More options than you think
Today’s cancer treatment offers options that even surprise a nurse

Minutes from a devastating stroke
Doctors retrieve a clot from a young woman’s brain just in time

Better than expected
Heroic effort is made to save a young girl’s leg

UK HealthCare at Turfland
New, larger primary care clinic to open on Harrodsburg Road
2 Better than expected
When nurse Samantha Eddington saw her daughter’s injury, she thought the leg was lost. Yet, thanks to the heroic efforts of family and caregivers, one year later 5-year-old Katie still has her leg and all of the options that gives her.

8 Options when it feels like there are none
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14 When minutes count, all must know exactly what to do
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On the cover: Nurse and patient Susan Parker with her American Saddlebred horse Spirit at Spring Hill Stables in Georgetown, Ky. Our thanks to owners Todd and Alison Walker for their help.

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In this issue of Making a Difference, you’ll read highly personal stories of life-changing moments for three patients. Each describes care they regard as extraordinary.

UK HealthCare has recently received significant recognition from national organizations for the quality of care we provide.

• In July 2013 UK Markey Cancer Center became the only National Cancer Institute-designated center in Kentucky.
• Last fall the University HealthSystem Consortium (UHC) recognized us with its “Rising Star Award” for significant improvements in patient safety, mortality, clinical effectiveness and equity of care.
• The national accrediting body for hospitals, The Joint Commission, named UK Chandler Hospital a “Top Performer in Quality Measures” for exemplary performance in five areas using evidence-based clinical processes shown to improve care – more areas than any other Kentucky hospital.
• Earlier this year the UK Comprehensive Stroke Center at Kentucky Neuroscience Institute (KNI) again received the highest awards from the American Heart Association/American Stroke Association for the quality of our stroke care and reducing time to treatment.
• At the same time, KNI’s Comprehensive Epilepsy Center was once again given the highest designation (Level 4) from the National Association of Epilepsy Centers.

This is just a sampling of the recognition and praise that has come our way; all of it the result of our concerted effort to be the state’s premier provider of advanced medicine.

Ask Courtney Wilson, Susan Parker and the Eddington family if it matters that we aspire to provide care on par with the nation’s best academic medical centers. We are challenging ourselves to be better each day.

I’m proud to represent Kentucky’s finest collection of specialists and talented staff, and we thank each of you who trusts us with your health care.

Michael Karpf, MD
Executive Vice President for Health Affairs
UK HealthCare® / University of Kentucky
She’s back! Katie Eddington, now 5, has reclaimed the joys of childhood after a tragic accident last year.

Pint-size fighter beats the odds

Samantha Eddington, a nurse at the UK Markey Cancer Center, was heading home from Lexington one afternoon in the fall of 2013 when she received the kind of phone call that is every parent’s nightmare. Her 4-year-old daughter Katie had been injured by a lawnmower and was being taken by ambulance to the Makenna David Pediatric Emergency Center at Kentucky Children’s Hospital.

Eddington didn’t know what to expect, but prepared herself for the worst as she waited for Katie’s arrival in the pediatric trauma center. The Eddington family home is just six miles from Georgetown Community Hospital where Katie was initially evaluated and then immediately transported by ambulance to Kentucky Children’s Hospital.

“I remember there were people everywhere waiting for her arrival, and a chaplain was there for me,” said Eddington. “They were so prepared for her; there was
no chaos, no fear, just very calm, efficient emergency care.”

Katie had suffered extensive injuries to her right leg with the majority of the injury located from just below her knee cap all the way up to about an inch from the groin. The mower blade had severed the knee cap and she had significant tissue and tendon loss from the thigh. Katie’s femur bone was exposed.

“Amazingly, we later learned that she did not have any severed nerves and none of the major blood vessels were injured,” said Samantha Eddington. “The back part of her leg was intact.”

“In emergencies, the first responders are so important to the patient outcome,” said Joseph A. Iocono, MD, chief of pediatric surgery and director of the pediatric trauma program at Kentucky Children's Hospital.

“The team at Georgetown Community Hospital did a great job stabilizing Katie and getting her quickly to the pediatric trauma center where an entire hospital can be mobilized for her care.”

According to Iocono, the trauma team wants to quickly address any life-threatening or limb-threatening aspects of an injury like Katie’s. “We wanted to make sure we had good airway control; that we had good IV access; and then we wanted to get Katie to the operating room as quickly as possible,” he said.

Orthopaedic trauma surgeon Raymond D. Wright, MD, said Katie’s injuries involved extensive skeletal and soft tissue damage, including open fractures to the femur, patella and tibia bones, involving the growth centers of the femur and tibia.

“The most important thing for Katie was to quickly perform a surgical debridement and irrigation to remove contamination, dead tissue and bone. Then we gave her bones stability with an external fixator,” he said.

Open fractures are some of the most challenging to treat. And according to Wright, the goals of open fracture management include the prevention of infection, fracture healing and the restoration of function.

“Kids bones tend to heal rather quickly, but when the bone is exposed to open air, healing takes quite a bit longer,” he said. “And then infection is a very real problem with this kind of wound.”

When Samantha Eddington saw her daughter’s injuries for the first time, she immediately resigned herself that the leg would have to be amputated.

“I guess I was in shock, but at the time, I looked at it very clinically and given the extent of the injuries, I was sure Katie would lose her leg,” she said. “So I was truly shocked when the surgeons later told me they had been able to save the limb.”

