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SURGERY CARE

Lung Biopsy Now Performed as Outpatient Surgery

With advanced imaging technologies detecting a higher percentage of nodules in the lungs, physicians and patients are faced with difficult decisions about biopsy procedures. Lung biopsies are used to determine whether the nodule or lesion is malignant. Though most lung nodules are benign, it is very important to identify those which show early signs of cancer, when treatment is most successful. Some nodules found are located in the very farthest areas of the lungs where a traditional bronchoscope a thin lighted tube used to look into the lungs - cannot reach. Previous procedures were invasive and left patients at risk of suffering a collapsed lung. The electromagnetic navigational bronchoscopy (ENB) now performed at Licking Memorial Hospital (LMH) offers a safer and less invasive alternative.

An ENB procedure uses a navigation catheter that extends the reach of the bronchoscope and allows access to the small airway passages in the outermost part of the lungs that previously were difficult to reach. The process provides navigation through technology similar to a Global Positioning System (GPS) unit. "ENB uses virtual bronchoscopy and real time 3-dimensional CT images that enable us to localize these difficultto-reach lung nodules," said Asegid Kebede, M.D., of Licking Memorial Pulmonology and Sleep Medicine. "It basically is a 3D roadmap to the patient's lung. ENB identifies the exact spot where the lesion is located in order to collect a biopsy." Using the map, the

physician guides the specially designed tools into place to carefully take samples of the tissue.

The most common reasons for having an ENB procedure include abnormal findings on a chest X-ray or CT scan showing a spot on the lung. ENB provides clear information for the physician to utilize for examination and includes genetic The technology uses the i•Logic™ characteristics which are System from superDimension®, essential which enhances the ability to collect tissue samples from

to planning the next stages of care. According to Dr. Kebede, tissue diagnosis also is quicker using ENB. A laboratory technician who specializes in diagnosing cancer is present during the procedure and tests the sample tissue right away. "The benefit of ENB is potentially detecting lung cancer earlier and enhancing treatment options for patients," said Dr. Kebede. The minimally invasive outpatient procedure has a marginal risk of causing a collapsed

> very small nodules earlier and more safely than other methods. In addition, i.Logic also can be used to place markers around the lesion to guide external beam radiation and to help easily locate the lesion again in case any additional procedures are necessary. The procedure takes, on average, an hour and a half to complete, and is performed on an outpatient basis with no overnight



Patient Story – Mary Wigal

Mary Wigal has lived with diverticulitis for many years, so she is familiar with the common symptoms, including severe abdominal pain, fever, nausea and changes in bowel habits. Diverticula are small, bulging pouches that can form in the lining of the digestive system. Diverticulitis is diagnosed when one or more of the pouches become inflamed or infected. The condition can be treated with rest, changes in diet and antibiotics.

In October 2016, Mary visited the Licking Memorial Hospital Emergency Department (ED) believing she was suffering from a flare up of her diverticulitis. Her family physician, Gerald Ehrsam, M.D., had recently retired and she was awaiting an upcoming appointment with her new physician, Nina Hourmouzis, M.D., of Licking Memorial Internal Medicine. She was prescribed medication and was released. However, Mary still felt ill a month later and her symptoms were different than usual. Early Thanksgiving morning, she returned to the ED. A computerized tomography (CT) scan revealed a perforated bowel and Mary underwent an immediate exploratory laparotomy with colostomy creation at 3:00 a.m. The procedure removed a section of her sigmoid colon - the lower part of the colon. "I was in horrible pain," Mary explained. "I remember being doubled-over and grabbing the physician's arm explaining that I was a 10 plus on pain. They took excellent care of me. I am very grateful," she said.

Mary was discharged home after seven days at LMH. "Everyone was so attentive to me during my stay," she noted. "The staff was always checking on me. They were all so kind and polite and very good people," Mary continued. She spent almost eight months with a colostomy bag and recalls that the most challenging part was learning how to change the bag, but was appreciative of the assistance she received at the Hospital, as well as the informational phone number they provided her for questions after she had returned home.

Brent Savage, M.D., performed a colostomy reversal in July 2017. "Dr. Savage and his office staff were outstanding," Mary stated. "He was extremely patient with me and explained the entire procedure very thoroughly, including recovery." Mary remained in the Hospital about five days following the reversal procedure and again remarked on the high quality of care she received. "I always was treated well, by everyone, including physicians, nurses, point of care technicians, Culinary Services and Environmental Services staff. Each individual I encountered had a wonderful attitude. I would like to extend my deepest gratitude to everyone who assisted with my care," she concluded.

Mary also appreciated the CBORD Food Management System. She enjoyed the food, the convenience of the room service option, and being able to eat when she was hungry. Her guests also welcomed the option of being able to order and dine with Mary at a reasonable cost.

The staff dedicated time to teaching Mary's significant other, Tim Brewer, what to expect throughout the recovery process and how to best care for her.

She also was educated on a recommended diet to minimize any irritations to her condition.

Mary made a full recovery and has no limitations. Throughout her recovery, she remained diligent about climbing stairs and making efforts to strengthen her core. She has returned to work at Sak's Market, a small, family-owned grocery in Newark. An avid deer, pheasant and wild turkey hunter, Mary is eager for hunting season after missing last year due to her surgery. She enjoys the outdoors, often with her four German shorthaired pointers, her bird dogs, as well as shooting clay pigeons. Mary volunteered as an Ohio Hunter Education Instructor for 25 years.

