



Short-term mortality is the same for drug-resistant as for non-resistant staph infections. But, found a DMS study, mortality a year later is higher in resistant staph—51% vs. 32%.

Does the new beat out the tried and true?

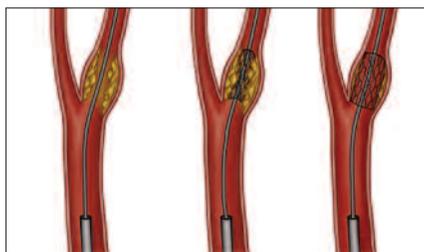
Few of the body's blood vessels are unimportant. But the carotid arteries rank right up there in significance, running through the neck and delivering blood to the brain. If plaque accumulates in a carotid artery, it can lead to a stroke.

There used to be just one way to treat a plaque buildup serious enough to require treatment—an operation called carotid endarterectomy (CEA). Then a procedure called carotid artery stenting (CAS) came along. But, says DMS vascular surgeon Philip Goodney, M.D., it's not clear which treatment is better.

For nearly 20 years, CEA has been considered the gold standard for treating plaque buildup in a carotid artery. Its disadvantage is that it's an invasive procedure; a vascular surgeon makes an incision in the neck and surgically removes plaque from the lining of the artery.

Mesh: In CAS, a catheter is inserted into a vessel in the patient's arm or groin and guided into the carotid artery. A device shaped like an umbrella is passed through the catheter and opened. Then a stent, or mesh cylinder, is placed at the narrowed point in the artery and expanded with a balloon, flattening the plaque against the artery wall. Any loose plaque is caught by the umbrella, which is closed and pulled out with the balloon and the catheter—leaving the stent in place.

CAS has been around since the late



In CAS, a catheter is inserted in the artery (left), then a stent is placed (center) and expanded (right).

1990s. "People were very familiar with balloons [and] stents" from their use in coronary surgery, says Goodney, so the concept caught on quickly. But CAS has not been studied as carefully as CEA. "We knew there was a lot of stenting going on. We didn't know how much. We didn't know where. We didn't know what it was doing to the overall rate of the open operation." There have been randomized trials comparing CEA and CAS, says Goodney, "but they've been kind of controversial because the findings haven't always shown that stenting is as good as endarterectomy. A lot of it depends on patient characteristics."

So he and several Dartmouth colleagues studied 134,194 Medicare and Medicaid claims for carotid revascularization—124,808 for CEA and 9,386 for CAS—between 1998 and 2004. They found that the overall number of procedures each year dropped slightly over the six-year period. But the prevalence of CAS increased by 149%—from 14.6 to 36.4 procedures per 100,000 Medicare beneficiaries—while the prevalence of CEA dropped 17%.

Trend: The results were published in the *Archives of Surgery*. But it's not yet clear, says Goodney, if the trend is a short-term anomaly or if stenting is replacing endarterectomy. "It could be that the poorest candidates for CEA now undergo CAS," the authors wrote.

The next step is to look for patterns in where and by whom CAS is being done, says Goodney. "Is it vascular surgeons, cardiologists, radiologists, neurointerventionalists?" he asks. "Who is having the best results? And what patient selection and physician characteristics produce the best outcomes? I think stenting has a place, but we don't know exactly what the place is just yet." MATTHEW C. WIENCKE

A look at iron and age

In the world of superheroes, being Iron Man chalks up as a huge plus. But for mere mortals (female as well as male), having too much iron can be problematic. That's because as people age, they accumulate iron in their blood—and elevated iron levels have been linked to cancer. DMS's Leo Zacharski, M.D., reported in the *Journal of the National Cancer Institute* just how strong that link is. The findings are preliminary, he cautions, but "analysis showed a 37% reduction in overall cancer incidence with iron reduction" from periodic blood-letting.

Calculating clot risk

To investigate safety concerns about drug-eluting stents—tiny mesh tubes that prop open blood vessels—DMS researchers compared outcomes in about 67,000 Medicare patients, roughly half in the era before drug-eluting stents (DESs) and half afterward. Although other studies have suggested "some incremental risk" of a dangerous blood clot with DESs, "we can detect no adverse consequences to the health of the population," wrote DHMC cardiologist David Malenka, M.D., and his coauthors in the *Journal of the American Medical Association*. "Whatever the increased risk, . . . it is more than offset by a decrease in risk" of a renarrowing of the blood vessel.

