

The Effect of CODE STEMI on Major Adverse Cardiac Events and Mortality in ST Elevation Myocardial Infarction Patients at Dr Cipto Mangunkusumo General Hospital

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Abstract

Background : One of the highest causes of cardiac mortality is ST Elevation Myocardial Infarction (STEMI). Delay in the management of STEMI patients is a cause of high mortality and morbidity. A CODE STEMI program is established to help reduce door to balloon time and improve patient's care and clinical outcome. Objectives : To determine the effect of the implementation of CODE STEMI program on Major Adverse Cardiac Event (MACE) and mortality of STEMI patients at Dr. Cipto Mangunkusumo General Hospital. Method: This is a retrospective cohort study that enrolled 207 STEMI patients who underwent primary percutaneous coronary intervention (PPCI) in 2015-2018. The patients were divided into two groups. The first group was treated prior to establishing the CODE STEMI program. The other group was treated according to the program, which was implemented in January 2017. Data were collected from medical records and we retrospectively analysed all in-hours, MACE, and mortality of STEMI patients from both groups. Data analysis was done using Mann Whitney and Chi square test. Results: There were 72 and 135 patients in Pre-CODE STEMI and CODE STEMI groups respectively. D2BT was significantly reduced by 130 min (288 ± 306 vs 158 ± 81 , $P < 0.001$) since the implementation of CODE STEMI program. There were trends to lower in-hospital mortality rates (8.3% vs 4.4%, $RR = 0.53$) and MACE at 30 days (48.61% vs 37.78%, $RR = 0.77$). Conclusion: Implementation of CODE STEMI program can decrease the risk of MACE and mortality in STEMI patients in general hospital.

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“CODE STEMI effect on clinical outcomes of ST Elevation Myocardial Infarct Patients”

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