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A Strategic and Multifaceted Expansion of Pediatric Rehabilitation

“Rehabilitation is critically important for children to help them grow and develop into adulthood and independence, whether their condition is cerebral palsy, the result of a brain injury, or involves a spinal disorder,” says Joel Stein, MD, Physiatrist-in-Chief, New York Presbyterian Hospital. “Over the past few years, we have made a concerted effort to enhance our pediatric physical medicine and rehabilitation program under the direction of Dr. Heakyung Kim, Chief of Pediatric Physical Medicine and Rehabilitation at New York Presbyterian/Morgan Stanley Children’s Hospital, who most recently also assumed leadership for the pediatric physiatry program at Blythedale Children’s Hospital in Valhalla, New York. Our expanded initiatives in clinical services, our academic program, and our research endeavors will enable us to better meet the needs of children with neurological, musculoskeletal, and related disorders.”

“With the integration of our programs and important opportunities for collaboration, we can promote the best possible outcomes for our patients.”
 — Dr. Heakyung Kim

Blythedale Children’s Hospital, one of only 19 pediatric specialty hospitals in the country and the only one in New York, has the largest hospital-based pediatric therapy department in the State, with 85 full-time pediatric physical, occupational, respiratory, speech pathology, and feeding therapists. The Hospital’s new \$65 million inpatient rehabilitation facility – with 86 beds – provides a state-of-the-art environment in which children from birth to 19 years can receive comprehensive medical and rehabilitative care when complex medical conditions necessitate hospitalization. In addition, Blythedale has a specialty outpatient Day Hospital Program for more than 100 children who are able to live at home, but still require



Dr. Heakyung Kim, Chief, Pediatric Physical Medicine and Rehabilitation at New York Presbyterian/Morgan Stanley Children’s Hospital, and also Chief, Pediatric Physiatry at Blythedale Children’s Hospital

a level of medical and/or rehabilitative care that cannot be met by their school or outpatient program.

As Chief of Pediatric Physiatry at Blythedale, Dr. Kim, one of the country’s leading pediatric physiatrists, oversees the administrative, clinical, and academic aspects of the Department – which has three full-time physiatrists on site. She also provides neuro rehabilitation expertise in the Brain Injury Unit for patients with traumatic brain injury, pediatric stroke, and encephalitis, consults on cases of critically ill children with spinal cord injury and chronically ill children with ongoing cardiac and respiratory issues, and is directing the further development of Blythedale’s spasticity management program. Dr. Kim’s role is an expansion of a relationship that New York Presbyterian/Columbia University Medical Center has had with Blythedale for many years both in the clinical and academic arenas, and one she has enjoyed for the past two years.

“One of the most fulfilling aspects of my role is that we can provide a continuum of care for children with complex neuro and musculoskeletal disorders, which are so often accompanied by complicated medical issues requiring either intensive care or acute care that can be provided at Morgan Stanley Children’s Hospital,” says Dr. Kim. “At the same time, pediatric patients who are first seen here – including NICU and PICU patients – can then be seamlessly transferred

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to Blythedale for their rehabilitation. Through our partnership, the integration of our programs, and important opportunities for collaboration in clinical care, continuing education for staff, and in residency training, we can promote the best possible outcomes for our patients.”

To facilitate Dr. Kim’s more prominent role at Blythedale, NewYork-Presbyterian/Morgan Stanley Children’s Hospital welcomed Patricia T. Tan, MD, and Mary Laura Sewatsky, MS, RN, CPNP, to the Division of Pediatric Physical Medicine and Rehabilitation. Dr. Tan and Ms. Sewatsky will follow patients at both Morgan Stanley Children’s Hospital and Blythedale Children’s Hospital.

“Adding Dr. Kim and Dr. Tan to our team, alongside Drs. Ruth Alejandro, Richard Borkow, and Xiaofang Wei, will make the Pediatric Physiatry Department at Blythedale a shining example of clinical, academic, and research excellence in pediatric physiatry,” says Scott M. Klein, MD, Chief Medical Officer, Blythedale Children’s Hospital.

