

Pre-hospital Intervention on the Treatment for Patient with ST-Segment Elevation Myocardial Infarction from Healthcare Management

Yu-Ting Huang*

Bachelor's Program of Business, Feng Chia University, Taiwan

Qiao-Lun Gao

Department of Nursing, KuangTien General Hospital, Taiwan

Email: ytinghuang@o365.fcu.edu.tw

Abstract: Cardiovascular disease (CVD) is a leading cause of mortality globally, with annual increases in both incidence and fatality rates. Urgent and effective management is critical for CVD events, such as myocardial infarction and heart failure, to prevent fatal outcomes. This study explores the role of pre-hospital electrocardiography (ECG) in enhancing early diagnosis and treatment, thereby potentially shortening emergency room durations. Despite prior evidence supporting pre-hospital ECG in reducing time-to-treatment for myocardial infarction, the broader impact on patient survival has not been extensively analyzed. Utilizing data from Song et al. (2022) involving Korean patients who received pre-hospital ECG between 2015 and 2018, we conducted an empirical analysis using regression methods in STATA. Findings demonstrate a positive association between pre-hospital ECG and increased survival rates, particularly in cases showing ST segment elevation. Additionally, survival correlates positively with factors such as intensive care admission, hospital stays under four days, emergency room stays under four hours, and the application of acute coronary syndrome pathways. These insights suggest that pre-hospital ECG could indirectly enhance survival outcomes by facilitating earlier and more targeted interventions.

Keywords: Healthcare Management, ST-Segment Elevation Myocardial Infarction (STEMI), Pre-hospital Electrocardiogram

JEL Classification Number: H5, H8

* Corresponding author. Email: ytinghuang@o365.fcu.edu.tw