

Quality Report Card



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MATERNITY CARE

Pregnancy-related Hypertension

High blood pressure, also known as hypertension, is a common condition in pregnant women between the ages of 20 and 44 in the United States, affecting approximately 1 in every 15 pregnancies. Women who have high blood pressure during their pregnancy are at risk for complications such as pre-eclampsia, eclampsia, stroke and preterm labor. Hypertension also can prevent the placenta from receiving adequate blood supply, which deprives the baby of oxygen and food and results in a low birth weight. High blood pressure during pregnancy is treatable when detected early. Regular prenatal visits and communication between the mother and her healthcare team are key factors to diagnosing, controlling and treating high blood pressure during pregnancy.

High blood pressure during pregnancy is defined as a reading of 140/90 or higher, even if just one number is elevated. Severe hypertension is 160/110 or higher. Common types of pregnancy-related hypertension include:

- **Chronic hypertension** – high blood pressure in women before they become pregnant
- **Gestational hypertension** – high blood pressure that develops after 20 weeks of pregnancy and typically goes away after delivery
- **Pre-eclampsia** – a serious disorder that can result from severe hypertension and occurs after 20 weeks of pregnancy and even postpartum – up to six weeks after childbirth
- **Eclampsia** – a rare but serious condition where high blood pressure can cause seizures during pregnancy or postpartum

It is important for pregnant women to attend regular prenatal visits to ensure the health and wellness of themselves and their baby. During these visits, blood pressure is monitored and urine is tested to ensure that levels are within a healthy range. Common symptoms of high blood pressure during pregnancy may include persistent headaches, swelling in the hands and face, sudden weight gain, changes in vision, nausea and vomiting. Women who are experiencing any of these symptoms during pregnancy should contact their obstetrician/gynecologist (OB/GYN) immediately or visit the Emergency Department (ED).

Pre-eclampsia and eclampsia are two of the top underlying causes of pregnancy-related deaths in Ohio, accounting for 12 percent of pregnancy-related deaths from 2008 to 2016, the majority of which occurred in postpartum women. Licking Memorial Hospital (LMH) strives to improve these maternal health outcomes by implementing safety protocols for the early recognition, treatment and management of severe hypertension, pre-eclampsia and eclampsia. LMH is a participant of the Alliance for Innovation on Maternal Health (AIM), a national data-driven maternal safety and quality improvement initiative that works through state and community-based teams to align national, state, and hospital-level quality improvement efforts to improve overall maternal health outcomes.

Co-led by the Ohio Hospital Association (OHA) and Ohio Department of Health (ODH),

the goal of AIM is to reduce the rate and disparities of hypertension-related maternal morbidity and mortality in Ohio. LMH is improving patient outcomes through a series of evidence-based best practices and by working collaboratively with OB/GYNs, primary care providers, the LMH ED and staff to provide education on pregnancy-related hypertension and tools such as checklists, algorithms, risk assessment tables, and medication dosing tables to aid in the early recognition and timely intervention and treatment of the condition.

In addition, LMH initiated a blood pressure monitoring program for pregnant women, enabled by a grant received from ODH. Patients who are identified to be at risk for hypertension during pregnancy receive a device to measure their blood pressure at home and record their results in a blood pressure log. Enhanced education about pregnancy-related hypertension also is provided to expecting parents. LMH's new unified electronic health record, Epic, allows physicians and staff in both outpatient and inpatient settings, including the ED, to view information regarding a woman's pregnancy and any existing conditions, enabling caregivers to quickly respond to a patient's needs with the appropriate treatment.



Patient Story – Bethany Kerr



In the final trimester of Bethany Kerr's first pregnancy, she began experiencing a rapid heart rate and palpitations. She was ordered to rest and not overexert herself. The condition had no ill effects on her or her son, Colton, and she quickly recovered after his birth. Nearly halfway through her second pregnancy, Bethany again experienced an elevated heart rate. Her second son, Rowan, was born with no complications, and Bethany's heart showed no signs of damage from the experience. She suspected subsequent pregnancies would result in similar circumstances; however, she was not prepared for the trial she faced with her third child.