But Katie’s recovery had only just begun. Wright and plastic surgeon Leslie Wong, MD, continued to treat Katie over the next few weeks and performed several subsequent procedures to clean her wounds,
“A wound of this nature is contaminated with so much dirt, grass and fine particles, it is very difficult to get it completely clean, so we anticipated an infection would develop,” said Iocono. “Over the next few weeks, Katie had to be anesthetized multiple times so that we could clean and debride her wounds, and we administered some very heavy doses of antibiotics to fight the infection in the soft tissue and bone.”

“The antibiotics, the anesthesia, coming on and off of a ventilator multiple times – all of it took a real toll on Katie,” recalls her mother. “She was so sick from the medication, she stopped eating and we had to put in a feeding tube to keep her nourished.

A long vigil

The extended stay took its toll on Katie’s family, too. Eddington and her husband, Russell, only left the hospital a couple of times during the entire stay. As a nurse and a mother, Samantha Eddington recalls that in those initial days she could look at Katie clinically but somehow had a hard time looking at Katie and really seeing her daughter.

She can talk matter-of-factly about Katie’s injuries, treatment and recovery, but Samantha Eddington is quick to admit that when it comes to talking about how their entire family was cared for by the physicians, nurses and staff at Kentucky Children’s Hospital, she falls apart.

“I remember one night in the PICU a nurse named Jerri [Prince] was on duty,” she recalls. “She came into the room and told me she had some things to do for Katie and asked that I step out for a few minutes. When she told me I could come back

removing dead tissue and monitor the healing of her bones. Critical care, infectious disease, nutrition, child life and other specialists all contributed to different aspects of Katie’s care, coordinated by the pediatric surgery trauma team, said Iocono.

Katie remained hospitalized in the Pediatric Intensive Care Unit (PICU) for two and a half weeks, underwent multiple surgeries and battled significant infection before she could sleep in her own bed again some 30 days after the accident.

During the initial surgery, Wright had reattached Katie’s knee cap and the tendon that runs along the top of the thigh, both of which had been severed in the accident. Ultimately, the damage was too extensive for those reattachments to be viable.

Waging war on infection

The surgical team knew that once the bone fractures had been addressed, the biggest concern would be infection.

“Katie is an amazing, remarkable child. She didn’t seem to have any pain, she got up and moved around – nothing stopped her.”

– Leslie Wong, MD

Plastic surgeon Lesley Wong, MD, asks, “Will the leg grow as needed, and if it does, will it function the way she needs it to?”
“[Jerri] had brushed out Katie’s long hair and had braided it to one side. She had also put a new Halloween pillowcase on Katie’s pillow. I think it was at that moment that I saw my little girl again.”

– Samantha Eddington

into the room, she had brushed out Katie’s long hair and had braided it to one side. She had also put a new Halloween pillowcase on Katie’s pillow. I think it was at that moment that I saw my little girl again.

“I can’t tell you what those kinds of gestures mean to a mom. Katie was on a ventilator so much of the time in PICU, and I was afraid she would vomit and aspirate [inhale the stomach’s contents], so I just wouldn’t go to sleep. One night Jerri promised me if I would just lie down and get some rest, she would not leave the room,” said Eddington.

“There were several nights Jerri never left our room the entire night.”

Jerri Prince, who has worked in the PICU at Kentucky Children’s Hospital for 22 years, said Katie is one of those patients who touched her deeply.

“Her parents were so anxious and afraid, I knew they needed a break that night,” Prince said. “Nurses in the PICU and other parts of the children’s hospital often do small things to make the room look less sterile, less institutional and to put some degree of childhood back in what are such stressful and fearful circumstances.

“We know small gestures like putting a Mickey Mouse sheet under a sick baby or washing and combing a sick child’s hair and tying a ribbon makes a huge difference for the family,” she continued. “Often the child is unconscious in the PICU, so often it is more for the family than the patient.”

Though her work can be stressful and painful when there are negative patient outcomes, Prince has never wanted to work anywhere else.

“When a child like Katie gets better and goes home to resume life, those are the times you hold on to,” she said. “And that’s what gets us through the bad times when a child can’t recover. And fortunately, there are far more good outcomes than bad.”

Prince also credits the team of nurses, physicians and other clinicians, as well the positive work environment with her longevity. “We are a close-knit group that supports one another and celebrates together when a child has a good outcome,” she said.

Eddington worries that she cannot remember all the incidents of care and the individual names of those who took care of Katie. “I want each and every one of them to know that they carried me until I could stand again, and they carried Katie until she could stand.” she said.

**Reconstructing Katie’s leg**

When surgeons felt confident they had a clean wound and infection under control, plastic surgeon Leslie Wong, MD, began the process of...
reconstructing Katie’s thigh and closing the open wound.

Wong performed a microvascular free flap, a procedure in which a muscle and associated blood vessel are actually removed from the patient’s back, and in this case, used to cover the exposed bone in Katie’s thigh.

“We actually use suture material that is as fine as a human hair to reattach the blood vessel and ensure good blood flow to the muscle,” explained Wong.

Wong also performed skin grafts, removing paper-thin layers of skin from other parts of Katie’s body to begin covering the open wound.

“Katie is an amazing, remarkable child,” said Wong. “I think about

Katie returned to Kentucky Children’s hospital to visit some of the nurses who provided her care.

how an adult patient would handle these types of procedures and you would expect them to require a lot of pain medication and be reluctant to get out of bed. But nothing stopped Katie. She didn’t seem to have any pain, she got up and moved around – nothing stopped her.”

Eddington said the plan now is to see how far Katie can go with the injured leg. In the future it is possible surgeons can put a new tendon in her leg or rebuild the knee cap to give her more function.

“But there is still a possibility Katie could have more function with a prosthetic,” said Eddington. “If the time comes that Katie does require an amputation, I don’t ever want the team at the children’s hospital to view it as a failure. Even if later an amputation is required, they have saved so much more of the limb than could have been done at the outset; she will have a much stronger limb for a prosthetic, which means everything for her quality of life.”

