

ACUTE CORONARY SYNDROMES

Prehospital ECG improves outcome in STEMI

Patients with suspected ST-segment elevation myocardial infarction (STEMI) who undergo prehospital electrocardiography have a 20% lower risk of in-hospital mortality than those who do not have this procedure, a new study has found. From their analysis of the Acute Coronary Treatment and Intervention Outcomes Network and National Cardiovascular Data Registries, Deborah Diercks and colleagues also discovered that door-to-balloon time and door-to-needle time are significantly reduced in patients who undergo electrocardiography in the ambulance.

Following a consensus statement from the AHA supporting the use of prehospital electrocardiography, the authors sought to determine the extent to which this technology is being used in the USA, and to what effect. The study population comprised 7,098 patients with STEMI who had been transported to hospital by the

emergency medical services; 24.7% had received prehospital electrocardiography. In cases where this technology was used, the patient was more likely to undergo percutaneous coronary intervention and to receive antiplatelet medication.

“It is important to understand whether the low rate of prehospital electrocardiogram acquisition was due to lack of availability or lack of application of this technology,” says Dr Diercks. “A better understanding of this will allow us to tailor educational activities.” Future research should focus on elucidating what effect training, financial cost, and technological limitations have on the use of prehospital electrocardiography, she suggests.

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Original article Diercks, D. B. *et al.* Utilization and impact of pre-hospital electrocardiograms for patients with acute ST-segment elevation myocardial infarction. *J. Am. Coll. Cardiol.* 53, 161-166 (2009).