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Original Investigation

HEALTH CARE REFORM

National Performance on Door-In to Door-Out Time Among Patients Transferred for Primary Percutaneous Coronary Intervention

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Background Delays in treatment time are commonplace for patients with ST-segment elevation acute myocardial infarction who must be transferred to another hospital for percutaneous coronary intervention. Experts have recommended that door-in to door-out (DIDO) time (ie, time from arrival at the first hospital to transfer from that hospital to the percutaneous coronary intervention hospital) should not exceed 30 minutes. We sought to describe national performance in DIDO time using a new measure developed by the Centers for Medicare & Medicaid Services.

Methods We report national median DIDO time and examine associations with patient characteristics (age, sex, race, contraindication to fibrinolytic therapy, and arrival time) and hospital characteristics (number of beds, geographic region, location [rural or urban], and number of cases reported) using a mixed effects multivariable model.

Results Among 13 776 included patients from 1034 hospitals, only 1343 (9.7%) had a DIDO time within 30 minutes, and DIDO exceeded 90 minutes for 4267 patients (31.0%). Mean estimated times (95% CI) to transfer based on multivariable analysis were 8.9 (5.6-12.2) minutes longer for women, 9.1 (2.7-16.0) minutes longer for African Americans, 6.9 (1.6-11.9) minutes longer for patients with contraindication to fibrinolytic therapy, shorter for all age categories (except >75 years) relative to the category of 18 to 35 years, 15.3 (7.3-23.5) minutes longer for rural hospitals, and 14.4 (6.6-21.3) minutes longer for hospitals with 9 or fewer transfers vs 15 or more in 2009 (all $P < .001$).

Conclusion Among patients presenting to emergency departments and requiring transfer to another facility for percutaneous coronary intervention, the DIDO time rarely met the recommended 30 minutes.

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