Katie is now in a position where she and her family can make thoughtful decisions. “She has multiple options going forward,” added ortho surgeon Wright, “and none of them are emergencies or life-threatening; now she has choices and they have time to make those choices outside of an emergency situation.”

Going home

The long hospital stay had a significant effect on Katie. At the 30-day mark, her mother felt like something needed to be done.

“She had stopped eating, she wasn’t talking much – I felt like I was losing her spirit,” said Samantha Eddington. “Even though she still had the feeding tube, was on IV antibiotics and was scheduled for another surgery in four days, I wanted to take her home. Katie needed to see that this wasn’t going to be our normal from now on.”

Iocono and the rest of the team were persuaded because Eddington is a nurse. They were confident she could take care of Katie at home. And as it turns out, mom was right. Once home, Katie’s personality began to re-emerge and her appetite returned. She has since been readmitted for additional procedures, but the hospital stays have been relatively short.

Currently, Katie has some loss of function in her leg. She has a long way to go in rehabilitation and more surgery in the future. She gets follow up care and physical therapy at The Shriners Hospital for Children. She can walk with a stabilizer on her leg and can even kick a soccer ball.

“I want each and every one of them to know that they carried me until I could stand again . . . .”

– Samantha Eddington
If your child is sick or injured beyond your ability to care for them, get them to the nearest hospital that sees children.”

– Joseph Iocono, MD, director of pediatric trauma, Kentucky Children’s Hospital

The evaluation measures standards in pediatric surgical care, and it also ensures that we have the additional resources to take care of the entire family during those challenging times when a loved one is seriously injured,” Iocono said.

“More than anything else, this verification demonstrates the commitment of UK HealthCare and Kentucky Children’s Hospital to the well-being of all our children. Kentucky Children’s Hospital offers all the necessary pediatric trauma services required to meet our patients’ and their families’ needs.”

In trauma care, the shorter the time from injury to arrival at a trauma center, the better are the patient outcomes.

“If your child is sick or injured beyond your ability to care for them, get them to the nearest hospital that sees children,” said Iocono. “If your choice is between a trauma center and a hospital that is equally far away, take them to the trauma center where they can receive specialized pediatric care.”

UK HealthCare has maintained continuous Level I verification since 1990, serving as the region’s leader in trauma patient care, research and education.

Pediatric surgeon Joseph Iocono, MD, says the team remains focused on optimizing Katie’s life – with or without the damaged leg.

Katie will start kindergarten this fall, take swimming lessons and learn to play the piano.

“If asked recently what she most wanted to do, and it broke my heart when she said she wanted to learn to ride a bike because that is one thing she may not be able to do,” said her mother.

The Eddingtons bought Katie a bright red hand-pedal bike designed for differently-abled children.

“The bike came with features Katie didn’t need like a high back seat with a seat belt,” said Eddington. “Katie took one look at the bike and said, ‘I don’t like it.’”

Her parents immediately started to explain they could get her a regular bike seat and make additional modifications, but Katie put her hand up to stop them and said, “I don’t like it because it’s red; I wanted a pink bike.”

“Katie is back,” said Eddington. “She is just a 5-year-old who wants a pretty pink bike.”

Katie ditched her walker for a snazzy pink scooter that enables her to zip around faster.

Region’s Only Level I Pediatric Trauma Center

The Makenna David Pediatric Emergency Center at Kentucky Children’s Hospital offers the region’s only 24-hour pediatric emergency and trauma care. The UK Level I Trauma Center, which houses the full trauma program, is verified by the American College of Surgeons for both pediatric and adult Level I trauma – the most serious cases.

While offering all the advantages of our world-class emergency department, the pediatric emergency center features a separate entrance and child-friendly waiting and treatment areas so that children have an emergency facility dedicated to their specific and unique medical needs.

Level I pediatric trauma center designation signifies Kentucky Children’s Hospital and UK Chandler Hospital are leaders in pediatric trauma care for Central and Eastern Kentucky, said Joseph A. Iocono, MD, director of the pediatric trauma program and chief of pediatric surgery at Kentucky Children’s Hospital.
A n avid runner, passionate equestrian and nursing professional, Susan Parker has always been fit and healthy and never needed much medical care. So when she developed an annoying cough in January 2011, she did what most anyone would do – treated it as a mild cold or virus. But the cough persisted into March, and at the urging of fellow nurses, Parker decided to see her primary care physician.

“I had no symptoms other than the cough,” recalled Parker. “There was no pain, no fever, no weight loss or fatigue. I still wasn’t very concerned.”

Her family doctor ordered a chest X-ray and it revealed swelling in the chest lymph nodes and what appeared to be a mass wrapped around one of her bronchial tubes. The chest X-ray was quickly followed by additional diagnostic testing including a bronchoscopy to biopsy the lymph nodes and look for further invasion.

Although Parker knew the tests might reveal something serious, she held out hope for good news. Nonetheless, there was an initial shock in hearing the diagnosis – Stage IIIIB adenocarcinoma of the lung.

**Diagnosis: lung cancer**

Adenocarcinoma of the lung is a form of non-small cell lung cancer. Eighty percent of lung cancers are non-small cell cancers, and of these, about

Susan Parker feels blessed to be a patient of Drs. Arnold and McGarry. Their care plan has given her quality time with family, friends and her American Saddlebred horse Spirit.
50 percent are adenocarcinomas. Adenocarcinoma of the lung begins in the outer parts of the lung and it can be present for a long time before it is diagnosed. It is the type of cancer most commonly seen in women and is often seen in nonsmokers, like Parker.

