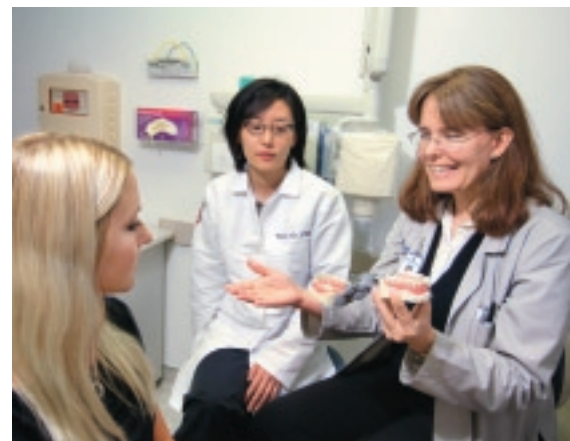
**Q: How does good dental care help oncology patients undergoing chemotherapy and/or head and neck radiation treatment?**

**Answer from Dr. Reeder:** Many oncology patients have oral side effects from chemotherapy and/or head and neck radiation treatments. During 2008, there were more than 70 head and neck cancer visits and nearly 100 other oncology patient visits at NorthShore's Dental Center.

A common side effect requiring monitoring for the head and neck patient is dry mouth, which can lead to increased risk of dental cavities. A more serious side effect for these patients is osteoradionecrosis, which is the death of the bone and tissue in the jaw. It is the standard of care for a dentist to examine head and neck cancer patients before starting, during and after radiation treatment to evaluate their oral health.

**Q: What are the best ways to care for your mouth at different stages in your life?**

**Answer from Dr. Harada:** For patients under 18 years of age, it's important to see a dentist twice per year, visit an orthodontist if needed and have wisdom teeth removed by an oral surgeon if necessary. Another big issue for children who play sports is wearing a pressure-laminated sports mouth guard customized by their dentist. This kind of mouth guard gives them excellent mouth protection. It stays in children's mouths, and they can drink fluids with it in place and talk normally. If not a professionally fabricated sports mouth guard, then a store-bought one is an alternative. Children who play contact sports without



Dr. Leslie Reeder (right) and Resident Michele Lee (center) instruct a patient about the importance of proper care of her teeth for her overall health.

mouth protection are at risk for dental injuries. Statistically, it can happen annually to 6 percent of younger children and 19 percent of teenagers.<sup>1</sup>

For those 20 to 40 years of age, it's important to see a dentist twice per year and practice good oral hygiene like flossing daily and brushing teeth in the morning and evening. Patients who are 41 to 64 years old need to see a dentist regularly and pay more attention to their teeth. Depending on the condition of their dentition, a dentist may have to perform restorative dentistry to maintain function and aesthetics.

For those who are 65 years or older, many of the basics of preventive dental care stay the same. But sometimes dentists have to give patients more comprehensive therapy to prevent tooth loss and gum disease. **C**

<sup>1</sup>Helen Cornwell, BDS, MDS, "Dental Trauma Due to Sport in the Pediatric Patient," *CDA Journal*, June, 2005, Vol. 33, No. 6, p. 457.



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