An Analysis of the Association of Society of Chest Pain Centers Accreditation to American College of Cardiology/American Heart Association Non–ST-Segment Elevation Myocardial Infarction Guideline Adherence

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Study objective: Since 2003, the Society of Chest Pain Centers (SCPC) has provided hospital accreditation for acute coronary syndrome care processes. Our objective is to evaluate the association between SCPC accreditation and adherence to the American College of Cardiology/American Heart Association (ACC/AHA) evidence-based guidelines for non–ST-segment elevation myocardial infarction (NSTEMI). The secondary objective is to describe the clinical outcomes and the association with accreditation.

Methods: We conducted a secondary analysis of data from patients with NSTEMI enrolled in the Can Rapid Risk Stratification of Unstable Angina Patients Suppress Adverse Outcomes With Early Implementation of the ACC/AHA Guidelines (CRUSADE) quality improvement initiative in 2005. The analysis explored differences between SCPC-accredited and nonaccredited hospitals in evidence-based therapy given within the first 24 hours (including aspirin, β-blocker, glycoprotein IIb/IIIa inhibitors, heparin, and ECG within 10 minutes).

Results: Of 33,238 patients treated at 21 accredited hospitals and 323 nonaccredited hospitals, those at SCPC-accredited centers (n=3,059) were more likely to receive aspirin (98.1% versus 95.8%; odds ratio [OR] 1.73; 95% confidence interval [CI] 1.06 to 2.83) and β-blockers (93.4% versus 90.6%; OR 1.68; 95% CI 1.04 to 2.70) within 24 hours than patients at non-SCPC-accredited centers (n=30,179). No difference was observed in obtaining a timely ECG (40.4% versus 35.2%; OR 1.28; 95% CI 0.98 to 1.67), administering a glycoprotein IIb/IIIa inhibitor (OR 1.30; 95% CI 0.93 to 1.80), or administering heparin (OR 1.12; 95% CI 0.74 to 1.70). Also, there was no significant difference in risk-adjusted mortality for patients treated at SCPC hospitals versus nonaccredited hospitals (3.4% versus 3.5%; adjusted OR 1.17; 95% CI 0.88 to 1.55).

Conclusion: SCPC-accredited hospitals had higher NSTEMI ACC/AHA evidence-based guideline adherence in the first 24 hours of care on 2 of the 5 measures. No difference in outcomes was observed. Further studies are needed to better understand the association between SCPC accreditation and improved care for patients with acute coronary syndrome. [Ann Emerg Med. 2009;54:17-25.]

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INTRODUCTION

Background

Emergency departments (EDs) in the United States treated more than 115 million patients in 2005, including more than 5 million with undifferentiated acute chest pain.[1] Emergency physicians are responsible for rapidly identifying and initiating evidence-based treatment in patients with acute coronary syndromes. The American College of Cardiology/American