

# Same-day discharge after coronary artery stenting safe, yet not used

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Patients discharged the same day they undergo coronary artery stenting do just as well as patients hospitalized overnight for observation, according to researchers at Duke University Medical Center. And yet, they say, same-day discharge is rarely used.

More than 1 million coronary stent procedures are performed each year, making the procedure, known technically as Percutaneous [Coronary Intervention](#) (PCI), one of the most common in the U.S.

The associated risks – heart attack, blood clots, bleeding and kidney failure – have been reported to occur in up to 9.5% of patients. However, the risk for these complications has dropped steadily in recent years thanks to new technology and improved drug therapy, says Sunil Rao, M.D., a Duke cardiologist and author of the study that appears today in the *Journal of the American Medical Association*.

"Physicians, in general, feel more comfortable monitoring patients overnight because they are genuinely concerned about their patients and want to ensure good outcomes," says Rao, an associate professor of medicine at Duke. "Our study shows the outcomes have significantly improved so that you can send selected, low risk patients home the same day without increased risk of death or hospital readmission."

In addition to being safe for patients, same-day discharge may create several advantages for hospitals. For one, it frees up hospital beds for patients who really need them, says Eric Peterson, M.D., associate

director of the Duke Clinical Research Institute, and the paper's senior author. Same-day discharge may also become a more efficient care strategy.

"While it's unclear what direction healthcare reform will take in the future, same-day discharge could result in a better financial picture for a heart center if bundled payments for PCI procedures becomes the norm," Peterson says.

Smaller, single center studies have reported similar results, however, this is the first multi-center study in the United States to support those earlier findings. The study is based on data collected from 107,018 patients aged 65 and over who underwent elective PCI at 903 sites participating in the American College of Cardiology's CathPCI Registry between November 2004 and December 2008. Only 1339 of these patients (1.25%) were discharged the day of their procedure.

Rao stresses the study should not be taken as evidence that same-day discharge should be widely implemented. Rather, such decisions should be made individually for specific patients based not only on the success of their procedure, but also on whether they have support at home and access to emergency medical care if they need it. Hospitals considering same-day [discharge](#) programs should develop protocols and a system of care for patients who are sent home the same day as their procedure.

Patients in the study who were sent home the same day were more likely to be low risk, while patients who stayed overnight ran the gamut from low risk to high risk. "Our findings point to the need for better risk assessment tools so that patients who are truly high risk can stay overnight and [patients](#) who are low risk can be sent home the same day," Rao says. "In addition, our study underscores the importance of participation in multicenter registries like the CathPCI registry so we can continue to identify more efficient processes of care that are both

efficacious and safe."

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