

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 health care choices.

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- 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 2010	LMH 2011	LMH 2012	LMH Goal
Use of reversal agent for GI procedures	0.13%	0.19%	0.13%	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 2012, 6,966 surgeries were performed at LMH.

	LMH 2010	LMH 2011	LMH 2012	LMH Goal
Wrong-site surgeries	0	1*	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 2010	LMH 2011	LMH 2012	National ⁽¹⁾
Antibiotic received within 1 hour	95%	98%	98%	98%
Antibiotic selection accurate per national recommendations	98%	98%	98%	99%
Antibiotic discontinued within 24 hours	95%	96%	98%	97%

- 4** The removal of hair from the site of surgery is an important way to prevent infection. Using a razor to remove hair can cause tiny breaks in the skin which increase the risk of infection after surgery. This measure tracks the percentage of times that patients had hair removal performed by clippers or other means which are less likely to cause infection than razors. In certain instances, clippers may not be the ideal form of hair removal, and razors may be used.

	LMH 2010	LMH 2011	LMH 2012	National ⁽¹⁾
Appropriate hair removal performed	99.3%	99.7%	100%	100%

- 5** 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 2010	LMH 2011	LMH 2012	National ⁽¹⁾
Urinary catheter removed within two days after surgery	89%	97%	98%	96%

- 6** 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 2010	LMH 2011	LMH 2012	National ⁽¹⁾
Peri-operative temperature within normal range	99%	100%	100%	100%

7 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 2010	LMH 2011	LMH 2012	National ⁽¹⁾
VTE prophylaxis ordered	95%	96%	99%	98%
VTE prophylaxis started within 24 hours of surgery	91%	94%	97%	98%

8 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 2010	LMH 2011	LMH 2012	National ⁽¹⁾
Appropriate use of beta blocker prior to admission and peri-operatively	94%	95%	97%	97%

9 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 2010	LMH 2011	LMH 2012	National ⁽¹⁾
Outpatient procedure patients with correct antibiotic prescribed	94%	84%	94%	97%

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

Patient Story – Barbara Buchenroth

To Barbara Buchenroth, the intense pain that gripped her body one day this past summer was equivalent to the pain she experienced when she had a baby 32 years ago without any pain medication. Only this time, it was not with the happy anticipation of a 7 lb., 13 oz. baby girl’s birth, rather it was with the realization that a pearl-sized kidney stone was finally demanding her attention.

In 2010, Barbara was rushed to the Emergency Department (ED) at Licking Memorial Hospital (LMH) for painful back spasms, and a CT (computed tomography) scan was performed to determine the cause of the pain. Barbara was informed at the time that although it was unrelated to her back pain, a small kidney stone showed up on her MRI. Barbara was not overly surprised since several of her family members had experienced kidney stones previously.

Her back spasms were quickly resolved, and feeling like a healthy 60-year-old once again, she returned her attention to her work as a case manager with Licking County Job and Family Services. “I was not having any problems with the kidney stone, so I did not



Barbara Buchenroth of Newark recovered quickly after receiving a non-invasive lithotripsy procedure at LMH in August to treat a painful kidney stone.

worry about it,” Barbara explained. “Looking back now, I guess I had some twinges now and then, but I did not associate them with the stone. Besides, I have a pretty high tolerance to pain.”

Then in July 2013, Barbara was once again in LMH’s ED with wrenching pain. “I knew what it was,” she said. “I could not walk or straighten up.” A CT scan revealed that she had a stone lodged in her left kidney. “The doctor told me that the stone measured 5.5 mm. At that size, it was questionable whether the stone could pass on its own. I was given medication to control the pain and referred to see a urologist.”

At her first appointment with Donald J. Lewis, M.D., of Urological Center, Inc., Barbara learned that an X-ray image showed the stone had traveled into her ureter. Since she was not in severe pain at that time, Dr. Lewis recommended a “wait-and-see” approach before they decided upon a treatment plan. At her next appointment a couple of weeks later, a new X-ray indicated that the stone had lodged back in her kidney. Dr. Lewis concluded

Patient Story – Barbara Buchenroth (continued on next page)

Lithotripsy Treats Kidney Stones Without Incision

In the U.S., kidney stones affect an estimated 12 percent of men and 5 percent of women by the time they reach the age of 70. The stones form when urine becomes concentrated with certain substances that begin to crystallize within the kidneys. They can range from tiny, sand-like particles to large, golf-ball sized stones. Without treatment, kidney stones may dissolve, remain lodged inside the urinary system or pass through the urinary tract. The patient may have a single stone or even hundreds. In any case, they can cause a great deal of pain.

In the past, patients often had invasive surgery to remove lodged kidney stones through an incision and required several weeks to recover completely. Fortunately, a non-invasive surgical procedure has been developed that uses shock waves (also called sound waves) to break up stones while they are in the kidney, bladder or ureter.

