



STAY healthy

SUMMER 2013

fun in the sun

Keeping kids safe in summertime

healing powers

Hyperbaric
oxygen therapy
successfully
treats radiation
treatment
complications

driven by data

UHS and BU
partnership reduces
readmissions



UHS WILSON MEDICAL CENTER

UHS CHENANGO MEMORIAL HOSPITAL

UHS HOME CARE

UHS PRIMARY CARE

UHS FOUNDATION

UHS BINGHAMTON GENERAL HOSPITAL

UHS DELAWARE VALLEY HOSPITAL

UHS SENIOR LIVING AT IDEAL

UHS SPECIALTY CARE

UHS MEDICAL GROUP

life's a marathon

RUNNER RETURNS TO ICU IN TRIUMPH

Binghamton Bridge Run participant Bryan Steinhauer visited the new Intensive Care Unit at UHS Wilson Medical Center on May 4, five years after he was a patient in the ICU. This time he was on a guided tour conducted by well-wishers, including several of the doctors, nurses and other staff members who helped save his life.

Mr. Steinhauer, a former Binghamton University student who was beaten nearly to death in downtown Binghamton in 2008, has made a remarkable recovery. He came back to town to take part in the competitive half-marathon. "The five-year anniversary of my assault and I'll be in Binghamton and running past the Rathskellar, the place I was attacked in," he was quoted as telling *The Press & Sun-Bulletin* shortly before the event.

In the early morning hours of May 4, 2008, Mr. Steinhauer, 22 at the time, was beaten so severely in an altercation at the bar on State Street that he was rushed to UHS Wilson and put into intensive care, the newspaper reported in a May 4 feature on his recovery. In the days after the attack, he experienced swelling around his brain and, after coming out of a coma, required a long period of rehabilitation.

Today he continues to make an incredible physical recovery, works as a certified public accountant in New York City and operates "Minds Over Matter," a charity that helps young adults with brain injuries.

On May 5 he completed the Bridge Run in two hours and 15 minutes, bettering his own personal record for a half-marathon.

Bryan Steinhauer, center, meets with critical care specialist Regina Frants, MD, and neurosurgeon Saeed Bajwa, MD, at UHS Wilson Medical Center prior to running in the 2013 Bridge Run in Binghamton.



scope it out

NEW VIDEOENDOSCOPY SYSTEM

UHS Chenango Memorial Hospital has acquired a new state-of-the-art videoendoscopy system. The system, called the Olympus Evis Extera III, enables physicians to peer inside the human body to diagnose, detect and treat gastrointestinal (GI) diseases and other conditions. It boasts



The new system helps physicians visualize the GI tract with exceptional clarity.

superior clarity and dual-focus capabilities that allow physicians to switch the depth of field for more detailed observation of suspected lesions.

"The clarity on the new system is exceptional, helping our physicians to more clearly detect abnormalities, even at their earliest stages," says Michael Trevisani, MD, the hospital's vice president of medical affairs and Chief Medical Officer.

The high-tech system improves comfort for patients as well. Users cite more accurate diagnoses, shorter procedure times and an improved overall patient experience. Similar systems are in use at UHS Wilson Medical Center and UHS Binghamton General Hospital.



EARLY DETECTION ... Beginning at age 50, both men and women at average risk for developing colorectal cancer should be screened for colorectal cancer and polyps, and those with personal or family risk factors should be tested even earlier. For more information about these screenings, consult your primary care provider.

the wait is over

SEE WALK-IN WAIT TIMES ONLINE

When your healthcare provider's office is closed and you need to be seen for something that is not an emergency, a Walk-In Center is the place to go. You can now find out how long you will need to wait at UHS Walk-In Centers in Chenango Bridge, Vestal and Endicott by checking www.uhs.net. On your smartphone or tablet, visit www.m.uhs.net.

The wait times are updated several times each hour using electronic medical record technology. The times are approximate and reflect the time from registration to being shown to the examination room.

