

Opening of Specialty Cardiac Hospitals and Use of Coronary Revascularization in Medicare Beneficiaries

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Context Although proponents argue that specialty cardiac hospitals provide high-quality cost-efficient care, strong financial incentives for physicians at these facilities could result in greater procedure utilization.

Objective To determine whether the opening of cardiac hospitals was associated with increasing population-based rates of coronary revascularization.

Design, Setting, and Patients In a study of Medicare beneficiaries from 1995 through 2003, we calculated annual population-based rates for total revascularization (coronary artery bypass graft [CABG] plus percutaneous coronary intervention [PCI]), CABG, and PCI. Hospital referral regions (HRRs) were used to categorize health care markets into those where (1) cardiac hospitals opened ($n = 13$), (2) new cardiac programs opened at general hospitals ($n = 142$), and (3) no new programs opened ($n = 151$).

Main Outcome Measures Rates of change in total revascularization, CABG, and PCI using multivariable linear regression models with generalized estimating equations.

Results Overall, rates of change for total revascularization were higher in HRRs after cardiac hospitals opened when compared with HRRs where new cardiac programs opened at general hospitals and HRRs with no new programs ($P < .001$ for both comparisons). Four years after their opening, the relative increase in adjusted rates was more than 2-fold higher in HRRs where cardiac hospitals opened (19.2% [95% confidence interval {CI}, 6.1%-32.2%], $P < .001$) when compared with HRRs where new cardiac programs opened at general hospitals (6.5% [95% CI, 3.2%-9.9%], $P < .001$) and HRRs with no new programs (7.4% [95% CI, 3.2%-11.5%], $P < .001$). These findings were consistent when rates for

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CABG and PCI were considered separately. For PCI, this growth appeared largely driven by increased utilization among patients without acute myocardial infarction (42.1% [95% CI, 21.4%-62.9%], $P < .001$).

Conclusion The opening of a cardiac hospital within an HRR is associated with increasing population-based rates of coronary revascularization in Medicare beneficiaries.

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