# ABSTRACT

**Background:** Global researchers have found a wide practice gap between optimal care and actual care patients with acute ST-segment elevation myocardial infarction (STEMI). Indicators of quality of care for acute myocardial infarction (AMI) patients have already been developed. The main objective of the present study was to estimate the uptake to quality indicators that reflect the current evidence-based recommendations and guidelines.

**Methods:** A descriptive study was conducted using review of medical records, and medical charts of new patients admitted and treated as acute STEMI at department of critical care medicine, Cairo University, between April 1$^{st}$, 2015 to September 31$^{st}$, 2016. For the purpose of the analysis, a set of highly predictive quality indicators has been used. Frequency or median was calculated, as appropriate, for each indicator, to estimate performance for each area of care. Univariate associations were examined using chi-square tests & Student's t-tests, as appropriate, and multivariate analysis has been done to choose best predictors.

**Results:** From 222 patient with acute STEMI (mean age 56.3±11.78 years, 79.7% male), 13.51% presented to hospital after 12 hours of symptoms onset. Primary percutaneous coronary interventions (PCI) were applied on 81.1% cases (N=180) and median "door to balloon" time was 126.5 (mean144.01±107.477, N = 120) minutes. In the first 24 hours, ASA, β-Blockers & Angiotensin Converting Enzyme Inhibitors (ACE-I) or AR-Blockers was administered in 100%, 38.92% & 63.01% of the total eligible cases respectively. At discharge, ASA, β-Blockers, ACE-I/ARBs, & statins were prescribed in 100%, 80.71%, 86.01% & 99.01%, respectively. In this study, a relation between length of stay with gender, reperfusion with primary PCI, & in-hospital outcome esp. with major adverse cardiac event (MACE), was observed.

**Conclusion:** The results show that there is still substantial work that lies ahead on the way to improve the uptake to evidence-based processes of care. We found some disparities between guidelines and clinical practice for Acute STEMI patients and a significant association between process indicators and in-hospital outcomes. Our findings are potentially helpful for assessing and improving the quality of care for acute STEMI patients in Egypt.

**Key words**: Hospital, Performance, Quality, Care, Indicators, STEMI, Outcome