

Surgical Care – How do we compare?

At Licking Memorial Health Systems (LMHS), we take pride in the care we provide. To monitor the quality of that care, we track specific quality measures and compare them to benchmark measures. Then, we publish them so you can draw your own conclusions regarding your healthcare choices.

Check out our Quality Report Cards online at www.LMHealth.org.

1 Moderate sedation allows patients to tolerate unpleasant procedures while maintaining adequate breathing and the ability to respond to stimulation. Most drugs used in moderate sedation can be reversed fully or partially if necessary. However, careful patient assessment and monitoring reduce the need for reversal agents and improve patient outcomes. Therefore, minimal use of reversal agents is a good indicator of quality in moderate sedation.

	LMH 2011	LMH 2012	LMH 2013	LMH Goal
Use of reversal agent for GI procedures	0.19%	0.13%	0.11%	less than 0.90%

2 The healthcare team at Licking Memorial Hospital follows a multiple-step process to prevent wrong-patient, wrong-procedure or wrong-site surgery (e.g., surgery performed on the left foot instead of the right foot). This process includes left or right designation at the time the surgery is scheduled, verification of the site on the day of surgery with the patient and the patient's current medical record, marking the site by the surgeon, and final verification in the operating room. In 2013, 7,498 surgeries were performed at LMH.

	LMH 2011	LMH 2012	LMH 2013	LMH Goal
Wrong-site surgeries	1*	0	0	0
Surgical site verification checklist completed	99%	99%	99%	100%

*Following a non-incisional urinary-tract surgery, an error was discovered while the patient was in recovery. A corrective, non-incisional procedure was immediately performed with favorable results.

3 Receiving the appropriate antibiotic within an hour before surgery reduces a patient's risk for developing infection. Additionally, discontinuing use of antibiotics within 24 hours after surgery lessens the patient's risk of developing antibiotic-resistant bacterial infections. Medical studies have shown that the use of certain antibiotics, specific to each surgery type, can be most effective at preventing infections after surgery.

	LMH 2011	LMH 2012	LMH 2013	National ⁽¹⁾
Antibiotic received within 1 hour	98%	98%	100%	99%
Antibiotic selection accurate per national recommendations	98%	98%	99.6%	99%
Antibiotic discontinued within 24 hours	96%	98%	100%	98%

4 Some surgeries require the temporary insertion of a catheter into the patient's bladder. The catheter can enable the patient to evacuate the bladder even when unconscious or otherwise incapacitated. However, leaving a catheter in the bladder for too long can increase the risk for a urinary tract infection. Ideally, catheters will be removed within 2 days following surgery to minimize the risk for this type of infection after surgery.

	LMH 2011	LMH 2012	LMH 2013	National ⁽¹⁾
Urinary catheter removed within two days after surgery	97%	98%	99.6%	97%

5 Medical studies have shown that if patients experience hypothermia (low body temperature) during and after surgery, they have a greater risk of developing complications. Effectively warming patients during surgery can ensure their body temperatures remain in normal range. This measure tracks the percentage of patients at LMH who had a normal body temperature immediately after surgery.

	LMH 2011	LMH 2012	LMH 2013	National ⁽¹⁾
Peri-operative temperature within normal range	100%	100%	100%	100%

6 VTE, or venous thromboembolism, is the medical term for a blood clot that forms in a vein. Surgery increases the risk of VTE, and while most clots can be treated, some can be life-threatening. It is recommended that hospitals use medications and mechanical devices to prevent the formation of blood clots. LMH tracks the percentage of patients who correctly had these interventions activated, based on CMS guidelines, within 24 hours of surgery.

	LMH 2011	LMH 2012	LMH 2013	National ⁽¹⁾
VTE prophylaxis started within 24 hours of surgery	94%	97%	99%	98%

7 LMH tracks surgery patients who appropriately receive beta-blocker medications during the peri-operative period. Studies show that in selected patients undergoing non-cardiac surgery, beta-blocker medication can reduce the incidence of heart attack and death.⁽²⁾

	LMH 2011	LMH 2012	LMH 2013	National ⁽¹⁾
Appropriate use of beta blocker prior to admission and peri-operatively	95%	97%	98%	98%

8 Patients undergoing certain surgical procedures as outpatients (not admitted to the hospital) should receive antibiotics before their procedure. Using the correct antibiotics at the correct time can reduce the risk of infections after the procedure.