“While my trust in God came into play very early on, I felt I was most likely terminal with a short time to survive,” Parker said. “Of course I was looking for a cure. I wanted someone to put everything right again, but I was not feeling very optimistic.”

“I [was] not at all sure that I wanted to pursue treatment. I appreciate they were both very straightforward with me, mapped out all of my options, and involved me in the decision-making.”

“I went to those initial appointments with the oncologists not at all sure that I wanted to pursue treatment,” she said. “But Dr. McGarry’s big smile and his very positive attitude go a long way to encourage a patient who has been given this kind of diagnosis. He took a great deal of time to walk me through the plan for radiation and told me he believed it would be a monumental mistake to not treat my cancer.

“I appreciate they were both very straightforward with me,” Parker added, “mapped out all of my options, and involved me in the decision-making. Then they told me to take some time to think about it.”

Parker said she had already started to think about dying instead of focusing on living and was not sure she was willing or strong enough to mount the fight the doctors said was ahead of her.

“They told me lung cancer is very hard to cure; they didn’t make any promises about the outcome, but they did believe they could give me more time to live – quality time – and I certainly wanted that. Alternatively, if I did nothing, I knew what the outcome would be.”

A decision is made to fight

In June 2011, Parker began the 31-day regimen of daily radiation treatments combined with chemotherapy administered every other week for six weeks.

“Susan is a woman of a lot of faith. She needed to define what was important to her, and we needed to listen to that,” said Arnold. “I am so glad she decided to get treatment, but if she had decided to walk away, I would have supported that, too. She committed to it, she has done everything we’ve asked her to do, but no doubt she has days when she feels badly.”

Parker doesn’t talk much about the side effects of the treatment, choosing instead to focus on the positives. She credits faith, her prior fitness level, and the support and prayers of friends and family with her ability to stay strong, active and involved even on the lowest days.

Her cough was resolved fairly quickly, and her post-treatment evaluations in November 2011 and January 2012 showed the affected lymph nodes had shrunk. Almost a year after her initial diagnosis, she had regained lost weight and had started running and riding again. Then, in July 2012, a scan revealed the original cancer remained stable, but there were new areas of concern in the lining of the left lung.
“Susan . . . needed to define what was important to her, and we needed to listen to that. I am so glad she decided to get treatment, but if she had decided to walk away, I would have supported that, too.”

– Susanne Arnold, MD, medical oncology

**Going the distance**

“Early on, I had asked Dr. Arnold what we would do if the treatments didn’t work,” said Parker. “She told me they had other tools in the toolbox. I figured now it was time we tapped those other tools, which included more chemotherapy and targeted radiation treatments.

“Dr. Arnold explained that further chemotherapy may impact my quality of life, but I believed that I needed to keep pushing,” Parker said. “Dr. McGarry assured me that as long as there was more he could do for me, he would do it.”

McGarry said cancer treatment must always balance quantity of life with quality of life. “Living longer doesn’t always equate to a good quality life,” he said. “Our goal is always to give our patients quality time, and in Susan’s case we have been able to do that.”

The next phase of her treatment included a different type of chemotherapy, followed by targeted radiation treatments aimed at the new cancer. The second round of chemotherapy lasted three months and proved to be the harshest. The treatment resulted in damage to peripheral nerves in her hands and feet that caused numbness, weakness and discomfort.

“Susan had just about every complication she could have from the second round of chemotherapy and subsequent radiation, but she continued to see the cup as half full, rather than half empty,” said Arnold.

**Targeted radiation zeroes in on the cancer**

In February 2013, Parker received three targeted high-dose radiation treatments, following the three-month chemotherapy regimen. Stereotactic radiation therapy uses a specialized type of focused external beam radiation to target a well-defined tumor. Aided by detailed imaging, this therapy delivers the radiation dose with extreme accuracy.

“One of the problems with lung cancer is that you have normal tissue all around the diseased tissue,” said McGarry. “Our goal is always to give our patients quality time, and in Susan’s case we have been able to do that.”

McGarry said cancer treatment must always balance quantity of life with quality of life. “Living longer doesn’t always equate to a good quality life,” he said. “Our goal is always to give our patients quality time, and in Susan’s case we have been able to do that.”

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**Benefit of finding lung cancer early**

Stereotactic radiation can often be the first course of radiation treatment in cases of Stage I lung cancer, where the cancer is much smaller and localized. According to McGarry, this approach has a better than 90 percent chance of getting rid of the cancer with only three doses of stereotactic radiation.

For that reason, McGarry stresses the importance of early detection for lung cancer. “If we can treat these cancers early, before they spend too much time growing, we have a much better chance of curing. That’s where screening comes in and understanding the risks and early signs of possible lung cancer,” he said.

“When there are well-defined tumor sites that we can pinpoint and attack aggressively, stereotactic radiation is an excellent treatment option.”

– Ronald McGarry, MD, radiation therapy
Time was on her side

In March 2013, a scan showed little change in the cancer but by June, Parker was coughing and the lymph nodes were enlarging again.

“That was probably my lowest point,” she said. “I have always believed in healing; I have believed there is more for me to do in this life, but at that point I just wasn’t thriving.”

Yet time was on her side.

“For Susan, one of the most amazing things has been the timing of everything,” Arnold observed. “When her cancer recurred, she was luckily in a period of time in cancer research that we could do molecular testing of her cancer and we could use a targeted agent, crizotinib, which is taken twice a day, to treat her cancer. It has provided her a longer survival and a much better quality of life.”

When Parker was first diagnosed in 2011, said Arnold, the drug crizotinib was not FDA approved.

