



Licking Memorial Health Systems

1320 West Main Street
Newark, Ohio 43055

Please take a few minutes to read this month's report on **Pediatric Care**.

You'll soon discover why Licking Memorial Hospital is measurably different ... for your health!

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Quality Report Card Licking Memorial Health Systems

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Health Tips – Child's Play Is a Serious Matter

According to a paper published by the American Academy of Pediatrics, children in the U.S. spend, on average, approximately 6 ½ hours a day watching television, playing video games or using the computer (not including schoolwork). Engaging in these sedentary activities contributes to childhood obesity and establishes an unhealthy lifestyle that creates a risk for serious future conditions, such as diabetes and heart disease.

Here are some fun ideas to encourage kids to turn off the electronics and turn up the activity level:

Outdoor activities:

- Have a football pass competition
- Start a small garden
- Wash the family car
- Play "Capture the Flag"
- Ride a bicycle
- Take up nature photography
- Fly a kite
- Create a backyard weather station

Indoor (rainy day) activities:

- Record your own music video
- Build a card house
- Place blankets over furniture to make "tunnels" and "forts"
- Stage a puppet show
- Create an "Olympics" with fun events
- Cover a table with paper for a large drawing canvas
- Make up cheers for the local high school team
- Have a treasure hunt

Pediatric Care – How do we compare?

Check out our Quality Report Cards online at www.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 them to benchmark measures. Then, we publish them so you can draw your own conclusions regarding your health care choices.

1 Immunizations are one of the safest and most effective methods to protect children from potentially serious childhood diseases. Licking Memorial Health Professionals (LMHP) monitor the percentage of children, aged 19 months to 35 months, who receive the individual and complete set of recommended immunizations. The series is frequently referred to as the 4:3:1:3:3:1 series. It consists of the following vaccines:

- 4 doses of diphtheria, tetanus (lockjaw), and pertussis (whooping cough)
- 3 doses of polio
- 1 dose of measles, mumps and rubella
- 3 doses of Haemophilus influenzae B (influenza type B)
- 3 doses of hepatitis B
- 1 dose of varicella (chicken pox)

	LMHP 2008	LMHP 2009	LMHP 2010	National ⁽¹⁾
Childhood immunization rate (4:3:1:3:3:1 series)	89%	89%	91%	70%
Children, aged 6 months to 5 years, receiving the influenza vaccination	21%	34%	37%	26%

2 LMHP providers follow Advisory Committee on Immunization Practices (ACIP) recommended vaccinations to prevent cervical cancer, varicella (chicken pox) and meningitis among adolescents.

	LMHP 2008	LMHP 2009	LMHP 2010	National ⁽¹⁾
Female adolescents, aged 12 to 18 years, and women, up to 26 years, completing HPV vaccination series	25%	36%	44%	27%
Adolescent children, aged 7 to 13 years, receiving varicella vaccination	64%	83%	90%	49%
Adolescent children, aged 11 to 18 years, receiving meningococcal vaccination	54%	67%	81%	54%

3 Pharyngitis (sore throat) is a common illness in children. The majority of children's sore throats are caused by viral illnesses. While antibiotics are needed to treat bacterial pharyngitis, they are not useful in treating viral pharyngitis. Before antibiotics are prescribed, a simple diagnostic test needs to be performed to confirm the presence of a bacterial infection. Inappropriate use of antibiotics for viral pharyngitis is costly, ineffective and contributes to the development of drug-resistant bacterial strains. LMHP monitors and reports how many children with sore throats, aged 2 to 18 years of age, received a Group A streptococcus test before they were given a prescription for antibiotics.

	LMHP 2008	LMHP 2009	LMHP 2010	National ⁽³⁾
Children with pharyngitis receiving test before antibiotics	95%	94%	96%	70%

4 The American Academy of Pediatrics recommends the use of reliever and corticosteroid medications to gain control of asthma attacks and reduce severity as quickly as possible. Reliever medications include drugs such as albuterol breathing treatments that can quickly open airways. Corticosteroid medications include drugs, such as Prednisone or Dexamethasone, that reduce airway inflammation and swelling. Licking Memorial Hospital (LMH) measures how many pediatric asthma patients receive reliever and corticosteroid medications during their hospitalization.

