Interview with Dr. James Czyrny, Clinical Director, Rehabilitation Services

Progress Notes: *ECMC is highly regarded for the strength of its rehabilitation programs. When did the rehab program at ECMC begin?*

James Czyrny: Even going back to the time when ECMC was Meyer Hospital, there has always been a rehab program at ECMC. It's the oldest existing rehabilitation program in the Western New York area.

PN: *Your team is renowned for taking on difficult rehab cases. What is the distinction between acute medical rehab and acute neuro rehab?*

JC: Neuro rehab refers to patients who have had neurological problems such as spinal cord injuries, head injuries or stroke. Medical rehab refers to problems that are not neurologic, for example multiple fractures, amputation, cardiac problems, renal failure, pneumonia—those situations where people lose their functional abilities and we have to rehab them to the point where they can go back to their homes in the community.

PN: *When did the neuro rehab programs begin?*

JC: The spinal cord injury program was started in the late 1970s and the head injury program in the early '80s. These programs are the only ones of their kind that are locally available to patients.

PN: *As a physician interested in rehab for my patients, why should I choose ECMC?*

JC: ECMC is the only center that has the expertise for taking care of difficult cases—head and spinal injuries and patients who have multiple complex medical problems. These would not be handled as well at another facility. We will also take patients who have more severe deficits functionally. We're recognized as the place that will agree to admit patients when other facilities would reject them because of the complexity of the patients' care needs. We get referrals from all of WNY including Rochester all the way down to the Southern Tier and west as far as Erie, PA. We'll also get a lot of referrals from patients who might have left Buffalo for treatment, such as someone who might have gone to the Cleveland Clinic to have a procedure done and then that patient needs rehab. The Cleveland Clinic will call us to take this patient because they know that ECMC is the place in WNY that can handle the complicated cases.

Dr. James Czyrny, Director, Rehabilitation Services

PN: *How did the neuro rehab programs develop at ECMC?*

JC: The neuro rehab programs have evolved since the late 1970s when better acute trauma care developed. With fewer trauma fatalities, these patients were living but were living with profound brain or spine deficits. As the numbers of these

Members of the rehab staff meet for a weekly interdisciplinary patient team conference.

people increased, there was an urgent need for programs that would address patients with profound neurological injuries right here in WNY. Over time, specialized rehab techniques were developed, nurses were trained in how to provide nursing care, and physicians and therapists also developed expertise in these areas. So it took a number of years to develop the state of the art techniques that we have nowadays. These include medical management, nursing care, and therapy care. And our rehabilitation is still evolving. We come up with new treatments all the time.

PN: *What are the demographics of rehab patients? Do you see more traffic accident victims each year?*

JC: There was a period where the incidence of rehab patients actually went down a bit due to the influence of stricter laws on drinking and driving as well as the increased use of seatbelts and the standardization of airbags. Now it's going back up a bit and part of it is gang-related violence. The other factor is the increase of older patients who are trying to maintain active lifestyles. They're driving longer and getting into car accidents, doing more work around the house and having domestic accidents. So we're seeing a bit of an increase but we're also seeing an older population.

PN: *Are there any other rehab services at ECMC that are not available elsewhere in the area?*

JC: The ECMC rehab unit is noted for its expertise with multiple trauma patients—a trauma patient who comes in with three limbs fractured, chest injuries, and abdominal injuries, for example.

PN: *Could you explain the case mix intensity data that ranks ECMC one of the highest in the nation for rehabilitation success?*

JC: ECMC has the third highest case mix index program in the country, according to the Uniform Data System for medical rehabilitation. This measure first looks at the diagnosis of the patient. For example, spinal cord injury is going to be a more difficult case to manage than a hip fracture. It also looks at how severe they are from a functional point of view. For example, a stroke patient who is totally dependent is going to be much harder to provide with rehab services than a stroke patient who is walking and only slightly impaired. The diagnosis and how severely the patient is limited functionally at the time of admission determines the case mix intensity. The other factor that gets thrown in is co-existing medical conditions—diabetes, hypertension, cardiac disease. So if you have a stroke patient who also has these conditions, he will be a harder patient to manage than one who has no other medical problems. Our case mix intensity ranking reflects the fact that we take the most severe patients, yet we have rehab outcomes that are comparable or better than the national average.