“We would have treated her the same way with conventional chemo and radiation because she was locally advanced, but at that unique point in time when she needed another option, research had developed a targeted agent to treat her particular type of cancer.

“Ten years ago that couldn’t have happened and she probably wouldn’t be alive because she would not have had that option,” said Arnold. “Now she does, and that is a very rewarding thing for all of us who treat her but also a wonderful opportunity for her.”

A great deal has been learned in the past 20 years about lung cancer and the types of non-small cell lung cancer.

“‘Never smokers’ or ‘light smokers’ tend to get adenocarcinoma. Adenocarcinoma is more responsive to targeted therapies and has specific gene mutations driving it that are different from a smoking-related lung cancer,” said Arnold.

Parker has a very specific gene mutation that occurs in only 4 percent of adenocarcinoma cases, and adenocarcinomas account for only 30-40 percent of all non-small cell cancers. “So, Susan has a very rare mutation indeed,” said Arnold.

Parker recalls the day she went to oncologist Arnold’s office to get the results of the molecular testing knowing full well there was only a slim chance she would be in the small percentage of patients whose specific cancer gene mutation could be treated by crizotinib. “When Dr. Arnold gave me the news, all I can say is we were overcome by joy and gratitude, there is no other way to describe it,” she said.

Parker began taking crizotinib in July 2013, and within three weeks
The coughing stopped and her lungs started to feel better. By autumn, the cancer had shrunk by 20 percent, and on a subsequent visit it had shrunk another 20 percent. At that point, she was having some pretty significant side effects, so Arnold reduced the dosage.

This past January, a scan indicated everything remained stable except a small change in one lymph node. If there is more growth on her next scan, McGarry can again use the stereotactic radiation to target the cancer in that spot.

“I guess I’ve been doing lung cancer research long enough to recognize the fortunate among us,” Arnold reflected. “What we have at Markey is a highly functional multidisciplinary team,” said Arnold. “We have awesome ancillary support, like a pathologist who can do molecular testing quickly, the radiologist who calls me directly if there is something out of ordinary. We have support for Susan and all our patients for nutrition, gastroenterology, and psychological and emotional support.

“Some 20 or more people form the team behind Susan, many of whom are invisible to her, but they are always there,” explained Arnold. Parker said they have not been invisible at all, and she is fully aware of and extremely grateful for the team that has been fighting alongside her.

“All of the resources and technology, research and other resources at Markey Cancer Center with the ability to provide quality cancer care for patients like Parker.

Susanne Arnold, MD, second from left, with a few members of the “invisible team” that surrounds patients like Susan Parker with a full-range of care. From left, Mary Ryles, RN; Arnold; Geoffrey Dixon, RN; Becky Cochran, RN; Jeremiah Martin, MD; and Katie Long, PharmD.
support I needed were here at Markey, available and accessible,” said Parker. “The teamwork and the wealth of resources are very difficult to describe, but everyone from the specialists and nursing team to patient transporters, housekeeping and volunteers who greet you with a smile have offered encouragement and given me strength.”

**Research helps keep hope alive**

“As a medical professional, I understood the importance of ongoing research, but I now know it means everything,” said Parker. “It has given me more time, and who knows, if this medication doesn’t work anymore Dr. Arnold assures me we might find another new tool that wasn’t available at the beginning of this journey. That is very reassuring to me.”

Parker believes cancer has been a great teacher. It has taught her life is short, precious and to be appreciated; that we exist to help one another along the way; and to never give up hope.

“I am not cured,” she said. “And it is a miracle really, but I am living, functioning and looking forward to the future. I am riding and working as a nurse again and most importantly, I remain hopeful.”

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**Designation by the National Cancer Institute opens up a world of possibilities**

In 2013 the UK Markey Cancer Center achieved National Cancer Institute (NCI) designation and joined 68 of the nation’s top cancer centers in a distinction that signifies national excellence in clinical care and cancer research.

“It is the ultimate recognition for an academic cancer center and signifies that we have achieved the highest standard in the industry,” said B. Mark Evers, MD, cancer center director.

Patients now have access to new drugs, treatment options and clinical trials offered only at NCI centers. Markey Cancer Center is able to apply for federal research grants available only to NCI-designated cancer centers, with the potential to bring millions in additional funding to the area. Additionally, NCI designation allows Markey to collaborate on new advances in cancer care with other NCI-designated cancer centers across the country.

Kentucky has one of the highest rates of cancer in the U.S., including the nation’s highest rate of lung cancer and second-highest rate of colon cancer. Earning NCI designation enables Markey to provide better care for people across the state, ensuring no Kentuckian will have to leave the state to get access to top-of-the-line cancer treatment.

And the Markey Cancer Center’s outreach programs include increased community engagement, patient advisory groups, and intervention programs all aimed at education and prevention, screening and early detection of cancer.

“At Markey, clinicians, researchers and other appropriate team members such as nutritionists, social workers and navigators work collaboratively on the individual needs of the patient, the best treatment options and clinical trial possibilities,” said Evers. “Team members are all focused on that particular cancer type and are the very best experts for mapping a care and treatment plan tailored to the patient’s individual needs.”

**Affiliate network: Top-notch cancer care close to home**

Cancer patients no longer have to drive to Lexington or out of state to receive the latest, most up-to-date cancer treatments. The Markey Cancer Center Affiliate Network is a group of 11 health care facilities in Kentucky that provide high-quality cancer services and programs in their communities with the support of the UK Markey Cancer Center.

