LMH Among Top Hospitals in the Nation for Sepsis Care

Sepsis is a complication that occurs when a patient has an extreme response to an infection. It causes damage to organs in the body and can be life-threatening if not treated. If sepsis becomes severe enough or develops into septic shock, the chances of death increase significantly.

On average, over 270,000 people in the United States die from sepsis every year. Anyone can develop sepsis, but older adults and people with weak immune systems have a higher risk for developing sepsis and a greater chance of dying from severe sepsis or septic shock. Early identification of sepsis and early appropriate care can lower the risk of death from sepsis.

The Centers for Medicare & Medicaid Services (CMS) implements quality initiatives to assure excellent healthcare for Medicare beneficiaries through accountability and public disclosure. CMS uses quality measures in the various initiatives to encourage continual improvement. Studies show that measuring hospital performance is related to better patient outcomes. Some quality measures are publicly reported on the CMS Hospital Compare website; a tool designed to assist Medicare beneficiaries in finding top rated providers.

One such initiative is a requirement for healthcare providers to track and report specific treatment methods that must be met for all patients suspected of suffering from sepsis. According to

the data collected by CMS, the rating for Licking Memorial Hospital (LMH) reflects outstanding performance for sepsis care. LMH scored in the top 10 percent of hospitals throughout the nation in sepsis treatment, ranking higher than several top national hospitals, and the only hospital in Central Ohio to receive the designation.

In 2015, CMS implemented the Severe Sepsis/Septic Shock Management (SEP-1) Bundle to promote timely sepsis care. SEP-1 is a process for hospital clinicians to follow for every patient with severe sepsis or septic shock. In the Emergency Department, the sepsis care bundle focuses on timely interventions within the first few hours of sepsis recognition to improve outcomes. It includes actions such as measuring lactate, obtaining blood cultures before antibiotics, administering broad-spectrum antibiotics, and fluid resuscitation for low blood pressure. These steps are crucial for preventing progression to septic shock and improving patient survival. The mortality risk for a patient with severe sepsis and septic shock increases by 4 to 9 percent for every hour that treatment is delayed.

Having a standard process for every patient with sepsis encourages closing gaps in sepsis outcomes across race, socioeconomic status, geography, and insurance status. The latest SEP-1 data that LMH reported to CMS included its performance related to identifying and treating both severe sepsis and septic

shock. The national average for SEP-1 performance is 63 percent. LMH's performance result was 85 percent, which ranked the Hospital in the top 10 percentile in the country. The Ohio average for SEP-1 performance is 55 percent. LMH scored third highest in the state with 85 percent compliance in the overall sepsis bundle. LMH was the only hospital in Ohio to score 100 percent compliance on both the 3-hour and 6-hour septic shock measures, earning a first place ranking for both bundles.

Licking Memorial Health Systems' (LMHS) commitment to sepsis care excellence is not new. In 2016, LMHS began a campaign to significantly reduce the mortality rate from sepsis. By using innovative technologies, standardizing care, and raising awareness among the staff, LMH's inpatient mortality rate from sepsis decreased by 70 percent. The campaign's success was credited to the collaboration of a newly established multidisciplinary sepsis team that included physicians, nurses, pharmacy and laboratory personnel, and members of the Process Improvement and Information Systems Departments. In 2018, LMHS was recognized as an honoree of the Ohio Patient Safety Institute's (OPSI) Best Practice Award for their Sepsis Initiative.

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Patient Story – Dakoda Dunlap

Dakoda Dunlap lives in Heath with her parents, Gretchen and D.L. She has two older sisters, Delaney and Allie, and an older brother, Kevin. Earlier this year, Dakoda was prescribed an antibiotic. After taking the medication for nine days, she woke up with a rash on her arms and face. Her mother gave her an antihistamine, a medication that relieves allergy symptoms such as itching and swelling, and Dakoda decided to attend school. However, the rash worsened, she began feeling unwell, and left school and went home. "She was a real trooper. Dakoda felt awful, but she wanted to try to finish her school day," said Gretchen.

The next morning, the rash was worse and Dakoda's throat felt swollen. Gretchen called Dakoda's pediatrician, Richard A. Baltisberger, M.D., of Licking Memorial Pediatrics – Tamarack. Due to the concerns about Dakoda's throat swelling, the office staff advised Gretchen to take Dakoda to the Licking Memorial Hospital Emergency Department (ED).

"Taking Dakoda to the ED made me feel a little uncomfortable," Gretchen said. "In the winter, with cold and flu season, I understand the ED can be very busy and wait times are longer. I was not eager to spend an entire day sitting in the waiting room. However, starting with registration, the process went very quickly and smoothly, and everyone was kind, sympathetic, professional, and caring. We were only in the waiting room for about five minutes, went to triage, where we were taken right into a room. The nurses came within minutes and the physician came to exam Dakoda after about 10 minutes."