	LMH 2011	LMH 2012	LMH 2013	National ⁽¹⁾
Outpatient procedure patients with correct antibiotic prescribed	84%	94%	96%	98%

Data Footnotes: (1) *Hospitalcompare.hhs.gov national benchmarks.* (2) *Specifications Manual for National Hospital Inpatient Quality Measures, 2012.*

Patient Story – Zachary Ruckman

Seventeen-year-old Zachary Ruckman is an avid amateur filmmaker, so it is only natural that he plans to create a short video documentary about his recent surgery at Licking Memorial Hospital (LMH). In this video, Zachary would play himself, and the supporting cast would include his parents, many caring professionals at LMH, and General Surgeon Brent M. Savage, M.D., of Licking Memorial Surgical Services.

In December 2013, Zachary noticed some tenderness low on his back. “At first, I did not think anything of it – it was just a bump that was a little sore,” he said. He showed it to his mother, Andrea, who is a nurse. “To me, it looked like a simple skin irritation, so we put some salve on it,” she explained.

After just two or three days, the bump had grown larger and was much more tender. Andrea’s experience as a nurse led her to believe that Zachary was facing something more serious than a skin irritation, and she made an appointment with Zachary’s pediatrician. The pediatrician confirmed her suspicion that Zachary had a pilonidal cyst, and recommended that he seek surgical care.

Pilonidal cysts are most commonly found low on the back near the tailbone. They usually contain hair and skin debris and can easily form painful abscesses. It is not known for sure what causes pilonidal cysts, although some evidence suggests that friction and pressure (from prolonged sitting or tight clothing, for example) force hairs to grow inward, and the body forms a defensive pocket around the ingrown hairs.

In addition to their instinctive parental concerns about their son’s health, Andrea and her husband, Matt, had additional apprehensions because Zachary has autism. As a result, he sometimes cannot comprehend complex procedures. “I knew immediately which surgeon I wanted for Zachary,” Andrea



Zachary Ruckman

said. “I had known Dr. Savage for many years through some of my home care patients, and I knew that he also has a child with autism. I was confident that Dr. Savage would be able to communicate with Zachary at his level. It was so important for him to understand everything so that he would not be afraid or confused by the hospital environment.”

Unfortunately, Zachary’s cyst ruptured before his scheduled appointment with Dr. Savage. “Yeah, that was pretty painful,” Zachary admitted. “But it helped that my mom is a nurse, so she was able to explain what was happening.”

“When I first saw Zachary, he had a large pilonidal cyst that had ruptured a few days previously and was still draining,” Dr. Savage said. “Even though one of the reasons that we perform surgery on pilonidal cysts is to drain the infectious fluid, it was still important for us to remove the cyst completely, along with any surrounding tissue that had been damaged. These precautions lower the risk that the cyst will recur.”

Zachary and his parents arrived at LMH on January 20 for the outpatient procedure. Matt said, “Zachary was nervous about the surgery and just wanted to get it over with. The staff was great. Instead of using medical jargon, they explained everything they were doing in clear, simple terms and checked to ensure that Zachary understood.”

In the operating room, the surgical team continued to reassure Zachary as he was prepared for anesthesia. “Basically,

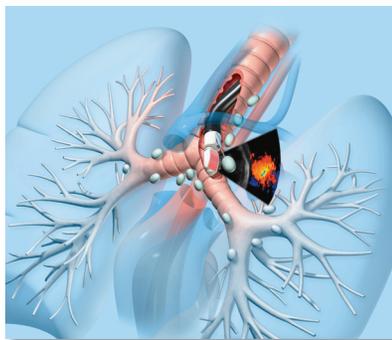
Patient Story – Zachary Ruckman (continued on next page)



Brent M. Savage, M.D.

Endobronchial Ultrasound Offers Minimally Invasive Surgical Assessment of Lung Cancer

Licking Memorial Hospital (LMH) has added a new tool to help physicians determine the stage of a patient's lung cancer and develop an appropriate course of treatment. Endobronchial ultrasound-guided transbronchial needle aspiration is a minimally invasive surgical procedure that combines sound wave technology with bronchoscopy to allow the surgeon to visualize areas deep in the lungs and, if necessary, take tissue samples for biopsy and staging (determining how much cancer has spread).



Endobronchial ultrasound provides information that helps physicians determine how extensively a patient's lung cancer has spread.



Asegid H. Kebede, M.D.