Before considering she might be pregnant again, Bethany's heart would race, and she would feel lightheaded when she stood up. Unsure of what could be causing the issues, she decided to take a pregnancy test which indicated a positive result. Bethany visited her obstetrician, Melissa A. Lenko, D.O., of Licking Memorial Women's Health – Pataskala, and discussed her concerns about how quickly the elevated heart rate occurred. Dr. Lenko suggested that Bethany visit a cardiologist for a better perspective on possible damage to the heart. "Dr. Lenko was very straight forward with me. Because I am a nurse, she knew it was important for me to understand the science behind what was happening so that I could make informed decisions," Bethany said. "I really appreciated her confidence in me."

Bethany did visit with a cardiologist during her first trimester and was informed that her heart was performing as it should. As the baby grows, the mother's heart rate rises as more blood is pumped to the uterus. The volume of blood increases by almost 50 percent during pregnancy as does the amount of fluid in the blood. The heart must pump harder due to the increased volume, resulting in an elevated

heart rate and changes to blood pressure. Brief heart palpitations are considered common. While the changes in heart rate can signal a heart problem in rare cases, most are harmless. As the pregnancy progressed, however, Bethany's symptoms worsened.

In addition to an elevated heart rate, Bethany's blood pressure skyrocketed in the second trimester causing her to experience bleeding and to feel dizzy when she stood up. Dr. Lenko's nurse, Staci Otten, B.S.N., listened to Bethany's concerns, tracked the blood pressure changes and relayed vital information to Dr. Lenko. Dr. Lenko again urged Bethany to visit with a cardiologist. After examining Bethany, Ariane S. Neyou, M.D., of Licking Memorial Cardiology, ordered Bethany to light duty only, suggesting she lift no more than five pounds at a time and limit walking. Dr. Neyou also prescribed a number of medications to lower her blood pressure and heart rate. Bethany was reassigned from her nursing duties to an N95 distribution desk at Licking Memorial Hospital (LMH). "Dr. Neyou and her nurse, Heather Prince, B.S.N., were very attentive and often would come to the desk to check on me and make sure I was staying off my feet," Bethany said. "Their kindness and dedication are shining examples of the excellent care they provide."

Despite the medications and other measures taken to lower her blood pressure, Bethany continued to struggle, often feeling weak and ill. She was referred to the maternal-fetal medicine specialists that collaborate with LMH for complicated or high-risk pregnancies. The specialists believed Bethany's hormonal response to her pregnancy had triggered the heart issues and suggested plenty of rest. At 26 weeks, Bethany was taken to Labor and Delivery because she was experiencing contractions. After monitoring her for a time, Bethany was sent home and told to rest. As the pregnancy progressed, Bethany continued to visit Dr. Lenko who was quite concerned about Bethany because she was very pale and had no energy. "Dr. Lenko was very honest in telling me she feared my heart was just not strong enough to endure this pregnancy," Bethany said.

Dr. Lenko suggested a number of tests to monitor the baby's health including a non-stress test to check the baby's heart rate and observe how it responds to the baby's movements. The term "non-stress" refers to the fact that nothing is done to place stress on the baby during the test. Bethany also underwent a biophysical profile (BPP) – a prenatal ultrasound evaluation of the baby's heart rate, muscle tone, movement, breathing and amount of amniotic fluid around the baby. The baby failed the nonstress tests multiple times, but passed the BPP testing, so the monitoring continued. Bethany lost weight and continued to feel exhausted.

At 36 weeks, Bethany went to see Dr. Lenko for her checkup. The non-stress test and BPP were performed twice weekly throughout the last trimester due to the high-risk for complications. During the testing, it was discovered the baby was in distress and Bethany was urged to go straight to LMH to induce labor. During the induction, her blood pressure was crashing and the situation became emergent. The Labor and Delivery staff worked quickly to stabilize Bethany. "I was so tired, and I kept saying I just wanted to sleep. My primary nurse, Adrienne Hennerfeind, B.S.N., kept checking on me, flipping me on my side and encouraging me by saying that everything was going to be alright." Bethany gave birth to her third son, Decland. He was lethargic at first due to low blood sugar, but the staff gave him glucose and he recovered quickly. Dr. Lenko explained they found a number of irregularities that contributed to Bethany's heart issues. The placenta was discolored, too small, full of blood clots and there were tight coils in the umbilical cord causing a lack of blood and oxygen.