	LMH 2008	LMH 2009	LMH 2010	National ⁽⁴⁾
Children receiving relievers while hospitalized for asthma	100%	100%	100%	100%
Children receiving systemic corticosteroid medication while hospitalized for asthma	100%	100%	100%	100%

5 If a patient must be readmitted to the Hospital within 30 days of treatment for asthma, there may have been a problem in the patient care, such as inadequate diagnosis, treatment, patient non-compliance with discharge instructions or the patient’s inability to understand or follow the discharge instructions. Since self-care is an essential part of asthma control, thorough patient education is important to maintain low readmission rates.

	LMH 2008	LMH 2009	LMH 2010	National ⁽⁵⁾
Pediatric asthma readmissions within 30 days	0%	0%	0%	2.1%

6 When a child arrives with suspected or known sexual abuse, the specially trained sexual assault response team (SART) conducts a comprehensive evaluation of the child, including use of forensic kits to gather evidence from sexual assault victims. Complete use of this kit ensures that evidence is collected properly and submitted to law enforcement for analysis.

	LMH 2008	LMH 2009	LMH 2010	Goal
Forensic kit collection was complete for children treated for sexual abuse	100%	100%	100%	100%

Data Footnotes: (1) National Immunization Survey (NIS). (2) National Immunization Survey (NIS) for 6 months to 18 years of age. (3) NCQA – The State of Healthcare. Quality 2009 – HEDIS Measures of Care. (4) Hospitalcompare.hhs.gov national benchmarks. (5) Midas comparative database.

Patient Story – Gunnar and Van Hickman

Heather and Jeremy Hickman of Newark were not overly concerned when their 4-year-old son, Gunnar, developed a slight cough late last summer. They had nursed him through colds before, and set to the task of providing the usual home remedies for a child’s common cold – plenty of rest, fluids, and tender loving care.

However, Gunnar’s symptoms did not improve after several days. In fact, they were worsening. “He was not sleeping well, and the cough was becoming more violent,” Heather recalled. “Gunnar had been previously diagnosed with asthma, so I began his breathing treatments. After several more days, he still was not sleeping well. He had a slight fever and was becoming irritable. The coughing became so violent that sometimes Gunnar would vomit. And then, a terrible ‘whooping’ sound began. I knew that something else had to be going on, so we went to see Dr. LeMay (Pediatrician Diane LeMay, M.D).”

Even though Gunnar’s immunizations were up-to-date, Dr. LeMay suspected that he may have contracted pertussis, commonly known as whooping cough. “Dr. LeMay asked me if he had been exposed to whooping cough, and my first response was that he had not been. Then, I remembered that I heard that a child who had been in Gunnar’s proximity three weeks earlier did have the disease. I had watched for symptoms for a week or two, but then I relaxed when nothing happened. I did not know the incubation period for whooping cough is up to one month,” Heather said.

Dr. LeMay ordered a lab test to confirm her preliminary diagnosis of pertussis. When the tests returned with positive results, Dr. LeMay prescribed an antibiotic to treat the illness. Then she turned her attention to Gunnar’s 5-month-old baby brother, Van, who had just begun to develop cold-like



Gunnar and Van Hickman both battled whooping cough in 2010. Photo by Martin Digital Photography.

symptoms. “Van had a light cough, so Dr. Lemay ordered a lab test for him. I am so glad she did, because he tested positive for whooping cough, as well. Since Van was so young, he would probably have ended up in the hospital if it had not been caught so early,” Heather said. “His cough worsened very quickly – he began to cough so violently that he burst blood vessels in his face and neck, and he began vomiting.”

Both boys’ symptoms began to improve after taking their prescribed antibiotics for a few days. Heather said, “We noticed an improvement within three or four days after the boys began taking antibiotics, but it took much longer for their coughs to subside. They both had a mild cough for a month afterward.”

Heather is thankful that Gunnar and Van were successfully treated, however she regrets that she did not immediately recognize Gunnar’s pertussis symptoms. “I just did not realize there had been a recent outbreak. I think of whooping cough as a disease from my parents’ or grandparents’ time. I remember a family story where my grandmother treated whooping cough with a homemade herb poultice,” she remarked.

“The incidence of pertussis subsided for many years, but it never completely disappeared,” Dr. LeMay explained. “In the U.S., we see a cyclical outbreak approximately every five years. That is the reason it is so important for children to be immunized, and for adults to receive booster immunizations. In particular, any adult who cares for an infant should receive a booster vaccination since adults can be carriers of the illness, and infants and young children are especially vulnerable until they have been fully immunized.”

