Since DES Introduction, Cardiovascular Medicare Costs Down

Per-patient spending decreased by more than $1,600.

Clinical outcomes improved and health care costs per patient decreased with the introduction of DES, according to a two-year study among Medicare patients in the pre- and post-DES eras.

In the study, which used data from the Medicare Standard Analytic File, **Jason Ryan, MD, MPH,** of the University of Connecticut Health Center in Farmington, and colleagues found that cardiovascular costs decreased between 2001 – two years before DES were introduced – and 2004, a year post-DES introduction (-$1,680; $P<.001$).

Jason Ryan, MD, MPH

While cardiovascular costs went down, noncardiovascular per-patient costs increased $2,481 (see Figure).

Over nine yearly quarters, the researchers examined not only the effect of DES introduction on overall revascularization rates and treatment patterns, but sought to determine the effect on total health care costs. They included all Medicare patients hospitalized with coronary revascularization (CABG or PCI) identified by their ICD-9 codes in either 2001 (n=14,362) or 2004 (n=16,374).

They found that patients who had PCI had a higher cost savings (almost $1,000 after index hospitalizaton) than patients who had CABG (~$500 after index hospitalization).

"These cost savings were attenuated, but still significant, even if costs for up to one year of dual antiplatelet therapy after DES implantation were included," Ryan said.

Overall, there was a $544 million increase in cardiovascular spending in the United States and a $1.36 billion overall increase in noncardiovascular costs from the time period preceding 2001 to the time period following the introduction of DES starting in 2004.

Results

2 Year Costs: Overall Population

	2001	2004	Difference	P-value
Cardiovascular	$32,780	$31,100	-$1,680	<0.001
- Index hospitalization	$19,312	$18,277	-$1,035	<0.001
- Index quarter (minus index hospitalization)	$4,774	$4,513	-$261	<0.001
- Non-index quarters	$8,773	$8,373	-$400	<0.032
Non-cardiovascular	$19,047	$21,528	+$2,481	<0.001
Total	$51,826	$52,628	+$802	0.090

* Costs assessed over 9 calendar quarters following the index revascularization procedure

Figure