

# Quality Report Card

Licking Memorial Health Systems

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PATIENT SAFETY



## Vaccination Hesitancy

Parents dedicate a great deal of time and resources toward protecting the health and safety of their children. This may include researching the safest car seats, ensuring proper nutrition, or purchasing safety equipment for sports and other activities. Vaccination is another crucial step in keeping children safe. Experts agree that vaccination is the most effective way to protect children from a variety of serious and potentially fatal diseases.

Vaccines not only are important to the health of an individual, but also to the health of the community. Recent concerns among parents and adults have led to a decrease in the use of vaccinations, which puts the community at risk of spreading certain diseases. In order to protect the health of the community, vaccinations are essential in the prevention of contracting and spreading these debilitating diseases.

Because of the success of vaccination over the past several decades, many people have not witnessed the devastating effects of preventable diseases. However, the viruses and bacteria that cause these diseases still exist, and children in the United States and elsewhere remain vulnerable. Experts agree that decreased rates of vaccination could lead to an increase in many diseases – even those that have not been encountered in large numbers for many decades. Hepatitis A,

diphtheria, tetanus and pertussis are all vaccine-preventable diseases that are contagious and dangerous. Hepatitis A is a viral liver disease that is transferred easily through consuming contaminated water and food with feces particles from an infected person. It also can be spread through direct contact with an infected person. According to the World Health Organization (WHO), hepatitis A is one of the most frequent causes of foodborne infection and can withstand food production-processes intended to destroy any lingering disease or virus. This disease can cause symptoms, such as fatigue, low appetite, stomach pain, nausea, and jaundice that usually resolve within 2 months of infection; however, more severe effects include liver failure in those over the age of 50. The Centers for Disease Control and Prevention (CDC) report that cases of hepatitis A declined 95 percent from 1995 to 2011 because of the introduction of the vaccine in 1995. However, cases have risen 140 percent from 2011 to 2017 due to vaccine hesitancy and the spread of the

virus among non-immune people. Those who receive the vaccination can prevent themselves from contracting hepatitis A and prevent spreading to those who may be at a higher risk of complications.

Diphtheria, tetanus and pertussis also are vaccine-preventable diseases. All three diseases were common in the United States until the introduction of the Tdap vaccination, which can prevent all three diseases. The vaccine has drastically decreased cases of these diseases; however, the CDC reports that pertussis is the only vaccine-preventable disease that has continued to rise in the United States. Because of vaccine hesitancy, cases and outbreaks of pertussis have increased over the past decade. Pertussis, also known as whooping cough, is another highly contagious disease that is easily prevented with the vaccine. Without the vaccine, the disease causes cold-like symptoms and develops over time into severe coughing, vomiting, exhaustion and breathing issues. The disease is especially dangerous in infants and young children as it can cause complications that may result in death.

Vaccines are vitally important to the health of the community. WHO predicts that vaccine hesitancy has the potential to reverse progress made on eliminating vaccine-preventable diseases. Therefore, it is important to educate others regarding the benefits of vaccination and the importance to the health of the community.



# Patient Story – John Coen



Several years ago, John Coen learned he had atrial fibrillation (AFib), which occurs when the top two chambers of the heart, known as the atria, quiver or flutter instead of fully contracting which produces a rapid, out-of-sync heartbeat. During a routine checkup, John's primary care physician detected an irregular heartbeat and ordered an electrocardiogram (EKG) to determine if John had AFib. The condition is not always easy to detect because many patients, including John, experience no symptoms.

The irregular heartbeat caused by AFib can lead to blood collecting in the heart and forming a clot that may travel to the brain, cut off the oxygen and blood supply, and cause a stroke. To prevent blood clots from forming, John was prescribed Coumadin (warfarin) – an anticoagulant, or blood thinner, that requires careful monitoring for patient safety. The most common side effect of Coumadin is bleeding in tissues or organs. It is important for patients to have a prothrombin time (PT) and International Normalized Ratio (INR) blood test regularly to help the physician determine the blood clotting rate and whether the dosage should change. The testing is vital and must be accomplished at recommended intervals in order to keep the PT/INR result in the safest range for the medical condition.

After his diagnosis, John was referred to the Licking Memorial Hospital (LMH) Medication Therapy Clinic. The Clinic

works with the patient to create a treatment plan, and teaches the patient and their family members about correct dosing and signs and symptoms of complications. "At first, I was upset and worried about having to take medication, but the Medication Therapy Clinic staff explained why I needed it," said John. "They were very helpful because the information can be difficult to understand." John visited the clinic frequently until the PT/INR was properly regulated. Now, the visits are scheduled every 4 to 5 weeks in order to ensure the proper blood clotting rate.

