ACHES, AGE & INFLUENZA

What We Know About Flu-Induced Muscle Loss and How to Prevent It
UConn Health Offers Largest Emergency Dental Service in Connecticut

Dental emergencies can strike at any time. That’s why UConn Health has offered around-the-clock coverage for dental emergencies since the early 1970s, and recently opened a specialized patient room within the new emergency department at UConn John Dempsey Hospital.

“We have the largest dental emergency service in the state,” says Dr. Steven Lepowsky, senior associate dean for education and patient care at the UConn School of Dental Medicine. “The service exists to address a significant unmet need.”

Even those who receive regular dental care can face emergency situations at any time. On average, UConn Health sees nearly 60 dental emergencies in 24 hours. The most common are toothaches related to a cavity, root canal, or abscess.

On weekdays from 8:30 a.m. to 10 p.m., urgent dental care is provided by students and residents from the UConn School of Dental Medicine who staff UConn Health’s dental clinics under faculty supervision.

The training component makes the emergency dental service a crucial piece of the dental school’s academic mission.

“It helps the students and residents build skills in terms of how to diagnose a problem quickly, identify the source of the problem, and provide care that immediately addresses someone’s needs,” Lepowsky says.

After 10 p.m., patients who present with a dental emergency are assessed by medical staff, who can bring in the dental resident on call, if necessary.

Although the hours are nothing new, the after-hours setting is.

The new room and dental chair “replicates a full dental operatory, so it expanded the scope of what we could offer on an emergency basis after hours,” Lepowsky says. “It’s a much more pleasant environment for the patient.”

It’s not, however, meant to replace primary dental care, according to Lepowsky.

Sometimes, after-hours care involves just relieving pain and sending the patient home, asking them to return in the morning when the dental clinics open for a specific dental treatment.

“You want someone to have an established relationship with a dental provider so there’s someone coordinating all their annual dental health care and maintenance needs,” Lepowsky says.

UConn Health sees an average of 60 dental emergencies in a 24-hour period.

The service exists to address a significant unmet need.

— Dr. Steven Lepowsky, UConn School of Dental Medicine

Alyssa Temkin, 11, tests her blood sugar level during a basketball game.

Free to Be Imperfect

Patients with Glycogen Storage Disease are slaves to the clock. Every few hours, they must take a cornstarch mixture to keep their sugar levels up — or risk death. Dr. David Weinstein, who has dedicated his life to finding a cure for the disease, has moved his world-renowned GSD program to UConn and Connecticut Children’s Medical Center and is close to starting a clinical trial for the gene therapy he developed.

The Power of MRI

UConn Health takes this powerful, non-invasive imaging tool to the next level.

Pneumonia Rates Linked to Hospital Ventilators Have Not Dropped, Study Says

Lab Notes

The future of health care advancement is already here.

Size Matters for Particles in the Bloodstream

The Doctors Are In

New recruits drive innovation for UConn Health’s hand, wrist, and elbow team.
HONOR ROLL

Lakshmi S. Nair, M.Phil., Ph.D., has been elected a Fellow of the National Academy of Inventors.

UConn School of Dental Medicine has been awarded by Special Olympics Connecticut a 2016 Golisano Health Leadership Award of the Special Olympics and its major supporter, The Golisano Foundation.

Dr. Marja Hurley has been appointed a member of the Special Programs Committee of the Endocrine Society for a three-year term.

Four UConn professors, including UConn Health emeritus professor of dental medicine Dr. Arthur Hand, have been named fellows of the American Association for the Advancement of Science. (Continued on page 4)

The Power of MRI

Magnetic resonance imaging (MRI) has come a long way since the technique was first used in the U.S. in the late 1970s. UConn Health is now taking this powerful, non-invasive imaging tool to the next level.

UConn Health physicians in a variety of specialties are using the technology — which captures images of the inside of the body using a large magnet rather than radiation — in new ways to detect and monitor illnesses.

Prostate Cancer
Dr. Peter Albertsen, chief of UConn Health’s Division of Urology, currently follows 100 patients with localized prostate cancer, which is slow-growing, using advanced multiparametric MRI imaging. The technology has now replaced ultrasound as the imaging method of choice for prostate cancer. The technique yields multiple imaging sequences of the prostate, providing information about the anatomy, cellular density measurement, and vascular supply.

