Inpatient or Outpatient Status for Elective Percutaneous Coronary Intervention

Doctor, “You Gotta Let Me Know, Should I Stay or Should I Go?”

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Contract audits have resulted in significant fines and penalties out patient designation. In the past few years, Recovery Audit Contractor audits are further geared toward improper payments, particularly for conditions such as chest pain admissions with a short length of stay. Another change that CMS brought about was the implementation of the 2-midnight rule in 2013 to 2014 to qualify for inpatient reimbursement. All of these measures, coupled with administrative pressures to minimize overall costs, have resulted in an accelerated shift of cardiovascular procedures, such as PCI, to the outpatient setting. Given the current environment, hospitals and providers face a unique challenge. By definition, the vast majority of elective PCIs will be reimbursed as an outpatient. Physicians now need to decide whether to keep individual patients longer than 6 to 8 hours when there is genuine concern for their well-being, at a financial cost to the health system.

This phenomenon of reimbursement-driving practice patterns is not new. However, it is apparent that in this dodging of complex medical events, the majority of complications happen within the first 24 hours of elective PCI, one could envision a care paradigm where higher-risk patients are held longer somewhere between 8 and 36 hours for continued observation of mortal and morbidity complications, and it would be reasonable for the highest-risk cohort to be deemed inpatient.

A perfect example of such a risk model is the National Cardiovascular Data Registry’s CathPCI registry (NCDR CathPCI) PCI mortality model, which has a c-index of >0.9 for predicting in-hospital mortality based on 8 preprocedure risk factors: age, prior heart failure, peripheral vascular disease, chronic lung disease, renal function, New York Heart Association functional class, PCI urgency, and cardiogenic shock. Vora et al explore the real-world utilization of this model in the current elegantly performed and thought-provoking analysis. They assessed nearly 1 million patients...
undergoing PCI across the United States between 2009 and 2014 in the NCDR CathPCI registry. There was a clear monotonic rise in patients not admitted post PCI over this time frame, which is not surprising because it overlaps with many of the CMS measures discussed earlier. One of the main drivers of admission post PCI was the occurrence of observed complications (for instance, a 5-fold difference was observed in post-PCI bleeding among admitted versus nonadmitted patients). Nearly 1 in 5 patients who were at or above the 75th percentile for predicted in-hospital mortality were not admitted, whereas ≥1 in 6 patients who were at or below the 25th percentile for predicted in-hospital mortality were admitted. Thus, the authors infer that patient risk is not being factored adequately into decisions regarding patient disposition post PCI. They argue that a risk-based approach to PCI reimbursement might, therefore, be more appropriate rather than arbitrary standards for inpatient versus outpatient status, which we are in complete agreement with.

The advent of appropriateness criteria for coronary revascularization in 2009 has had a major impact on the practice of interventional cardiology in the United States. These criteria were felt to reflect a combination of clinical trial evidence, practice guidelines, and expert opinion, and several parameters such as clinical indication, angiographic severity, magnitude of ischemia, severity of angina symptoms, and intensity of medical therapy were included in the definition. Before its implementation, it was reported that nearly 1 in 6 nonacute PCIs were deemed rarely appropriate, indicating that the benefits of the procedure were unlikely to outweigh the risks. In 2011, NCDR CathPCI began providing hospitals information about their performance on PCI appropriateness, which was benchmarked against other participating hospitals. This, along with national initiatives such as Choosing Wisely and several parameters such as clinical indication, angiographic severity, magnitude of ischemia, severity of angina symptoms, and intensity of medical therapy were included in the definition. Before its implementation, it was reported that nearly 1 in 6 nonacute PCIs were deemed rarely appropriate, indicating that the benefits of the procedure were unlikely to outweigh the risks.

Disclosures

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References


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