

PEDIATRICnotes

Fetal Center launches

A new program at Le Bonheur Children's ensures that fetuses with congenital anomalies are connected to a team of sub-specialists before birth. The Fetal Center offers high-risk pregnant mothers a comprehensive and coordinated plan for the baby's care. The center offers a range of services from pre-natal diagnosis to fetal interventions to after-birth care.



Giancarlo Mari, MD

Led by maternal-fetal medicine physician, Giancarlo Mari, MD, the Fetal Center, is the only one of its kind in the area and one of less than 20 in the country. Mari also is a professor at the University of Tennessee Health Science Center and practices with UT Medical Group Inc.

The Fetal Center team includes a nurse coordinator, genetics counselor, ultrasound technologist, and specialty physicians in areas including cardiology, neurology and general surgery. Other professionals may be involved, including social work, lactation consultants, Child Life, palliative care, spiritual care and clinical nurse specialists.

"When our patients know what's going to happen and how our comprehensive team is going to care for their baby, they feel a great deal of comfort," Janet Tucker, nurse coordinator, said.

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Please submit comments or story ideas by calling 287-6030.

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Flu response receives national attention

Le Bonheur health care workers first in the country to receive H1N1 vaccine

Health care workers at Le Bonheur Children's were the nation's first to receive the H1N1 vaccine, when the Centers for Disease Control kicked off its campaign last month to immunize the country against the new strain of influenza.

Since last August, Le Bonheur has seen record numbers of children in its Emergency Department, many with flu-like symptoms. As the Mid-South became one of the hardest hit flu areas in the country, Le Bonheur earned national attention for its response to the flu – including a tent erected outside the hospital to screen patients.

"It's important that our health care system is able to respond to the needs of our patients, said Keith English, MD,



Health officials bring out the country's first 100 doses of the H1N1 vaccine. Pictured from left are Le Bonheur Administrative Director Janet Phillips; Center for Disease Control Director for the National Center for Immunization and Respiratory Disease Anne Schuchat, MD; Tennessee Department of Health Commissioner Susan Cooper and Le Bonheur Children's President Meri Armour.



Tennessee Department of Health Commissioner Susan Cooper, left, administers the nation's first dose of H1N1 vaccine to Le Bonheur Infant Care nurse Holly Smith.

medical director of infectious disease, Le Bonheur Children's. "This vaccine is one way we as health care workers can make sure we're healthy and there for our patients when they need us."

Le Bonheur's response to the community's H1N1 influenza outbreak garnered the attention of several national media outlets – given Memphis was hit especially hard with the flu in early fall. The hospital erected a flu screening tent in mid-September to help quickly screen children seeking medical help in the Emergency Room. At the peak of the outbreak, more than 400 children came to the Emergency Department each day. About half of those came with flu-like symptoms.

fall 2009

Researcher studies genetic influence on fetal growth

A Le Bonheur investigator is studying how DNA sequence variation can affect fetal growth.

Ronald Adkins, PhD, a researcher with Le Bonheur and the Children's Foundation Research Center will specifically study DNA methylation, or why some genes are turned off and on in a DNA sequence. He will also study how a mother's diet can affect the way DNA methylation controls genes.

Both studies have received National Institutes of Health funding and are expected to run for two years.

"We want to find out the role of genetics in fetal growth and see if there is something we can do to promote fetal growth," said Adkins, who began the studies this fall.

He also expects to look at whether there's a correlation between DNA methylation and diabetes and cardiovascular disease.

Adkins also serves as an associate professor for genetics of fetal growth and gestation at the University of Tennessee Health Science Center.

Ronald Adkins, PhD

Parent works to improve hospital clinic

As the mom of a child with spina bifida, Karin Buchanan was missing a lot of work to take her daughter, Bree, to various appointments with specialists individually.

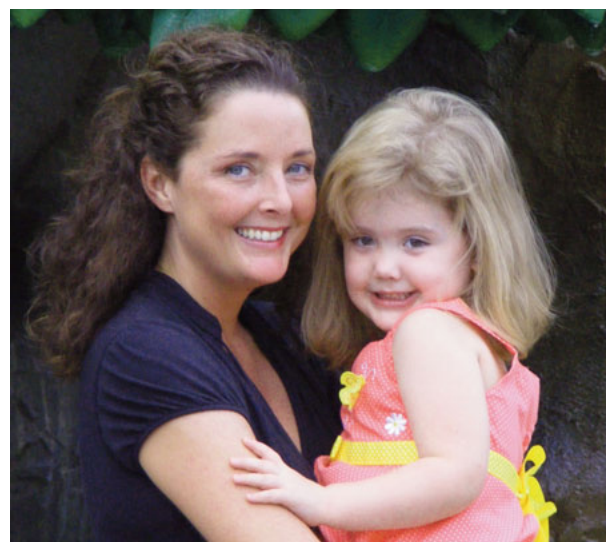
So at one of those appointments, she asked Bree's neurosurgeon if there was a better way to organize Le Bonheur Children's spina bifida clinic to make it easier for families. If families were frustrated with how the existing clinic operated, why, then, wasn't anyone making it better?

