FFR-guided PCI shows cost-effectiveness when compared to medical therapy for stable CAD

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A strategy of up-front percutaneous coronary intervention (PCI) for lesions confirmed to be obstructive by fractional flow reserve (FFR) was shown to be cost-effective in terms of quality-adjusted life years when compared to medical therapy alone. Results of the Cost-Effectiveness sub study of the FAME 2 trial were presented today at the 24th annual Transcatheter Cardiovascular Therapeutics (TCT) scientific symposium. Sponsored by the Cardiovascular Research Foundation (CRF), TCT is the world's premier educational meeting specializing in interventional cardiovascular medicine.

Fractional flow reserve (FFR) is a physiological index that determines the severity of blood flow blockages in the coronary arteries. An FFR measurement helps physicians to better identify if a specific coronary lesion is truly resulting in a reduction in blood flow.

The FAME 2 trial, a multicenter, international, randomized study, showed that FFR-guided percutaneous coronary intervention (PCI) improved clinical outcomes when compared with optimal medical therapy (OMT) in patients with stable coronary artery disease (CAD). The economic and quality of life implications of this strategy were presented at TCT.

Researchers found that while up-front PCI of FFR-positive lesions is more expensive than medical therapy, the cost-effectiveness of this

approach was comparable to other widely accepted medical therapies when quantified in terms of quality-adjusted life years (QALY). At 12 months, the cost of FFR-guided up-front PCI was $2,508 more expensive than medical therapy, but due to quality of life improvements observed with PCI, the overall cost-effectiveness of up-front PCI was $53,000 per quality-adjusted life year. The three-year projected cost for the FFR-guided PCI approach was $32,000 per quality-adjusted life year.

"FFR-guided percutaneous coronary intervention has a higher initial cost than medical therapy," said lead investigator, William F. Fearon, MD. Dr. Fearon is an Associate Professor of Medicine at Stanford University School of Medicine and Associate Director of Interventional Cardiology at Stanford University Medical Center.

"However, the cost gap narrows more than 50 percent by one year. Since angina and quality of life are significantly improved by PCI, results of this study indicate that FFR-guided PCI appears to be economically attractive in an analysis of cost-effectiveness."

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