



Capturing the Momentum of Rehabilitation Medicine
at NYU Langone Medical Center

SPRING/SUMMER 2014

Letter from the Chair



Rusk Rehabilitation's transformation over the past several years has been a great success, but it was not without its challenges—operationally, logistically, and even emotionally and socially. Now that the relocations are complete, in addition to the benefits we've seen in patient care, our new structure has also brought to light a very encouraging and positive theme: a clear and strong recognition that rehabilitation cuts across nearly every aspect of care at NYU Langone Medical Center.

That reality is vividly illustrated by this issue's description of a complex voice restoration case. The case occurred in the context of an early intervention pilot we're conducting in the Intensive Care Unit (ICU) at Tisch Hospital, in which we start working on patients' mobility, swallowing, and other issues while they're still on a ventilator—actually getting them up and walking with the breathing machine attached. That sounds counterintuitive, since intensive care tends to be associated with bed rest. But evidence shows that by working with the ICU doctors and nurses in coordinated fashion to implement early mobilization, we can actually decrease the amount of time patients spend in intensive care, and in the hospital overall. Our preliminary data from the program look quite promising. If the pilot turns out as expected, it will be implemented on a permanent basis.

The ICU intervention involves close coordination with other clinicians. This includes, for example, teaming with the nurses to make sure that patients' pain is treated to a point that they are comfortable but still able to ambulate. This care coordination speaks to the larger point mentioned previously: recognition that rehabilitation plays a key role in comprehensive medical care.

This reality also means we need to provide rehab where our patients are. At one time, almost all of Rusk's services were provided in a single building. Today, with NYU Langone expanding into the community, we are proud to expand with it. That's why we're offering rehabilitation services at NYU Langone's Preston Robert Tisch Center for Men's Health in Midtown and at the Joan H. Tisch Center for Women's Health on Manhattan's Upper East Side, and why we're providing rehab at NYU Langone's recently acquired Levit Medical practice in Brooklyn.

Integrating rehab into the full spectrum of medical care also requires cooperation across departments. Whether a patient has an orthopaedic, cardiovascular, or neurological condition or is recovering from surgery, when rehab is part of the treatment plan, everyone benefits: clinicians achieve better outcomes for their patients, insurance companies see increased patient satisfaction and, most importantly, the patient experiences better results.

In today's world of coordinated care, it's not about who gets the credit—it's about world-class patient outcomes, and rehabilitation is an essential part of the mix.

A handwritten signature in white ink, appearing to read "S. Flanagan". The signature is fluid and cursive.

Steven R. Flanagan, MD
The Howard A. Rusk Professor of Rehabilitation Medicine
Chair, Department of Rehabilitation Medicine
Medical Director, Rusk Rehabilitation

Top Five at Rusk

01



Rusk CME Course Keeps Physiatrists Updated on PM&R Advances

How do you update an auditorium full of physiatrists on the entire field of rehabilitation medicine in just six days? For starters, you need a Physical Medicine and Rehabilitation Department known for its large, highly skilled faculty. Add a roster of nationally known guest lecturers, plus the support of a world-class medical center with a well-developed continuing medical education (CME) infrastructure, and the result is Rusk's "Annual Comprehensive Review of Physical Medicine and Rehabilitation (PM&R)."

The course celebrated its 39th anniversary this spring, attracting nearly 100 practicing physicians and senior residents from as far away as Australia.

As one of only four comprehensive PM&R review courses in the United States, it provides a week-long immersion in the full spectrum of rehabilitation medicine, with lectures and workshops on everything from gait analysis and management of lower-limb amputation to the latest advances in cardiac and pulmonary rehabilitation, swallowing therapy, and treatment of stroke, traumatic brain injury, and spinal cord injury—to name just some of the offerings. The sixth day is reserved for an extended workshop on electrodiagnosis and neuromuscular conditions.

Physiatrists attending all six days accrue 58 CME credits, representing a major step towards board recertification. They also gain a state-of-the-art overview of a rapidly changing field. "A physician who hasn't taken a review course in a while will encounter a good deal of new information here," says course director Alex Moroz, MD. "The emergence of musculoskeletal ultrasound as the standard of care is a recent development, for example. Another evolving area is the use of botulinum toxin and baclofen pumps to treat spasticity, which we offer hands-on workshops in."

In another cutting-edge segment, the latest regulatory changes in healthcare are reviewed by star lecturer Randall Braddom, MD, clinical professor at Rutgers New Jersey Medical School and one of ten invited faculty. Guest lecturers are joined by over a dozen members of Rusk's own faculty, as well as clinicians from several other NYU Langone departments. All are selected for their ability to encapsulate the latest medical information in concise, powerful presentations. To ensure that the course keeps its edge, participants also rate the effectiveness of each session.

"What sets us apart is our comprehensive scope and a collection of truly spectacular speakers," notes Dr. Moroz. "To teach in a concentrated setting like this, knowledge isn't enough; you need to be a performer as well. The fact that we've remained one of the few courses of our kind says that we have all the pieces in place."

