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Project title
AMI Clinical Pathway – Does It Save Lifes?

Author(s)
Wong KL(1), Choi K(2), Chan P(2), Chan KKW(1), Lam SCC(1), Tam FCC(1), Wong AYT(1), Yung ASY(1), Chan EKY(1), Shea PC(1), Lam YM(1), Lam L(1), Chan RHW(1), Lee SWL(1)
(1) Department of Medicine (2) Clinical Audit Team (CAT), Queen Mary Hospital

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Introduction
Acute myocardial infarction (AMI) is associated with high mortality but compliance with evidence-based treatments is suboptimal. Clinical pathway is a standardized protocol developed for the management of a specific disorder with an aim to homogenize clinical practice complying with evidence-based treatments. The implementation of an AMI clinical pathway has been shown to improve adherence to evidence-based AMI treatments, but whether this effect results in reduction in death (case fatality) is unclear.

Objectives
1) To demonstrate that implementation of AMI clinical pathway is associated with improvement in (1) in-hospital, (2) 30-day and (3) 6-month case fatality rate 2) To demonstrate that implementation of AMI clinical pathway is associated with improvement in (1) 30-day and (2) 6-month survival

Methodology
1) AMI between 2004 and 2011 were categorised into two cohorts: before (2004-2007) and after (2007-2011) the implementation of a clinical pathway. 2) The case fatality rate (CFR) was assessed by multivariate logistic regression, and survival was assessed by Cox proportional hazards regression analyses.

Result
1) 2029 AMI, 859 before and 1170 after the clinical pathway implementation were analyzed 2) The in-hospital CFRs for the two cohorts were 14.6% and 10.9%, respectively (odds ratio (OR) 0.649 [CI 0.492-0.856], p=0.002). 3) The 30-day CFRs were 18.4% and 14.9%, respectively (OR 0.672 [CI 0.521-0.868], p=0.002) 4) The 6-month CFRs were 26.0% and 22.9%, respectively (OR 0.700 [CI 0.555-0.881], p=0.002) 5) Cox regression models showed significant improvement in survival at both 30 days (p=0.002) and 6 months (p=0.001) in the post-pathway cohort Conclusion: Implementation of AMI Clinical Pathway is associated with reduction in case fatality rates and improvement in survival.