The Walk-In Centers are ideal for people experiencing minor injuries and ailments. For conditions like chest pain, severe abdominal pain, sudden onset weakness, dizziness or severe headache, the hospital Emergency Room is the place for treatment.



WHERE TO GO ... UHS Walk-In Centers are located at 92 Chenango Bridge Road in Chenango Bridge; 1302 E. Main Street in Endicott; and 4417 Vestal Parkway East at UHS Vestal in Vestal. They are open seven days a week from 8 a.m. – 8 p.m.



in a class by itself

AS A TEACHING HOSPITAL, UHS WILSON MEDICAL CENTER HELPS LEAD THE WAY

At America's universities, there are 141 medical schools and 29 osteopathic schools, as well as several podiatry programs. These schools are affiliated in turn with one or more teaching hospitals. For over 50 years, UHS Hospitals (at both UHS Wilson Medical Center and UHS Binghamton General Hospital) has been on this elite list of the nation's teaching institutions. Its programs are accredited by such distinguished agencies as the Association of American Medical Colleges and the American Osteopathic Association. Each year, UHS attracts students and medical residents from across the country and around the world.

At any time, approximately 100 medical students and 80 residents are completing their medical training under the supervision of UHS attending physicians. In addition, UHS Chenango Memorial Hospital is a site for medical students as well as those studying to become nurse anesthetists.

America's teaching hospitals drive and advance many of the world's most important innovations in healthcare. "This gives our patients access to groundbreaking advances in treatments," says Judith Spencer, director of Medical Education at UHS Hospitals. "Being so connected to leading-edge progress gives us a higher acuity in terms of the patients we treat and also allows us to provide a more comprehensive array of hospital services."

With UHS attending physicians, research scientists and America's future physicians all keenly focused on the latest treatments, technologies and life-saving healthcare, everyone must show up every day with their A-game. "Students ask a lot of questions, always pushing medicine to a higher level. To answer their questions, teaching physicians must rise to that higher level, too," explains Rajesh Davé, MD, executive vice president for Clinical Integration and Chief Medical Officer at UHS, and dean of the Clinical Campus at Binghamton of Upstate Medical University. The result, Dr. Davé adds, is unparalleled continuity of care. "Someone is always reviewing a patient's treatment plan. This system produces higher quality healthcare and greater safety controls."

Reaching beyond the hospital walls, academic medical centers also maintain clinics, where residents treat walk-in patients who are often uninsured or underinsured. "Our residents gain valuable patient experience, and we're also able to give back to our community," Ms. Spencer says.

By placing tomorrow's physicians in an environment where evolving medical knowledge is as highly valued as community outreach, the UHS system is able to consistently graduate stellar physicians — ready to take on the future.

 **GET SCHOOLED** ... Learn more about UHS residency programs at www.uhsresidency.net.

Education incentives and training programs are also available for health professions at every level, including nursing and allied health. Learn more about these programs at www.uhs.net/educationincentives.

combining our strengths

It's a real advantage in a community like Greater Binghamton when two of its leading human service institutions work together to improve life in the region they both serve. Such is the case with UHS and Binghamton University. Over the past few years, the ties that bind our two organizations have grown ever stronger, and you, the healthcare consumer, are the chief beneficiary.



Our organizations are healthcare and educational cornerstones in the community. UHS is grateful for the trust that people have placed in us, and proud that we are able to join forces with BU for good in the region, producing a positive effect on its socioeconomic stability. We do this in part by employing thousands of people who, in turn, spend dollars on goods and services, as well as pay taxes at the federal, state and local levels.

Now we are combining our knowledge, resources and passion to create new avenues for health improvement — in the Southern Tier and beyond. In this issue of *Stay Healthy*, we profile a new partnership between UHS and BU that is giving healthcare providers the tools they need to anticipate and prevent medical problems before they occur. As the researchers point out, the partnership has led to breakthrough studies predicting when a patient is likely to have a complication leading to a hospital readmission.