Outreach is central to the Markey mission, so that patients do not have to leave the comfort of their own community to receive quality cancer care. Through the affiliate network, the Markey Cancer Center is working with primary physicians to coordinate cancer care in the patient’s home community whenever possible, through training, consultation and collaborative patient care, as well as providing patients with access to clinical trials.
Every second counts

Young Russell County mother experiences the benefits of 24/7 stroke care

It began as an ordinary morning last October for 30-year-old Courtney Wilson, a busy Russell County woman with two small boys who works full time and is finishing a degree in early childhood education.

“My husband Paul has to leave earlier and was ready to head out the door that morning when I got out of the shower,” said Wilson. “I told him I felt funny, my legs felt like Jell-O, but I wasn’t alarmed because I really thought I had just gotten too hot in the shower. He encouraged me to lie down for a few minutes, kissed me goodbye and left for work.”

Wilson managed with great difficulty to get herself and her sons ready for the day, got everyone in the car and delivered the youngest to day care, but her condition continued to worsen. She knew she needed help by the time she reached Russell Springs Elementary School where she works as a preschool assistant and her oldest son attends kindergarten.

“I went to the office to see the school nurse,” Wilson said. “I remember someone taking Parker to get breakfast, so I knew he was taken care of, and the school nurse asked Janelle Miller, the family resource assistant, to take me to the hospital. By that time I could barely hold my head up.”

Wilson said Miller later told her she was very unresponsive on the way to Russell County Hospital (RCH), like she wanted to go to sleep or was losing consciousness, and Wilson does not remember much about her time at the local hospital. Courtney’s husband Paul remembers she was losing function on her left side when the emergency room doctors performed a neurological exam.

“As I understand it, she had some symptoms of a stroke but because of her age and so forth, they weren’t certain,” he said.

Types of stroke

There are two major categories of stroke. An ischemic stroke – 85 percent of stroke cases – occurs when there is a blockage in a blood vessel caused by plaque buildup or
The only FDA-approved drug for the treatment of ischemic strokes is tPA, which works by dissolving or partially dissolving the clot and improving blood flow to the part of the brain that is being deprived. When administered in a timely manner – within three hours (and up to four and a half hours in certain eligible patients) – it is the gold standard for improving the chances of recovery without permanent disability.

“Unfortunately, a significant number of stroke victims don’t get to the hospital in time for tPA treatment,” said Lee. “That is why it is so important to identify a stroke immediately.”

UK’s standard protocol is the same for all patients presenting with stroke symptoms, whether at the stroke center or in the UK Chandler Stroke specialist Jessica Lee, MD, in a neuro intensive care unit at Chandler Hospital, takes a very hands-on approach with her patients.

Not a minute to lose

Emergency physicians at RCH consulted with neurologist, Jessica D. Lee, MD, medical director of the UK Comprehensive Stroke Center. They then intravenously administered tPA, (tissue plasminogen activator), also known as the ‘clot busting’ drug and made arrangements to get Wilson to the UK stroke center as quickly as possible.

“For every minute that we delay restoring blood flow to the brain, two million brain cells are lost,” said Lee. “When a vessel in the brain is blocked, permanent damage can occur in as little as six minutes”

Wilson was experiencing a basilar artery thrombus, a blood clot in a very critical artery that often carries a greater than 85 percent risk of sudden death. Those who do survive have a very high chance of having long-term disability.

“As she initially presented to the community hospital, her symptoms were concerning but somewhat vague,” said Lee. “But because of the risk of it being a basilar artery thrombus, we decided to go ahead and administer the clot-busting drug. By the time she reached our facility, her condition was pretty significantly deteriorating.”

A basilar artery thrombus can lead to some of the most devastating strokes because it cuts off blood supply to critical areas of the brain: the brain stem; the cerebellum, which is the balance center of the brain; or the brain’s vision centers.
Patients presenting with stroke symptoms are taken directly by paramedics to the CT scanner where we perform a CT angiogram to see if the blood vessels are open or not and to determine the cause of the blockage,” said Lee. “Courtney was moved to our stroke department very quickly and resources were mobilized immediately, including calling Dr. Alhajeri to perform a thrombectomy, as the CT angiogram revealed the severity of the clot.”

Paul Wilson recalls how quickly everyone sprang into action on his wife’s behalf. “Everything was ready when we got there,” he said. “The CT scan and other tests were performed very quickly, the interventionist was called in to remove the clot, and next thing I know Dr. Lee is running down the hall alongside the gurney taking Courtney to surgery. But through it all, Dr. Lee kept me informed about what they were doing.”

Because time is critical, Lee takes a very hands-on approach. She does not wait for someone else to come get her patient.

“I want to make sure nothing goes wrong. I want to make sure the people involved do what they need to do when they need to do it, and I don’t tend to step away and leave it to somebody else,” she said.

As soon as Lee saw the young mother’s CT angiogram, she knew they had a serious problem. She ran to Wilson’s room to find that her condition had worsened and then turned to Paul Wilson to quickly explain the seriousness of his wife’s condition and what was about to happen.

“I told him it was very serious; explained to him about the clot,” recalled Lee. “I told him I was very sorry, I knew it would be scary, but things needed to move very fast. Then I left the room to make all those things start happening.”

“Nurses moved Courtney quickly to the MRI suite,” said Lee. “Then a nurse manager and I took her from MRI to the angiography suite. I needed to make sure everything happened in a very timely fashion.”

**Timely intervention**

Delivering comprehensive stroke treatment requires the availability of specially trained physicians who use imaging technology to perform interventional or mechanical
throbectomy to remove blockages from brain vessels. Abdulanasser Alhajeri, MD, is one of two neurointerventionists at UK HealthCare who perform such procedures.

“The procedure works very much like a heart catheterization,” explained Alhajeri. “But in this case we thread the catheter from a vessel in the groin up through vessels in the chest and neck and then on into the brain.”