Vaccination Against Whooping Cough Is Important Precaution

As recently as three generations ago, pertussis (which is also known as whooping cough) was one of parents' worst fears. Each year during the 1920s and 1930s, there were more than 250,000 cases reported annually in the U.S., resulting in nearly 9,000 deaths. Many of the patients were children and infants. In the early 1940s, the DTaP vaccine became available to the public to prevent diphtheria, tetanus and pertussis. Through aggressive immunization efforts, the incidence of whooping cough decreased 96 percent by 1976. Unfortunately, the respiratory disease has re-emerged in recent years, erupting in localized outbreaks that can close schools and cause worried parents to seek medical attention.

The incubation period for pertussis is usually seven to 10 days, but may last up to one month. As the illness begins, it often resembles a mild cold in the first week. Severe episodes of coughing develop after approximately 7 to 10 days. Untreated, the coughing spells may be so violent that they cause the patient to vomit, injure a rib or even lose consciousness. In between coughs, a "whoop" can often be heard as the patient struggles to inhale.

Pertussis is caused by a bacterium and is spread person-to-person through droplets that are released into the air by coughing and sneezing. Although anyone can develop the illness, it is most common in children. A pertussis vaccine that is included in the children's DTaP immunization series is very effective, but does not guarantee complete protection against the disease. According to the Licking County Health Department, 18 cases of confirmed and probable pertussis were reported in Licking County during 2008. The incidence rose sharply to 122 cases in 2009, and 127 cases in 2010. Although the majority of pertussis patients in 2010 were school age, others ranged from 1 month to more than 70 years.

In nearby Muskingum County, some schools closed temporarily in 2009 to suppress the spread of the highly communicable disease. The Zanesville-Muskingum County Health Department reported 217 cases of pertussis in 2009. The incidence decreased to 12 in 2010.

"When outbreaks occur, the patients who are the most vulnerable are infants too young to immunize, or whose immunizations are



Pertussis is often called "whooping cough" because of a high-pitched "whooping" sound the patient makes while trying to inhale during violent coughing spasms.

not up to date," explained Richard A. Baltisberger, pediatrician at Licking Memorial Pediatrics. "The disease can be quite serious, even deadly, for small infants. Older children, beginning at the age of 11 years, are the most likely to acquire the infection and present with a prolonged severe cough, as protection from the childhood DTaP vaccination begins to fade. These older children can then pass on the infection to young infants who are exposed to them."

In the U.S., children are most often immunized against pertussis with the DTaP combination vaccine that

protects against diphtheria, tetanus and pertussis. The Centers for Disease Control and Prevention (CDC) recommends a schedule for DTaP vaccines that includes five doses between the preschool ages of 2 and 6 years.

In 2005, a new combination of vaccines was licensed for adults. The Tdap includes immunizations for tetanus, diphtheria and pertussis. The CDC recommends that any adult between the ages of 19 and 65 years who will have close contact with a child should receive a one-time Tdap vaccination.

The early symptoms of pertussis are quite similar to the common cold. During the first or second week (when the disease is most easily spread), the patient may exhibit:

- Runny nose
- Slight fever
- Mild cough

One or two weeks later, the patient may experience more serious symptoms:

- Spasms of rapid coughs that are followed by a high-pitched "whooping" sound as the patient tries to inhale
- Vomiting
- Fatigue

Whooping cough is treated with antibiotics. Parents who suspect their child may be showing signs of pertussis should call their pediatrician, especially for infants and children under the age of 2 years. In some instances, infants who contract whooping cough will require treatment in the hospital to protect them from dangerous complications.

Patient Story – Gunnar and Van Hickman (continued from previous page)

Heather is a full-time student at Mount Vernon Nazarene University, and Jeremy is a conductor at CSX railroad. They both received new pertussis booster immunizations, themselves. "Absolutely, if you have children, or care for children, it is so important to be immunized to protect them," Heather stated. "It is not worth it to take a chance. Thankfully, my boys did not get sick enough to be hospitalized, but listening to them coughing and choking was terrible. You want to do everything you can to protect your kids."

Heather and Jeremy are concerned that Van may suffer mild long-term effects from his battle with pertussis. His lungs may have been compromised by contracting the disease at such a young age. Heather and Jeremy are prepared to administer breathing treatments anytime that he becomes sick, but say that is minor compared to how severe the consequences could have been for a baby his age.