Hospital systems like UHS are very conscious of readmissions for two key reasons. First, with the types of treatments available today, it's better for patients to receive the care they need up front, and to be effectively managed after they leave the hospital, than to be readmitted for the same condition again and again. It makes the patient's recovery and long-term prognosis safer, easier and better all the way around. Secondly, avoiding unnecessary readmissions saves everyone money. At its recent annual meeting, the American Hospital Association reported on how a reduction in readmission rates is reducing healthcare costs, something that both consumers and providers want.

One of the stipulations of the Affordable Care Act is that hospitals must reduce the number of patients returning to the hospital within 30 days of discharge — or face financial penalties. So efforts like BU's readmission study project with UHS not only create a kind of scientific synergy in the community, they also can yield very positive, practical results that benefit many people.

Residents of Greater Binghamton can point with pride to the quality of the healthcare and educational institutions that call this region home. We can all feel secure in the knowledge that we are served by organizations that are highly regarded when measured against top national standards of quality, efficiency and outcomes. And we can be glad that UHS and BU are using their combined skill, talent and motivation to seek better solutions for the well-being of our community.

Matthew J. Salanger
President and CEO of UHS

KEEPING KIDS SAFE IN SUMMERTIME

fun in



The temperatures are warmer, the days are longer, and best of all — school is out. It's time for summer fun! Don't let summer hazards put a damper on family fun this season. Follow these tips for a safe and healthy summer.



sun

Did you know that just a few serious childhood sunburns can increase your risk of skin cancer later in life? And, it isn't just on sunny days that children (and adults) can get sunburn. Avoid sunburn all summer long with the following recommendations:

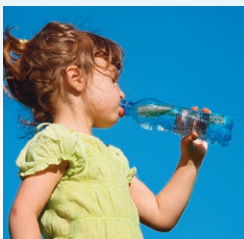
- **Apply (and reapply!) sunscreen.** For best protection, Rohan Jayasena, MD, pediatrician at UHS Primary Care Sidney, suggests using a broad-spectrum, water-resistant sunscreen with a sun protection factor (SPF) of 50 on children. Reapply frequently, especially after swimming or heavy perspiration.
- **Seek shade.** Ultraviolet (UV) rays are strongest midday, so find shade or plan outdoor activities for earlier or later in the day.
- **Cover up.** Wear light-colored clothing (long-sleeved shirts, long pants or long skirts made of light, breathable fabrics) and wear a hat. Protect your own and your child's eyes with sunglasses that block as close to 100 percent of UVA and UVB rays as possible.



the sun

heat

Heat stroke is a danger on hot, humid days. When the humidity is high, perspiration doesn't evaporate as quickly, so the body doesn't cool itself down as efficiently. One of the first danger signs of heat stroke is headache; more advanced symptoms include muscle cramps and confusion.



Supervise outdoor play and make sure kids have plenty of cool water available. Save very active play for early morning or late evening on the hottest days. Prevent heat illness by cooling off frequently with a cool shower, or staying inside in an air-conditioned location.

Beware of unneeded sugars and additives in so-called hydration drinks. "No special drinks are necessary. Cool, clean water is adequate for hydration," says Dr. Jayasena.

And while most parents are well aware, Dr. Jayasena says it bears repeating: Never leave children alone in a parked car in the summer.

bikes

Bikes are a great form of transportation, fun and exercise in the summer. To stay safe, kids and grown-ups should always obey traffic signals and rules of the road while riding. Encourage your kids to be engaged in and aware of their surroundings (no headphones or texting) while riding.

Most importantly, wear a helmet when riding a bike, scooter, skateboard, inline skates or anything else with wheels. Helmet use reduces the chance of



a bicycle-related head injury by up to 85 percent. Proper sizing and fit are important, so have staff at your local sporting goods store fit both you and your kids. Dr. Jayasena cautions that kids should always remove

helmets when not riding—helmet straps can get entangled in playground equipment.

Parents should model proper bike safety behaviors by wearing a helmet and obeying road rules. According to the National Highway Traffic Safety Administration (NHTSA), 52,000 cyclists were injured in motor vehicle crashes in 2010; about 9,000 of these injuries were to children age 14 and under.