Asegid H. Kebede, M.D., of Licking Memorial Pulmonology, received special training to perform the endobronchial ultrasound procedure. "At LMH, endobronchial ultrasound is performed while the patient is under general anesthesia," he said. "We pass a thin flexible lighted tube through the patient's windpipe so that we can visualize the airways, lymph nodes and other tissues. The ultrasound waves help the surgeon pinpoint the location of any tumor, lesions or diseased tissue.

The surgeon then uses a hollow needle to take tissue samples that help determine the type and progression of disease. The entire procedure takes up to one hour and provides invaluable information to help us determine the stage of any cancer that is present and customize an effective treatment plan."

Endobronchial ultrasound is an alternative to lung biopsies that are performed through conventional surgery or examination of the patient's sputum. For many patients, endobronchial ultrasound may be the preferred method because it does not require an incision, is highly accurate, and allows the surgeon to examine lymph nodes from an area that is otherwise difficult to reach.

"Endobronchial ultrasound has been used as a diagnostic tool in the U.S. since 1994. It has proven to be very safe and accurate." Dr. Kebede explained, adding, "Cancers of the lungs, bronchus and trachea are the leading cause of cancer deaths in Licking County. All too often,

these cancers are diagnosed at a late stage when treatment is not as effective. Our ability now to improve the diagnosis and staging methods for patients will offer more treatment options and hope to patients who receive a lung-related cancer diagnosis."

Individuals who are at an elevated risk for lung cancer include those who have a history of tobacco smoking, are exposed to secondhand smoke, are exposed to asbestos or other harmful chemicals, or have a family history of lung cancer. Early warning signs of lung cancer include a cough that will not go away, chest pain, hoarseness, weight loss and loss of appetite, coughing up blood, shortness of breath, weakness, fatigue, repeated bouts of pneumonia or bronchitis, and wheezing. Patients who are concerned about their symptoms are advised to visit their family physician.

Patient Story – Zachary Ruckman (continued from previous page)

I remember getting wheeled into a room with a big light, and the doctor asked me about my vacation to Universal Studios. I was talking to them about the trip, and then I was 'out,'" Zachary said with a chuckle.

When Zachary awoke, he was greeted by nurses and both of his parents. After a few hours of recovery, Andrea and Matt were given instructions about Zachary's wound care, and all three Ruckmans were able to return home.

Zachary's surgical wound needed to be packed with new dressing on a daily basis. "It was shocking to see how big the cyst had been," Matt said. "Since it formed beneath the skin, we could not tell before the surgery. It left a hole that was the size of a tennis ball."

Because the cyst had been so large, the healing was a lengthy process. For approximately three months, Andrea changed the dressings daily, using a special packing technique that Dr. Savage had recommended.

Dr. Savage said, "After surgery for a pilonidal cyst, I instruct patients to use a ribbon-like gauze to pack into the wound and change the packing every day. This method allows the wound

to heal from the inside out instead of healing over at the skin's surface first. This packing method is another step to help prevent a cyst from recurring. In addition, I advised Zachary to keep the affected area clean shaven from now on."

The incidence of pilonidal cysts is estimated to be approximately 26 per 100,000 individuals. Some characteristics that increase the risk of developing a pilonidal cyst include:

- Male, between the ages of 15 and 24
- Large amount of body hair
- Coarsely textured body hair
- Caucasian
- Obesity
- Sedentary lifestyle or prolonged sitting
- Poor hygiene
- Excessive sweating

The location of the cyst made it difficult for Zachary to sit in a chair, so he spent much of his recuperation lying on his side as he worked on his laptop. He quickly learned that his teenaged friends had never heard of a pilonidal cyst and tended to become queasy when he tried to explain. "I ended up just telling them that I had a sore on my butt," he shrugged. If they want more details, they probably can wait for the video.



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Please take a few minutes to read this month's report on **Surgical Care**.

You'll soon discover why Licking Memorial Hospital is measurably different ... for your health!

Visit us at www.LMHealth.org

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Health Tips – Preparing for Surgery

If you are expecting to have surgery, the following steps will improve your safety, help prevent infection and facilitate recovery:

- Discuss with your surgeon whether or not “banking” your own blood is indicated for your procedure.
- Eat a nutritious diet during the two-week period leading up to your surgery.
- Quit smoking at least two weeks before surgery.
- If you have diabetes, carefully monitor your blood sugar levels in the days leading up to the surgery.
- Do not drink alcoholic beverages during the 24 hours prior to surgery.
- Follow your physician's instructions about taking your regular medications before surgery.