At NewYork-Presbyterian/Morgan Stanley Children’s Hospital, the pediatric physical medicine team provides the full spectrum of inpatient and outpatient rehabilitation services for some of the most challenging cases. These include patients who are ventilator-dependent, on a tracheostomy or gastrostomy tube, or require parenteral feeding. Many of these patients continue to receive IV therapies, plasmapheresis, or respiratory care while undergoing rehabilitation.

Dr. Patricia Tan brings 25 years of experience in pediatric rehabilitation medicine to the Hospital. After completing a dual residency in physical medicine and rehabilitation and in pediatrics at Long Island Jewish Medical Center, where she was also chief resident, Dr. Tan went on to serve in a number of capacities in rehabilitation medicine. These included Medical Director of the Traumatic Brain Injury Unit at St. Mary’s Hospital for Children in Bayside, New York; Medical Director of the Department of Physical Medicine and Rehabilitation at St. Charles Hospital and Rehabilitation Center, Port Jefferson, New York; and most recently Medical Director of the United Cerebral Palsy of Greater Suffolk, Central Islip, New York.

Mary Laura Sewatsky earned a Bachelor of Science degree in nursing at the University of Scranton in Pennsylvania, followed by a Master of Science degree as an advanced practice nurse in pediatrics at New York University. Ms. Sewatsky has worked as a pediatric oncology staff nurse at The Johns Hopkins Hospital, and most recently as a PICU staff nurse at NewYork-Presbyterian/Morgan Stanley Children’s Hospital.

The rehabilitation of children presents unique challenges as it often requires the coordination of multiple services delivered over a lengthy period of time during a child’s changing development. To facilitate this multidisciplinary care, the Pediatric Physical Medicine and Rehabilitation team participates in weekly interdisciplinary rounds specifically in the Pediatric Intensive Care Unit at Morgan Stanley Children’s Hospital to help identify patients who will need pediatric rehabilitation care, whether in an acute care setting or subacute setting.

“We perform cognitive tests on patients with traumatic brain injuries, and we work collaboratively with the various specialists at Morgan Stanley Children’s Hospital,” says Dr. Tan. “We continue to follow these patients for complications that may have resulted from the brain injury. A common problem encountered is spasticity or



Mary Laura Sewatsky, Nurse Practitioner, and Dr. Patricia T. Tan

increased tone in the child’s arms or legs. We are quite aggressive in our management of spasticity as it relates to the child’s functional outcomes.” Rehabilitation may also involve cognitive remediation therapy. Dr. Tan and Ms. Sewatsky stress that the treatments they provide are evidence-based, and Botox injections are either ultrasound- or EMG-guided.

“There is a huge need for pediatric rehabilitation, especially for children who are born premature or who come to the hospital after an acute traumatic brain injury – these patients will likely need ongoing rehabilitation care when they leave the hospital,” says Ms. Sewatsky. “We collaborate on care with the pediatric trauma team on all children who come to the emergency room or pediatric intensive care unit with a brain injury. Our goal is to help these patients return to their age-appropriate baseline and enable them to reach their best cognitive and physical potential. We want to be able to improve their quality of life and that of their families.”

The Pediatric Physical Medicine and Rehabilitation service is also involved in clinical research studies to develop new treatments for children with disabling disorders. Among them is a multicenter, randomized, double-blind study to investigate the safety and efficacy of botulinum toxin for treatment of spasticity in children. Under the leadership of Dr. Kim, the study is seeking to recruit triplegic or hemiplegic patients with spasticity in the upper and/or lower limb secondary to cerebral palsy. Other research includes the use of robotic devices as an aid to motor retraining the hand function of children with spastic hemiplegic cerebral palsy.

According to Dr. Tan, the range of pathologies seen at NewYork-Presbyterian/Morgan Stanley Children’s Hospital and also at Blythedale makes their program ideal for teaching residents and introducing the field to medical students. “We want to demonstrate, especially to medical students, that pediatric rehabilitation medicine is an exciting field to join,” she says.

The September 2014 issue of Advances in Rehabilitation Medicine will feature NewYork-Presbyterian Hospital’s new pediatric rehabilitation fellowship, which begins in July 2015. Hannah Aura Sboval, MD, a current chief resident with the Department of Rehabilitation Medicine, has been selected as our first Pediatric Rehabilitation fellow.

