

# In-hospital mortality of non-st segment elevation myocardial infarction in a Puerto Rican population

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## Abstract

**Introduction:** Currently, there is limited published information on in-hospital mortality regarding ST segment elevation and non-ST segment elevation myocardial infarction. This information is even scarcer on the Hispanic population. We aim to study if there is a difference on in-hospital mortality between ST elevation myocardial infarction (STEMI) and non-ST elevation myocardial infarction (NSTEMI) in a mostly Hispanic population. **Methods:** A secondary data analysis of a non-concurrent prospective study was performed using the Puerto Rican Heart Attack study database. Dependent variable was in-hospital mortality and independent variable was type of myocardial infarction (STEMI or NSTEMI). We conducted, sequentially, a descriptive, bivariate and multivariate analysis. The chi-squared test was used to compare categorical variables and t-test for continuous variables. Finally, a logistic regression model was used to perform the multivariate analysis. **Results:** From the 838 Puerto Rican patients hospitalized with ST classification, 310 (37%) were diagnosed with STEMI. Patients with STEMI were younger (65 years vs 68 years;  $p=0.008$ ), more likely to receive invasive treatment (47.9% vs 27.5%,  $p<0.001$ ), and less likely to have a history of hypertension (72.5% vs 79.0%,  $p=0.033$ ) compared to NSTEMI patients. For every 1-year increase in age, there is a 4% increase in in-hospital mortality. Patients with hyperlipidemia were approximately two times more likely to die in the hospital compared to patients without hyperlipidemia. In the unadjusted analysis, there was no significant association between STEMI and NSTEMI patients and in-hospital mortality. After adjusting for confounders, patients with STEMI had twice the risk of dying than those with NSTEMI. **Conclusions:** Findings from this study suggest that Puerto Ricans with STEMI have double the risk of in-hospital mortality than NSTEMI patients. Our findings were similar to those reported in the literature. A timely recognition of at-risk patients, especially among STEMI patients, may help reduce short-term mortality among patients hospitalized with acute myocardial infarction in Puerto Rico.

**Keywords:** ST elevation myocardial infarction; STEMI; mortality; Puerto Rico

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