When the ED physician examined Dakoda, it was confirmed that she was experiencing an allergic reaction to the antibiotic. An allergic reaction to antibiotics occurs when the immune system produces antibodies in response to taking the medication. The body is reacting to what is perceived as a harmful substance and releases chemicals that cause the symptoms associated with an allergic reaction such as a rash and swelling. Delayed reactions usually appear several days after starting the antibiotic, often after several doses, and may even begin after treatment has been stopped.

Gretchen knew that Dakoda was allergic to amoxicillin, a penicillin-based antibiotic used to treat a variety of bacterial infections including tonsillitis and bronchitis. As a young child, Dakoda experienced hives after taking the medication. The reaction was mild and easily treated. In this instance, Dakoda was prescribed an antibiotic that did not contain penicillin; however, the medication was similar enough in structure to cause the delayed allergic reaction.

The physicians and nurses treated Dakoda with epinephrine. Epinephrine reduces or reverses the severe symptoms of an allergic reaction very quickly by opening the airways and reducing swelling. The medication assists in maintaining heart function and blood pressure. As epinephrine causes the blood to be diverted away from the skin, it reduces hives and itching. Epinephrine also can prevent a further release of histamine, the chemical that responds to allergens and ushers in symptoms. Other intravenous medications were administered as well to halt the allergic reaction, and Dakoda was sent home.

"I could see she was feeling so much better as the medications began to work. The physician was personable and professional. He kept us informed about the treatment plan, as well as what to expect. The nurses all worked so well together, as a team, placing patients first and foremost.," Gretchen shared. "While checking-in, the registration clerk suggested where we should stand until we were called to triage. Since we were at the ED for an allergic reaction, she wanted to ensure we were not exposed to those with viruses and other illness to protect our health. LMH provided such a positive experience for us personally and for our health."

Dakoda's reaction to the antibiotic is rare. In most cases, the allergic reaction is mild to moderate, and symptoms include a raised, itchy skin rash or hives, coughing, wheezing, or tightness of the throat. Mild to moderate allergic reactions can usually be successfully treated by taking antihistamines. Call a primary care physician or pediatrician to obtain advice. In addition to the ED, there are three Licking Memorial Urgent Care locations, Granville, Downtown Newark, and Pataskala. Wait time for all locations can be found on the home page of LMHealth.org.

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. Licking Memorial Hospital (LMH) Emergency Department (ED) length of stay and efficiency measures are shared to provide the community with useful information regarding treatment times. For real-time updates on the ED wait times, visit LMHealth.org. During 2024, there were 51,169 visits to the ED.

	LMH 2022	LMH 2023	LMH 2024	Goal
Median length of stay in the ED for all patients*	190 min.	187 min.	198 min.	**Less than 187 min.**
Median length of time from arrival until seen by a physician*	23 min.	18 min.	18 min	**Less than 28 min.**
Median length of stay in the ED for patients discharged home*	182 min.	189 min.	212 min.	**215 min.**[1]
Percentage of patients who are in the ED for more than 6 hours*	6.4%	6.3%	5.9%	**8.0%**[2]

*LMH data represented on this table reflects nearly 100% of all ED visits, while goals reference CMS hospital comparative data, which uses a small sampling of all U.S. emergency department patients.

2. LMH operates three Urgent Care facilities: Licking Memorial Urgent Care – Pataskala, Licking Memorial Urgent Care – Granville, and Licking Memorial Urgent Care – Downtown Newark. Patients are encouraged to visit Urgent Care rather than the ED when they have illnesses and injuries that are not life-threatening, but need immediate attention, such as ear infections, minor fractures, and minor animal bites. Urgent Care visits usually require less time and offer lower costs than visits to the ED. During 2024, there were 18,188 visits to Licking Memorial Urgent Care – Granville, 8,758 visits to Licking Memorial Urgent Care – Pataskala, and 22,944 visits to Licking Memorial Urgent Care – Downtown Newark.

	LMH 2022	LMH 2023	LMH 2024	Goal
Urgent Care – Downtown Newark: median length of stay	57 min.	47 min.	47 min.	**Less than 60 min.**
Urgent Care – Granville: median length of stay	42 min.	31 min.	31 min.	**Less than 60 min.**
Urgent Care – Pataskala: median length of stay	46 min.	38 min.	36 min.	**Less than 60 min.**

3. Sepsis is a life-threatening condition that occurs when the body's immune system has an extreme reaction to an infection. Sepsis can lead to widespread inflammation in the body, including damage to vital organs. Sepsis is the most common cause of death in hospitals, and also is the most frequent cause of hospital readmissions. Prompt recognition of sepsis and immediate treatment can significantly reduce the likelihood of death in sepsis patients, and long-term complications. Best practices for treating sepsis have been identified, and hospitals across the United States are measured on adherence to the recommendations, which is commonly referred to as the "sepsis bundle." Higher bundle compliance scores can result in better patient outcomes, lower death rates, and fewer readmissions. LMH has been aggressively targeting sepsis care for continual improvement, and boasts some of the highest sepsis bundle scores in Ohio, as well as the Nation. Out of 3,089 hospitals nationally, only 248 scored 85 percent or better which places LMH in the top 8 percent in the country.

