# Quality Reporting to the Community

Patient Story and Benchmarks for Pneumonia Care

## Patient Story - David Hanson

David Hanson of Thornville cannot remember for sure whether or not he received a flu shot in 2014. Most years, he does get the annual immunization, but he admits that from time to time, he has let it slide – after all (as he thought) he is a healthy 50-year-old with a busy UPS truck driver's schedule. He will not make that mistake again.

On Monday, November 10, 2014, David began to feel a little under the weather. "I was working on my route, and I realized that I didn't feel good," he recalled. "I thought I was coming

down with the flu, but I've worked through the flu before, and I kept going. At night, I was spiking a fever, but during the day, I was able to manage my symptoms with acetaminophen."

By Thursday, November 13, David was feeling worse with a sore throat and fever. He called his wife, Eileen, who is a nurse at Licking Memorial Hematology/Oncology, and asked her to meet him at Licking Memorial Urgent Care – Granville. He had never taken an antibiotic before, but he thought that he may need one to help his immune system overcome this illness.

David and Eileen filled out the patient paperwork together in the Urgent Care waiting room. David had been sick so seldom in his life that it did not take long to complete the medical history section. The only medication that he was taking was a low dose of a statin drug to control his blood cholesterol. He had no identified allergies, and no history of any respiratory or lung-related problems.

David described his sore throat and fever to Stacey Y. Guan, M.D., who examined David and noted that he had a fever of 101° F, and his tonsils and throat were red and swollen. The lymph nodes in his neck also were swollen and tender. He had a mild cough, but Dr. Guan found that his lungs sounded clear, and there was no shortness of breath. Even though David tested negative for a rapid strep (streptococcus) test, Dr. Guan suspected that he may have a different type of bacterial infection, based on his symptoms. She diagnosed him with acute pharyngitis and prescribed penicillin and an inhaler.

David said, "The next day, my lower torso was all red. On Saturday, I went to Medical & Surgical Associates, Inc., in Newark. Dr. Donnard (Richard R. Donnard, D.O.) suspected that the rash could be a reaction to the penicillin, so he gave me an injection of a different antibiotic (Rocephin®). He also told me that I needed to take some time off work."



On Monday, David's symptoms were even worse, and David returned to Medical & Surgical Associates. "The rash was spreading, and my wife could not control my fever with over-the-counter medications. The worst part was that I just felt weird. I don't really know how to describe it, but I did not feel like myself," he said.

Dr. Donnard listened to David's respiration and took an X-ray of his lungs. The X-ray revealed that a pneumonia infection was developing in the right lung. Dr. Donnard then admitted David to

Licking Memorial Hospital (LMH) immediately for treatment.

Upon admission to LMH's fourth floor, the nursing staff noted that David's fever was wavering between 102°F and 104°F. He was placed on IV infusions of wide-spectrum antibiotics vancomycin (Vancocin®) and levofloxacin (Levaquin®), which is the recommended inpatient treatment for community-acquired pneumonia. Unfortunately, David's symptoms worsened. His fever continued to rise and the rash spread over most of his body. Hospitalist Bassam Kret, M.D., suspected that David was having an allergic reaction to the antibiotics, so he ordered different IV treatments of linezolid (Zyvox®) and clindamycin (Cleocin®).

Although David still did not have chest pain or difficulty breathing from the pneumonia, the rash caused severe itching, and his skin began to peel. "I looked like a burn victim," he recalled. "They gave me drugs to alleviate the itching, but I was still pretty uncomfortable."

Dr. Kret consulted with Pulmonologist Eric R. Pacht, M.D., on David's perplexing case. The two physicians agreed that David was experiencing allergic reactions to every antibiotic in their pharmaceutical arsenal, and that, although unusual, David's pneumonia would be better managed without antibiotics in this case. "They took me off all antibiotics at that point, and my fever began to subside," David said.

