

# Quality Report Card



Volume 22, Issue 7

July 2021

STROKE CARE

## Medications That Aid in Stroke Prevention

Stroke prevention is an important component of stroke care. Patients who have suffered a stroke or a mini-stroke, also known as a transient ischemic attack (TIA), are at a higher risk of suffering from a repeated stroke in the future. Medications that prevent clot formation and aid in the management of stroke risk factors, such as hypertension, high cholesterol and diabetes, are an important focus of stroke prevention.

Patients who have suffered a stroke or TIA require lifelong medication to prevent clot formation and cholesterol-lowering medication, unless there is a medical reason that prevents the prescriptions. Anti-platelet and anti-coagulation drugs are two categories of medications that prevent clot formation.

Anti-platelet medications include aspirin and clopidogrel, also known as Plavix. These medications work by making it more difficult for platelets in the blood to stick together, which is the beginning of clot formation. Studies show that previous stroke patients who take an aspirin daily decreased their risk of suffering another stroke, heart attack, or cardiovascular death by 23 percent. In clinical studies, clopidogrel has been shown to be as effective when compared to aspirin.

There are some instances when a patient should be prescribed both aspirin and clopidogrel, or may require additional medication to prevent the formation of blood clots. Consultation with a neurologist is required prior to initiating therapy in these cases.

Anti-coagulation drugs, such as warfarin and heparin, make clots difficult to form or slow growth. These drugs typically are given to patients with a high stroke risk and those with atrial fibrillation.

Individuals who have a history of high blood pressure, diabetes, high cholesterol, or smoking, have an increased risk of a stroke and should visit their primary care physician to determine proper management of their medical conditions. In addition to medication, factors such as a healthy diet, physical activity, quitting smoking and losing weight can contribute to lowering blood pressure and cholesterol levels, which may reduce stroke risk.

### Know the signs

Knowing the signs and symptoms of stroke is vital to obtaining care to reduce the chances of severe damage to the brain. If you experience or observe someone else experiencing the following symptoms, call 911 immediately.

- Sudden numbness or weakness in the face, arm, leg or on one side of the body
- Sudden confusion, trouble speaking or difficulty understanding speech
- Sudden trouble seeing in one or both eyes
- Sudden trouble walking, dizziness, loss of balance or lack of coordination
- Sudden severe headache with no cause



# Patient Story – Debra Speight



Debra Speight does not remember much about her most recent stroke. Fortunately, the experience left no physical damage, and the symptoms that resulted in a stay at Licking Memorial Hospital (LMH) have dissipated. She has returned to her regular schedule and continues assisting in the care of her great-grandchildren. Since having a debilitating stroke four years ago, Debra has been living with her youngest daughter and her husband, Christina and Richard Young. Christina's quick recognition of the signs of stroke likely assisted in the avoidance of another damaging episode for Debra.

Debra cares for her two great-grandchildren while her granddaughter, Stephanie, is working. Debra enjoys watching movies on the Hallmark channel after returning home from work. Earlier this year, Christina says Debra was watching television as usual, but when Christina spoke to her, Debra spoke in a very slow manner and slurred her words. "It sounded like a warped recording of mom's voice that was being played back in slow motion," Christina said. She knew right away something was not right. Looking for other clues that Debra could be having a stroke, Christina asked Debra to smile, squeeze her hand and finally say Christina's name. While Debra's grip and facial expressions seemed unaffected, she could not say Christina's name. "I was getting frantic, and I started yelling to my mom, 'say my name. Say my name.'" After several moments, Debra was finally able to say "Christina" and did not fully understand why Christina was so upset.

The following day, Christina had to work, so she asked her husband, Richard, to pay close attention to Debra for any sign

of slurred speech. Due to the pandemic, Richard has been working from home. Christina still was very concerned about Debra having another stroke, so she began calling Debra to check on her as well. During one phone call, Debra was again experiencing the slow, slurred speech. Christina called Richard and told him to check on Debra. Richard checked for other symptoms of stroke, but said Debra seemed fine. Christina called a short time later and again, Debra could not speak properly. "I thought I was speaking clearly. I could not understand why Richard was looking at me strangely and why Christina was so concerned," Debra shared. Christina quickly left work and headed home. While driving, both Christina's sister and niece called and said they too had noticed Debra was having difficulty speaking.

When Christina arrived home, Debra said she was fine and had been busy all day cleaning house, doing dishes and laundry. Christina was not convinced and insisted on taking Debra to the LMH Emergency Department (ED). Since Debra seemed a little more coherent, Christina stopped to get gas. Debra requested a soda and a candy bar; however, when Christina returned to the car, Debra was slurring her speech again. When Debra tried to take a drink or eat the candy bar, she started choking. By the time the two arrived at the ED, Debra seemed fine. The ED staff quickly admitted Debra and began testing for any damage from a stroke. It was recommended that Debra stay the night for observation though the tests showed no indication of damage or imminent stroke warnings.

