

# Quality Report Card



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PATIENT SAFETY

## Purell™ SMARTLINK™ Improves Hand Hygiene Compliance

Licking Memorial Health Systems is committed to patient safety and improving patient outcomes. The Centers for Disease Control and Prevention (CDC) states that hand hygiene is the single most important practice in the reduction and transmission of infection in healthcare settings. In addition, the Joint Commission requires that accredited hospitals comply with National Patient Safety Goals. Licking Memorial Hospital (LMH) recently installed the Purell™ SMARTLINK™ Activity Monitoring System (AMS) in the Intensive Care Unit (ICU) to improve safety goals, foster a culture of good hand hygiene, monitor compliance, and provide feedback to workers.

Hospital-acquired infections (HAI) are infections that patients get while they are in the hospital and can be caused by bacteria, viruses, and fungi. HAIs are most commonly spread through contact with the hands of healthcare workers when hands are not cleaned properly, and germs can be transmitted from one patient to another. HAIs can also be spread through contact with contaminated surfaces or medical equipment.

The CDC estimates that each year, nearly 2 million patients in the United States receive an infection in the hospital, and about 90,000 of those patients die as a result of their infection. Factors that may negatively impact adherence to hand hygiene practices may include a lack of soap and

paper towels, not enough time, sinks are inconveniently located, understaffing, and patient needs taking priority.

The Purell SMARTLINK AMS tracks the movement and hand hygiene behavior of any person, including healthcare workers, patients, and visitors, who enters or exits the patient's room. Sensors that are installed above the door of each patient room senses heat and motion to track when someone enters or exits the room. The sensors are paired with the hand sanitizers and soap dispensers, which connect to a computer system that can track how often people use the dispensers to wash their hands when entering or exiting a patient's room. The data is sent immediately to a secure, web-based portal where a customized dashboard provides reports that show hand hygiene performance rate and compliance.

There are five key moments for hand hygiene that healthcare workers must practice to reduce the incidence of healthcare-associated infections (HAI):

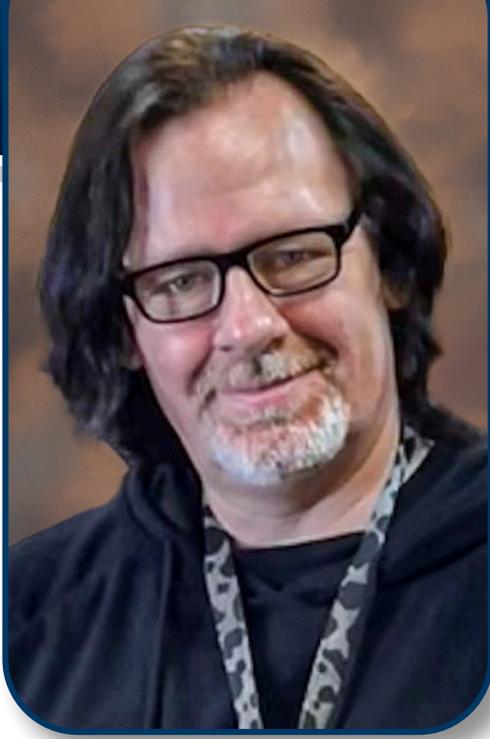
1. Before touching the patient
2. Before providing a clean/aseptic procedure
3. After direct contact with body fluid
4. After touching a patient
5. After touching surfaces around a patient

In addition, healthcare workers can encourage patients, families, and visitors

to prevent HAI by cleaning their hands. Patients should perform hand hygiene before or after touching invasive devices or bandages, before eating, after using the restroom or handling a bedpan, and when entering or leaving their room.

Hand hygiene is essential in preventing the spread of infection in the hospital setting. The Purell SMARTLINK technology installed at LMH helps to reduce the risk of infection through enhanced hand hygiene protocols and compliance. Data received from the system provides insight on employees' hand hygiene performance, promotes patient safety, and improves health outcomes.





## Patient Story – John Morgan

Although John Morgan was born and raised in Newark, he found love in New York. John met his wife, Lenarose, online. She fascinated him with her accent. The two married and spent 25 years together, raising two children in Licking County. In 2021, Lenarose contracted COVID-19 and was admitted to the Hospital for treatment. Despite the efforts of the staff, she passed away from the effects of the disease. John was devastated by the loss and began struggling with depression.

Earlier this year, John experienced a significant health crisis. Due to depression, he was not eating or taking care of himself. He began to feel weak and unwell. His son convinced him to go the Licking Memorial Hospital (LMH) Emergency Department to receive assistance. After several tests, the staff determined his sodium levels were dangerously low, a condition called hyponatremia, and he was admitted to the Intensive Care Unit (ICU).

Sodium is an important nutrient that assists regulating the balance of water in the body. Most people receive sufficient sodium from the foods they consume; however, when someone stops eating, the levels of sodium in the blood may drop, especially if combined with excessive intake of fluids

that are low in sodium. To work properly, the kidneys require a certain amount of sodium. Without it, excess fluids accumulate in the blood and cause cells to swell which can be dangerous in the brain by causing a change in mental status that can progress to seizures or coma.

“I did not understand the seriousness of the situation,” John said. “It seemed very unreal to me at the time. Some amazing people took care of me and I am grateful to them for seeing me through the crisis. While I do not remember their names, I do remember their actions, especially that of the patient care technician who was very nice and assisted me in cleaning up. There was also a nurse who spent a good deal of time with me answering my questions. Being a nurse is a demanding job, and there were many others who probably needed his attention, but he stayed with me and carefully explained my treatment. His reassurance and information gave me comfort.”