With her own blood supply restored, Bethany recovered quickly after the birth. Her blood pressure and heart rate returned to normal, and her energy returned. She was able to participate in kangaroo care, a form of developmental care in which the infant is held skin-to-skin against the mother or father's bare chest. Her husband brought Colton and Rowan to meet their new brother as well. After just 24 hours, Bethany and Decland returned home.

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

- According to the American Academy of Pediatrics, small-for-gestational-age infants are those who are born weighing less than the 10th percentile for their given gestational age. At term, this weight is 2,500 grams (5 pounds, 8 ounces). Many factors contribute to low birth weight, including lack of prenatal care, a mother’s poor nutritional status before and during pregnancy, and drug, tobacco or alcohol use during pregnancy. Low birth-weight infants are at increased risk for health problems. Adequate prenatal care and healthy practices can significantly reduce the incidence of low birth-weight deliveries. **In 2020, there were 884 babies delivered at Licking Memorial Hospital (LMH).**

	LMH 2018	LMH 2019	LMH 2020	National ⁽¹⁾
Low birth-weight infants	5.3%	5.4%	4.3%	8.28%

- Smoking during pregnancy is an important modifiable risk factor associated with adverse pregnancy outcomes.⁽²⁾ It is associated with 5 percent of infant deaths, 10 percent of pre-term births, and 30 percent of small-for-gestational-age infants.⁽³⁾ Because pregnancy smoking rates in Licking County are higher than the national rate, Licking Memorial Women’s Health providers have increased their efforts to assess patients’ active smoking during pregnancy at each office visit, counsel patients to quit smoking, and refer each pregnant smoker to LMH’s free “Quit for You, Quit for Your Baby” tobacco cessation program. **During 2020, 25 percent of patients reported smoking at some point during pregnancy and were referred to the program. The below measure reflects the statistical improvement at the time of delivery.**

	LMH 2018	LMH 2019	LMH 2020	State Average ⁽²⁾
Patients who reported smoking at any time during pregnancy	32%	28%	25%	11.9%
Patients who reported as a current smoker on admission for delivery	23%	19%	17%	14.1%

- Exclusive breastfeeding is recommended as the optimal nutrition for infants for the first six months of life, with continued breastfeeding after the introduction of solid foods for the first year or longer, if desired. The American Academy of Pediatrics (AAP), ACOG, World Health Organization and other healthcare organizations support this recommendation recognizing the significant lifelong health benefits of breastfeeding for both mother and child. The AAP recommends breastfeeding should be initiated within one hour of the infant’s birth and recommends against routine supplementation of newborn infants with formula or glucose water unless medically indicated. LMH provides prenatal education as well as support and assistance during the postpartum period to help mothers achieve their goals for successful breastfeeding.

	LMH 2018	LMH 2019	LMH 2020	LMH Goal
Breastfeeding rate upon discharge	57.5%	59%	62.5%	greater than 55%
Breastfed infants receiving exclusive breast milk prior to discharge	70%	81%	77%	National⁽⁴⁾ 53%

- Cesarean section deliveries (C-sections) should be performed only when necessary. Lower percentages are preferable.

	LMH 2018	LMH 2019	LMH 2020	National ⁽⁴⁾
First-time C-sections	15%	14%	14%	15%

- Elective deliveries are scheduled in advance rather than occurring naturally, either through induction or C-section. Studies have shown that elective inductions performed before 39 weeks’ gestation have higher rates of newborn complications, higher C-section rates, and longer hospitalization for mothers.

	LMH 2018	LMH 2019	LMH 2020	National ⁽⁵⁾
Elective deliveries performed before 39 weeks	0%	0%	1.7%*	2%

*In 2020, one individual out of the 884 births was scheduled for an elective delivery.

- Group B streptococci (GBS), which emerged in the U.S. in the 1970s, is an infection that is associated with illness and death among newborns. Most neonatal GBS infections can be prevented through screenings and, if needed, by giving an antibiotic to the mother before delivery.

