

NeuroscienceNews

A Newsletter for the Maine Medical Center
Neuroscience Institute

Fall
2008


Maine Medical Center
Neuroscience Institute

Neuro-Oncology Symposium Earns High Marks

More than 120 physicians, nurses, and allied health professionals attended MMC's 18th Annual Cancer Symposium on May 21, which was devoted to Neuro-Oncology Topics: Latest Advances in Treatment and Supportive Care Strategies. Presented in collaboration with the Neuroscience Institute, the day-long conference provided current information on selected topics including antiangiogenesis and radiation oncology treatments for glioblastoma multiforme (GBM), current brain imaging techniques, innovations in neurosurgery at MMC, the management of epilepsy in the neuro-oncology patient, and the challenges of caring for the advanced brain tumor patient. The conference included presentations from MMC clinicians with expertise in the fields of oncology, neurosurgery, neurology, radiology, and radiation oncology, as well as guest speakers from both Harvard Medical School and Tufts University School of Medicine in Boston. A multidisciplinary panel of specialists in the community provided insight regarding the management and supportive care of the neuro-oncology patient. Among those completing evaluations, nearly two-thirds rated the event as excellent.



MMC neurosurgeons Rajiv Desai, MD, (right) Neuroscience Institute Medical Director, and Jeffrey Florman, MD, (left) confer with keynote speaker Eric Wong, MD, Department of Neurology, Harvard Medical School.

Stephen Rioux, MD, Named Associate Medical Director

Pediatric neurologist Stephen Rioux, MD, was recently appointed associate medical director of MMC's Neuroscience Institute. In his new role, Dr. Rioux will focus on expanding and enhancing MMC's services for patients with neurological disorders in key areas such as stroke, neuromuscular disease, epilepsy, and neuro critical care. He also will work with the Institute to track quality outcomes and develop a neurology research program.

Currently director of the Pediatric Muscular Dystrophy Association Clinic at MMC, Dr. Rioux has practiced as a pediatric neurologist with Maine Neurology since 1987.



Neuro Critical Care Program Takes Shape

Traumatic spinal and brain injuries. Ischemic stroke. Subarachnoid hemorrhage. Seizures and status epilepticus. Intracerebral or intracerebellar hemorrhage. Meningitis. Neuromuscular weakness. Severe delirium.

These are just some of the neurological conditions treated in critically ill patients at MMC. In fact, MMC currently cares for an average of five adult and pediatric neuro critical care patients each day – a volume greater than at any other hospital in Maine, and at many hospitals in the entire nation. As the state's population grows and ages, the neuro critical care patient population will only increase.

A dedicated neuro ICU for this complex patient population

While MMC's model of care for these patients has been highly effective, research affirms they would benefit even more from the advanced monitoring technologies, spe-

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cially-trained clinicians, and coordinated care associated with a dedicated neuro ICU. To this end, in April 2007, a Neuroscience Institute-funded clinical team began identifying ways to strengthen MMC's neuro critical care service.

"Neuro critical care serves a complex patient population that requires integrated, multidisciplinary expertise," says neurosurgeon and team leader Jeffrey Florman, MD. "This not only includes trauma, neurosurgery, neurology, and critical care medicine, but also nursing, radiology, pulmonary and respiratory therapy, and physical and occupational therapy."

A multidisciplinary focus

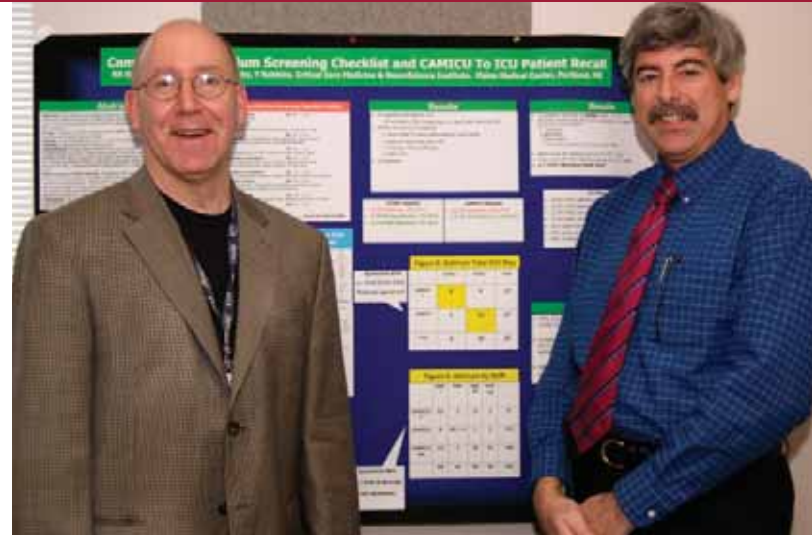
Dr. Florman's team reflects this multidisciplinary focus. It includes Richard Riker, MD, from Pulmonary and Critical Care Medicine (who has been appointed interim medical director of the Neuro Critical Care Program); Paul Muscat, MD, a neurologist and medical director of Electroencephalography; Gene Grindlinger, MD, trauma surgeon and director of Surgical Critical Care; and Phil Scavotto, BSN, RN, SCU Nursing co-director. They're assisted by Barbara Grillo, MHSA, NI director; and Maureen Whalen, EEG department director. The team's efforts will be enhanced as a result of the return of David Seder, MD, to MMC this summer. He completed a fellowship in pulmonary and critical care medicine at MMC in 2007 and for the last 12 months has received specialized training in neuro critical care medicine at Columbia-Presbyterian Medical Center in New York.