“Thanks to the power and advancement of MRI, doctors can see early evidence of disease and seize the opportunity to intervene and improve their patients’ health.”
— Dr. Marco Molina, Radiologist, Department of Diagnostic Imaging and Therapeutics

There is growing evidence to support the idea that the best treatment plan for low-grade prostate cancer is “watchful waiting” to monitor its progression, instead of immediate surgery or radiation. Albertsen’s practice of active surveillance, and not intervention, for localized prostate cancer was reinforced by a recent long-term study published in September in the New England Journal of Medicine, on which Albertsen served as a consultant.

Liver Disease
UConn Health is the first in Greater Hartford to use MRI to measure the stiffness of patients’ livers to reveal disease without the need for biopsy. Its MR elastography technique involves placing a paddle on a patient’s skin over the liver during MRI to create vibrations and measure the velocity of the radio waves penetrating the organ. This can indicate a stiffer liver and help diagnose fibrosis, cirrhosis, a fatty liver, or inflammation associated with hepatitis. The initiative is led by Dr. Marco Molina, radiologist in the Department of Diagnostic Imaging and Therapeutics.

“The technology is extraordinarily helpful, allowing us to avoid invasive biopsy testing and associated risks of bleeding and infection,” Molina says. “Plus, with the obesity epidemic, patients developing nonalcoholic steatohepatitis (NASH), or fatty liver, can receive earlier diagnosis and take action to reverse their disease’s progression with diet and exercise.”

Breast Cancer
The new Women’s Center at UConn Health has opened its state-of-the-art Beekley Imaging Center, featuring advanced breast cancer screening. Dr. Alex Merkulov, associate professor of radiology and section head of women’s imaging, and his team are conducting research to test the effectiveness of using an abbreviated, five-minute MRI scan to confirm or rule out a breast cancer diagnosis. Typically, a breast MRI test takes 20 minutes, but researchers are seeing that a briefer MRI scan of just a few minutes can help provide a definitive answer to whether an abnormal breast growth is cancer or not — and potentially help women avoid the biopsy process.

Arthritis
The UConn Musculoskeletal Institute is now researching the use of MRI to assess and map the strength, weakness, and underlying makeup of a patient’s cartilage, especially for those with arthritis. The tool can allow orthopedic experts to identify any thinning or loss of cartilage in the body, which signifies moderate to late-stage disease. In early stages of arthritis, MRI can help pinpoint early morphological and subtle biochemical changes in cartilage.

Neurological Disorders
In neuroradiology, UConn Health is using the power of MRI to differentiate brain tumors, to detect strokes, to assess dementia, to diagnose multiple sclerosis, to evaluate traumatic brain injury; to find the source of epilepsy, and to guide brain surgery. In March 2017, leading neuroradiologist Dr. Leo Wolansky joins UConn Health to advance its research and chair the Department of Diagnostic Imaging and Therapeutics. Wolansky’s neuroimaging research has focused on enhancing understanding of MRI and its contrast agents, especially for multiple sclerosis and brain tumors. He also specializes in the hybrid imaging modality PET-MRI.

“Thanks to the power and advancement of MRI, doctors can see early evidence of disease and seize the opportunity to intervene and improve their patients’ health.”
— Dr. Marco Molina, Radiologist, Department of Diagnostic Imaging and Therapeutics
Contrary to data published by the Centers for Disease Control and Prevention, ventilator-associated pneumonia rates in hospital intensive care units have not declined significantly since 2005, according to a new study out of the UConn School of Medicine.

The study, published in the Journal of the American Medical Association, found that about 10 percent of critically ill patients placed on a ventilator develop ventilator-associated pneumonia (VAP). The finding is based on reviews of charts from hospitals across the country from 2005-2013.

"VAP is not going away; it still affects approximately one in 10 ventilated patients," says the study’s lead author, Dr. Mark L. Metersky of UConn Health’s Division of Pulmonary and Critical Care Medicine. "Our findings are in stark contrast to the CDC’s report of a marked decline in VAP rates that had some believing it may no longer be an important problem."