	LMH 2022	LMH 2023	LMH 2024	National
"Sepsis bundle" compliance	76%	85%	85%	**63%**

4. Emergency angioplasty restores blood flow in a blocked heart artery by inserting a catheter with a balloon into the artery to re-open the vessel. The procedure has been proven to save lives during a heart attack and is most effective when performed within 90 minutes of the patient's arrival to the ED to minimize irreversible damage from the heart attack.

	LMH 2022	LMH 2023	LMH 2024	Goal
Median time to opened artery	53 min.	60 min.	64 min.	**90 min.**
Percentage of patients with arteries opened within 90 minutes	100%	98%	96%	**96%**

	LMH 2022	LMH 2023	LMH 2024	National[1]
Median time from arrival to completion of EKG	2 min.	4 min.	3 min.	**7 min.**

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5. A high rate of patients who return to the Hospital within 72 hours after an ED visit and are admitted can possibly signal a problem with patient care. These cases are very heavily reviewed and scrutinized, and LMH sets an aggressively stringent goal for this indicator, as listed below.

	LMH 2022	LMH 2023	LMH 2024	Goal
Patients admitted to the Hospital within 72 hours of ED visit	0.8%	0.7%	0.8%	**Less than 1%**

6. Patients who are seen in the ED and return home can sometimes develop further problems that warrant a return to the Hospital. Returning to the ED within 24 hours may indicate a potential problem with initial diagnosis and treatment of a patient's condition. For this reason, LMH measures the rate of unplanned returns to the ED. LMH sets an aggressively stringent goal for this, as listed below.

	LMH 2022	LMH 2023	LMH 2024	Goal
ED patients who return to the ED within 24 hours of discharge	1.2%	1.1%	0.9%	**Less than 2%**

7. For personal reasons, some patients may elect to leave the ED prior to completing any recommended treatment. Doing so can place the patient at serious health risk. As a measure of ensuring patient safety, LMH measures the percentage of patients who elect to leave the ED prior to completing their treatment.

	LMH 2022	LMH 2023	LMH 2024	Goal
ED patients who leave before treatment is complete	1.4%	1.7%	1.5%	**Less than 3%**

Data Footnotes: *(1) Hospitalcompare.hhs.gov national benchmarks. (2) Comparative data from the Midas Comparative Database.*

Protect Yourself from Respiratory Viruses

Many respiratory viruses circulate in the fall and winter seasons causing illness of varying severity across the United States. Three common viruses include influenza (flu), respiratory syncytial virus (RSV), and COVID-19. Children under 5, older adults, and those with underlying medical conditions such as chronic lung disease, heart disease, and diabetes, have an increased risk for severe illness from respiratory viruses. The following tips can help to protect people from these illnesses and prevent such from spreading.

Get vaccinated. Vaccines remain one of the safest ways for individuals to protect themselves and prevent the risk of spreading viruses to others. The Centers for Disease Control and Prevention (CDC) recommend that children and adults receive vaccinations for the flu, COVID-19, and RSV in late summer to early fall before the viruses start spreading widely within the community.
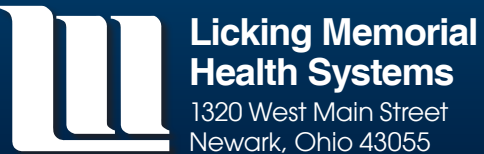
Handwashing. Wash hands with soap and water or use hand sanitizer with at least 60 percent alcohol if soap and water are not available. Wash or sanitize hands before preparing food, before eating, before and after caring for someone who is sick or around someone who has a cold, after using the bathroom, after sneezing or coughing, and after touching anything that may carry germs such as grocery carts, diapers, raw food, animals, or trash.

Cover coughs and sneezes. Individuals should use a tissue to cover their mouth and nose when coughing or sneezing, and wash hands afterward. If tissues are not available, using the elbow to cough or sneeze into can also reduce the spread of germs.

Stay home when sick. Try to avoid close contact with people who are sick. While ill, limit contact with others as much as possible to keep from spreading infection. Wearing a mask around others can also help provide protection against circulating viruses.

Individuals who become infected with the flu, COVID-19, or RSV should self-isolate, get plenty of rest, and stay hydrated. Over-the-counter pain relievers may also be used to reduce some symptoms associated with these illnesses. If symptoms worsen or fail to improve after three days, contact a healthcare professional. People who experience shortness of breath, fever for more than three days, or other concerning symptoms should seek medical care right away.

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Visit us at LMHealth.org.

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

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