As physician co-leaders of Palmetto Health’s neuroscience service, we share a vision to provide the most advanced neurology and neurological surgery treatments available to the residents of South Carolina. We are excited to share this latest edition of our neuroscience journal featuring articles about our newly expanded neuroscience intensive care unit and the important role that nurses play on the NSICU team.
SAVE THE DATE: March 16-17, 2018

Neurology Hot Topics

2018 SCNA Annual Meeting
Hilton Head Marriott Resort & Spa, Hilton Head, South Carolina

Brain Tumor
Epilepsy
Headache
Hemorrhagic Stroke
Multiple Sclerosis
Neurointensive Care Nursing

Parkinson’s Disease
Traumatic Brain Injury

Who should attend?
Neurologists, including those in training or preparing for MOC
Family medicine, Internists and others caring for neurology patients
Nurses, Physical, Occupational and Speech Therapists
Anyone who likes the beach and interested in learning neurology

Free for SCNA members. Not a member, visit www.scneuro.org.
Palmetto Health Neuroscience Intensive Care Unit

by Rodney Leacock, MD, Neurointensivist, Palmetto Health-USC Neurosurgery

Palmetto Health Richland recently opened its newly renovated Neuroscience Intensive Care Unit (NSICU), a 16-bed state-of-the-art facility. This facility replaces the eight-bed temporary unit, which has been in operation since 2015. This unit offers advanced monitoring and treatment for patients who require neurocritical care. Staffed by full-time neurointensivists and neuro specialty trained nurses, our NSICU is the only unit of its kind in the area.

Catastrophic brain injuries and neurological disorders can be life-threatening and disabling without effective intervention and care. At Palmetto Health, our neurointensive care experts have extensive training and experience in the management of critical neurological conditions. A thorough diagnostic evaluation, meticulous monitoring, and innovative treatment techniques help our team ensure the best possible outcome for each patient.

Our culture and philosophy differ from some other medical and surgical intensive care units. We operate with a nurse-centric paradigm. Our rounds are focused on the nurses, the aim being to educate and empower them to participate in decision making.

Some of the conditions that may necessitate admission to NSICU include:

- Postoperative brain tumor
- Ischemic stroke
- Subarachnoid hemorrhage
- Traumatic brain injury
- Intracranial hemorrhage
- Guillain-Barré syndrome
- Subdural hematoma
- Myasthenia gravis
- Spinal trauma
- Status epilepticus
- Encephalitis
- Meningitis and other CNS infections

In the NSICU, a multidisciplinary team of specially trained physicians, nurses, therapists and other professionals provides collaborative, coordinated and attentive care in a unique environment. At the bedside, nurses assess the
patients’ vital functions, speech, movement and cranial nerve responses every hour, or more frequently if necessary. Physical and occupational therapists mobilize patients as early as possible, working with each individual to assess his or her ultimate rehabilitation needs. Highly trained speech-language pathologists evaluate swallowing functions, assess cognition and provide augmentative alternative communication and experienced dietitians provide guidance on nutrition. Specially trained critical care pharmacists provide invaluable support to physicians and nurses in the NSICU. Nurse practitioners and physician assistants provide advanced practice care in collaboration with the neurointensivists and the neurocritical care team.

In addition to standard interventions, our neurocritical care experts offer specialized care including monitoring of intracranial pressure, cerebral hemodynamic improvement, targeted temperature management and advanced monitoring (brain oximetry, cerebral microdialysis and continuous electroencephalography). They also understand secondary brain injury following traumatic brain injury (TBI), ischemic stroke, intracerebral hemorrhage (ICH), subarachnoid hemorrhage (SAH) and work to prevent, identify and treat secondary brain insult. Neurointensivists in collaboration with neurosurgeons, neurologists and other physicians execute the critical care protocol decisions in the NSICU.

