

00143 Predictors of Length of Stay and Unplanned Readmission Among Patients With Acute Myocardial Infarction After Primary Percutaneous Coronary Intervention – A Historical Cohort Study

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Aims: Efficacy of primary percutaneous coronary intervention (PPCI) in restoring blood flow to the myocardium has been well documented. Studies have shown the feasibility and safety of Acute Myocardial Infarction (AMI) patients discharged within 48 to 72 hours after an uncomplicated PPCI. However, eligible patients remain hospitalized beyond 72 hours. To identify demographic and clinical variables that are associated with length of stay (LOS) beyond 72 hours and unplanned readmission within 30-days of discharge.

Methodology: The study was conducted in restructured government hospital which specializes in providing care to patients with cardiovascular and thoracic health conditions. 543 records of patients were examined. Of which, 240 eligible patients with AMI that underwent PPCI from January 2016 to December 2016 were included in the study. The demographic and clinical variables of LOS and unplanned readmission were determined using survival analysis. Spearman's rho was used for univariate analysis while linear and logistics regression were used for multivariate analysis. P-values ≤ 0.05 were considered as statistically significant.

Result: The mean LOS were 107.36 (std±88.12) and 30-day unplanned readmission were found in 13.4% (n=32) of the population. Age (p=0.033), pulse rate (p=0.003), hemoglobin (p=0.006), creatinine (p=0.02) and LVEF (p=0.001) were statistically significant in LOS beyond 72 hours. In an unplanned readmission, age (p=0.004), gender (p=0.002), hypertension (p=0.02), ESRF (0.007), and presenting hemoglobin (p<0.0001) were significant risk factors and previous CABG (p=0.027) and arrhythmias (p=0.003) were independent factors.

Conclusion: This study concluded that age, along with existing diabetes, an abnormal heart rhythm, lower hemoglobin and higher creatinine levels were more likely to experienced hospitalization beyond 72 hours following PPCI. Post-procedural ejection fraction may also affect the clinical decision for an early discharge. This study also found that previous CABG and arrhythmias during the index hospitalization increase the patient's risk of an unplanned readmission by 8.5% and 3.8% respectively.