The diagnostic value and cost-effectiveness of creatine kinase-MB, myoglobin and cardiac troponin-T for patients with chest pain in emergency department observation ward

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Aim: To evaluate the diagnostic value and cost-effectiveness of creatine kinase-MB isomer, myoglobin and cardiac troponin-T for patients with chest pain in emergency department observation ward. Method: A prospective study was carried out to include all patients presenting with chest pain of suspected cardiac origin and admitted to the observation ward. Electrocardiogram and blood tests for the three cardiac markers were performed at the time of consultation and six to eight hours after admission to the observation ward. Progress of the patients was followed up for 30-day survival or the condition reviewed up to six months and the final diagnoses were documented. Result: A total of 480 patients were recruited. The incidence of acute myocardial infarction was 1.5%. No one died of cardiac cause within 30 days. Troponin was more accurate than creatine kinase for diagnosing acute myocardial infarction and it was cost-effective. Myoglobin was of no value. Conclusion: Troponin is recommended as a diagnostic tool for evaluating patients with chest pain in observation ward. (Hong Kong j.emerg.med. 2004;11:85-90)

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