Researchers reviewed data compiled by the Medicare Patient Safety Monitoring System from a representative sampling of 1,856 critically ill Medicare patients, ages 65 and older, who needed two or more days of mechanical ventilation.

While the VAP rates were stable throughout that time, the rates did not correlate with the CDC’s National Healthcare Safety Network reported rates, which suggest declining rates between 2006 and 2002 in both medical and surgical ICUs. The rate of VAP is one of the metrics for patient safety and health care delivery quality that many hospitals are scored on nationally.

Patients in need of mechanical ventilation are often the most critically ill in a medical or surgical ICU hospital setting. Research has shown that up to 15 percent of patients who get it may die from VAP.

The study authors examined the prevalence of VAP in patients on a ventilator following a heart attack, heart failure, pneumonia, or major surgery. These types of patients are at higher risk for developing pneumonia, a bacterial infection, due to the need for a tube extending down their throat and into their lungs to help them breathe.

"We have not beaten this," says Metersky. "Current hospital interventions that are used in an attempt to prevent VAP are not working. VAP is still a significant issue, and needs more examination into how we survey its occurrence and report it, along with more research into how best to prevent this type of pneumonia in vulnerable patient populations."

The higher-than-expected VAP rates may be leading patients to experience complications or death from their lung infection or spend more time on a ventilator or in the ICU, slowing recovery.

It may also increase use of antibiotics, leading to potential resistance, and increase health care costs due to longer hospital stays. Metersky collaborated on the study with colleagues at Qualidigm, Harvard Medical School, and Harvard School of Public Health. It was supported by the Agency for Healthcare Research and Quality of the U.S. Department of Health and Human Services.
Size Matters for Particles in Bloodstream

UConn Engineering Professor’s Findings Could Mean More Effective Cancer Drugs

A UConn engineering professor has uncovered new information about how particles behave in our bloodstream, an important advancement that could help pharmaceutical scientists develop more effective cancer drugs. Making sure cancer medications reach the leaky blood vessels surrounding most tumor sites is a critical aspect of treatment and drug delivery. While surface chemistry, molecular interactions, and other factors come into play once drug-carrying particles arrive at a tumor, therapeutic medication doesn’t do much good if it never reaches its intended target.

Anson Ma, assistant professor of chemical and biomolecular engineering, used a microfluidic channel device to observe, track, and measure how individual particles behaved in a simulated blood vessel.

Ma says he wanted to learn more about the physics influencing a particle’s behavior as it travels in human blood, and to determine which particle size might be the most effective for delivering drugs to their targets. His experimental findings mark the first time such quantitative data has been gathered. The study appeared in the Oct. 4, 2016 issue of the Biophysical Journal.

Using a fluorescence microscope, Ma was able to see particles moving in the simulated blood vessel in what could be described as a vascular “Running of the Bulls.” Red blood cells race through the middle of the channel as the particles — highlighted under the fluorescent light — get carried along in the rush, bumping and bouncing off the blood cells until they are pushed to open spaces, called the cell-free layer, along the vessel’s walls.

What Ma found was that larger particles — the optimum size appeared to be about 2 microns — were most likely to get pushed closer to the blood vessel wall, where their chances of carrying medication into a tumor site are greatest. The research team also determined that 2 microns was the largest size that should be used if particles are going to have any chance of going through the leaky blood vessel walls into the tumor site.

“When it comes to using particles for the delivery of cancer drugs, size matters,” Ma says. “When you have a bigger particle, the chance of it bumping into blood cells is much higher, there are a lot more collisions, and they tend to get pushed to the blood vessel walls.”

The results were somewhat surprising. In preparing their hypothesis, the research team estimated that smaller particles were probably the most effective since they would move the most in collisions with blood cells, much like what happens when a small ball bounces off a larger one. But just the opposite proved true. The smaller particles appeared to skirt through the mass of moving blood cells and were less likely to experience the “trampoline” effect and get bouncing to the cell-free layer, says Ma.

Ma proposed the study after talking to a UConn pharmaceutical scientist about drug development at a campus event five years ago.

“We had a great conversation about how drugs are made and then I asked, ‘But how can you be sure where the particles go?’” Ma recalls, laughing. “I’m an engineer. That’s how we think. I was curious. This was an engineering question. So I said, ‘Let’s write a proposal!’”