The procedure, called extracorporeal shock wave lithotripsy, or “lithotripsy” for short, uses the shock waves to break kidney stones into small fragments that can pass from the body on their own through the urinary tract. The procedure works best on stones that are smaller than 2 cm, which is approximately the size of a large marble. It is performed on an outpatient basis, allowing the patient to return home to light activity the same day.

During lithotripsy, the patient lies on a water-filled cushion on the surgery table in an integrated operating room that has X-ray equipment to pinpoint the current location of all stones. With the patient under general anesthesia, the lithotripsy machine is placed against the patient’s abdomen and produces percussive shock waves that pass harmlessly through the soft tissues. The shock waves focus directly on the stones, causing them to shatter into sand-sized particles. Approximately 1,000 to 2,500 shock



Lithotripsy is now available at LMH for the non-invasive treatment of kidney stones.

waves over the course of 45 to 60 minutes are required to complete the process. Afterward, the patient is taken to the surgical recovery area and may be dismissed within a few hours.

William A. Stallworth, M.D., of Licking Memorial Urology, received special training to perform the lithotripsy procedure. “Lithotripsy is generally regarded as a safe procedure and is a tremendous improvement over traditional surgery for most of my patients. In the past, I had to take my patients to the Columbus area for lithotripsy,” Dr. Stallworth said. “My patients have told me that it is such a great convenience for them to be able to have their kidney stones now treated at LMH, close to home.”

Although lithotripsy can be used for patients of all ages and even those who have only one functioning kidney, some may not be good candidates for the procedure, including:

- Pregnant women
- Patients with pacemakers
- Very obese patients
- Patients with stones in the ureter (Stones that are close to the bladder are best treated by simple extraction of the stone in one piece.)
- Patients with certain types of stones without calcium that do not visualize well on regular X-rays

In these cases, the physician may recommend traditional surgery for stone removal or medications to dissolve the stones.

Patients who have had kidney stones are at an elevated risk to develop them again. Dr. Stallworth recommends that the best preventive measure is to drink at least eight glasses of water daily. In addition, he often prescribes diet modification and preventive medications to prevent future stones from forming in the kidneys.

Patient Story – Barbara Buchenroth (continued from previous page)

that the stone was not going to pass on its own, and recommended that it was in a good position to be treated with lithotripsy, a high-tech, non-invasive procedure that is newly offered at Licking Memorial Hospital (LMH).

Barbara said, “I have family members who were treated for kidney stones years ago. The treatments ranged from receiving shock wave therapy in a water bath to a surgical incision through the back to extract the stones. They all had to travel to Columbus for their procedures. The option to have lithotripsy at LMH was a big improvement and I had no doubts that I wanted to have it done.”

Prior to her scheduled procedure date, Barbara visited LMH to have blood drawn at the Laboratory and to speak with an anesthesiologist. She received instructions to refrain from any food or beverage after midnight before her surgery, and to have someone available to drive her home afterward. On Friday, August 23, Barbara checked into the LMH Surgery Department for her lithotripsy, accompanied by a cousin who had offered to drive. “It was so easy,” Barbara said. “The whole thing, from the time

they took me back to the operating room to the time I was in the recovery room took less than one hour. I had no pain, nausea or bruising – just a little soreness. I was so happy not to be feeling the pain from the kidney stone anymore!”

After a short time, Barbara was able to return home with her cousin’s help. “It was such a convenience to have the procedure done here in Newark,” Barbara commented. “It is miserable to travel a long distance when you are not feeling the greatest. I just wanted to get home and crawl into my own bed.”

Barbara’s recuperation at home was rapid. She took a prescribed antibiotic to prevent infection, but did not need any pain medication. She rested on Friday afternoon, and enjoyed a long walk on Saturday. By Monday morning, she was energetic enough to return to work. Free from the pain and worries about a pearl-sized kidney stone, she was then able to turn her thoughts to the real pearls she might find during a beach vacation she was planning at Hilton Head, South Carolina, in October.



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Health Tips – Pre-surgical Use of CHG Cleanser Reduces Risk of Infection

The risk of infection is reduced when patients use a special chlorhexidine gluconate (CHG) germicidal cleanser before surgery in addition to the preparation they receive at the hospital. To promote use of CHG at home, LMH provides free packets to patients before their scheduled surgeries. Patients should shower or bathe with CHG both the night before and the morning of surgery, following these steps:

- With the water turned off (to prevent rinsing the CHG off too soon), apply the CHG to your dry skin.
- Apply the CHG soap to your entire body only from the neck down. Do not use CHG near your eyes or ears, or genital area.
- Wash your body gently for five minutes. Do not scrub your skin too hard.
- Turn the water on and rinse your body thoroughly.
- Wash your hair with your normal shampoo. Rinse your hair and body thoroughly after shampooing to remove all soap residue.
- Do not wash with your regular soap after washing with CHG.
- Do not shave the area of your body where the surgery will be performed.
- Pat yourself dry with a soft, freshly laundered towel.
- Do not use lotions, powders or perfume on your skin. You may use deodorant or antiperspirant, unless instructed otherwise.
- Put on clean, loose-fitting clothing.