David was discharged one week after he was admitted to LMH. "I had been through a lot between the pneumonia, rash, allergic reactions and fever. It's incredible to think it all started with a mild flu virus," he said. "I had no idea that I was allergic to all these medications. The illness was a bad experience, but I am so grateful for the care I received from the Hospital staff. The nurses and aides were all terrific. They made a point of giving me a pneumonia shot before I left to help prevent this from ever happening again. The care was great, and the food was great."

## Pneumonia Care – How do we compare?

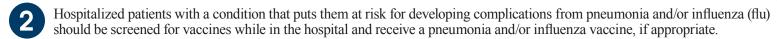
At Licking Memorial Health Systems (LMHS), we take pride in the care we provide. To monitor the quality of that care, we track specific quality measures and compare them to benchmark measures. Then, we publish them so you can draw your own conclusions regarding your healthcare choices.





Best practice in pneumonia care says that a blood culture should be collected before any antibiotics are given to a pneumonia patient to determine more accurately which microorganism is causing the illness.

Patients receiving blood cultures prior to antibiotics	<b>LMH 2012</b>	<b>LMH 2013</b>	<b>LMH 2014</b>	National <sup>(1)</sup>
	100%	98%	95%	98%
Pneumonia patients given the most appropriate antibiotic	<b>LMH 2012</b>	<b>LMH 2013</b>	<b>LMH 2014</b>	National <sup>(1)</sup>
	97%	99%	98%	96%



High-risk patients screened for the pneumonia vaccine	<b>LMH 2012</b>	<b>LMH 2013</b>	<b>LMH 2014</b>	National <sup>(1)</sup>
	94%	99%	99%	92%
Patients screened for the influenza vaccine	94%	98%	98%	93%

Some pneumonia patients who are hospitalized require treatment with a ventilator to assist their breathing. Although the ventilator can be life-saving, it carries the risk of serious complications, such as infections, stomach ulcers, blood clots and extended dependency on the ventilator. To help prevent complications, LMH staff members follow a best-practices protocol for patients on ventilators. Known as the "ventilator bundle," these five steps are carefully documented to ensure each patient receives the best possible care.

Head of bed elevated to 30 degrees	<b>LMH 2012</b> 100%	<b>LMH 2013</b> 100%	<b>LMH 2014</b> 100%	LMH Goal greater than 90%
Oral care	NA	99.2%	99.3%	greater than 90%
Daily test to reduce sedation	97.8%	96.6%	99.1%	greater than 90%
Stomach ulcer prevention	99.3%	99.2%	99.7%	greater than 90%
Blood clot prevention	99.1%	99.2%	99.4%	greater than 90%

Licking Memorial Health Professionals (LMHP) office patients who are at high risk for these illnesses also are screened and vaccinated as appropriate. LMHP physicians strongly encourage patients over the age of 65 years to receive a one-time dose of pneumonia vaccine and an annual influenza vaccine during each "flu season," which runs from October to March.

Physician office patients over 65 years receiving the pneumonia vaccine	<b>LMHP 2012</b> 87%	<b>LMHP 2013</b> 87%	<b>LMHP 2014</b> 87%	National <sup>(2)</sup> 71%	
Physician office patients over 65 years receiving the influenza vaccine	<b>LMHP 2012-2013</b> 82%	<b>LMHP 2013-2014</b> 82%	<b>LMHP 2014-2015</b> 81%	<b>National<sup>(2)</sup></b> 70%	

LMHS is committed to providing and encouraging free, easily accessible flu vaccines to all employees. In order to provide the safest care to our community, LMHS recognizes the importance of keeping the staff healthy.

	LMHS 2012-2013	LMHS 2013-2014	LMHS 2014-2015	National <sup>(3)</sup>	LMHS Goal
LMHS employees receiving the	84%	85%	81%	79%	greater than 80%
influenza vaccine					

**Data Footnotes:** (1) Hospitalcompare.hhs.gov national benchmarks. (2) Hedis – 2013 National Committee for Quality Assurance (NCQA). The State of Healthcare Quality 2013. (3) Centers for Disease Control and Prevention (CDC). Seasonal Influenza Vaccination Coverage Among Health-Care Personnel. MMWR September 27, 2013.