The proposal was funded by the National Science Foundation’s Early-concept Grants for Exploratory Research, or EAGER, program, which supports exploratory work in its early stages on untested, but potentially transformative, research ideas or approaches.

Knowing how particles behave in our circulatory system should help improve targeted drug delivery, Ma says, which in turn will further reduce the toxic side effects caused by potent cancer drugs missing their target and impacting the body’s healthy tissue.

The findings were particularly meaningful for Ma, who lost two of his grandparents to cancer and who has long wanted to contribute to cancer research in a meaningful way as an engineer.

The results may also be beneficial in bioimaging, where scientists and doctors want to keep particles circulating in the bloodstream long enough for imaging to occur. In that case, smaller particles would be better, says Ma.

Moving forward, Ma would like to explore other aspects of particle flow in the circulatory system, including how particles behave when they pass through a constricted area, such as from a blood vessel to a capillary. Capillaries are only about 7 microns in diameter. The average human hair is 100 microns.

“We have all of this complex geometry in our bodies,” says Ma. “Most people just assume there is no impact when a particle moves from a bigger channel to a smaller channel because they haven’t quantified it. Our plan is to do some experiments to look at this more carefully, building on the work that we just published.”
Alyssa Temkin, 11, takes a break during a basketball game to drink Tolerex, the special formula that keeps her blood sugar from crashing to dangerously low levels. Alyssa has Glycogen Storage Disease and must drink the formula every 90 minutes to stay alive.

Imagine never being able to hit the snooze button or oversleep, never being able to cheat on your diet or fall asleep in front of the TV because it could mean life or death — for you, or worse, your child.

That’s what the 1 in 100,000 people worldwide with Glycogen Storage Disease (GSD), a genetic liver disorder — and their parents — live with every day.

Dr. David Weinstein, who in January moved his world-renowned GSD program from the University of Florida to UConn Health and Connecticut Children’s Medical Center, has dedicated his life to giving these families hope. Although a life-saving treatment was discovered in the 1970s — taking a cornstarch mixture every few hours — research had halted for decades after that. And today, patients are still slaves to the clock;

For patients and their families who live with Glycogen Storage Disease, a new gene therapy nearing clinical trial at UConn Health will mean freedom from the constant countdown to the next dose of medication.

By Julie Bartucca
Photography by Peter Morenus

Free to Be Imperfect
For the patients and their families who live in a constant countdown to the next feeding, the new therapy would mean freedom. A normal life, where mistakes can be made. Where they no longer have to be perfect.

Fatal Mistakes
Healthy sugars store excess sugar from food and release it into our bloodstream when we need it, as processed sugar enzymes called glycogen. However, in the seven forms of GSD, the liver fails to break down glycogen into glucose, causing the body’s blood sugar levels to drop dangerously low, which can lead to seizure or death.

The discovery of cornstarch therapy was a huge turning point, but it wasn’t enough.

“There’s nothing that’s forgiving about this disease,” Weinstein says. “And if you’re on a regimen you’re on; it could be a bad batch of something. We think we’re doing everything right, and the pump malfunctions.”

For the patients and their families who live in a constant countdown to the next feeding, the new therapy would mean freedom. A normal life, where mistakes can be made. Where they no longer have to be perfect.

Dr. David Weinstein, head of the Glycogen Storage Disease Program at UConn Health and Connecticut Children’s Medical Center, walks with Alyssa Temkin through the new clinic at Connecticut Children’s.

Weinstein had no intention of dedicating his life to curing GSD. As a young physician at Boston Children’s Hospital specializing in sugar disorders in 1998, Weinstein was caring for just two patients with GSD when he was invited to a national conference of the Association for Glycogen Storage Disease.

“I showed up at this meeting and was shocked by what I saw,” he says. The conference started with a moment of silence and a reading of the names of all the children who had died from GSD that year. The research presented was decades old. And the only treatment option being discussed was liver transplantation to combat complications from the disorder.

“There was no research going on anywhere in the world in this disease,” Weinstein says. “And if there’s no research, that means there’s no hope.”