The aim of our program is to provide patient and family-centered specific care. Our team builds relationships with family members and caretakers to determine the most appropriate goals for the patient’s care. Treatment decisions are made by a multidisciplinary team comprised of neurosurgeons, interventional neuroradiologists, vascular surgeons and physicians in related subspecialties. This forward-thinking level of experienced, responsive and customized care helps our patients recuperate, regain their strength and move forward to the next phase of recovery.

We are moving toward development of an academic training program that turns out well-trained fellows and mid-level providers. We have stroke fellows and pulmonary critical care fellows rotating now. We will have medical students and residents participating in rounds soon. We are a training site for Emergency Neurological Life Support (ENLS). This course is designed to help professionals improve patient care and outcomes during the critical first hours of a patient’s neurological emergency.

Care is currently directed by two full-time neurointensivists, Rodney Leacock, MD, and Mohit Datta, MD. We are recruiting additional neurointensivists and advanced practice providers (APPs) dedicated to the NSICU.

Our success requires tremendous collaboration among all neurocritical care team members. Our strength is the caregivers’ and providers’ ability to recognize and respond quickly and thoroughly to the nuances of neurocritical care.
Rodney O. Leacock, MD

**Specialty(s):** Neurology, Neurocritical Care  
**Board Certified:** American Board of Psychiatry and Neurology – Neurology, Vascular Neurology, Neurocritical Care  
**Education:** Howard University College of Medicine  
**Residency:** University School of Medicine  
**Fellowship:** Wayne State University

Rodney O. Leacock, MD, is a neurointensivist for Palmetto Health-USC Neurosurgery and is an associate professor of neurology with the University of South Carolina School of Medicine.

Leacock earned his medical degree from Howard University in Washington, DC, and completed his neurology residency at Temple University in Philadelphia. He completed a neurocritical care fellowship at Wayne State University in Detroit, followed by a stroke fellowship at St. Louis University in Missouri.

Leacock is board certified in neurology, vascular neurology and neurocritical care. His clinical interests include acute ischemic stroke, intracranial and subarachnoid hemorrhage, status epilepticus and airway protection in patients with neurological disorders.

**Research Interests:** Hypothermia protocols in neurological patients

Mohit Datta, MD

**Specialty(s):** Neurology  
**Board Certified:** American Board of Psychiatry and Neurology – Neurology  
**Education:** Rajiv Gandhi Medical College  
**Residency:** Medical University of South Carolina  
**Fellowship:** Johns Hopkins University

Mohit Datta, MD, is a neurointensivist for Palmetto Health-USC Neurosurgery and is an assistant professor of neurology with the University of South Carolina School of Medicine.

Datta received his medical degree from Rajiv Gandhi Medical College in Mumbai, India. After receiving his medical degree, he completed an internship in preliminary medicine from the Medical College of Wisconsin in Milwaukee. He completed a residency in neurology at the Medical University of South Carolina and a fellowship in neurocritical care at Johns Hopkins University in Baltimore.

Datta is board certified in neurology. His clinical interests include medical complications of acute neurological emergencies: intracranial hemorrhage, traumatic brain injury and subarachnoid hemorrhage.

**Research Interests:** Outcomes in intracranial hemorrhage, respiratory complications of neurological diseases and predictors of ICU readmission in patients with acute brain injury.
Neuroscience Intensive Care Unit nursing

by Heather Tanner, RN, Palmetto Health Richland NSICU

Whenever patients learn they are going to require surgery, it can be a scary and confusing time. Patients often experience a heightened level of stress when realizing the surgery will involve their brain. Patients and their families often have many questions and may not know where to start finding those answers. Palmetto Health Richland recognized the growing need in the Midlands for a unit comprised of a multidisciplinary team dedicated to the care of neurosurgical patients. In November 2015, the Neuroscience Intensive Care Unit (NSICU) opened its doors to meet the critical needs of patients with a neurological injury or condition.