# **Pneumonia** – a Serious Infection That Can Be Prevented in Many Cases

Benjamin Franklin's proverb, "An ounce of prevention is worth a pound of cure," appropriately describes pneumonia, an infection of the lungs. The severity of pneumonia infections can range from mild to life-threatening, and full recovery may take several months. Fortunately, current vaccines are quite effective in preventing the debilitating disease.

Pneumonia can be caused by viral, bacterial or fungal infections, although fungal-related pneumonia is uncommon in the United States. In many cases, pneumonia develops after an individual has been ill with a different disease, such as influenza or measles, that weakens the immune system and clears a pathway for the infectious microbes to reach the lungs.

Signs of pneumonia may include cough, fever and chills, difficulty in breathing and chest pain. The physician typically is able to make a diagnosis after listening to breathing sounds through a stethoscope and examining chest X-rays.

"Globally, pneumonia is responsible for the deaths of nearly 1 million children under the age of 5 whose immune systems are not fully developed yet," cited Asegid H. Kebede, M.D., of Licking Memorial Pulmonology Sleep Medicine. "In the United States, the mortality rate for children is much lower thanks to the availability of antibiotics and modern health care. However, approximately 1 million individuals of all ages are hospitalized each year, and more than 53,000 died from the disease in 2013. These numbers are particularly disturbing because the illnesses could have been prevented in most cases through proper immunization, smoking cessation and disease-prevention precautions."

Pneumonia is divided into two main categories: community-acquired and hospital/healthcare-acquired. The community-acquired type is more common and is contracted through direct or indirect contact, such as touching contaminated objects. Community-acquired pneumonia is usually caused by a viral infection and often can be treated at home with monitoring by a physician. To prevent the spread of community-acquired pneumonia, sick individuals should avoid contact with others as much as possible, and careful hand-washing should be practiced by the patient and any caregivers.

Pneumonia that is hospital/healthcare-acquired is more likely to be caused by a bacterial infection. It affects patients who were admitted to a hospital for a different condition or reside in a care facility, such as a nursing home. This type of pneumonia may develop after the use of a mechanical ventilator or in patients who are immobile or too weak to cough to clear the lungs. Treatment usually requires hospitalization and precise identification of the infection for the appropriate antibiotic prescription.

"Walking pneumonia" is a commonly used non-medical term that describes a mild case of bacterial pneumonia. The patient usually has prolonged cold-like symptoms. Although the patient may not feel severely ill, the physician may still prescribe antibiotics for treatment.

Individuals of all ages are at risk for developing pneumonia. The National Heart, Lung, and Blood Institute has listed the following descriptions of those who are most vulnerable:

- Infants who are 2 years old or younger
- · Adults who are 65 years old or older
- Those who smoke tobacco products
- Patients with lung disease or other chronic illness, such as cystic fibrosis, asthma, chronic obstructive pulmonary disease, diabetes, heart failure, or sickle cell anemia
- Patients in a hospital intensive-care unit, especially those on a ventilator
- Those with a weak or suppressed immune system
- Those who have difficulty coughing or swallowing
- Those who are immobilized
- Those who have recently had a cold or influenza
- Those who abuse alcohol
- · Those who are undernourished

To protect against the development of pneumonia, the Centers for Disease Control and Prevention (CDC) recommends two doses of pneumococcal vaccines for adults 65 years or older. The CDC also advises several other vaccines to prevent other diseases that can lead to pneumonia infections. These include immunizations for: influenza, measles, whooping cough, and chicken pox. Those who are unsure about their vaccination status should consult with their family physician.

### Health Tips - Is It Pneumonia or the Flu?

The symptoms of pneumonia are similar to those of the seasonal flu. While the flu usually can be managed at home with plenty of rest, liquids and over-the-counter medications to alleviate symptoms (never give aspirin to children under the age of 18 years), pneumonia is a serious infection that may require treatment by antibiotics, and perhaps, hospitalization. Here are some guidelines to help you determine when your flu-like symptoms should be evaluated by a physician for the possibility of a pneumonia infection:

#### Flu

- Fever
- Headache/body aches
- Sore throat

- Mild to moderate cough
- Nasal congestion

### **Pneumonia**

- Fever
- Severe cough with mucus
- Chest pain

- Difficulty breathing or shortness of breath
- Chills

You should consult your physician if you experience pneumonia symptoms. Also consult your physician immediately if you recently recovered from the flu and the illness returns or seems to worsen.

