Northwestern Medicine

Northwestern International Health

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Someone You Should Know

Former Patient is Inspired to Work at Northwestern Medicine's Marianjoy Rehabilitation Hospital

For the last eight years, Robert Riley has been walking the halls of Northwestern Medicine's Marianjoy Rehabilitation Hospital as manager of Patient Relations and Guest Services. But less than a decade ago, he was a patient recovering from back-to-back strokes in the very rooms he visits today.

On a Sunday morning in March 2010, Riley came home from church, stumbled and fell. He also had a headache. Riley went to bed that evening, but awoke in the middle of the night to go to the washroom. He lifted his leg, and it fell. His headache was worse. The next thing he knew, his 6-year-old daughter was asking him if he was OK and if she should call 911. He had fallen again. "At that point, I could see my daughter, but I couldn't think of her name," Riley says. "I knew my body was shutting down."

Riley decided to drive himself to a nearby hospital. "I knew something was going on because my hand kept sliding off the wheel, but I didn't know what it was," he says. "I thought it could be a heart attack, but when my hand fell off the wheel completely, I realized I was having a stroke."

When Riley arrived at the hospital, he had an MRI. It was determined that he had experienced a transient ischemic attack (a mini-stroke). While he was at the hospital, he had a second stroke; this time, it was a right-sided hemorrhagic stroke.

"I was losing all function in my body, and at one point, I passed out," Riley says. "I was really struggling, really tired, and my headache was intense."

Riley was in the hospital for a few days when he fell out of his hospital bed. That's when his care team recommended that he transfer to Marianjoy.

First moments at Marianjoy

Riley's first memory of Marianjoy was a care team member greeting him the evening he arrived.

"She said, 'We've been expecting you,'" Riley says. "Those four words had such an impact on me that I train my team to greet new patients this way."

Riley began speech, physical and occupational therapy. He initially had challenges with swallowing, and he couldn't walk.

Northwestern Medicine's Marianjoy Patient Relation and Guest Services Manager Robert Riley (right) stands with Marianjoy Physical Therapist Colleen McQuillan (left), who helped him take his first steps after back-to-back strokes.

"You take my independence away, and that's hard. That hurts," Riley says. "Walking again was the biggest challenge I had to overcome. I cried my first day at Marianjoy. I didn't know if I would be in a wheelchair for the rest of my life. I didn't know if I would ever walk again. I kept thinking that I have a young child; I am too young for this."

Riley was determined to carry on. When he was discharged, he was still using a wheelchair, but his inpatient physical therapist, Asha Sharma (now retired), had helped him build the strength needed to start to stand.

During his two months of outpatient therapy, he gradually moved to a walker, and with the help of Physical Therapist Colleen McQuillan, he eventually took his first steps. His occupational therapists, Sandra Richmond and Nancy Danhauer, also worked with him to help him recover.

"My therapists taught me why I couldn't do what I couldn't do, and how I could begin to do the things I once did," he says.

A future filled with hope

"Today, I'm 100%," says Riley. "I struggle in the evening when I tire out, but I walk because I can."

He was so inspired by his one-month inpatient stay and outpatient therapy experience at Marianjoy that just a

Continued on Page 2

Someone You Should Know, cont'd

couple of months after he was discharged from therapy, he began to volunteer on the Transport team at Marianjoy two days a week. Eventually, he took a registry on-call position. By the end of 2011, he was hired in his current position.

"When you're a patient here, you don't want to let go," he says. "I wanted to be a part of the team of people who helped me so that I could help other people."

Today, Riley also serves as a patient advocate, speaking with patients who have experienced a stroke. "I can connect with these patients and be a listening ear for them because I have been there. I have been in that bed," he says.

Recently, Riley found himself tired at the end of a long day. A patient who was recovering from a stroke wanted him to stop by his room. Riley had visited the patient earlier that day and encouraged the patient to take a few steps. When Riley arrived, the patient's eyes were filled with tears. He had just come back from his physical therapy appointment. He told Riley that he had walked three steps.

Riley was floored. He knew how much work it took to walk those three steps.

Riley said, "The team takes the time to be patient and empathetic, and it shines through in every staff member, every leader, every physician. They want to be here, and they want to be here for you."