Debra was monitored during the night without event. During a visit from Christina the following day, she began losing her focus and ability to speak. The nurse quickly responded and called the physician. The staff were able to stabilize Debra and care for her during the episode. The physician found Debra in the process of having a stroke. A major artery in the brain had a partial blockage causing her intermittent, "stuttering stroke"

symptoms. "The physician came to me and discussed our options for treatment for mom," Christina said. "The treatment options included adding an antiplatelet, clopidogrel, or a more risky intervention with a catheter in the brain. We chose the medicine and saw immediate success." Debra quickly recovered and was happy to be able to recognize her children, swallow safely and speak normally.

Christina was grateful that Debra had no ill effects from the stroke. She recalls watching her mother struggle to regain her independence after the stroke four years ago. Debra spent several weeks in the Inpatient Rehabilitation Unit at LMH, where she worked to learn to walk and talk again. "That was a long recovery, but I am a fighter. I just keep fighting to stay healthy," Debra said. Since that time, Christina has been diligent about understanding and recognizing the signs and symptoms of stroke. Fast treatment can lessen the brain damage that stroke can cause. Knowing the signs and symptoms is vital for the quick action needed to save a life.

It has been a stressful time for Debra. Several of her siblings and in-laws passed away within a few months of each other leaving her to grieve alone. She is now the last surviving child from her family of nine. Debra's mother had suffered from mini-strokes until a major stroke caused her death. One of Debra's sisters also suffered a stroke that caused bleeding in the brain and death. "I am lucky to have children who care so much about me and keep a close watch for stroke symptoms. My children, grandchildren and great-grandchildren keep me going," Debra said. Debra has three children, Amy, Michele and Christina, two step-children, Eddie and Kelly, four grandchildren, Stephanie, Nathan, Crystal and Amy, and two great-grandchildren, Dustin and Olivia, who she has cared for throughout the years. She still has some issues with her left side and suffers from minor memory loss, but is happy to continue caring for her family and spending time with them.

# Stroke 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.

1. Thrombolytic drugs, sometimes called “clot-busters” often are effective in treating a stroke in progress, and may even reverse some of the neurological damage. However, thrombolytic drugs can have dangerous side effects. To lower the risk of complications, thrombolytic drugs can be given only to patients who have arrived at the Emergency Department (ED) quickly enough to have the drugs initiated within three hours of their first symptoms of having a stroke.

|   | LMH 2018 | LMH 2019 | LMH 2020 | LMH Goal |
|---|----------|----------|----------|----------|
| Eligible stroke patients who received timely thrombolytic drugs in the ED | 77.8%    | 87.5%    | 90.6%    | 88%      |

2. Tissue plasminogen activator (tPA) is a FDA-approved medication for acute ischemic strokes. tPA is given through intravenous therapy (IV) in the arm and works by dissolving clots and improving blood flow to the part of the brain being deprived. tPA can help reduce damage to the brain and the long-term effects of stroke. Lower numbers are preferable.

|   | LMH 2018   | LMH 2019   | LMH 2020   | LMH Goal   |
|---|------------|------------|------------|------------|
| Median time from arrival to administration of tPA | 79 Minutes | 68 Minutes | 73 Minutes | 60 Minutes |

3. Quick access to brain scan results is critical to physicians when treating a patient with a suspected stroke. Clot-buster medications can be administered, but only for a short period of time after the patient’s stroke symptoms begin, and the medications may not be given until a brain scan is completed. Quick completion of a brain scan upon the patient’s arrival can reduce the amount of time elapsed before these important medicines can be given, which then increases the patient’s chance for improved recovery from a stroke.

|   | LMH 2018 | LMH 2019 | LMH 2020 | National <sup>(1)</sup> |
|---|----------|----------|----------|-------------------------|
| Stroke patients in the ED with brain scan results within 45 minutes | 86%      | 84%      | 96%      | 72%                     |

4. Ischemic stroke is a type of stroke that results in damage to the brain caused by an interruption or blockage in blood flow. It is the most common type of stroke. A stroke can result in death, so seeking medical attention quickly is vitally important. Licking Memorial Hospital (LMH) measures the rate of in-hospital death of patients suffering an ischemic stroke. Prompt and comprehensive stroke treatment can reduce the risk of death and long-term complications. Lower percentages are preferable.

|  | LMH 2018 | LMH 2019 | LMH 2020 | National <sup>(2)</sup> |
|--|----------|----------|----------|-------------------------|
| Ischemic stroke – inpatient mortality rate | 0.00%    | 0.00%    | 0.00%    | 2.19%                   |

5. The “incidence rate” is a measure of how often ischemic strokes occur in our community, as compared to national averages. It is measured as the number of patients who are admitted with a stroke, out of every 1,000 admitted patients. Rates higher than average mean that more patients are admitted to the Hospital with strokes than national average, while lower rates indicate fewer strokes occur in the community than national average. Lower numbers are preferable.