Today, Buchanan is helping make changes. For the past 18 months, she has worked with hospital leaders to create a more coherent spina bifida clinic designed around the needs of families. Each month, the group implements a new change to the clinic and solicits feedback to measure how those changes are being perceived. So far, families like what they see.

"My involvement with the clinic is really just an extension of my existing partnership with the hospital and Bree's physicians," Buchanan said. "The doctors all bring expertise in their own fields, but I am the expert on my daughter. Le Bonheur has empowered me to be a vital component of Bree's medical team."

Furthermore, she feels her voice is being heard. When Le Bonheur's spina bifida clinic needed help developing an emergency summary form for parents to carry with them, they looked to Buchanan for help. Using information she already carries with her for this purpose, Buchanan was able to offer input on how to design the form. Bree, for example, has a latex allergy – and it's the first thing Buchanan tells all medical professionals, long before they tackle any other medical conditions.

"Karin is constantly giving back to the hospital and is working hard to improve the spina bifida clinic," said Rick Boop, MD, Bree's neurosurgeon. "A parent's perspective is vital in



Le Bonheur parent Karin Buchanan, left, has been integral in improving the hospital's spina bifida clinic. She's pictured above with daughter Bree, 3.

helping us improve the care we offer children."

In March, she represented Le Bonheur as a parent and patient advocate at the First World Congress of Spina Bifida Research and Care. She and Bree have also participated in a couple of fundraising events for the hospital. She hopes their participation helps raise awareness about spina bifida.

"The doctors all bring expertise in their own fields, but I am the expert on my daughter. Le Bonheur has empowered me to be a vital component of Bree's medical team."

- Karin Buchanan

"I feel called to advocate for children with spina bifida, in whatever capacity I can," Buchanan said. "I am incredibly lucky that Bree is high functioning and truly grateful she has had minimal complications thus far. I know there are parents out there who are overwhelmed, whose children are much more involved ... and I feel a responsibility to advocate for those families, because that could easily be us in the future."

Clubfoot clinic finds success with outcomes, satisfaction

A clubfoot clinic at Le Bonheur Children's is practicing innovation in more ways than one.

Its approach to bringing surgeons, therapists and child life specialists into one clinic – and noninvasive technique for treating clubfoot – has yielded good outcomes and satisfied families.

"Our multidisciplinary approach allows for patients and their families to see doctors and therapists all in the same location – while our child life specialists make visits even easier on our families," said Orthopedic Surgeon Derek Kelly, MD.

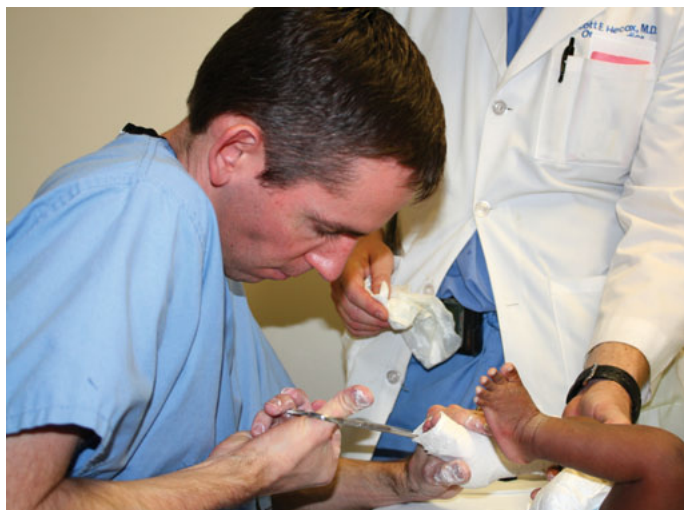
In fact, the clinic has posted 100 percent satisfaction scores the first seven months of 2009, the latest data available.