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Exercise and Epidural Injections: Their Role in Managing Discogenic Low Back Pain

Discogenic pain is a major cause of non-specific low back pain, particularly in younger adult males under the age of 50. “The exact cause is still undetermined because while it is related to a degenerative process the fact that it occurs in younger people suggests that something else might be going on,” says Jaspal R. Singh, MD, Director of Interventional Spine, Medical Director of the Outpatient Faculty Practice in the Division of Rehabilitation Medicine at Weill Cornell, and a Co-Director of the Weill Cornell Spine Center.

“Whether it is degenerative-based or results from a genetic predisposition, I believe that the reason most people develop discogenic low back pain lies in decreased core stability.”

Dr. Singh, who is triple-board certified in Physical Medicine and Rehabilitation, Sports Medicine, and Pain Medicine, was recently named the Willibald Nagler Clinical Scholar in Rehabilitation Medicine at Weill Cornell Medical College, recognizing his work in patients with discogenic pain and his expertise in epidural steroid injections.

“My patients often tell me they are healthy and regularly work out,” notes Dr. Singh. “But then they mention that they have just started a new exercise program, such as boot camp, spinning, or another exercise that puts a lot of stress on the intervertebral discs. In younger adults the disc can sometimes tear causing the back pain – which is different from sciatica or radiating pain.

Discogenic pain occurs most often in the two lowest vertebrae of the lumbar spine – at L4 and L5 or at L5-S1 – and core strength is critical in lower back stability.”

When young adult patients develop acute discogenic low back pain, sitting and bending forward tend to exacerbate their symptoms. Lying down is generally a position that feels comfortable. On physical examination, Dr. Singh usually finds that their strength and reflexes in the lower extremities are normal. “So by and large, they do well with a treatment program that builds core stability. In fact, I tell most of them that exercise and physical therapy will be integral on their road to recovery,” he says.

Importantly, Dr. Singh points out that focusing on the core does not always mean crunches and sit-ups, which can worsen discogenic low back pain as flexing and bending exercises put



Dr. Jaspal R. Singh

a lot of pressure on the disc. Instead, the core rehabilitation program he recommends utilizes various plank exercises to strengthen the abdominal muscles, the obliques, and the lumbar spine muscles. This rehabilitation program is specifically designed to restore function by reducing inflammation and allowing the discs and the surrounding structures to heal. Dr. Singh also prescribes NSAIDs, oral steroids, or epidural steroid injections (ESIs) to reduce pain so that his patients can reach a level of comfort that enables them to

participate in their very essential physical therapy and exercise plan.

Currently, Dr. Singh is conducting research to determine which interventional treatments are most effective for managing discogenic low back pain. “There is very limited data that suggests one type of epidural injection is better than another one,” says Dr. Singh, who is looking retrospectively at his patients to identify those ESIs that have been more successful than others.

“Whether it is degenerative-based or results from a genetic predisposition, I believe that the reason most people develop discogenic low back pain lies in decreased core stability.”

— Dr. Jaspal R. Singh



He and his colleagues also have recently concluded a meta-analysis of three lumbar ESI techniques – interlaminar (ILES), caudal ESI, and transforaminal (TFESI) – in patients with lumbar discogenic pain without radicular symptoms. “To our knowledge,” says Dr. Singh, “this is one of the first reviews evaluating the effectiveness of these three epidural steroid injections for the management of discogenic pain without radicular symptoms.” From their review, they discovered that all three approaches offer pain relief, but one is not necessarily better than the other. To explore this further, Dr. Singh and his colleagues will conduct a prospective randomized study that will offer a head-to-head comparison between the three ESIs.

“But basically while pain is a concern to physicians like myself who specialize in physical medicine and rehabilitation and in pain management, and it is something we want to address,” says Dr. Singh, “our focus is getting to the underlying cause, and preventing recurrence, exacerbation, and flare-ups. At the end of the day, my job is to enable patients to return to their daily activities.”

For More Information

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