David had a follow-up visit with Dr. Pacht on December 2, and a CT scan showed some remaining area of pneumonia on his right lung. He returned to work on December 8 even though he was still feeling a little unwell. "The holiday season is by far our busiest time at UPS, so I wanted to make the effort to be there," he explained. "By the end of that week, I didn't feel too bad."

A six-month follow-up CT scan performed in May 2015 showed evidence of a lingering pneumonia infection that was healing. By September, the pneumonia had cleared, but an uncommon area of scarring appeared on the right lung. The scarring is not expected to cause any health issues and may eventually clear on its own.

The Centers for Disease Control and Prevention (CDC) advises that the most effective protection against contracting pneumonia is an annual seasonal flu vaccine for nearly all patients older than six months. In addition, patients with elevated risk are strongly encouraged to receive a pneumonia vaccine, and nearly all patients should receive two doses of pneumonia vaccine after the age of 65.

# Physicians Provide Health Advice to Chamber of Commerce Members

Licking Memorial Health Systems' (LMHS) Pataskala Health Campus hosted the Pataskala Chamber of Commerce's meeting in September. Chamber members who attended the meeting enjoyed a buffet lunch, catered by LMHS Food Service. During the meeting, LMHS President & CEO Rob Montagnese spoke about updates within the Health Systems and welcomed a panel of physicians from the Pataskala Health Campus to speak about various health topics.

Pediatrician John Applegate, D.O., discussed misconceptions about vaccinations. He explained the importance of staying informed, but mentioned that a significant amount of misinformation exists when searching for answers on the Internet. Dr. Applegate recommended speaking to a primary care physician who will provide accurate information, including the benefits and risks, so patients are able to make an informed decision.

"The benefits of vaccination far outweigh the risks," said Dr. Applegate. "Side effects from immunizations are extremely rare, and the result of not protecting ourselves against contracting a dangerous disease could have a widespread and devastating effect." He advised that although certain diseases are no longer common in the U.S., they still exist in other parts of the world and global travel causes susceptibility to the diseases.

The next speaker, Tiffany Inglis, M.D., provided Chamber members

with updates about Women's Health services. She described new guidelines from the American College of Obstetricians and Gynecologists suggesting that physicians wait until patients are 41 weeks into pregnancy before labor

38 weeks. Licking Memorial Hospital already has a low percentage of labor inductions, and will continue to follow these guidelines.

Pregnant mothers who have experienced labor inductions in the past and expect to do the same with their next child are being informed of the new guidelines. "The community has been understanding and supportive of the change," said Dr. Inglis, "especially after we explain to parents the important health reasons behind the guidelines." Dr. Inglis also discussed that the Health Systems continues to promote healthy guidelines for mothers and newborns by offering educational programs, assisting mothers who struggle with addiction, and providing tobacco cessation services free of charge.

The final panel speaker was Dermatologist Laurie Schaeffer, D.O., who presented about the importance of sunscreen in skin cancer prevention. She recommended wearing at least SPF 30 each day, which is broad spectrum (protects against both UV-A and UV-B rays). Dr. Schaeffer advised that the sun's highest intensity is between the hours of 10:00 a.m. and 4:00 p.m., so protecting skin with sunscreen is recommended when spending long periods of time in the sun during that time. "Any sudden changes to a mole on the skin, whether color, size, or shape, indicates the need to make an appointment with a physician to have the area checked," said Dr. Schaeffer. "It may require a biopsy, but early detection and treatment is key when dealing with melanoma."

LMHS opened the Pataskala Health Campus in 2004 on a 32-acre parcel, located at One Healthy Place along State Route 16.