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Enhancing Pediatric Care and Healing with Help from KiDS of NYU Langone

Rusk's youngest patients are eating healthier diets, rediscovering sports, even having a better experience during MRI scans—all thanks to a series of grants from KiDS of NYU Langone, a philanthropy that supports pediatric care at NYU Langone Medical Center.

This year, the organization is funding nine Rusk proposals, all developed by our pediatric clinicians. Each grant empowers children and their families in a targeted way. "Smiles through Sports," for example, a program designed by Rusk physical therapist Amanda

Presland, funds the purchase of adaptive athletic equipment, enabling children with disabling conditions to engage in sports such as basketball, volleyball, and tennis.

“Many of these children think sports are no longer an option,” explains Presland. “This program shows them anything is possible.”

Another sports-related grant supports Rusk’s Adaptive Skiing/Snowboarding Program, in which children with disabilities go skiing and snowboarding using adaptive equipment under the guidance of certified instructors.

Four other grants fund initiatives that educate and empower families. “In the Know” provides for enhanced education for parents dealing with the life-changing impact of a child’s brain injury. While education and family support is part of Rusk’s standard of care, this structured educational program helps ingrain the special skills that these parents will need, such as how to effect safe transfers, helping children perform self-care independently, and assisting in cognitive remediation. A second grant, based on the observation that many children gain weight during inpatient rehab, teaches young patients how to prepare healthy meals and make better food choices, while becoming accustomed to adaptive cooking utensils. Yet another grant teaches families of children with cystic fibrosis and childhood cancers how to create individualized programs that include safe exercise—which often goes lacking in these children. A fourth grant funds a specialized, early intervention educational-behavioral program that teaches parents of premature babies to recognize and address their infants’ unique stress cues and hone critical feeding skills for these especially vulnerable newborns.

“Each grant meets a specific need, beyond what hospitals are normally equipped to do,” explains Carie Sumida, supervisor of pediatric physical therapy.

Two additional grants pay for specialized equipment: a home feeding and exercise kit that helps children develop oral motor skills needed for speaking clearly; and positioning devices such as bouncy seats and boppy pillows, which help infants with disabilities maintain muscle tone while preventing acquired deformities.

The most science-fiction-like grant award is designed not to promote movement, but rather to help kids lie perfectly still: it pays for special goggles that let patients calmly watch a favorite TV show or film during MRI scans, avoiding the need for sedation. “It’s one more example of our therapists’ creative thinking,” says Sumida. “Not only are these grants wonderful for patients, but the application process offers a great chance for our clinicians to crystallize their ideas.”



Rusk Provides Gender-Tailored Care at Centers for Men’s and Women’s Health

Reflecting a growing understanding of the different medical issues and sensibilities that men and women bring to the table,

NYU Langone Medical Center has now established its second gender-specific clinical facility. Several years after launching the Joan H. Tisch Center for Women’s Health, a thriving multispecialty practice on Manhattan’s East 84th Street, the Medical Center recently opened the Preston Robert Tisch Center for Men’s Health, a 15,000-square-foot facility at Madison Avenue and 55th Street.

With over 20 physicians, including several full-time internists and numerous specialists, as well as sophisticated testing and imaging facilities, the new center is rapidly becoming a go-to location for men living or working in New York City.

With a location ideal for workday drop-ins, the center draws a mix of office workers and neighborhood residents. Elements such as state-of-the-art cardiovascular testing and orthopaedists trained in sports medicine make it especially well-suited to address the health of the middle-aged workforce.

The center’s clinical care is keenly attuned to the needs of the male population, with expertise in areas such as men’s urologic conditions and orthopaedic sports medicine, sophisticated cardiovascular stress test capabilities, and scanning capabilities that include a full X-ray suite and musculoskeletal ultrasound.

This male-oriented focus extends to the clinic’s state-of-the-art physical therapy gym, staffed by two full-time Rusk PTs trained in both general and sports therapy. “In our first few months we’ve already treated quite a few painful backs, knees, and hips,” says Kenny Ho, one of the PTs. “We’re also seeing lots of weekend-warrior-type injuries—shoulder problems from playing golf, and tennis-related ankle sprains.” The center’s PT program will soon be augmented by the addition of a Rusk physiatrist trained in sports rehabilitation.

This concept of a physiatrist/therapist team with gender-specific skills mirrors the formula of the Joan H. Tisch Center for Women's Health, where the PTs have specialized training in pelvic floor therapy, a key to treating pelvic pain and incontinence in women. The women's center is also preparing to welcome a new physiatrist—Kimberly Sackheim, MD, an expert in treating chronic abdominal and pelvic pain, and medical director of Rusk's Women's Health Rehabilitation program as of this July.