As a nurse, it is an exciting opportunity to help shape the direction of a newly designed unit unlike any in the Midlands. Many of our nurses have previously worked with the neuroscience population and others have been trained here by our top-notch team of nurses and physicians. Our unit is unique not only due to the type of patients we serve but also due to the physicians we serve alongside. Nurses on our unit are fortunate to have two expertly trained neurointensivists — Drs. Rodney Leacock and Mohit Datt — as the medical leaders of our unit. Performing much needed and often lifesaving procedures, our neurointensivists are unparalleled both in skill and bedside manner. These physicians are assisted by advanced practice providers (APPs) who are nurse practitioners and physicians’ assistants.

Along with the physicians, our multidisciplinary team is comprised of many different hospital departments and team members. A team of dedicated physical therapists, occupational therapists and speech language pathologists meets the patient’s rehabilitation needs. These individuals are able to evaluate and treat our patients for any deficits they may have according to their specific brain insult or injury. Our dietitians coordinate with the nurses and physicians to meet the nutritional needs of people who may be unable to receive any food or drink by mouth, which is often the case in this population of patients. Palmetto Health Richland’s respiratory therapists are an integral part of the team ensuring that our patients are able to maintain safe and patent airways often through mechanical ventilation. Our team also includes case managers to help the patient and their family to manage concerns that may arise during their hospital stay or help to place the patient after discharge if further rehabilitation or subacute care is required. In addition, we also have critical care trained pharmacists on the team who are able to assist with medication management in these often-complex individuals.

As nurses on this unit, we have the unique opportunity to care for patients with injuries other facilities simply do not have the means or available expertise to handle. Many of these patients need titratable medications to maintain strict blood pressure parameters to help prevent further complications in the brain. Our responsibilities also include hourly neurological checks that entail checking for level-of-consciousness changes and pupillary response as well as maintaining external ventricular devices (EVDs). These EVDs allow
us to monitor the intracranial pressure of the patient as well as draining and measuring cerebrospinal fluid at an appropriate rate. An injury to the brain can damage the brain’s ability to maintain the body’s regulation system such as the heart rate, respiratory rate and temperature. Our nurses closely monitor these vital signs for changes in order to treat when necessary. Patients who have undergone surgery on one of their most vital organs can be very tenuous requiring mechanical ventilation, sedating medications and tight control of vital signs. On our unit, we take pride in our ability to provide and maintain this high level of care for our patients.

Families who have loved ones under our care look to their nurse to provide support and comfort during their time with us. Many of the patients with neuroscience needs will require prolonged stays in our specialized unit to meet their medical goals. It is during this time we, as nurses, are able to learn about the people they were before coming into the hospital and oftentimes form a bond with their families that exceeds simple nurse/family/patient relationships. We love when our patients and their families return to us months after discharge to allow us to see their progress and celebrate their successful recovery with them. Seeing your patients return to a level of function more closely resembling their baseline is one of the best gifts we receive working in the NSCIU, and it is so rewarding knowing that the care you gave made a positive difference in their lives.

Patients and families who come to the NSICU here at Palmetto Health Richland can take comfort in knowing they are being cared for by a highly trained neuroscience team that is dedicated to providing the timely and compassionate care we would want for our families and ourselves.

Call 803-360-0023 for brain and spine tumor referrals.

Our sub-specialized service offers:

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Studies have shown that one of the challenges faced by emergency room providers and referring physicians is fast and efficient access to neurological and neurosurgical physicians in tertiary medical centers. Palmetto Health’s 4-BRAIN line allows emergency room providers and referring physicians to speak directly with a neurosurgeon or neurologist without going through an operator or long waits on the phone. Neurological problems that the 4-BRAIN line may be used for include intracerebral hemorrhages, subarachnoid hemorrhage, aneurysms, vascular malformations and brain tumors. The 4-BRAIN line is answered 24 hours a day, seven days a week.

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Contact us for more information or to refer a patient

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Call 844-64-BRAIN (27246) for emergent neurosurgical transfers.