Bypass Surgery More Cost Effective Than Stents for Diabetics Long Term

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- Bypass surgery is more cost effective than drug-covered stents for people with diabetes who have multiple clogged heart arteries.
- Initially, bypass surgery may cost more than implanting stents, but because in the long-term it resulted in fewer deaths and heart attacks, it's worth the front-end expense, researchers said.

Bypass surgery may be more expensive than drug-coated stents, but in the long run it's more cost effective for patients with diabetes because of superior long-term clinical outcomes, according to late-breaking clinical trial research presented at the American Heart Association's Scientific Sessions 2012.

In a sub-study of the FREEDOM trial, researchers analyzed economic data from 1,900 participants that compared bypass surgery to drug-coated stents to prop open clogged arteries in patients with diabetes who had more than one blocked artery. The study included patients from 16 countries, including 19 percent from the United States.

Initially, bypass surgery cost $8,622 more because patients were hospitalized longer and had more complications soon after. But, in the five years after the procedures, follow-up costs were significantly higher in patients treated with drug-coated stents. Even after factoring those costs, bypass surgery still costs about $3,600 more.

However, patients who received bypass surgery had a lower risk of dying or having a heart attack.

Researchers reported their cost-effectiveness results in terms of cost per "quality-adjusted life-year (QALY)," gained, which considers both the difference in how long patients can be expected to live after bypass surgery or stenting, as well as their quality of life.

Bypass surgery was found to have a lifetime cost-effectiveness of $8,132 per QALY gained. That's far below the commonly used benchmark of $50,000/QALY gained for considering a treatment to be cost effective.

"Our results demonstrate that bypass surgery is not only beneficial from a clinical standpoint, but also economically attractive from the perspective of the U.S. healthcare system," said Elizabeth A. Magnuson, Sc.D., lead investigator of the study and director of health economics and technology assessment at Saint Luke's Mid-America Heart Institute in Kansas City, Mo. "The economic data are important

because of the large number of people with diabetes who are in need of procedures to unblock clogged arteries."

The results support the American Heart Association guidelines already in place since the mid-1990s that have recommended bypass surgery for patients with diabetes who have multiple blocked arteries in the heart, she said.

"With great concerns about escalating healthcare costs, it's very important when setting policy to understand the benefits gained from additional expenditures over the long run," said Magnuson, who is also professor of medicine at the University of Missouri's Kansas City School of Medicine. "This is especially true in cardiovascular disease where many interventions tend to be very costly up front."

Longer follow-up of the patients will be needed to see if the advantages of bypass continue in the years following the initial five years of the study.

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Disclosures are here: http://newsroom.heart.org/pr/aha/document/DISCLOSURES.pdf [1]

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