The group explored several care models in developing a neuro ICU, from a dedicated "fixed-bed" unit to a virtual model in which patients are not segregated from other ICU patients. Given the initial size of the patient population, limited bed/space availability on the Bramhall campus, and the need to flexibly respond to census variations, the team recommended that MMC initially adopt a combination of these models. Under this plan, most patients requiring neuro critical care are clustered in SCU 3 and 4, matched with caregivers with neuro expertise.

Advanced monitoring capabilities, including continuous EEG monitoring

The team also recommended acquisition of new multi-modality brain monitoring technology. The first of these advances, continuous EEG monitoring and cerebral oxygenation monitoring, are already in place.

"Continuous EEG is a very simple but sophisticated way to look at brain activity in patients who are minimally conscious or comatose," notes Dr. Muscat. "It's currently being used in very few medical centers nationwide, and we're the only one in Maine using it, which means that MMC really is on the leading edge with this technology."



Richard Riker, MD, (left) Pulmonary and Critical Care Medicine, and Phillip Scavotto, BSN, RN, (right) Co-Director, Special Care Unit.

Education and training to enhance coordinated, standardized care

An integral aspect of MMC's Neuro Critical Care Program is standardizing care for critically ill patients – adopting evidence-based, best-practice guidelines to ensure optimal outcomes.

"For example, patients with traumatic brain injury are managed using guidelines from the American College of Neurosurgery and its Committee on Trauma," notes Dr. Grindlinger. "So we are providing care with a consistent, unified approach versus an individualistic one."

Standardizing care across multiple disciplines requires training to ensure that everyone is on the same page. Under Dr. Riker's leadership, a subgroup of physicians and nurses is undergoing additional training focused on neuro patients' specialized needs. Drs. Florman, Riker, Muscat, and Grindlinger attended the 4th New York Symposium on Neuro Critical Care at Columbia Presbyterian, and nurse leaders have attended other national neuro critical care conferences. Nursing staff education is being coordinated by Shelly Wilkins and Linda Josti (more on this in a future issue of *Neuroscience News*).

Positioning MMC as a regional center of excellence in the neurosciences

"Maine Medical Center currently provides, by far, the greatest degree of neuro critical care in the state," says Dr. Florman. "It's incomparable to what's being offered elsewhere in Maine, and it's comparable to the best care in New England."

As MMC's program evolves, it will further enhance care coordination for these complicated patients, and improve consistency of care and adherence to care pathways incorporating sophisticated monitoring techniques – all part of MMC's vision as a regional center of excellence in the neurosciences.

MMC Recognized for Outstanding Stroke Patient Care



MMC has received the American Stroke Association's (ASA) Get With The Guidelines Bronze Performance Achievement Award in recognition of its commitment to a higher standard of stroke care by ensuring that patients receive treatment according to nationally accepted standards.

To receive the ASA award, MMC documented that it consistently complied with GWTG-Stroke treatment guidelines for 90 days. This included aggressive use of medications such as tPA, antithrombotics, anticoagulation therapy, DVT prophylaxis, cholesterol-reducing drugs, and smoking cessation.

"We've always looked at ways to improve care for stroke patients, and this award is recognition of our vigilance," says neurologist John Belden, MD, medical director of MMC's Stroke Program, which is a key component of MMC's Neuroscience Institute.