During his stay in the ICU, John received two special visitors. “Gabrielle A. Farkas, M.D., and Ashley Frick, B.S.N., had cared for my wife while she was in the Hospital. They were so caring and kind. Neither of them were involved in my care during my stay; however, when they found out I was in the ICU, they both came to check on me which was encouraging.”

The road to recovery continues for John. He has made several physical changes to ensure his sodium levels remain steady such as following a healthy diet

plan. “While the dietary changes were necessary, it was only a superficial change. Not eating was just a symptom of a larger problem. I am now working on recovering from my severe depression.”

Relying on input and personal assistance from several different programs, John is learning to change the way he perceives the events over the past two years. By changing his focus and working to accept that bad things happen, John is making progress to becoming healthier overall. “My best friend taught me an important motto, progress, not perfection,” John shared. “It is all about the progress. If there is anything I could share with people, it is that we may always face some battles, but as long as we work hard and make even the tiniest bit of progress each day, then we are doing the important work in healing ourselves.”

He is currently working two jobs and keeping his mind and body occupied. Through the trials of his illness, John felt supported by the those who cared for him at LMH. “The staff is phenomenal. They are very caring, and it is obvious in all they do,” he said.

Check out our Quality Report Cards online at [LMHealth.org](https://www.lmhealth.org).



# 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 1,032,878 doses of medication in 2022.

	LMH 2020	LMH 2021	LMH 2022	National <sup>(1)</sup>
Medication errors per 1,000 doses	0.01%	0.01%	0.01%	<b>0.31%</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 reflects the number of infections per every 1,000 patient days compared to the national benchmarks.

	LMH 2020	LMH 2021	LMH 2022	National <sup>(2)</sup>
Central line associated bloodstream infections (ICU)	0.000	0.000	2.473	<b>0.844</b>
Catheter associated urinary tract infection (ICU)	0.600	0.000	0.228	<b>0.670</b>
Surgical site infections – colon surgery	0.000	0.000	0.000	<b>0.877</b>
Surgical site infections – abdominal hysterectomy	0.000	0.000	N/A	<b>0.935</b>
Methicillin-resistant staphylococcus aureus (MRSA) bacteremia	1.086	1.126	0.814	<b>0.907</b>
Clostridium difficile (C. Diff)	0.891	0.537	1.449	<b>0.481</b>

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 2020	LMH 2021	LMH 2022	Goal
Inpatient falls, per 1,000 patient days	3.9	3.6	4.2	<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. Sepsis is a body's overwhelming and life-threatening response to an initial infection of microbes that can be bacterial, viral, or fungal. It can be difficult to diagnose. LMHS has safety measures in place to detect early signs of sepsis. Lower rates are preferable.

	LMH 2020	LMH 2021	LMH 2022	National <sup>(3)</sup>
Inpatient mortality	1.67%*	2.18%*	2.14%*	<b>2.58%</b>
Sepsis mortality rate, per 1,000 patients	11.3%*	10.9%*	10.9%*	<b>State<sup>(4)</sup> 14.9%</b>

\*Deaths definitively or potentially related to COVID-19 have been excluded.

5. During the annual influenza (flu) season, keeping the LMHS employees healthy by providing flu vaccinations can, in turn, protect patients from potential influenza infections. LMHS is committed to encouraging and providing free, easily accessible flu vaccines to all employees.

	LMHS 2020	LMHS 2021	LMHS 2022	LMHS Goal	National <sup>(5)</sup>
LMHS employees receiving the seasonal influenza vaccine	94%	85%	82%	<b>greater than 80%</b>	<b>79.9%</b>

**6.** Warfarin (also known as 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 2020	LMHP 2021	LMHP 2022	LMHP Goal
LMHP patients on warfarin having a current PT/INR within recommended guidelines	N/A*	97%	98%	greater than 90%
*An insufficient amount of data was available for comparison.				

**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 2020	LMHP 2021	LMHP 2022	LMHP Goal
LMHP patients on Metformin with a renal function test within last year	89%	92%	89%	greater than 90%

**Data Footnotes:** (1) *To Err Is Human – Building a Safer Health System*, National Academy Press, Washington D.C., 2000. (2) *National performance from Hospital Compare Preview Report, Q1 2021 – Q4 2021*. (3) Comparative Data from the Midas Comparative Database. (4) OHA (5) Centers for Disease Control and Prevention (CDC). *Influenza Vaccination Coverage Among Health Care Personnel – United States, 2020-21 Influenza Season*.

# Hand Hygiene Prevents Illness

Handwashing with soap and water is one of the simplest and most effective ways to stop the spread of germs and prevent illness. Individuals should wash their hands after using the restroom, when preparing food, before eating, and after coughing, sneezing, or blowing their nose. The Centers for Disease Control and Prevention (CDC) recommends 5 steps to proper handwashing:

- 1. Wet** hands with clean, running water, and apply soap.
- 2. Lather** hands by rubbing them together with soap, making sure to lather the back of the hands, between the fingers, and **under** the nails.
- 3. Scrub** hands for at least 20 seconds. Singing “Happy Birthday” twice from beginning to end serves as a good timer.
- 4. Rinse** hands well under clean, running water.
- 5. Dry** hands using a clean towel, use the towel to turn off the water, and then discard the towel.

When soap and water are not readily available, people may use a hand sanitizer that contains at least 60 percent alcohol. Apply sanitizer to hands and be sure to cover all surfaces of the hands. Rub hands and fingers together for about 20 seconds until completely dry.



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Visit us at [LMHealth.org](http://LMHealth.org).

Please take a few minutes to read this month’s report on **Patient Safety**. You will 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) 564-1561 to receive future mailings.

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