

A Common Test to Screen for Stroke Risk Is Under Review

After a career driving custom buses for touring rock bands, Ken Goins felt like he was in good shape to enjoy retirement, having lost weight and quit smoking years earlier following a bypass operation at age 50.

But on his 69th birthday, an ultrasound test showed an 85% blockage in his left carotid artery, one of the two large blood vessels in the neck that supply blood to the brain and can become clogged with cholesterol. A vascular surgeon performed a carotid endarterectomy—a procedure to remove plaque and restore normal blood flow—to lower the risk of stroke from a blood clot or piece of plaque that can get stuck in a smaller artery in the brain.

Mr. Goins, now 70, is one of a growing number of older Americans undergoing carotid-artery screening to detect such blockages, many of them through heart and vascular screening programs that offer a package of tests for one relatively low fee. (Medicare and insurers typically don't cover such screenings.)

Millions Screened

Mr. Goins, who lives in Flat Rock, N.C., says his local Elks chapter was sponsoring a mobile program from Life Line Screening of Independence, Ohio: five tests, including carotid-artery screening, for \$139. (The cost is typically \$149.)

Over the past decade, Life Line has screened more than eight million people, at an average age of 62; 93% had one or more risk factors, and 8% had a moderate to serious abnormal finding.

But the use of carotid-artery screening has been highly controversial, in large part because studies show the ultrasound tests have only moderate sensitivity and can produce false-positive results. Follow-up often leads to more sensitive tests that can actually have adverse effects on the patient; in some cases, people

with false-positive test results may end up getting unnecessary invasive surgery, according to the U.S. Preventive Services Task Force, which issued a recommendation in 2007 against screening patients without symptoms of disease.

The task force is now reviewing that recommendation as part of its efforts to consider new evidence every five years, according to Michael LeFevre, co-vice chairman of the task force and a professor at the University of Missouri School of Medicine. Dr. LeFevre says the concern isn't that the ultrasound itself is dangerous, but rather that it can lead to "a cascade of events" that "do more harm than good."

In some cases, Dr. LeFevre says, patients may receive an angiogram to confirm findings of the ultrasound, and the dye used in that test can put them at risk of a stroke. Carotid surgery itself is associated with a 3% rate of stroke or death within 30 days.

Follow-Up Risks

An important question to be answered by the review is whether there is a "subset" of patients who can be identified as at high enough risk that an ultrasound can help define who needs to go on to more tests and treatments, Dr. LeFevre says. In this way, he notes, "we are not taking people who never had likelihood and causing a stroke."

Andrew Manganaro, Life Line's chief medical officer, says that the data used by the task force are outdated, and that angiograms with large amounts of dye are no longer commonly performed. In comments for the task-force review, Life Line said a positive test in one of its screenings would generally lead to a second ultrasound, not directly to surgery. Patients receive a copy of their test results, and the next step is up to their family doctor, Dr. Manganaro says.

Conservative Treatment

Most patients who have a blockage don't go on to surgery, Dr. Manganaro adds. Rather, they are managed with drug therapy and lifestyle changes. To treat the condition, though, it first needs to be detected.

Some groups advise screening for selected populations. The Society for Vascular Surgery, for example, recommends carotid-artery ultrasounds for those 55 or older with risk factors such as high blood pressure, diabetes, smoking or known cardiovascular disease.

Mr. Goins believes the screening and the subsequent surgery saved him from a stroke. After the procedure, he told his wife, "This is the best birthday present anyone could receive, which is their life."

Ms. Landro is a Wall Street Journal assistant managing editor and writes the Informed Patient column. She can be reached at encore@wsj.com.

A version of this article appeared September 9, 2013, on page R8 in the U.S. edition of The Wall Street Journal, with the headline: A New Look at the Value Of Tests to Avert Strokes.