MMC has developed a comprehensive system for rapid diagnosis and treatment of stroke patients admitted to the ED. This includes 24/7 availability of brain imaging scans, neurologists to conduct patient evaluations, and use of clot-busting medications when appropriate. As a result, last year the hospital was the first in Maine to be certified as a Primary Stroke Center by the Joint Commission. This certification recognizes MMC's adherence to best practices in delivering integrated and coordinated care for stroke patients.

Telestroke Network

In order to bring the expertise of the medical center's neurologists to community hospitals' emergency departments 24 hours a day, 7 days a week, MMC is in the early stages of developing a Telestroke Network. Using state-of-the-art videoconferencing and electronic transfer of CT scans, the Network gives community-based physicians timely access to consultations from specialists skilled in the diagnosis and treatment of stroke patients.

In recognition of the value of this initiative, MMC was recently awarded the Maine Center for Disease Control and Prevention Acute Stroke grant. The \$20,000 award will be used to facilitate development of the telestroke program with the medical center's collaborating partner, Maine General Medical Center.

"When time means brain, the ability of this system to expedite stroke diagnosis and treatment is crucial to ensuring the best patient outcomes," says Dr. Belden. A neurologist with advanced fellowship training in stroke care,

he is spearheading the rollout of the Telestroke Network, which will begin with a pilot implementation at Maine General, then expand to other sites in the state.

MMC Expands Physiatry Services

Elissa Charbonneau, DO, Named Division Director of Rehabilitation Medicine

As part of the growth of the Neuroscience Institute, MMC is expanding its physiatry services, appointing Elissa Charbonneau, DO, to the post of division director for the Division of Rehabilitation Medicine. In this role, Dr. Charbonneau oversees physiatry services, working closely with the Neuroscience Institute and the Trauma Program. She continues to serve as medical director of New England Rehabilitation Hospital, and is in private practice at Orthopaedic Associates of Portland. In addition, she is past president of the Maine Society of Physical Medicine and Rehabilitation.

Early physiatry intervention improves outcomes

"Early physiatry intervention is an important part of the Neuroscience Institute's approach to care," Dr. Charbonneau says. "When we address functional deficits early on, by the time patients are ready for rehab, they're ahead of the curve. And that improves long term outcomes."

"We're very excited to have Dr. Charbonneau on board," says Wendy Osgood, PT, MS, director of Rehabilitation and Geriatrics at MMC. "Her dual role at MMC and New England Rehabilitation Hospital will further strengthen the continuum and quality of care as neuro patients transition from the acute care setting to rehab."

Since assuming her post in January, Dr. Charbonneau has focused on increasing the visibility and awareness of physiatry within the physician community, and improving the service aspects of the division.

Timely access to consults

"Our goal is to have consults done within 24 hours, and we've seen a significant improvement in timeliness, especially in the last month," she notes. "With the arrival of Dr. Buxton (see announcement on page 4), there will be even greater access."

"If there's one thing I want the referring community to know, it's that we're here and available," Dr. Charbonneau adds. "I am always reachable, and I'm happy to answer questions and facilitate patient consultations." Dr. Charbonneau can be reached at 662-8489.

Welcome to New Medical Staff Members

Douglas H. Buxton, MD, joins Neurosurgery & Spine Associates as a staff physiatrist. In addition to his outpatient practice, he will also perform inpatient consults at MMC and will be on the staff at New England Rehabilitation Hospital.

Dr. Buxton recently completed his residency in physical medicine and rehabilitation at Temple University Hospital in Philadelphia after serving as a medical officer in the U.S. Navy for six years following medical school. He earned his medical degree from the Drexel University College of Medicine in 1999. He did his internship in psychiatry at the Naval Medicine Center in Portsmouth, Virginia, and continues to serve in the Navy's Individual Ready Reserve.



Peter Morrison, MD, joins Maine Neurology following completion of a fellowship in pediatric epilepsy at Johns Hopkins Hospital in Baltimore. He will help MMC develop an inpatient epilepsy program, initially focusing on children, and will enhance access to inpatient pediatric neurology consult services.

Dr. Morrison completed his residencies and internship at UCLA and earned his medical degree from Albany Medical College in New York. Dr. Morrison is board-eligible in pediatrics, psychiatry and neurology, and clinical neurophysiology, and he has authored numerous articles on pediatric epilepsy and pediatric trauma.



Kudos

Paul Muscat, MD, medical director of Electroencephalography at MMC and a practicing neurologist with Maine Neurology, is the recipient of this year's George Maltby Memorial Award, presented by the Maine Chapter of the National Multiple Sclerosis Society for his volunteer work with MS clients.

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Check out the new
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