Kelly also attributes the scores to families' ability to see real progress in their child's condition. He and his team use the minimally invasive Ponseti method – which calls for five to six weeks of weekly manipulations to a child's foot or feet, followed by plaster

cast applications. At the end of the casting period, most children require a minor surgery to lengthen the heelcord before spending another three weeks in casts.

Established decades ago, the treatment has recently gained attention because of a 35-year follow-up study showing that feet treated with this method are strong, flexible and pain free. At Le Bonheur, both physicians and therapists are trained in the method and are able to apply casts.

Kelly, who also practices with Campbell Clinic Orthopaedics, is waiting on IRB approval to study the effects of having both physicians and physical therapists cast patients. Kelly said he and his team will look at treatment success, the number of casts



Pediatric Orthopedic Surgeon Derek Kelly, MD, helps cast an infant with clubfoot. Kelly leads Le Bonheur's clubfoot clinic, which has seen great success using a multidisciplinary approach.

that must be used to complete treatment, patient satisfaction and complications.

As part of the study, he expects to follow 250 patients for at least five years.

SHORT SCRIPTS

Anand wins international pediatrics award

Le Bonheur Children's Chief of Critical Care Kanwaljeet J.S. "Sunny" Anand, MD, was recently awarded the esteemed Nils Rosén von Rosenstein Medal from the Swedish Society of Medicine and the Swedish Pediatric Society.



K.J.S. "Sunny" Anand, MBBS, D.Phil.

Presented to just three pediatricians once every five years, this international award was given to Anand for his groundbreaking research on neonatal and pediatric care. In his lecture entitled "Love, Pain, and Intensive Care in Pediatrics," Anand addresses the criticality of compassionate care in response to neonatal and pediatric pain.

His subsequent emphasis on effective management of hospitalized children has strengthened the ever-evolving field of pediatrics.

Article addresses multidisciplinary clinics

In a special report for Pediatric Health, Le Bonheur investigators study how a high-volume, multidisciplinary outpatient fracture clinic can use midlevel providers – like nurse practitioners and physical therapists – to deliver high-quality fracture care in an efficient and cost effective manner.

The article addresses that while the number of pediatric fractures are increasing, the number of pediatric orthopedic surgeons available to care for patients is decreasing. Furthermore, an increasing number of uninsured and underinsured pediatric patients have overwhelmed emergency departments – requiring caregivers to find better ways

to deliver care to large numbers of patients.

The article is authored by Le Bonheur orthopedic surgeons William Warner, MD, and Jeff Sawyer, MD, along with orthopedic nurse practitioners Leslie Rhodes and Ambre Huff.

Fellows present at national conference

Le Bonheur Emergency Medicine fellows Drs. Mindy Longjohn and Shehma Khan presented scholarly projects in October at the National Conference & Exhibition of the American Academy of Pediatrics.

Longjohn presented her project titled "Accuracy of Bedside Echocardiography by Pediatric Emergency Physicians" while Khan presented "Closed Manipulation of Distal Radial Fractures by Pediatric Emergency Physicians."

Team implements routine HIV screenings for teenagers

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A study published in the October issue of *Pediatrics* suggests a strategy for implementing free, routine HIV screenings of adolescents recommended by the Centers for Disease Control and Prevention. Researchers at Le Bonheur Children's and St. Jude Children's Research Hospital collaborated on the study, which is the first to include adolescents.

Co-authors include Timothy Minniear, MD, Barry Gilmore, MD, Sandra Arnold, MD, Patricia Flynn, MD, Katherine Knapp, MD, and Aditya Gaur, MD.

In 2006, the CDC released HIV testing recommendations. About 55,000 people are infected each year, and 25 percent are unaware of their status. Those who are unaware of their status are responsible for more than half of the new infections. Testing implementation has been slow because of conflicting instructions, issues of informed consent and stigma. Also, adolescents are less likely to engage in routine medical care and discuss their sexual activity.

Researchers implemented the CDC recommendations in Le Bonheur's emergency department beginning March 2008. They surveyed health care providers and developed a protocol for screening 13 to 18 year olds. Screening was provided in an opt-out manner, and reminders were incorporated into computerized patient registration. Of the patients approached for screening, 86.7 percent of patients consented.

"Routine, opt-out HIV screening for adolescents serves as a reminder for busy clinicians to address issues of sexual activity, risk and safer sex practices," Gaur said. "It also tightens the safety net compared to targeted testing based on certain patient risk factors."

Gaur suggests that adolescent-care providers should initiate voluntary HIV screening until the number of positive tests is less than one per 1,000, at which point such screening is no longer cost-effective.

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