	LMH 2018	LMH 2019	LMH 2020	LMH Goal
Mothers with GBS receiving antibiotic within 4 hours prior to delivery	100%	100%	100%	100%
Number of newborns testing positive with GBS	0	0	0	0

7. Gestational diabetes (GDM) is one of the most common clinical issues during pregnancy. The prevalence of GDM ranges from 2 to 5 percent of all pregnancies in the U.S., and all expectant patients should be screened between 24 and 28 weeks' gestation. Licking Memorial Health Professionals (LMHP) obstetricians screen pregnant patients for GDM by 29 weeks.

	LMHP 2018	LMHP 2019	LMHP 2020	LMHP Goal
LMHP pregnant patients screened for GDM by 29 weeks	93%	93%	92%	greater than 90%

Data Footnotes:

- (1) Final data for 2018. National Vital Statistics Reports, 68(13). Hyattsville, MD: National Center for Health Statistics. Available at https://www.cdc.gov/nchs/data/mvsr/mvsr68/mvsr68_13-508.pdf
- (2) Ohio Department of Health: Center for Public Health Statistics and Informatics (2019). Retrieved from <http://publicapps.odh.ohio.gov/EDW/DataBrowser/Browse/OhioLiveBirths>
- (3) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5226303/>
- (4) MIDAS+ CPMS Comparative Database
- (5) HospitalCompare.hhs.gov Comparative Database.

Patient Story – Bethany Kerr (continued from inside)

“I am so grateful for such an incredible team of healthcare providers. The teamwork is impressive. From Dr. Lenko to the staff in Labor and Delivery, there was constant communication and collaboration to make sure Decland and I were safe,” Bethany said. “I am forever grateful to Dr. Lenko for continuing the testing and trusting her own evaluation of my wellbeing. She knew there was some sort of issue, and did all she could to make certain Decland and I survived the pregnancy.”

Bethany grew up and continues to live in Granville. She began working for LMH after earning her Bachelor of Science in Nursing degree from Mount Vernon Nazarene University. She was familiar with the quality of care and team atmosphere because a number of her family members are employed with Licking Memorial Health Systems, including her mother.

Licking Memorial Women’s Health offers services designed to meet the

unique health needs of women at three locations – Newark, Downtown Newark and Pataskala. The physicians care for pregnant women before, during and after birth, and also specialize in the prevention, diagnosis and treatment of gynecological problems for women of all ages. A wide range of services, including office-based and hospital care are available.

Cue-based Feeding

Licking Memorial Hospital (LMH) offers mothers the information, confidence and skills needed to successfully initiate and continue breastfeeding their babies. Cue-based feeding is a breastfeeding technique that relies on signs from a baby that he or she is hungry rather than using time to dictate feeding. Signals that a baby is showing readiness to eat include:

- Beginning to rouse from sleep
- Licking their lips or opening their mouth
- Sucking on their fingers
- Turning head from side to side and moving limbs around
- Making vocal noises

- Crying, which is considered the late stages of hunger

Flexibility is the key to cue-based feeding success. In the first month after birth, babies need to feed 8 to 12 times per day. Feeding frequency depends on the amount of fat in the mother’s breast milk and the amount of milk each breast can hold during a feeding. The amount of feedings also depends on the baby’s temperament. While nutrition may be the main reason for feeding, babies also may feed for comfort, pain relief, thirst and connection. The breastfeeding pattern is different for every baby, and once the mother’s milk supply is

established, a natural feeding rhythm may begin to develop.

The LMH Outpatient Lactation Clinic provides support, education and assistance to breastfeeding mothers through individualized consultations with an International Board Certified Lactation Consultant. Support services are available to all mothers, including those who delivered at other facilities. Services include assistance with latch difficulty, low milk production, insufficient weight gain, issues related to breastfeeding an older infant, and more. To speak with a lactation consultant or schedule an appointment in the Clinic, please call (220) 564-4334.



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Please take a few minutes to read this month’s report on **Maternity Care**. 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) 564-1572 to receive future mailings.

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