"While I can't always 'cure' patients with chronic pain, I can frequently establish a treatment plan that enables them to cope with their ailments successfully," notes Dr. Sackheim. "The supportive atmosphere of the Center for Women's Health is ideally suited to this treatment approach."

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Regaining the Power of Speech: Q&A with Karen Riedel, PhD, CCC-SLP

This year, Karen Riedel, PhD, CCC-SLP, will step down as director of the Speech-Language Pathology (SLP) Department

at Rusk Rehabilitation after 44 years with the institution. We recently spoke with her about her time at Rusk and the department's evolution.

What brought you to Rusk?

In 1970, I'd just finished an aphasia residency at the University of Michigan. Dr. Martha Taylor Sarno was known nationally for her aphasia program at Rusk, so I wrote her a letter. A few months later, she hired me. The SLP department was then almost entirely focused on neurogenic communication disorders, particularly aphasia—when the brain can't access language—and dysarthria, involving speech-related motor dysfunction. I was promoted to associate director of SLP in the 1990s, and became director in 2009.

How has the department changed over the years?

We've expanded our focus steadily, along with the field itself. We began treating a wider variety of adult and pediatric neurogenic disorders, involving not just stroke but also brain tumors, Parkinson's, and traumatic brain injuries. Ten years ago we added a cochlear implant therapist who helps adults and children learn to hear with these devices. The next big change was merging with NYU Langone's Swallowing Disorders Center. More recently we established a voice program that teaches professional voice users—singers, teachers, lawyers—to vocalize more effectively.

That said, aphasia has remained a major focus throughout the growth and expansion of the department, and Rusk continues to be a leader in caring for individuals with neurogenic disorders. Our ability to communicate is such an integral part of identity that being unable to speak or read is devastating. I think SLP therapists really value the intimacy of communication. I'm still very moved when a patient who was mute utters their first sound.

What are some of the latest developments happening in your department?

We recently got involved in an early mobilization program at Tisch Hospital's ICU. These patients often need assistance speaking as they're weaned off the ventilator. We now have a full-time therapist in the ICU, expert in everything from speaking valves to low-tech communication boards. It's very frightening to be ill and unable to communicate. I think this represents a great improvement in overall quality of care. We've also begun rounding on other acute care patients at Tisch. A large proportion of inpatients over age 80 have dysphagia and/or communication disorders. With a speech-language pathologist on the units, these disorders won't be missed.

You must be proud of all that's been accomplished in SLP during your time at Rusk.

After these many years, I'm gratified to be leaving the department larger and stronger than ever. But it's also a work in progress—there will always be some element of making the medical community fully aware of what communication and swallowing specialists can do to improve health and quality of life for our patients.

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05



An Uncommon Approach Restores an ICU Patient's Voice—and Clarity of Mind

When a patient in the Intensive Care Unit (ICU) at NYU Langone's Tisch Hospital remained delirious and unable to speak ten days after surgery, his physicians called in Rusk speech-language pathologists Keri Danziger and Laura Dumbrava—not only to restore his voice, but also to try and improve his cognitive status.

“There's a close connection between communication and cognition,” explains Danziger. “In the ICU, delirium, confusion, and agitation are common, and inability to communicate can exacerbate these symptoms.”

This is one of the factors that led NYU Langone and Rusk to launch an ICU early intervention initiative, in which therapeutic disciplines are employed as early as possible to help patients mobilize, communicate, and swallow more effectively.

In this case, the patient, who had undergone extensive surgical reconstruction following removal of a head and neck tumor, was still sedated and agitated when Rusk therapists first assessed him. They treated him daily, trying such techniques as mouthing words, pointing to pictures, and using an electrolarynx, a device that mimics the vocal cords' vibrations.

The speech-language pathology (SLP) team knew none of these methods would work as well as a Passy-Muir® speaking valve, but were hesitant to use this approach due to the patient's partial upper airway obstruction. They ultimately decided to try the valve, which allows air to be inhaled through the tracheostomy tube, then closes to redirect exhaled air through the throat and mouth. As expected, the patient's ability to use it was limited. Because of his airway obstruction, air pressure in his respiratory tract became uncomfortably high when he exhaled with the valve in place.

The team attempted the valve a few times, measuring airflow resistance in his trachea. It was elevated, confirming that airway obstruction was the issue. Danziger then decided to try an uncommon technique she'd witnessed and read about in a medical journal, in which a tiny hole is drilled in the valve to let additional air escape. She called NYU Langone's Engineering Department, who did the drilling. The patient reported improvement but was still uncomfortable, so they drilled a second hole.

“That did the trick,” said Danziger. “The patient immediately began tolerating the valve. His airflow resistance was halved, he started speaking more, and his frustration level went way down.” His cognition also improved as his speech-language, physical, and occupational therapy treatments took hold and his medications were reduced. One month after surgery, he was discharged.

“Regaining communication is an important turning point for patients,” adds Danziger. “This case highlights the importance of using evidence-based practice and a whole-team approach for optimal rehabilitation outcomes.”

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