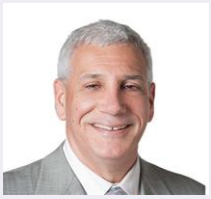
"I knew about Marianjoy. I heard people talk about how incredible it was, but I had no idea of how many miracles happen here every day," Riley says. "My experience, my life today, is confirmation of those Marianjoy miracles."

For Cervical Cancer Patients, Less Invasive Surgery is Worse for Survival

Minimally invasive surgery for early stage cervical cancer turns out to be worse than standard surgery, according to two studies published in the *New England Journal of Medicine*. Growing in popularity since 2006 and widely adopted, the treatment involves instruments threaded through small incisions that surgeons use to remove a diseased uterus. But it turns out that, for early stage cervical cancer, the technique has unexpected risks, including a greater likelihood of recurrence. Research headed by scientists at Northwestern Medicine looked at national cancer data and found that after four years, 9 percent of the women with minimally invasive surgery had died, versus 5 percent of the women with open surgery. "That is quite a big deal," said study co-author Masha Kocherginsky, PhD, Associate Professor of Preventive Medicine and of Obstetrics and Gynecology. "These patients are early stage cancer patients, and the intent of surgical treatment is cure." What's more, the researchers noted that the national survival trend for early cervical cancer, which had been improving for years, started to decline in 2006, just as minimally invasive surgery started becoming popular.

Word of these results has spread among physicians, and as a result the national guidelines are already changing to reflect the risks and benefits of these two approaches.

Dr. Emma Barber at Northwestern Medicine says she now tells her patients about the choice they face. "I think increasingly that's going to be open surgery for many women," she says, "but there may still be a role for minimally invasive surgery in some patients."



Message from Dr. Daniel Derman
President, Northwestern International Patient Services
Chief Innovation Officer and Sr. Vice President,
Northwestern Memorial Healthcare

As we welcome springtime in Chicago, we extend a warm invitation to any of you who may be visiting our city this summer. We would be most happy to give you a tour of our Hospital, a leading healthcare institution in the nation and a beacon of help for patients who we put first. We are eager to introduce you to many of our scientists and physician leaders as well as for you to visit our International Health Center and meet our international team.

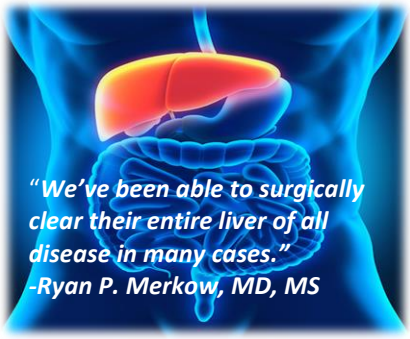
As you'll see throughout this newsletter, we are known for innnovation. Northwestern is always pushing science forward to get solutions to the patients at the safest and soonest amount of time possible. You'll hear this from one of our employees under the "Someone You Should Know" section on page one. He used to be one of our patients!

Thank you for taking the time to read our newsletter, as always please feel free to contact me or Laura Jaros our Senior Manager if you have any questions – laura.jaros@nm.org

Leading-Edge Weapon Fights Liver Cancer

Pump Delivers High Doses of Chemo Directly to Liver

When most people think of chemotherapy, they think of systemic treatment, in which medication is delivered via IV or pill, and circulates through a patient's body to help kill cancer cells. Now there are ways to apply chemotherapy directly to the cancer site in much higher doses. This cancer-fighting approach is called regional therapy.



One of the most exciting regional therapies now available is placement of a hepatic artery infusion pump. This therapy, offered at only a handful of facilities in the U.S., involves the surgical placement of a pump to deliver chemotherapy directly to the liver. Because the medication is delivered directly to the liver tissue, it can be 100 to 300 times stronger than the dose that could be safely administered systemically.

Surgical Oncologist Ryan P. Merkow, MD, MS, who performs hepatic artery infusion pump surgery at Northwestern Memorial Hospital, explains that because the chemotherapy is delivered directly to the liver, it is completely broken down, or metabolized, by the organ, sparing the rest of the body from the toxic effects of the high-dose chemotherapy.

Dr. Merkow established the program at Northwestern Memorial Hospital in partnership with medical oncologist Devalingam Mahalingam, MD, PhD. The ultimate goal of the therapy is to destroy enough of the cancer cells with medication to allow the surgeon to remove any remaining cancerous tissue, ridding the patient of cancer. However, if complete removal of cancerous tissue is not an option, the pump can at least slow the growth of the cancer and prolong survival. This therapy can also be used after removal of all disease in the liver to reduce the chance the cancer will recur.