A conversation with a mother there changed the course of Weinstein’s life. Knowing no one at the conference, he sat down for lunch next to Kathy Dahlberg, who had one-year-old twin sons already on the liver transplant list. She told Weinstein how sick her children were, and that her only hope was that they’d live long enough to get their liver transplants.

“Over lunch at that conference, there were constant reminders that it is anything but,” Gayle says. "It doesn’t matter what you do about this disease that’s forgiving,” says Gayle. "It doesn’t matter what regimen you’re on; it could be a bad batch of something. We think we’re doing everything right, and the pump malfunctions.”

No Research, No Hope
Weinstein has treated Alyssa since she was diagnosed with GSD at 6 months old. Her family and other Hartford-area philanthropists supported the move of Weinstein’s program from Florida to Connecticut.

the effects of cornstarch last only a few hours, and even an extended-release form has its pitfalls.

But soon, that could change. Weinstein and his team are on the verge of testing in a human clinical trial the first GSD gene therapy, which has worked for canines and mice with the illness.

For the patients and their families who live in a constant countdown to the next feeding, the new therapy would mean freedom. A normal life, where mistakes can be made. Where they no longer have to be perfect.
I decided that somebody had to care about these children. The children shouldn’t have to suffer just because it was a rare disease,” Weinstein says. “The world didn’t need another diabetes doctor. This is where I could make a difference.”

As soon as he returned to Boston, Weinstein shifted his research focus to GSD and built the program there before moving it to the University of Florida in 2005 in order to work with the veterinary program. He has successfully treated dogs with his gene therapy, turning a fatal disease into one where dogs born with GSD are thriving.

Today, Weinstein sees 500 patients from 49 states and 45 countries. With help from Alyssa’s Angel Fund — started by the Temkins when Alyssa was a baby — and other charities, he has established centers all over the world.

All the Way

In January, the GSD lab moved to UConn Health’s Farmington campus. At the same time, a clinical and research unit supported financially by the Temkins and other local philanthropists opened at Connecticut Children’s. Gayle Temkin, Alan Lazowski, and Barry Stein are the trustees for the Global Center for Glycogen Storage Disease, and through their efforts, Weinstein shifted his focus to the care of patients with GSD.

“We’re much stronger working together,” Weinstein says. “This is personal. Most people have a connection to the condition, and so they’ll work until everything’s done. It’s just a dedication that I’ve never experienced anywhere else.”

The bulk of Weinstein’s Florida team came to Connecticut with him. His team includes GSD patients and parents, including several who have called him out of the blue to tell him all they want is to work with him. One, who moved to Connecticut from Minnesota to join the new center, is Kathy Dahlberg, the mother who moved to Connecticut from Minnesota to join the new center, is Kathy Dahlberg, the mother who called him out of the blue to tell him all they want is to work with him. Weinstein says, “This is personal. Most people have a connection to the condition, and so they’ll work until everything’s done. It’s just a dedication that I’ve never experienced anywhere else.”

The ultimate goal for the gene therapy, according to Weinstein, is to prevent low blood sugars, eliminate the dependence on cornstarch, and give patients normal lives where oversleeping isn’t the worst-case scenario.

“We can accomplish that, we’ve come all the way,” he says. “The cure is right at our fingertips. He knew he could do this,” says Gayle. “When we first brought Alyssa to him, he said, ‘By her Bat Mitzvah, by the time she’s 12 or 13, we should be able to cure her.’ And she’s 11. ‘We’re almost there.’”

I could make a difference.”

Why does age impact flu-related muscle loss, and how can we prevent it?

Why does age impact flu-related muscle loss, and how can we prevent it?

UConn Health researchers are on the case.

MUSCLE MYSTERY

Most of us have seen it happen to a relative, friend, or patient. A formerly healthy senior gets a bad case of the flu. When they recover, they’re weak, and so many people think it’s a natural part of aging. But influenza, the virus that causes the flu, is. If getting the flu speeds up muscle loss, and how can we prevent it?