The Medication Therapy Clinic is a service directed by a physician and staffed by clinical pharmacists and registered nurses with specific knowledge of anticoagulation therapy. Blood testing and other laboratory studies generally are performed on-site in the Clinic. Regular communication with the patient's primary care physician occurs throughout the patient's care. "The nurse greets us when we arrive at the Clinic, discusses my current state of health and notes any changes, including my diet," John explained. The pharmacist then visits with John and reviews all the information to decide if adjustments are needed in the dosage. John also is required to regularly meet with his primary care physician, Nina P. Hourmouzis, M.D., of Licking Memorial Internal Medicine, for follow-up care.

For patient safety, the Medication Therapy Clinic staff coordinates with other Licking Memorial Health Systems (LMHS) providers when procedures or other types of testing are required. Since John is at risk for colon cancer, he recently was scheduled for a colonoscopy and had to stop taking Coumadin for five days to lower the risk of bleeding during the procedure. The Clinic staff made adjustments to John's

dosage to prepare him for the colonoscopy. "I was concerned about how much of my medication I was supposed to take, and the Clinic staff made sure I was on the right dose," John said. "Everyone at LMHS has always been very attentive and caring." A week after the gastroenterologist removed several small polyps, John returned to the Medication Therapy Clinic to check his blood clotting levels and readjust his dose of Coumadin.

John has been a barber for 49 years, and continues to work part-time at a shop in Heath located on Route 79. His wife, Ruth, was a registered nurse and retired from LMHS in 2005. She continues to volunteer at Licking Memorial Hospital. The couple has been married for 54 years and have two daughters. Polly Prouty is a teacher in Johnstown, and Deborah Savage is a Regional Vice President for AVI Food Systems, Inc. John and Ruth enjoy spending time with their daughters and their granddaughter, Alyssa Savage.

# Patient Safety – 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 to benchmark measures. Then, we publish the information so you can draw your own conclusions regarding your healthcare choices.

1. The Institute of Medicine published a report in 2000 that highlighted the stunning effects of medication errors. The report set forth a national agenda for reducing errors and improving patient safety by designing a safer health system. Although the medication error rate at Licking Memorial Hospital (LMH) is significantly better than the national benchmark, we make continuous efforts to improve the process. LMH dispensed 1,213,614 doses of medication in 2018.

	LMH 2016	LMH 2017	LMH 2018	National <sup>(1)</sup>
Medication errors per 1,000 doses	0.010%	0.013%	0.014%	<b>0.310%</b>

2. Protecting patients from hospital-acquired infections is a primary patient safety goal. LMH has an ongoing program to prevent and treat infections in patients. Per the Centers for Disease Control and Prevention (CDC) recommendations, LMH tracks high-risk patients, including those with an increased risk of infection due to the presence of an invasive device, such as a ventilator, catheter or central venous line. The following data reflect how many infections occurred during 1,000 patient days compared to the national benchmarks.

	LMH 2016	LMH 2017	LMH 2018	National <sup>(2)</sup>
Urinary tract infection rate for ICU patients with urinary catheters, per 1,000 days of usage	2.0	1.0	0.0	<b>0.6</b>
Urinary tract infection rate for patients outside of ICU with urinary catheters, per 1,000 days of usage	1.6	1.8	0.5	<b>0.48</b>
Bloodstream infection rate for patients outside of ICU with central venous catheters, per 1,000 days of usage	0.0	1.7	0.0	<b>1.1</b>
Bloodstream infection rate for patients outside of ICU with central venous catheters, per 1,000 days of usage	0.0	0.0	0.0	<b>0.18</b>

\*Throughout a period of 1,000 patient days, one bloodstream infection was recorded in LMH's ICU among patients with central venous catheters.

3. LMH conducts a comprehensive assessment to determine if a patient is at risk for a fall at admission and during the hospital stay. Personal alarms and bed sensors help alert staff to a potential fall.

	LMH 2016	LMH 2017	LMH 2018	Goal
Inpatient falls, per 1,000 patient days	2.5	2.4	2.9	<b>less than 3.0</b>

4. Acute care mortality refers to patients who pass away while admitted as inpatients in the hospital. While mortality within the hospital is not uncommon, it can be a valuable indicator in determining how effectively the hospital manages crisis situations as well as its ability to rescue the patient in an emergency. Other factors, such as nurse staffing levels, staff knowledge and experience, and early recognition of patient deterioration all can have an impact on inpatient mortality. In extraordinarily rare cases, a localized infection can lead to sepsis, which is a systemic, life-threatening condition. Lower rates are preferable.

