

122: Variations in the treatment of acute myocardial infarction (AMI) among Swiss Academic Medical Centers

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Objectives:

There is an increasing interest in the evaluation of quality of care, especially for patients with acute myocardial infarction (AMI). It is particularly important to assess hospital variation in order to properly propose improvement strategies for poorly performing institutions. The objective of our study was to assess hospital variations in the quality of care delivered to AMI patients, among three Swiss academic medical centers.

Methods:

We conducted a cross-sectional study by abstracting medical records from three Swiss academic medical centers. We selected 1,129 eligible patients discharged from these hospitals between January 1 and December 31, 1999. An administrative data set based on the International Classification of Diseases, 10th revision (ICD-10) code for AMI, including primary or secondary diagnoses was used. We found 553, 380, and 196 eligible patients in each hospital. We abstracted medical records for information concerning demographic characteristics, risk factors, symptoms and findings at admission. We also recorded the main EKG and laboratory findings for AMI patients, as well as hospital and discharge management and treatment. The main outcome measures were the percentage of patients receiving appropriate intervention as defined by seven indicators of quality of care, derived from the clinical practical guidelines.

Results:

After exclusions, 577 patients with AMI were eligible for this study. The mean age was 68.2 (S.D = 13.9), and 65.2% were male. In the assessment of quality indicators we excluded patients with potential contraindications to the intervention examined. Among cohorts of "potential candidates" for specific interventions, the ranges across hospitals were: 72.7% to 64.3% for re-perfusion within 12 hours, either with thrombolytics or percutaneous transluminal coronary angioplasty (PTCA) ($p=0.367$); 84.6% to 97.2% for aspirin received at admission ($p=0.0002$); 87.0% to 94.4% for aspirin prescribed at discharge ($p=0.110$); 78.5% to 88.7% for β -blockers prescribed at discharge ($p=0.203$); 66.7% to 90.5% for angiotensin converting enzyme inhibitors prescribed at discharge ($p=0.003$); 14.7% to 50.8% for smoking cessation advice ($p=0.0008$). In multivariate analyses, the adjusted odds ratio (OR) (95% CI) for prescription of aspirin at admission was 0.14 (0.04-0.46) for hospital A patients, and 0.56 (0.22-1.41) for hospital B patients (hospital C = 1.0, reference). The adjusted odds ratio (95% CI) for smoking cessation advice reported was 0.18 (0.06-0.56) for hospital A, and 0.19 (0.06-0.60) for hospital B (hospital C = 1.0 reference).

Conclusions:

Our results showed important variations between hospitals in the quality of care provided to patients with AMI between these three academic medical centers.