WASTING AWAY

When immunologist Laura Haynes first came to UConn Health, she knew that when mice get the flu, they lose weight. In fact, that’s the way researchers can tell that a mouse has the virus. Some mice lose more, some less. Haynes’ work had previously shown that older mice with the flu not only get much sicker, but also lose more weight than younger mice. But as an immunologist, her research focused on how aging immune systems decline. Differences in weight loss were an afterthought. But when she sat down with George Kuchel, director of the UConn Center on Aging, they made the connection that weight loss might indicate future disability. Haynes teamed up with kinesiologist Jenna Bartley to further investigate.
They confirmed that a significant amount of the weight lost by mice infected with the flu was muscle. And older mice infected with influenza lost more muscle than younger mice, and continued to lose it over a longer period of time.

“…And in young mice, the gene expression goes back to normal more quickly,” says Haynes. The older mice, on the other hand, had higher levels of inflammation, muscle wasting, and atrophy, and it all persisted longer.

Exacerbated muscle loss wasn’t the only problem experienced by the older mice recovering from the flu. They also moved less and took fewer, narrower steps. It was as if they had become frailer and more easily tired. Decreasing gait speed, or how fast someone walks, indicates increasing frailty in humans, and taking narrower steps also increases the risk of falling.

[See sidebar, opposite page.]

Haynes and Bartley’s research was the first that directly linked flu-induced inflammation in a controlled setting to muscle atrophy and functional impairment. It was published in the April 2016 issue of the journal Aging. But now that they knew flu really was causing muscle wasting, how could they stop it? They theorized that if they could stem the tide of inflammation in the body, they might prevent the muscle tissue from degrading so much. But there was a catch: inflammation helps mobilize the immune system. If you block inflammation totally, you block the body’s defense against the flu virus. So Haynes and Bartley needed a more subtle tool.

In mice there are changes in gene expression in muscle during influenza infection. Genes that degrade muscle go up, genes that build muscle go down. But in young mice, the gene expression goes back to normal more quickly.

— Laura Haynes, Immunologist, UConn Center on Aging

The first drugs Bartley and Haynes found that might be good candidates are COX-2 inhibitors. They’re non-steroidal anti-inflammatories, like aspirin and ibuprofen, but COX-2 inhibitors are very specific. They block just one molecule in the body’s web of inflammatory responses. Other researchers have shown that COX-2 inhibitors can slow muscle wasting in cancer patients. And most importantly, COX-2 inhibitors don’t seem to block the body’s antiviral immune reaction.

Haynes and Bartley are currently testing the COX-2 inhibitors to see if they prevent muscle loss in geriatric mice after the flu. They’re also testing whether improving immune memory of the flu in mice — that is, vaccinating them — protects them against muscle wasting.

Their work is intriguing, but Kuchel cautions that adult humans are more complicated than lab mice.

“Factors that may contribute to an older individual becoming more vulnerable to losing muscle function during or after flu infection are complex but may include a sedentary lifestyle, slow walking speed at baseline, low muscle mass, poor nutrition, plus chronic inflammation as a result of any number of chronic infections, being frail, etc.,” he says.

Haynes and Haynes agree. They’re applying for more grant money to explore how COX-2 inhibitors interact with other factors such as exercise. And they hope to eventually test muscle-protection strategies in people. Because while influenza is one of the most common serious infections in the elderly, it probably isn’t alone in causing muscle wasting.

“We’re trying to establish the relationship between any infection and inflammation, and how it leads to muscle loss and disability,” says Bartley. “Overall, we’re trying to help people get better and stay stronger for longer.”

— Jenna Bartley, Kinesiologist, Department of Immunology

STEMMING THE TIDE

Haynes and Bartley suspected that inflammation-induced inflammation was related to, and possibly the cause of, the destruction of muscle tissue in the elderly mice. They theorized that if they could stem the tide of inflammation in the body, they might prevent the muscle tissue from degrading so much. But there was a catch: inflammation helps mobilize the immune system. If you block inflammation totally, you block the body’s defense against the flu virus. So Haynes and Bartley needed a more subtle tool.

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How transformative is an EMR tool for hospitals and physician practices?

It’s not just the electronic medical record that is so powerful—it is the medical record in general. In his 1968 New England Journal of Medicine article, “Medical Records that Guide and Teach,” Dr. Larry Weed posited that the way we store information changes the way we think about information, which in turn changes the way we act on information. So a properly designed medical record can lead to improvements in communication and care. Medical records have since gone electronic, opening up even more opportunities to streamline communication and patient care. To do that effectively, however, requires technical people who understand the needs of the patient, the physician, the entire care team, and the health care organization. That’s where it’s helpful to have a clinical informaticist guiding an organization through the process.