PN: *Functional Independence Measure, or FIM, assesses functional progress during a patient's rehabilitation stay. How does ECMC stack up by this yardstick?*

JC: FIM is a standardized way of measuring degree of disability. The higher the number, the more independent the patient. This is a way that different rehab professionals communicate how disabled the person is. So our FIM scores at admission are much lower than other hospitals, which is another way of saying our case mix is much higher. Yet, despite the fact that our patients are more severely injured and have multiple medical issues, our FIM gain during the rehab is comparable to or better than other facilities that have a less severe patient case mix.

PN: *What other ways do you have to measure the success of rehabilitation at ECMC?*

JC: FIM divided by length of stay is a way of expressing that the patient's improvement over a length of time relates to the efficiency of care. Here again our efficiency with traumatic brain injury and other trauma patients is significantly higher than the national average. ECMC patients are discharged at a higher level of function than the national average, despite the fact that our patients are more severely involved upon admission.

Physicians review computerized images and scans on the radiology PACS system for a patient who has sustained a traumatic brain injury with multiple trauma.

A brain and spinal cord injury patient working with physical and occupational therapists focuses on sitting balance, reactive re-positioning, and upper extremity range of motion and hand coordination.

Traumatic Brain Injury

Rehabilitation is a critical part of the recovery process for a patient with traumatic brain injury (TBI) and ECMC is renowned for its skill in providing it. Moderately to severely injured patients receive specialized rehabilitation treatment that draws on the knowledge of the many specialists in the Department of Rehabilitation Medicine. The primary goal of rehabilitation after a traumatic brain injury is to improve the patient's ability to function at home and in society despite the complex effects of the injury. Family caregivers provide critical assistance and encouragement for the patient by being involved in the rehabilitation program. Support for caregivers is especially important during the outpatient phase of care when behavioral and cognitive problems may complicate family relationships. Nationally, TBI makes up 3% of the rehab caseload; at ECMC it is 21%.

More survivors, greater challenges.

Advances in medical technology and improvements in regional trauma and rehabilitation services have increased the number of survivors of TBI, producing the social consequences and medical challenges of a growing number of people with disabilities. With pioneering leadership and achievement in rehabilitation medicine, ECMC's Acute Neuro Rehabilitation unit offers a range of services dedicated to empowering and assisting patients to resume active, independent lives.

Admission to the Acute Neuro Rehab unit requires that the patient is medically stable, has neurological or neurobehavioral deficits in activities of daily living, mobility, cognition, communication, swallowing, psychological functioning, social relations, or vocational abilities, and shows the potential to participate in and benefit from an active program of rehabilitation.

The TBI team approach to rehab.

Acute rehabilitation begins as soon as the patient's emergent medical concerns are addressed and the ability to profit from rehabilitation is clear. The ECMC program is designed to improve functional ability through a coordinated program of medical care, evaluation, and intensive rehabilitation services for cognitive, behavioral, physical, and perceptual problems that interfere with an individual's return to the community. Treatment is provided in a designated unit by a team of licensed rehabilitation specialists.

Acute neuro rehabilitation services at ECMC are medically supervised and coordinated by physiatrists (medically trained doctors specializing in rehabilitation) and provided by therapists with training and experience in brain injury rehabilitation. A TBI rehabilitation team typically includes the physiatrist, occupational therapist, physical therapist, speech/language pathologist, rehabilitation nurse, social worker, rehabilitation counselor, prosthetic and orthotic specialist, and a discharge planner/case manager. A therapeutic neuro-psychologist, clinical psychologist, and neurologist offer consultation and ongoing care.

Sensory stimulation for coma patients.

Individuals exhibiting a minimal level of responsiveness or vegetative state receive "coma stimulation," a multidisciplinary program of daily sensory stimulation and enrichment including auditory, olfactory, visual, tactile, vestibular and oral motor/gustatory stimulation. Family participation is often critical for successful outcomes during the acute rehabilitation stage. Counseling and educational support services are available for families to understand the team's expectations for the brain-injured patient and to prepare discharge options and discuss future plans.

Goals of the TBI program.

Program goals focus on treatment of the complex effects of TBI and may include:

- training to compensate for impaired cognitive skills
- relearning adaptations to carry out activities of daily living
- development of alternatives for speech and language difficulties
- dysphagia management
- physical medicine rehabilitation
- rehab nursing, tracheostomy care, wound care, bowel and bladder programming
- active training in physical restoration
- educational or vocational planning

Traumatic brain injury is broadly defined and includes survivors of closed head injury, open head injury, cerebral hemorrhage, anoxia, brain tumors, and other neurological problems. Training patients to translate skills learned in the clinic into their real-life setting holds the best potential for long-term success.

