Risk Factors of Stroke May Need Medical Treatment

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Eighty percent of strokes are preventable. The key to preventing a stroke is knowing the risk factors and taking action to manage them. Many of the risk factors, including high blood pressure and high cholesterol, can be controlled by lifestyle changes such as healthy eating and exercise. It also is important to be diligent in treating medical conditions that can lead to stroke as well, including atrial fibrillation (AFib) and transient ischemic attacks (TIAs).

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About 15 percent of strokes are a result of untreated atrial fibrillation – an irregular heartbeat. The top two chambers of the heart, known as the atria, quiver or flutter instead of fully contracting causing the heart to beat rapidly and out of sync. When the heart is not pumping correctly, blood can pool inside the atria and form clots. Once a clot is released into the blood stream, there is a chance it could lodge in a blood vessel in the brain, stopping the blood flow and causing a stroke.

AFib is not always easy to detect. Some patients may not experience symptoms of the condition, and only discover the irregular heartbeat during a routine checkup. On the other hand, some patients report feeling the heart flutter or a thumping in the chest. Other symptoms can include general fatigue, fatigue while exercising, weakness, faintness or confusion, dizziness and shortness of breath. If you are experiencing chest pain or pressure, call 911 immediately. To diagnose AFib, hospital staff may perform an echocardiogram or electrocardiogram

to determine how the heart is functioning and whether it is beating irregularly. The goal of treatment is to restore the heart to a normal rhythm and reduce the overly high heart rate. The condition can be treated with electric shock or by implanting a pacemaker. Anticoagulants can be used to prevent blood clots from forming and also reduce the risk for stroke. Smoking or using stimulants can hinder recovery.

AFib can be a contributing factor in TIA, which often lead to stroke. Forty percent of patients who have had a TIA also have a severe stroke within a year. During a TIA, a blood vessel is blocked temporarily, keeping blood from getting to the brain, and traiscally lasts only a few.

and typically lasts only a few minutes. The symptoms include confusion, difficulty speaking, numbness on one side, dizziness, difficulty walking, and loss of balance. The damage to the brain usually is not permanent, and the effects last less than 24 hours. A TIA often is referred to as a "warning stroke." It is difficult to determine if the symptoms are from a TIA or a stroke, so it is important to go to a hospital immediately. A prompt evaluation - within 60

evaluation
– within 60
minutes – is
necessary to
identify the

cause of the TIA and determine appropriate treatment. TIAs usually are caused by one of three things – low blood flow at a narrow part of a major artery carrying blood to the brain, a blood clot that blocks a blood vessel in the brain, or narrowing of the smaller blood vessel in the brain, blocking blood flow for a short period of time.

STROKE CARE

Depending on medical history and the results of a medical examination, a physician may recommend drug therapy or surgery to reduce the risk of stroke in people who have had a TIA. The use of antiplatelet agents, particularly aspirin, is a





Patient Story - Joyce Bendick

Joyce Bendick was reading aloud to her sister when she immediately recognized what was happening to her. "I knew what I was reading, but what I was hearing was completely garbled," she explained. "I remember hearing the radio in the background. They were talking about (Former House of Representatives Speaker) John Boehner. Any other time, I could tell you exactly who he is, but during those moments, I could not remember who he was."

Joyce was suffering from a transient ischemic attack (TIA). Often labeled as "mini-strokes," TIAs can be relatively benign in terms of immediate consequences. But the term "warning stroke" is more appropriate for these temporary episodes, because they can indicate the likelihood of a coming stroke. Like most strokes, TIAs are caused by a clot or blockage in the brain and should be taken very seriously. Blockage is short-term or temporary during a TIA. The symptoms are similar to an ischemic stroke, but TIA symptoms usually last less than 24 hours. When a TIA is over, that particular blockage usually causes no permanent injury to the brain.

"Unfortunately, I am familiar with stroke symptoms from personal experience," Joyce said. "My husband suffered a stroke in 2001. He was paralyzed on his right side, and his speech was severely damaged." Three years ago, her sister experienced a stroke. She now lives with Joyce who cares for her. "I am careful to keep an eye out for people who may be suffering from a stroke. I carry a card in my purse with common stroke signs."

Joyce did not experience any other symptoms and her episode lasted only five to ten minutes. "When I was able to speak correctly again, I called the emergency squad, and they took me to Licking Memorial Hospital (LMH)," she recalled. "They treat you like you are the most important person in the world. I do not think I could have gotten better care," she commented. Once at LMH, medical staff evaluated her vital signs and performed assessments of her vision, muscle strength, speech and thinking. A magnetic resonance imaging (MRI) scan was completed to assess blood flow and brain tissue for signs of stiffening or blockage. She was kept overnight for observation and was referred to Even Wang, M.D., of Licking Memorial Neurology for additional treatment.

"The nurses are absolutely wonderful! I firmly believe the quality of nursing care determines the overall quality of care at a hospital," Joyce said. She went on to describe how nurses are very in touch with the patients since they see them more often. She pointed out that relationships formed with patients allow nurses to gain a comprehensive understanding of each patient so that they can clearly express needs to the physicians. "LMH nurses are compassionate, skilled and committed to their patients."