STAY HEALTHY KIDS CLUB

The Stay Healthy Kids Club offers parents and kids ways to implement better health habits for the whole family. The goal of the free program is to increase kids' activity levels, adopt healthy eating habits and decrease screen time. The program accepts children ages 8–13 whose body mass index (BMI) is above the 85th percentile, and their families.

According to Jenny English, RN, community education nurse and Stay Healthy Kids Club coordinator, the programming consists of 12 weeks of classroom and physical fitness instruction, and centers on three basic tenets:

- **Having better nutrition** by eating more fruits and vegetables, decreasing fats through low-fat dairy and lean meats, and adding whole grains.
- **Getting 60 minutes of physical activity every single day.** Ms. English says it doesn't matter what type, and it doesn't have to be all at one time (30 minutes two times a day, or 15 minutes four times a day, for instance).
- **Limiting screen time** (computer, TV, texting, etc.) to two hours or less each day.

"Scientists are saying that kids are actually gaining weight in the summer," says Ms. English. "Many kids have their largest weight gains in summer when they are out of the structure of school. They're actually spending less time outdoors (contrary to what most people think) and are making poorer nutritional choices, like ice cream and chips."

Her tips for summer family health and fun include outdoor activity together, or combining activity with better nutrition by planning a healthy barbecue meal or going to a farm and picking your own berries or other fruit.

JOIN THE CLUB ... Contact your UHS physician for a referral to the Stay Healthy Kids Club. For more information about the program, visit www.uhs.net/stayhealthykids.

water

Swimming is another great form of recreation and a healthy way to cool off in the summer, as long as you stay aware of safety hazards. "There should be a fence, gate and lock on your pool, and swimming kids should always be supervised," Dr. Jayasena says. Swimming in natural bodies of water poses other risks, such as currents or undertows. Follow these tips to keep the whole family safe in water:

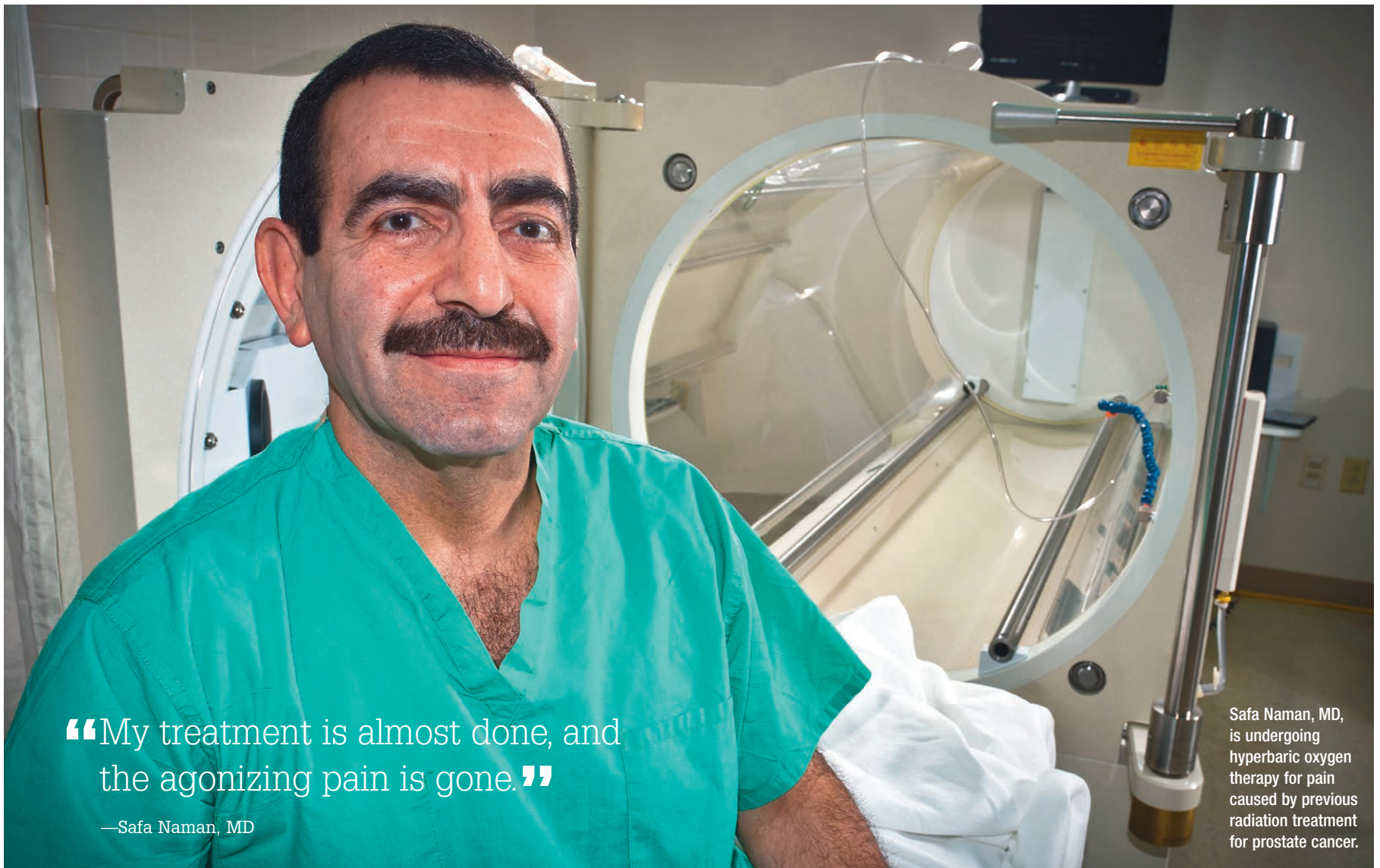


- **Learn to swim.** The CDC reports that taking part in formal swimming lessons reduces the risk of drowning for children ages 1 to 4. Enroll the whole family in swimming lessons for greater safety.
- **Supervise.** An adult should always supervise when children are swimming. Drowning can happen quickly, so the adult should be close to water's edge, undistracted and unimpaired by alcohol or drug use.
- **Practice boating safety.** Know the risks and safe procedures for using any watercraft, such as motorboats, sailboats, canoes, kayaks, paddleboards, or when kite-surfing, wind-surfing or waterskiing.



WEB EXCLUSIVE

Find out how to avoid the bugs, bees, and pests that can cause unexpected reactions at *UHS Stay Healthy Magazine Online* at www.uhsstayhealthymagazine.com.



“My treatment is almost done, and the agonizing pain is gone.”

—Safa Naman, MD

Safa Naman, MD, is undergoing hyperbaric oxygen therapy for pain caused by previous radiation treatment for prostate cancer.

healing powers

**HYPERBARIC
OXYGEN THERAPY
SUCCESSFULLY
TREATS RADIATION
TREATMENT
COMPLICATIONS**

When Safa Naman was diagnosed with prostate cancer in 2011, he moved to the other side of the desk and became the patient instead of the doctor. For the first time, Dr. Naman, an emergency medicine physician at UHS Wilson Medical Center, was studying treatment plans instead of prescribing them.

After the UHS oncology team explained his options, Dr. Naman chose a form of radiosurgery that kills cancer cells with targeted radiation doses. While the procedure's accuracy reduces damage to healthy cells that surround the target area, no radiotherapy approach entirely eliminates this possibility. For a small percentage of patients, radiation injury to healthy cells results in delayed chronic side effects, with symptoms sometimes presenting six months to 10 years after radiation

therapy has ended. In Dr. Naman's case, it was a year and a half before he began suffering excruciating pain due to radiation injury.

“At first, we assumed it was a urinary infection, since that's where the pain was, so I started antibiotics,” Dr. Naman recalls. “But when I saw my oncologist, Dr. Haq, at UHS Wilson Medical Center, he immediately put me on hyperbaric oxygen therapy. My treatment is almost done, and the agonizing pain is gone. There's still some discomfort, but it subsides every day.”