Alhajeri used a large syringe to create suction in the catheter and removed the blood clot from the vessel in Wilson’s brain. He was able to perform the procedure and restore blood flow in the basilar artery in about 15 minutes.

“The basilar vessel is the life center of the brain in that it supplies vital areas of the body such as breathing and heart rate,” said Alhajeri. “With these types of blockages, we can win big – like for Courtney – but we can also lose big.”

Alhajeri said many patients with this type of vessel blockage do not survive and those who do often have permanent damage.

Patients with blockages in the basilar artery system can end up with what’s called locked-in syndrome, which is really head-to-toe paralysis or a persistent vegetative state, said Alhajeri.

“There is nothing more rewarding than seeing someone like Courtney get better and have no long-term disability.”

– Abdulanasser Alhajeri, MD, neurointerventionist

“I walked my son into his classroom the following Monday just as I always do.”

– Courtney Wilson

The miracle of it all

Wilson returned home after only three days in the hospital. “I was up and walking in the hospital on the third day,” she said. “I initially experienced some double vision and some trouble walking. My left leg was dragging a bit, but I walked my son into his classroom the following Monday just as I always do. It was important for him to know I was all right, and it was important for everyone at the school to see that I was okay.”

The Wilsons said they later learned that when Courtney left for the hospital, the entire school staff, including the superintendent, joined hands in a line stretching from one end of a hallway to another.

“We know those prayers were with us through this all,” said Courtney. “But the doctors at our

Courtney Wilson at Russell Springs Elementary School with son Parker.
Warning signs of stroke – Act F.A.S.T.

If you or someone you know is experiencing symptoms of a stroke, remember to act F.A.S.T.

FACE Ask the person to smile. If the face is droopy on one side, call 9-1-1 immediately.

ARM Ask the person to raise both arms. If one arm drifts down or has no resistance, call 9-1-1 immediately.

SPEECH Ask the person to say a simple phrase. If speech is slurred, call 9-1-1 immediately.

TIME Call 9-1-1 immediately.

With stroke, time lost is brain lost. To request a magnet to serve as a handy reminder, check the box on the enclosed reply card.

Know the signs of stroke:
Time lost is brain lost

Stroke is the third leading cause of death in the United States and a leading cause of serious, long-term disability in adults. About 600,000 new strokes are reported in the U.S. each year. The good news is treatments are available that can greatly reduce damage caused by a stroke. However, you need to recognize the symptoms of a stroke and get to a hospital quickly.

The symptoms of stroke are distinct because they happen suddenly and are usually severe. Anyone experiencing these sudden symptoms should seek immediate medical attention. Note the time when symptoms first appeared. If given within three hours of the first symptom, an FDA-approved clot-busting medication may reduce long-term disability for the most common type of stroke.

Are you at risk?

Many of the risk factors for stroke can be controlled. You are at greater risk if you have high blood pressure, diabetes, high cholesterol, are a smoker or are obese. Talk with your family physician about how you can reduce your risk of stroke.

Courtney Wilson is thankful for the gift of continuing to be a mom to Parker, 5, and Carter, 2.
UK HealthCare has been designated a Comprehensive Stroke Center by The Joint Commission (TJC) and the American Heart Association/American Stroke Association. Only 63 institutions nationwide have earned this distinction, and UK HealthCare is the only health system serving the Central and Eastern part of the Commonwealth to be awarded this designation – the highest honor The Joint Commission awards stroke centers.

Comprehensive stroke center certification recognizes hospitals that have state-of-the-art facilities, organization, staff and training to receive and treat patients with the most complex strokes. This includes advanced imaging capabilities, 24/7 availability of specialized treatments, and staff with the unique education and competencies to care for complex stroke patients.

The UK Comprehensive Stroke Center is staffed and equipped around the clock to swiftly and accurately diagnose and treat acute stroke patients. The center offers the widest range of interventional options to stop a stroke in progress and minimize potential damage. After a stroke, UK offers a full complement of services to aid in recovery.

“We have long been dedicated to providing comprehensive care to all stroke patients, and in fact provide the highest level of stroke care available in this part of the state,” said Jessica D. Lee, MD, a board-certified neurologist and medical director of the stroke center. “It was having that infrastructure, training, staffing and expertise in place that set the stage for achieving this important designation.”

Collaboration pays off in better outcomes

First responders and community hospitals play a vital role in ensuring positive patient outcomes. UK HealthCare based in Lexington and Louisville’s Norton Healthcare are partnering with area hospitals to help develop the first community-based stroke program in the region.

The relationship with community hospitals allows patients to receive the best possible care during the early moments of a stroke, when diagnosis and administering rapid treatment are extremely important.

Each hospital in the network has made a strong commitment to providing current and clinically effective stroke care for its community. UK HealthCare and Norton Healthcare support these efforts by providing educational programs and clinical guidance and oversight to hospital staff, making sure that stroke patients will receive the right treatment at the right time.

The UK Comprehensive Stroke Center at Albert B. Chandler Hospital works with affiliated hospitals, and in fact, any community hospital in or out of state. Physicians at a community hospital can call UK’s stroke team any time of the day or night. They can consult and collaborate on a patient’s care and effectively stabilize and initiate life-saving measures while the patient is still in that ‘golden’ window of time for minimizing damage. When necessary, patients can then be transported to UK Chandler Hospital for more advanced care and interventional measures.