Joyce did not experience any preliminary signs of a TIA or stroke, though her age and high cholesterol placed her at risk. She remarked that she was extremely exhausted at the time of her episode. Joyce recently had completed a long, tedious drive through the mountains from North Carolina and that day, had just returned home from her weekly grocery shopping trip as a volunteer for the Granville Meals on Wheels program. Hospital test results revealed that Joyce's LDL cholesterol was slightly elevated the day of her episode. Dr. Wang monitored her LDL and encouraged her to maintain

a level below 70. She successfully sustained a healthy LDL and has been released from his care. She also is attentive to her diet and takes a low-dose aspirin daily.

Joyce returned to normal activities quickly. She resumed her weekly meal preparation and grocery shopping responsibilities for Meals on Wheels, coordinated by Centenary United Methodist Church. She also continued her part-time job with Home Instead where she works fifteen hours a week as a caregiver. "After my husband's stroke, it was important for me to be able to care for him in the comfort of our own home. After his death, I decided I wanted to do something to help people stay in their homes. I am thankful for the care I have received and grateful I can offer comfort to others."

Even F. Wang, M.D., joined Licking Memorial Neurology in 2015 and provides comprehensive stroke care throughout every stage of the process. He works quickly to determine the best treatment plan for each patient when they arrive in the LMH Emergency Department, and he meets with patients at LMH daily until they begin rehabilitation. Because it is so important to receive immediate medical care following a stroke, Dr. Wang's ability to provide these services locally is a valuable benefit to the Licking County community. Dr. Wang currently is working toward building upon the LMH's stroke care practices in order to continuously improve efficiency and ensure that patients receive high-quality care as quickly as possible, ultimately saving brain function.

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

Thrombolytic drugs, sometimes called "clot-busters" often are effective in treating strokes 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 2014 | LMH 2015 | LMH 2016 | National ⁽¹⁾ |
|---------------------------------------------------------------------------|----------|----------|----------|-------------------------|
| Eligible stroke patients who received timely thrombolytic drugs in the ED | 100% | 86% | 83% | 87% |

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 began, 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 2014 | LMH 2015 | LMH 2016 | National ⁽¹⁾ |
|---------------------------------------------------------------------|----------|----------|----------|-------------------------|
| Stroke patients in the ED with brain scan results within 45 minutes | 76% | 46% | 74% | 69% |

3 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 measures the rate of in-hospital death from patients suffering an ischemic stroke. Prompt and comprehensive stroke treatment can reduce the risk of death and long-term complications.

| | LMH 2014 | LMH 2015 | LMH 2016 | National ⁽³⁾ |
|-----------------------------------------------|----------|----------|----------|-------------------------|
| Ischemic stroke - inpatient mortality rate | N/A | 1.23% | 0.85% | 2.44% |

The "incidence/prevalence 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 that 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.

| | LMH 2014 | LMH 2015 | LMH 2016 | National ⁽³⁾ |
|---------------------------|----------|----------|----------|-------------------------|
| Incidence/prevalence rate | N/A | 26.99 | 20.72 | 18.73 |

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.

| | LMH 2014 | LMH 2015 | LMH 2016 | National ⁽³⁾ |
|----------------------------------------|----------|----------|----------|-------------------------|
| Ischemic stroke - percentage with AFib | N/A | 20.37% | 25.64% | 25.10% |

In some cases, after the immediate crisis is stabilized and the patient no longer requires hospital care, ongoing care may be needed 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. A goal we work toward is for the patient to return to baseline functioning and be discharged directly home from the Hospital.

| | LMH 2014 | LMH 2015 | LMH 2016 | National ⁽³⁾ |
|-------------------------------------------|----------|----------|----------|-------------------------|
| Ischemic stroke – percent discharged home | N/A | 45.06% | 41.03% | 49.62% |

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



Health Tips - Act FAST for Stroke

Acting fast can make a big difference for someone experiencing a stroke. Getting emergency help as soon as possible can prevent long-term disability or death. The National Stroke Association urges you to learn the warning signs of stroke, and "Act **FAST**" by **calling 911 immediately** if any of the following symptoms are present:

Face: Ask the person to smile. Does one side of the face droop?

Arms: Ask the person to raise both arms. Does one arm drift downward?

Speech: Ask the person to repeat a simple phrase. Is the speech slurred or strange?

Time: Time to call 911. If you observe any of these signs, call immediately. Also, note the time that the first symptoms appear – this is important for treatment.

The key to recognizing stroke is the suddenness of the onset of symptoms. In addition to the conditions mentioned, someone experiencing a stroke also may suffer memory loss, changes of vision, onset of vertigo, confusion, trouble walking or a sudden severe headache. If you or someone you are with have any type of unusual symptoms that occur suddenly, call 911.





your health!

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Please take a few minutes to read this month's report on **Stroke Care**. You'll soon

discover why Licking Memorial Health Systems is measurably different ... for

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