BREATHING NEW LIFE INTO DAMAGED TISSUE

Because the body needs a certain level of oxygen to heal, when it's in short supply, the result is often poor wound healing

EDUCATION IS KEY

Because chronic radiation injuries may not present symptoms until years after radiotherapy has ended, it is not unusual for a patient and primary care physician to initially miss the link and assume that an infection is causing pain. To help patients keep the possibility of chronic radiation injury in the back of their minds — just in case — Ruth Manzer, RN, OCN,

UHS cancer nurse coordinator, makes sure that her oncology patients understand the big picture. “Part of my role is to reinforce what the patient learns from our providers in radiation oncology. They get so much information up front, it’s easy to forget about possible complications down the road,” she says. “So I help patients understand what’s happening today and also

what might happen years from now.”

And Ms. Manzer stays with the patient long into survivorship. “If a patient is diagnosed with a radiation injury, I’m there for emotional support, but we also revisit what’s going on, and I make sure the patient understands that hyperbaric oxygen therapy is a solution — a very good solution,” she says.

and/or painful infections. Hyperbaric oxygen therapy (HBOT) delivers pure oxygen to the body quickly and in high concentrations. The blood carries this highly concentrated oxygen to oxygen-starved organs and tissues, boosting the body’s ability to heal.

There are many reasons why cells become oxygen-deprived. Specific to cancer patients, healthy cells that are injured during radiation therapy may lose their ability to regenerate, which in turn results in damaged blood vessels. Over time, these impaired blood vessels obstruct the flow of oxygen-rich blood through the body and chronic radiation injuries may develop.

Because oxygen deprivation plays an integral role in chronic radiation injury, leading-edge researchers and oncologists made the connection to hyperbaric oxygen therapy. The results have been “amazing,” says Wadih Diab, MD, surgeon and medical director, UHS Center for Advanced Wound Care.

As part of its state-of-the-art program, the UHS Center for Advanced Wound Care has successfully treated a number of cancer survivors suffering chronic radiation injury — like Dr. Naman. “It’s an important patient population, because they’re often experiencing great pain and in extreme cases, must be hospitalized,” Dr. Diab adds. “When we treat these patients with hyperbaric oxygen, the success rate is very high. And this isn’t only a mechanism to heal injury. HBOT also improves these patients’ quality of life, reducing hospitalization, pain and worry.”

A PURE SOLUTION

HBOT involves a patient resting in a clear acrylic, tube-like chamber and breathing in pure oxygen. The chamber’s air pressure is up to three times higher than normal atmospheric pressure, which allows the lungs to take in far more oxygen. The patient’s blood carries this influx of oxygen throughout the body, infusing damaged cells with healing oxygen. Typically, HBOT therapy includes 30 sessions, Monday through Friday, approximately two hours a day.

For radiation-induced injuries, HBOT helps heal irradiated tissue in three significant ways:



Patients can watch movies, listen to music, nap or chat with staff or visitors while they are in the hyperbaric chamber.

1. It stimulates angiogenesis, a process involving the growth of new, healthy blood vessels from pre-existing vessels.
2. It reduces fibrosis, a thickening and scarring of connective tissue that can impede blood flow.
3. It stimulates and increases the production of stem cells, which play a critical role in the body’s ability to repair injured tissue and organ cells.

A REASON TO SMILE AGAIN

While chronic radiation injury is uncommon, affecting an estimated 5 to 15 percent of all radiotherapy patients, for these individuals HBOT is often the only treatment available to prevent irreversible bone or tissue loss and allow certain life-improving surgical procedures. For example, a person who suffers a jawbone injury may experience tooth damage, and oral surgery is required to remove the teeth and prepare the patient for dentures or implants. “According to the Marx protocol, the optimal course of treatment for greatest success is the combination of hyperbaric oxygen therapy with surgery,” explains Dana Pasquale, program director, UHS Center for Advanced Wound Care. “In the past, without hyperbaric oxygen therapy to aid in the healing process, patients may not have experienced the desired outcomes. Now it’s a different story. These patients are smiling again.”