	LMH 2016	LMH 2017	LMH 2018	National <sup>(3)</sup>
Inpatient mortality	1.17%	1.20%	1.34%	<b>2.22%</b>
Sepsis mortality rate, per 1,000 patients	8.7%	8.9%	10.3%	<b>State<sup>(5)</sup> 14.9%</b>

5. LMHS recognizes the importance of keeping our staff healthy and lessening the likelihood that they will infect our patients with influenza while under their care. LMHS is committed to encouraging and providing free, easily accessible flu vaccines to all employees.

	LMHS 2016	LMHS 2017	LMHS 2018	LMHS Goal	National <sup>(4)</sup>
LMHS employees receiving the seasonal influenza vaccine	94%	94%	95%	<b>greater than 80%</b>	<b>64.3%</b>



**6.** Warfarin (trade name Coumadin) is a blood thinner, which also is called an anticoagulant. It is used to help prevent and treat blood clots. The most common side effect of warfarin is bleeding in any tissue or organ. It is important for patients to have a prothrombin time (PT) and International Normalized Ratio (INR) blood test regularly to help the physician determine the blood clotting rate and whether the dosage of warfarin should change. The testing is very important and must be accomplished at recommended intervals in order to keep the PT/INR result in the best and safest range for the medical condition. Licking Memorial Health Professionals (LMHP) has adopted this recommendation as a safety measure.

	LMHP 2016	LMHP 2017	LMHP 2018	LMHP Goal
LMHP patients on warfarin having a current PT/INR within recommended guidelines	92%	93%	94%	greater than 90%

**7.** Metformin (trade name Glucophage) is a medication that is used in the treatment of diabetes mellitus and polycystic ovarian disease. It is an effective medication for treatment of both of these unrelated disease processes, but must be used cautiously in patients with compromised renal (kidney) function. It is recommended to monitor renal function prior to initiation of therapy and at least annually thereafter. LMHP has adopted this recommendation as a safety measure.

	LMHP 2016	LMHP 2017	LMHP 2018	LMHP Goal
LMHP patients on Metformin with a renal function test within last year	94%	92%	93%	greater than 90%

**Data Footnotes:** (1) *To Err Is Human – Building a Safer Health System*, National Academy Press, Washington D.C., 2000. (2) CDC National Healthcare Safety Network pooled median (ICU only) from January 2006-December 2007, issued November 2008 (3) Comparative Data from the Midas Comparative Database. (4) Centers for Disease Control and Prevention (CDC), Interim Results: Seasonal Influenza Vaccination Coverage Among Health-Care Personnel, *MMWR* April 2, 2010 / 59(12); 357-362. (5) OHA

## Health Tips – Vaccination Recommendations

Vaccines utilize the body's natural defense system to help it safely develop immunity to certain diseases and are the best way to protect individuals from those diseases. One study published in the Journal of the American Medical Association found that children who are not immunized are six times more likely to contract whooping cough (pertussis) and 22 times more likely to be infected with measles than children who have received the proper immunizations. Some vaccine-preventable diseases can be deadly, or result in serious and long-term complications for children. Children who are not vaccinated also are at risk of spreading the disease to others who are susceptible to various preventable diseases.

Below are a list of recommended vaccinations for children:

- Hepatitis B (HepB): 0 – 18 months (3 doses)
- Rotavirus (RV): 2 – 6 months (2 or 3 doses)
- Diphtheria, tetanus, and acellular pertussis (DTaP): 2 months – 6 years (5 doses)
- Tetanus, diphtheria, and acellular pertussis (Tdap): 11 – 12 years (1 dose)
- Haemophilus influenza (Hib): 2 – 15 months (3 or 4 doses)
- Pneumococcal conjugate (PCV13): 2 – 15 months (4 doses)
- Inactivated poliovirus (IPV): 2 month – 6 years (4 doses)
- Influenza: Annually beginning at 6 months

- Measles, mumps, rubella (MMR): 12 months – 6 years (2 doses)
  - Varicella (VAR): 12 months – 6 years (2 doses)
  - Hepatitis A (HepA): 12 months – 23 months (2 doses)
  - Human papillomavirus (HPV) for males and females: 11 – 12 years (3 doses). Can be given at age nine and, in recent indicators, up to age 45.
  - Meningococcal: 11 – 12 years, booster at 16
- For any questions regarding child vaccinations, contact your pediatric or primary care physician.



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Please take a few minutes to read this month's report on **Patient Safety**. You'll soon discover why Licking Memorial Hospital 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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