Le Bonheur to open Neurosurgical ICU

Le Bonheur’s Neuroscience Institute will open a six-bed Neurosurgical Intensive Care Unit (Neuro ICU) in January 2013. Located on the hospital’s Sixth Floor, the unit will care for patients after an elective neurosurgery. This primarily includes brain tumor, epilepsy and spine surgery patients.

Frederick Boop, MD, chairman of the Department of Neurosurgery and co-director of Le Bonheur’s Neuroscience Institute, and Stephanie Storgion, MD, pediatric critical care specialist, will serve as the unit’s medical directors.

“We hope that by having a dedicated Neuro ICU with dedicated nurses and staff, we can provide a higher level of care for these patients,” added Boop.

“As our Neuroscience Institute continues to grow, so does the complexity of the patients referred here from around the country and around the world. We are now at a point where a dedicated critical care unit for neurosurgery patients will take us to the next level of capability.”

Neuroscience Institute: 2012

In 2012, Le Bonheur’s Neuroscience Institute offered care for thousands of children affected by tumors, epilepsy and other neurological conditions. Highlights include:

**By the Numbers**

- 6,170 Patient days
- 2,430 EEG lab tests
- 912 Sleep studies
- 165 Magnetoencephalography (MEG) studies
- 2,026 Epilepsy Monitoring Unit monitored days
- 8,424 Neurology clinic visits

**84 percent of patients are seizure free six months after epilepsy surgery.**

**Joint St. Jude and Le Bonheur brain tumor program survival rates include:**

- Medulloblastoma: 1 YEAR 82.6 percent, 5 YEAR 72.3 percent
- Ependymoma: 1 YEAR 97 percent, 5 YEAR 68.8 percent
- Glioma: 1 YEAR 91.7 percent, 5 YEAR 66.7 percent
- Craniopharyngioma: 1 YEAR 100 percent, 5 YEAR 100 percent

*annualized numbers are based on actual data from January-October 2012
Neuropsychology services expand

Neuropsychology services at Le Bonheur are expanding to enhance the level of comprehensive care for Neuroscience Institute patients.

“Neuropsychologists play a key role in a surgery evaluation and add to the multidisciplinary approach at Le Bonheur,” said Pediatric Neurologist Amy McGregor, MD.

Pediatric neuropsychologists work to identify cognitive changes associated with neurological conditions like epilepsy, brain tumors and autism spectrum disorders. Evaluation services include testing for IQ, academic achievement, memory, attention, executive function and behavioral/mood.

The team – two neuropsychologists and three neuropsychology examiners – currently sees inpatients in the hospital’s Neuroscience Unit and will open an outpatient clinic in the beginning of 2013. They have also conducted several research studies within the Institute to enhance the care offered at Le Bonheur.

“We assess neurocognitive functioning associated with a patient’s medical condition, such as epilepsy, and document current performance, possible cognitive changes, and assist with differential diagnosis. These comprehensive services are part of being a Level 4 epilepsy center,” said Nancy Clanton, PhD, one of the team’s neuropsychologists.

“Now, with the addition of an outpatient clinic, we’ll be able to expand our services to assess neurocognitive effects of a greater variety of central nervous system disorders for children.”

Institute adds new neurointerventional surgeons

Lucas Elijovich, MD, is the new medical director of Interventional Neuroradiology at Le Bonheur. He practices with Semmes-Murphey Neurologic and Spine Institute.

He also serves as a medical director of the NeuroICU at Methodist University Hospital. Elijovich completed a fellowship in interventional neuroradiology at St. Luke’s and Roosevelt Hospitals, The Hymann-Newman Institute of Neurology and Neurosurgery. Elijovich attended medical school at University of Texas Medical Branch. He serves as an assistant professor of Neurology and Neurosurgery at The University of Tennessee Health Science Center.

Elijovich will work closely with Semmes-Murphey neurosurgeon Adam Arthur, MD. Arthur is an associate professor for The University of Tennessee Health Science Center (UTHSC), Department of Neurosurgery. He also serves as director of Cerebrovascular and Endovascular Neurosurgery for Semmes-Murphey Neurologic and Spine Institute and as medical director of Vascular and Endovascular Neurosurgery at Methodist University Hospital. Arthur completed fellowship training in interventional neuroradiology and vascular neurosurgery at UTHSC and residency training in neurosurgery at the University of Utah.
Researchers study bed alarms for nocturnal seizures

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eizures that occur during sleep are particularly concerning to parents of children with epilepsy. The risk of death can be decreased with nighttime monitoring or supervision. Several products are available that claim to reliably detect seizure activity without frequent false alarms.

Le Bonheur’s Neuroscience Institute is the only center to review all three of the bed alarms on the market for home use. Two of the studies are complete, and the third is underway. Patients in Le Bonheur’s Epilepsy Monitoring Unit were enrolled in the studies.

“The ability of the seizure alarms on the market, it may be difficult for families to decide which one would fit their needs. The goal of evaluating the available models on the market is to provide more information to families who have children with epilepsy. They should then be equipped to make an educated decision on which alarm would be best for their children,” said Neurologist Stephen Fulton, MD.

The first study is “Prospective Study of 2 Bed Alarms for Detection of Nocturnal Seizures,” which was published in the Journal of Child Neurology in October 2012. This study reviewed two models of the Medpage bed alarm. The researchers, led by Stephen Fulton, MD, found that these products do not adequately detect nocturnal seizures.

The second study, “Prospective Study of the Emfit Movement Monitor,” has been accepted for publication. In this research, the Emfit movement monitor proved to perform better than the Medpage bed alarms. The Emfit detected 84 percent of nocturnal tonic-clonic seizures. The team, led by Kate Van Poppel, MD, added that advancements in these alarms to detect respiration or heart rate may improve the ability to detect seizure events.

The third study that is now underway involves the Smart Watch, which uses a watch-like device to detect excessive and repetitive movement and signal a family member’s Android smart phone.

Neurologists edit comprehensive pediatric epilepsy text

Neurologists at Le Bonheur Children’s Hospital recently published Epilepsy in Children and Adolescents, an illustrated guide to the assessment, diagnosis and treatment of epilepsy in children and adolescents. The text offers the latest recommendations for best practice.

James W. Wheless, MD, served as the primary editor. He was joined by four colleagues in editing the book including Amy L. McGregor, MD, also of Le Bonheur’s Neuroscience Institute. Other Le Bonheur contributors include Neuroradiologist Asim Choudhri, MD, and Neurologists Stephen Fulton, MD, and Kate Van Poppel, MD.

The book provides an overview of the classification of epilepsy syndromes including:

• Diagnostic evaluation of childhood epilepsies
• Principles of treatment
• Generalized seizures and generalized epilepsy syndromes
• Partial onset seizures and localization-related epilepsy syndromes
• Epilepsies relative to age, etiology or duration
• The full range of treatment options: medical, surgical

Epilepsy in Children and Adolescents is available at wiley.com. A 20 percent discount can be applied with the code ECA12.
Neuroscience Research: 2012 Peer-reviewed journal articles


Dittam LC, Qayyum S, O’Brien TF, Choudhri AF, Wilson MW. Chondromyxoid fibroma of the orbit. Ophthal Plast Reconstr Surg. 2012 (DOI: 10.1097/IOP.0b013e31823bd1e0)