**Stroke Network Affiliated Hospitals**

Norton Healthcare
Georgetown Community Hospital
Harrison Memorial Hospital
St. Claire Regional Medical Center
Our Lady of Bellefonte Hospital
Appalachian Regional Healthcare hospitals
Rockcastle Regional Hospital
Lake Cumberland Regional Hospital
Ephraim McDowell Health
Biobank advances medical discoveries

When a patient has blood drawn, a procedure or surgery, the blood or tissue not used for testing is normally discarded. Recently, the UK Center for Clinical and Translational Science (CCTS) began an innovative, extensive Research Registry and Specimen Bank, called a biobank. The UK biobank stores leftover blood and tissue from normal, day-to-day medical procedures.

UK HealthCare patients are asked for permission to store and use their “leftover” blood or tissue for research purposes. Participation is voluntary. No additional procedures will be performed or extra blood or tissues collected. And to protect patient privacy, all identifying information is removed from samples and corresponding medical records.

A small project to “rescue” waste blood and tissue can translate into a robust biobank of healthy and nonhealthy biospecimens of all varieties.

“By allowing us to keep blood and tissue samples that would have otherwise been discarded,” said Philip Kern, MD, CCTS director, “our patients are providing a way to improve the care for many of our patients in the future.”

The UK Markey Cancer Center will be a primary beneficiary of the biobank, which will greatly increase the resources of its existing cancer tissue bank.

To request more information about the biobank, check the box on the enclosed reply card or call 800-333-8874.

Southeastern Kentucky: Bringing services close to home

Keeping Kentuckians close to home is convenient for patients and families, cuts the expense of travel and keeps patients near their support networks. It also allows the doctor who knows a patient best to coordinate and manage care, often resulting in less expensive care delivered locally.

• ARH Cancer Center is part of the Markey Cancer Center Affiliate Network, a group of health care facilities providing high-quality cancer services and programs with the support and guidance of the UK Markey Cancer Center. ARH and other Markey affiliates benefit from resources that followed as a result of Markey’s National Cancer Institute designation.

• UK Hazard Women’s Health OB-GYN and Hazard ARH Regional Medical Center are working together to provide compassionate women’s and maternity care. A UK gynecologic specialist with a focus on providing alternatives to hysterectomy as well as diagnosing and treating pelvic pain and fibroids, is now part of the team. Deliveries and surgeries can take place locally.

• All ARH hospitals have joined the UK HealthCare/Norton Healthcare Stroke Care Network. This collaboration provides the highest-quality stroke care to patients by offering educational programs to ARH staff and the local community and smooth transfer to the UK Comprehensive Stroke Center in Lexington if an advanced level of care is needed.

• UK Gill Heart Institute has expanded its reach to offer the region’s most comprehensive cardiology and cardiothoracic surgery services close to home in Hazard and three area towns. The local Appalachian Heart Center joined the UK Gill Heart Institute last year, and its cardiologists work alongside other Gill cardiologists offering risk prevention, diagnostic assessment and a full menu of therapeutic services. A locally based UK cardiothoracic surgeon performs a full range of surgeries at Hazard ARH Regional Medical Center, or if needed, critically ill patients can be easily transferred to the institute’s service at UK Chandler Hospital in Lexington.

For information about UK services available in southeastern Kentucky, visit ukhealthcare.uky.edu/southeast or call 800-333-8874 toll free.
Interested in volunteering to advance medicine?

At the University of Kentucky, two registries match UK researchers to people who are willing to learn more about research studies in Kentucky and across the nation.

1. UK Clinical Research Opportunities Wildcat Database (CROWD) is a secure and confidential tool that helps match people interested in participating in clinical research with current and potential future studies. UK researchers are working toward new cures, treatments and strategies to improve human health. Lack of research participants is a significant obstacle in clinical research.

Interested individuals can enroll in the database and consent to be contacted about studies in their selected topics of interest. It only takes a few minutes to enroll in CROWD, and enrollees can indicate their interest in more than 30 areas. Perhaps the greatest need is for healthy volunteers who do not have the disease or condition being studied.

When a relevant study opens, the CROWD database manager sends an email to the potential volunteer with basic information about the study. If interested, the potential research participant would respond to either the database manager or research staff. Contact information is provided in the email.

By enrolling, you are not obligated to participate in any study. Volunteers can withdraw their names from CROWD database at any time.

2. ResearchMatch.org is a national not-for-profit recruitment registry developed by major academic institutions nationwide that want to involve you in the mission of helping today’s studies make a real difference to our future health.

For more information on either option, visit ccts.uky.edu/ukclinicalresearch, e-mail ukclinicalresearch@uky.edu, or call 859-257-7856 or 859-323-8150.
Perhaps you’ve heard of our plans to open a new location in the former Dillard’s building at Turfland Mall on Harrodsburg Road?

After renovation, we will open an 85,000-square-foot facility on the first floor in late 2014 that will consolidate the patient services of UK Family & Community Medicine – primary care for the entire family currently offered at both Kentucky Clinic (859-323-6371) on the UK campus and at Kentucky Clinic South (859-257-9800) on Harrodsburg Road – into one location.

Other services planned for the new location include:

- **UK Orthopaedics & Sports Medicine** (from Perimeter Road), 859-218-3131
- **Sports Physical Therapy**, 859-257-4576
- **UK Occupational Medicine**, 859-257-5166 or 859-257-5150
- **UK Travel Medicine**, 859-257-5150
- **UK Adult Dentistry** (from Kentucky Clinic South), 859-257-9272
- **Optometry**
- **Nursing Training and Development**
- **Radiology, phlebotomy/laboratory**

Patient parking will be free at the Turfland location. Follow the progress of our new Turfland location by subscribing to the UK HealthCare at Turfland blog: [ukhealthcare.net/turfland](http://ukhealthcare.net/turfland). To make an appointment with a clinical service slated to move to UK HealthCare at Turfland, call the number provided above.