How can an EMR help practices become more clinically and financially efficient in the delivery of high-quality care?

One of the most powerful tools within an EMR system is clinical decision support (CDS). Those little electronic alerts and other design features help guide the physician to the latest guidelines, most recent evidence, and most effective care, since it can be hard to keep up with the heavy volume of new medical information that they need to know. CDS can be used in a wide range of areas, including patient care, patient safety, coordination of care, and for cost reductions. In an outcomes-driven environment, providing great patient care can help translate into improved financial health for an organization.

What is the horizon when it comes to EMR at UConn Health?

We are currently meeting with people across the organization to help us configure our new EMR system, called HealthONE (Epic). Creating the platform will also allow us to build other evidence-based tools to further improve care and research opportunities here at UConn Health, in the Hartford region, and beyond. We are planning to launch this to our patients and providers in April 2018.

Hand, wrist, and elbow team brings innovation

Hands, wrists, and elbows are complex and fragile. No matter our age or profession, we are prone to upper extremity injuries throughout our lifetime, along with diseases such as arthritis and tendonitis as we age. Dr. Craig Rodner and new recruits Dr. Joel Ferreira and Dr. Anthony Parrino, who are both former UConn orthopedic surgery residents, form the UConn Musculoskeletal Institute’s team, offering patients comprehensive surgical and non-surgical care in this area. All three specialists have completed advanced training during prestigious fellowships in hand, wrist, and elbow orthopedic surgery.

The Hand, Wrist, and Elbow Program at UConn Health offers advanced care for both children and adults for all bone and soft-tissue conditions of the upper extremity. The team cares for people from all walks of life who have pain from repetitive activity, acute trauma, or sports-related injury—from weekend warriors to the elite athletes of the UConn Huskies sports teams. Comprehensive care approaches include patient activity modification, physical therapy, bracing, steroid injections, and, if necessary, surgery. Innovative surgical interventions are offered for arthritis, carpal tunnel syndrome, fractures, tendon and nerve damage, sports injuries, Dupuytren’s contractures, hand deformities, and more. These interventions include enhanced minimally invasive, arthroscopic, and microscopic surgical techniques leading to faster, less painful recovery.

The expansion of the team this past year to include Ferreira and Parrino brought specialized training in all aspects of elbow surgery, daily access to the hand surgeon experts, as well as expanded patient access to cutting-edge “wide-awake” painless hand surgery for certain conditions. Using a localized numbing medication in “wide-awake” procedures allows patients, if they so choose, to drive to and from the procedure, avoid the use of sedation, and recover more rapidly.

“Our goal at the UConn Musculoskeletal Institute is to get our patients back to functioning where they were before injury or disease affected them,” says Parrino. Ferreira adds: “We offer the absolute highest-quality, personalized care that there is to each and every patient to find the best surgical or non-surgical solution for an individual problem.”

While the number one focus of the hand, wrist, and elbow team is providing the highest possible level of compassionate care to each patient, Rodner, Ferreira, and Parrino are also dedicated to upper extremity research and education and are actively involved in teaching the students at the UConn School of Medicine and the residents of the UConn orthopedic surgery program about all facets of upper extremity care.
Dedicated Line for Referring Physicians **860.679.5555**

- Make patient appointments
- Arrange patient admissions
- Engage in physician-to-physician consultation
- Obtain general information and assistance

**CELEBRATING**

**30 YEARS**

**CENTER ON AGING**

The 8th annual White Coat Gala celebrates 30 years of the nationally renowned UConn Center on Aging.

*UConn Health Journal* congratulates Dr. George Kuchel and philanthropists Robert and Renée Samuels, recipients of the 2017 Carole and Ray Neag Medal of Honor. Their dedication and support has made the UConn Center on Aging a national leader in advanced research, clinical trials, patient care, and medical education.

Visit [foundation.uconn.edu/whitecoatgala](foundation.uconn.edu/whitecoatgala) for event details