"I would like to thank Tim for all the help and care he provided. I also was very fortunate to receive such tremendous support from my brother, Paul Welsh, and all my co-workers," said Mary. "I had my gall bladder removed at LMH in 1979," she shared. "While I have never had a bad experience at LMH, I have seen noticeable improvements over the years and am impressed with their high standards and so grateful for always receiving such outstanding care."

LMH's state-of-the-art surgical facilities are located in the John & Mary Alford Pavilion which opened in 2007. Out of the 7,254 surgeries performed in 2016, more than 5,023 took place on an outpatient basis, saving the patients from extended hospital stays and additional expenses.

Surgery 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.

Moderate sedation allows patients to tolerate 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 2014	LMH 2015	LMH 2016	LMH Goal
Use of reversal agent for GI procedures	0.09%	0.08%	0.00%	Less than 0.90%

The healthcare team at Licking Memorial Hospital (LMH) 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 2016, 7,254 surgeries were performed at LMH.

	LMH 2014	LMH 2015	LMH 2016	LMH Goal
Wrong-site surgeries	0	0	0	0

Patients who have open-incision surgery are at elevated risk to develop an infection at the surgical site. In extreme cases, a localized infection can lead to sepsis, which is a systemic, life-threatening condition. LMH utilizes strict infection-prevention strategies for each surgical patient and ensures that the Hospital's Central Sterile staff members receive certification in proper reprocessing sterilization policies for surgical equipment.

I		LMH 2014	LMH 2015	LMH 2016	LMH Goal
	Central Sterile staff with certification within one year of completed training	100%	100%	100%	100%
1	Surgical site infections	0.20	0.10	0.50	0.10
	Post-operative sepsis, per 1,000 patients	LMH 2014 NA	LMH 2015 2.10	LMH 2016 3.34	State [©] 12.85

As a quality care indicator, hospitals track 30-day readmission rates for patients who had total hip or total knee replacement surgeries. LMH tracks the rate of patients who had an unplanned readmission back to LMH for any reason (even if the reason was unrelated to the surgery) within 30 days of their Hospital discharge.

	LMH 2014	LMH 2015	LMH 2016	National ⁽¹⁾
30-day readmissions:				
Total hip replacement readmissions	3.77%	8.00%	4.65%	2.45%
Total knee replacement readmissions	2.78%	3.23%	2.66%	1.19%

Delays in surgical procedures are an inconvenience to patients who may have fasted for hours and often are nervous. The LMH Surgery staff makes every effort to schedule procedures appropriately for the comfort of patients and their families.

	LMH 2014	LMH 2015	LMH 2016	LMH Goal
Surgeries that started on time	78%	88%	89%	Greater than 90%

Postoperative patients who lie in bed for long periods are at increased risk of developing a blood clot in their lungs (pulmonary embolism) or legs (deep vein thrombosis). To prevent the formation of these dangerous conditions, LMH uses multiple methods to reduce the risk of blood clots.

	LMH 2014	LMH 2015	LMH 2016	State ⁽²⁾
Postoperative patients who developed a pulmonary embolism or deep vein				
thrombosis, per 1,000 patients (PSI 12)	NA	0	2.51	5.42

Data Footnotes: (1) MIDAS CPMS comparative database (2) Battelle WayFinder™ Q.I. Dashboard.



Health Tips - Recovering from Surgery

The length of time it takes to recover from surgery is dependent on the patient and the procedure. After an inpatient surgical procedure, patients will be expected to be active and meet certain goals involving breathing, digestive system functioning, and movement before being discharged from Licking Memorial Hospital. A patient is closely monitored for any complications after a surgery, and will be expected to walk or sit on the edge of the bed as soon as they are able. For more invasive procedures, patients will be encouraged to practice breathing exercises to ensure the lungs are functioning properly. Deep breathing and coughing helps prevent pneumonia and other breathing difficulties.

Pain after surgery is to be expected; however, pain should be controlled enough to allow movement and coughing. A dramatic increase in pain for no reason should be reported to the LMH staff. Also, if an activity causes pain to increase, it may be an indication that the patient is trying to accomplish too much too soon. When recovering in the Hospital or at home, be aware of signs of complications. Report the following symptoms to a physician or LMH staff immediately:

- Difficulty breathing
- Fever over 100 degrees Farenheit
- Black, tar-like stools
- Pain that sharply increases, or becomes uncontrollable
- Redness, bleeding or an opening at the incision site
- A decrease in the ability to function (example: cannot walk to the bathroom)
- A change in the level of consciousness or ability to wake
- Persistent diarrhea, constipation, nausea and/or vomiting
- Inability to tolerate food or drink
- Unexplained leg pain in one or both legs

Prior to discharge, it is important to understand any special requirements needed for continued recovery. The medical staff will provide a list of discharge instructions specific to the patient's needs, including specific instructions about wound care. In the majority of surgical cases, the patient is able to return to their own home, however, if a patient requires specialized care, they could be transferred to another facility. Community Case Managers are available to help understand the different types of facilities and to provide assistance arranging for special equipment needed.



Please take a few minutes to read this month's report on **Surgery Care**. You'll soon discover why Licking Memorial Health Systems is measurably different ... for your health!

The Quality Report Card is a publication of the LMHS Public Relations Department. Please contact the Public Relations Department at (220) 564-1572 to receive future mailings.

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