A spinal cord patient prepares a meal with an occupational therapist, working on balance, coordination, arm and hand strength, and safety.

Spinal Cord Injury

Spinal cord injury (SCI) rehabilitation is an interdisciplinary program offering a complete continuum of care from hospital to home. The program strives to maximize the individual's strength and endurance, define wheelchair and equipment needs, help patients re-enter the community, and explore opportunities for vocational and other pursuits. Enabling and empowering patients to resume an active and independent life, the medical center's SCI rehab program is the only full spectrum approach to specialized care in the region. ECMC services patients with injuries following a trauma due to a motor vehicle accident, violent act, or sports injury as well as non-traumatic injuries stemming from spinal stenosis, tumors, compression fractures, and transverse myelitis. Nationally SCI makes up 5% of the rehab caseload; at ECMC it is 12%.

The resources and assistance needed for recovery.

Spinal cord injuries are almost always sudden and unexpected. For the patient, being in a hospital can be overwhelming and the future uncertain and frightening. At ECMC, the Acute Neuro Rehabilitation unit provides SCI patients with the resources and assistance necessary for the journey of recovery from a spinal cord injury and a return to a productive and independent life.

The Spinal Cord Injury unit at ECMC was established in 1979 and was the first all-inclusive acute medical rehab service for neurogenic disorders—specifically spine and brain injury—in Western New York. Staff members have completed graduate and doctorate level education, specialty credentialing in neuro-developmental training (NDT), and neurological certification (NCS).

The only full spectrum approach in specialized care.

ECMC's interdisciplinary spinal cord rehabilitation program offers a continuum of care from hospital to home. Enabling and empowering patients to resume active participation in life, our SCI rehab program is the region's only full spectrum approach in specialized care. Given the intensity of their injuries and residual deficits, ECMC patients require aggressive daily care. The primary goals are to help the patient achieve maximum potential in mobility, activities of daily living, communication, and swallowing abilities; explore opportunities for vocational and other pursuits; and reduce caregiver management.

The road to recovery.

The rehabilitation medicine department is led by board certified physiatrists and includes physical and occupational therapists, speech language pathologists, swallowing rehabilitation specialists, rehab nurses, social workers and counselors, discharge planners, and neuro-psychology services, all assembled to assist in the recovery process.

The team works to strengthen muscles in parts of the body that have retained function and to train individuals to relearn the tasks of daily living, such as eating and dressing. Therapists teach compensatory strategies for safe swallowing and vocal intensity, and the psychosocial staff helps patients find the resources to pay for equipment, home modifications, and attendant care. Therapists also help family members learn techniques for assisting the injured person.

Facts and trends in SCI

- *Spinal cord injuries occur to approximately 12,000 to 15,000 people per year in the U.S. About 10,000 of these people are permanently paralyzed, and many of the rest succumb to their injuries as a result of their severity.*
- *Since 2000, motor vehicle crashes account for 46.9% of reported SCI cases. The next most common cause of SCI is falls, followed by acts of violence and recreational sporting activities. The proportion of injuries due to sports has decreased over time while the proportion of injuries due to falls has increased. Acts of violence formerly caused nearly 25% of spinal cord injuries but has declined to 13.7% since 2000.*
- *Overall, average days hospitalized in the acute care unit immediately following injury declined from 25 days in 1974 to 18 days in 2004. Similar downward trends are noted for days in the rehab unit (from 115 to 39 days).*

Tour the unit, meet the staff, discover our strengths.

ECMC Rehabilitation Medicine encourages prospective patients and their families to tour our facility at their convenience. A personal tour affords the opportunity to view the unit's treatment areas and therapeutic equipment and to meet members of the treatment team. ECMC accepts Medicare, Medicaid and most insurance plans. The Admission Coordinator will verify insurance coverage prior to admission and work with the patient's provider to achieve the greatest degree of coverage and ensure the optimum outcome. For additional information regarding ECMC's Acute Neuro Rehabilitation Unit or to make a referral, call our Admission / Prospective Payment Coordinator at **(716) 898-6167.**