DIVE IN ... Read more about hyperbaric oxygen treatment for wound healing at *UHS Stay Healthy Magazine Online* at www.uhsstayhealthymagazine.com.

A WIDE RANGE OF SOLUTIONS

At the UHS Center for Advanced Wound Care, hyperbaric oxygen therapy (HBOT) is used to treat a range of medical conditions, and ongoing research suggests that new applications may be on the horizon. Today, however, the most common and successful HBOT applications treat four categories of chronic, non-healing wounds:

- Diabetic wounds of the lower extremity
- Chronic bone infection (chronic refractory osteomyelitis) that antibiotics and debridement (removal of damaged tissue) alone cannot resolve
- Compromised skin flaps and grafts
- Delayed radiation injury due to damaged tissue from radiotherapy



Sang Won Yoon, PhD; Laura Bronstein, LCWR, ACSW, PhD; Mohammad Khasawneh, PhD; and Rajesh Davé, MD, MBA, are bringing the brightest minds at BU and UHS together to advance healthcare.

A partnership between UHS and Binghamton University (BU) is leading to healthcare advances that mean care providers can anticipate and prevent medical problems at a level never achieved before. Already the partnership has led to two breakthrough studies that create more accurate metrics to predict when a patient is likely to suffer medical complications and identify easy, inexpensive ways to avoid them.

Rajesh Davé, MD, MBA, serves in two capacities, as executive vice president for Clinical Integration and Chief Medical Officer at UHS, and as dean of the Clinical Campus at Binghamton of the State University of New York's Upstate Medical University in Syracuse.

"This is something new for us, coming up with data sets and informatics," he says. "We now have hard-core science research that's more data-driven."

REDUCING READMISSIONS

The first of the two projects saw Mohammad Khasawneh, PhD, an associate professor of systems science and industrial engineering, and Assistant Professor Sang Won Yoon, PhD, adapt a process used normally to reduce manufacturing defects.

"Every discharge is an opportunity for a defect," says Dr. Khasawneh. "In this case, it's a person coming back."

The researchers analyzed data from 2009 to 2011 and found correlations between facts — anything from medication compliance to ZIP code — and readmissions. They then created better health assessment models. That led to a pilot program with social work experts from BU's College of Community and Public Affairs, led by Associate Dean Laura Bronstein, LCWR, ACSW, PhD, that had social workers follow up with recently-transitioned UHS patients.

Through this collaboration, social workers learned the medical factors that complicate recovery and medical providers saw the life issues that cause readmission — from transportation to appointments, diet, mobility and medication issues.

The research model worked, cutting UHS' readmissions from an already respectable 18 percent to less than 8 percent — a third of the national average. That means fewer complications for patients. It means faster, easier recovery. And it means avoiding the costs of readmission for the patient and the private or public insurer.

A FIRST STEP

"Any time patient outcomes are improved at less cost for the patient, it's better," says Matthew Salanger, president and CEO of UHS. "Having the patient receive his or her care in the least costly environment makes sense. And ideally, that environment is at home."

It's a first step. "The knowledge base of what works best is still being defined," Mr. Salanger says. Still, information is critical to care and must be understood across the spectrum of patients' lives.

That puts UHS in a unique position to become an industry leader. It already provides full-spectrum care from delivery room to nursing home. That's uncommon among healthcare providers, and gives the university, which includes a nursing school, a compact test bed for the latest in healthcare developments. "That positions UHS on a national scale much more effectively than our counterparts across the nation," says Mr. Salanger.

And it portends a day, Dr. Davé says, when a care provider monitoring vital signs of a patient will be alerted by a database of a problem that has yet to present clear symptoms. "We will use the informatics of the future to enhance the patient experience," he says. "For the best patient outcomes, you have to have the humanity and the scientific curiosity to blend them both."

WEB EXCLUSIVE ... Get five tips for preventing a friend or loved one from needing to return to the hospital at www.uhsstayhealthymagazine.com.