Candidates for Hepatic Artery Infusion Therapy

At Northwestern Memorial Hospital, hepatic artery infusion chemotherapy is used to treat individuals who have colorectal cancer that has spread, or metastasized, to only the liver. This is the most common form of metastatic colorectal cancer. It can also be used for other less common liver cancers, such as intrahepatic cholangiocarcinoma (bile duct cancer). Candidates for the procedure are carefully selected by a multidisciplinary team of oncology experts.

"We've seen some really remarkable responses in patients who are on second-line, and even third-line chemotherapy who get a hepatic artery infusion pump placed, although we also know that the earlier in the disease course we use this treatment, the better the response will be," says Dr. Merkow. "We've been able to surgically clear their entire liver of all disease in many cases."

Patients who have a pump placed still receive systemic chemotherapy, but are typically given a lower dose than they would have otherwise received, which reduces toxicities and side effects, and has been shown to improve quality of life, Dr. Merkow says.

Pump Placement

The pump, which is about the size of a hockey puck, sits in the abdominal wall. It can be seen and felt through the skin, so it does take patients some time to get used to it, says Dr. Merkow. Patients typically need to come into the office every two weeks, either for chemotherapy or for filling the pump with saline to keep it functional, and to monitor for possible side effects.

The pump normally stays in place for two or more years, even if the patient gets more immediate results. That way, if the cancer does recur, the pump can be used to quickly restart chemotherapy. When the time comes for removal, it can be accomplished in a fairly simple outpatient procedure.

"It's pretty exciting," says Dr. Merkow. "We have the unique ability now at Northwestern Medicine to offer this in the setting of other really leading-edge tools and techniques with some of the other specialists here, like our interventional oncologists. We can truly provide patients with tailored, world-class, comprehensive, multidisciplinary cancer care."

Northwestern Discoveries Overturn Old Thinking

All scientists dream of producing new knowledge. Every study in its own way contributes to this aim, but some research also leads to breakthroughs that fundamentally shift the entire direction of a field. At Northwestern Feinberg School of Medicine, we've cultivated a unique research enterprise that allows scientists to make just those kinds of paradigm-changing insights.

We have built an environment that gives investigators the freedom and the infrastructure to explore novel ideas, pursue interdisciplinary collaborations and follow unexpected conclusions, because we know that exceptional discoveries happen when scientists take creative approaches to tackle old problems in new ways. Our efforts have led to a remarkable record of noteworthy findings; our scientists are truly forging new paths in their disciplines.

Doug Vaughan, MD, Chair of Medicine, has spent 30 years studying a protein overexpressed in CVD called PAI-1. When his team noticed that PAI-1 is created as cells age, they decided to pursue it. The work led to astonishing conclusions. Overexpression of the protein in mouse models accelerates aging, while an Amish population in Indiana with low levels of the protein is protected against multiple aspects of biological aging. Vaughan and colleagues are now developing a promising new drug to inhibit the protein and prolong the healthy lifespan of people.

Sanjiv Shah, MD, Assistant Professor of Medicine in Cardiology, mined big data while studying patients suffering from heart failure with preserved ejection fraction. He uncovered three distinct types of patients, each requiring different treatment protocols rather than the standard one-size-fits-all approach. Today, these patients receive better, tailored therapies thanks to Shah's work.

Melissa Brown, PhD, Professor of Microbiology-Immunology, uncovered insights that may guide greatly needed new treatments for multiple sclerosis (MS) by studying the disease in a way nobody had before. Her team isolated sex differences in the disease and explained why women are much more likely to get MS than men: A guardian molecule triggered by testosterone appears to protect male mice from the disease.

Sue Quaggin, MD, Chief of Nephrology and Hypertension, exposed genetic defects that lead to glaucoma in children by focusing on a drainage vessel in the eye called the canal of Schlemm, and she's well on the way to developing new small molecule drugs to fix this vessel and attenuate the disease.

Innovative thinking drives us to keep learning and to refuse to accept incomplete answers. Such efforts yield better explanations that improve therapies clinicians need for their patients. Our investigators are challenging some of the existing understandings of disease and their diagnosis and treatment to create better paradigms for clinicians and scientists around the world to follow.