|                | LMH 2018 | LMH 2019 | LMH 2020 | National <sup>(2)</sup> |
|----------------|----------|----------|----------|-------------------------|
| Incidence rate | 21.28%   | 17.96%   | 20.10%   | 19.70%                  |

6. Atrial fibrillation, also known as “AFib,” is a condition in which the heart does not pump blood effectively. Patients with AFib are five times more likely to suffer a stroke than the general population, and many patients may be unaware that they have it. Patients with AFib are at risk of having blood clots form inside their heart, which can travel to the brain, causing a stroke. This measure reflects the percentage of patients, diagnosed with stroke who had underlying AFib. Patients with AFib typically are treated with blood thinners to help reduce the likelihood of clots forming inside the heart. Lower percentages are preferable.

|  | LMH 2018 | LMH 2019 | LMH 2020 | National <sup>(2)</sup> |
|--|----------|----------|----------|-------------------------|
| Ischemic stroke – percentage with AFib | 25.00%   | 19.09%   | 14.29%   | 18.27%                  |

Stroke Care – How do we compare? (continued on back)



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**7.** In some cases, after the immediate crisis is stabilized and the patient no longer requires hospital care, ongoing care may be required depending on the needs of the patient. Patients may be transferred to post-hospital care settings such as inpatient rehabilitation, skilled nursing facilities or home health agencies. The LMH goal is for the patient to return to baseline functioning and be discharged directly home from the Hospital.

|   | LMH 2018 | LMH 2019 | LMH 2020 | National <sup>(2)</sup> |
|---|----------|----------|----------|-------------------------|
| Ischemic stroke – percent discharged home | 54.55%   | 34.27%   | 49.58%   | <b>56.00%</b>           |

**8.** Licking Memorial Health Professionals (LMHP) office-based physicians use evidence-based measures in order to provide excellent, quality care to patients. The American Stroke Association and American Heart Association recommend the use of blood-thinning medication in order to prevent clots from forming and to improve blood flow.

|  | LMHP 2018 | LMHP 2019 | LMHP 2020 | National <sup>(3)</sup> | LMH Goal |
|--|-----------|-----------|-----------|-------------------------|----------|
| % LMHP coronary artery disease patients seen receiving blood-thinning medication | 94%       | 93%       | 93%       | >80%                    | >85%     |

**Data Footnotes:** (1) Comparative data from [www.hospitalcompare.hhs.gov](http://www.hospitalcompare.hhs.gov). (2) Comparative data from the Midas Comparative Database. (3) American Heart Association/American Stroke Association/National Committee for Quality Assurance Heart/Stroke Recognition Program.

## A Heart-healthy Diet Helps Prevent Stroke

A stroke occurs when the blood supply to part of the brain is interrupted or reduced, preventing brain tissue from receiving oxygen and nutrients. The risk of having a stroke increases with age, but health conditions, such as hypertension, diabetes and high cholesterol, also can contribute to stroke risk. Lowering blood pressure is the best way to prevent a stroke and other strategies are similar to those that prevent heart disease, including a healthy diet. Eating foods that contain important nutrients, such as potassium, magnesium, folate and omega-3 fatty acids, can help to lower blood pressure and reduce cholesterol levels, which are two known factors that can increase the risk of a stroke.

- Fruits and vegetables are low in fat and calories and contain potassium, fiber, folate, and vitamins A and C. Potatoes, bananas, tomatoes, avocados, prunes, melon and soybeans are high in potassium and

can aid in maintaining a healthy blood pressure. Spinach, kale and other dark, leafy greens contain magnesium, vitamin K and iron, which are good for brain health.

- Whole grains are high in fiber, folate, thiamin, magnesium and iron. These vitamins and minerals promote heart health, which can help prevent stroke.
- Oily fish, such as tuna, mackerel, salmon and trout, contains Omega-3 fatty acids that help to reduce inflammation in the arteries, leading to improved blood flow and a decreased risk of blood clots.
- Low-fat and no-fat milk, cheese and yogurt products deliver calcium, protein, vitamin D and potassium to the body. These nutrients can help lower the risk of heart disease, type 2 diabetes and high blood pressure, which are all risk factors for stroke.
- Blueberries, strawberries, raspberries and dark chocolate are rich in

antioxidants called flavonoids, which have been associated with a decrease in stroke risk.

Individuals who make positive changes to their diet can decrease their chance of having a stroke, but it is important to note that food is only part of a stroke prevention strategy. Quitting smoking, losing weight, increasing physical activity and managing existing health conditions, such as type 2 diabetes and atrial fibrillation, also help to decrease the risk of stroke and other health complications.



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Please take a few minutes to read this month's report on **Stroke Care**. You will soon discover why Licking Memorial Health Systems 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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