

Comparison of Door-to-Balloon Time and Outcomes for Self-Presenters versus Patients Using Emergency Ambulance Services in ST-elevation Myocardial Infarction

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Purpose Primary percutaneous coronary intervention (PPCI) is the main reperfusion therapy for patients presenting with ST-elevation myocardial infarction (STEMI) in Singapore. Due to its small geographical size and advanced transport infrastructure, many patients self-present (SP) to the emergency department (ED) rather than utilise the emergency ambulance services (AS). It is unclear whether the different modes of presentation affect the clinical outcomes of the patients. **Methods** From January 2010 to December 2011, 641 patients presented to our hospital for STEMI. We evaluated median door-to-balloon (D2B) time and 30 day mortality between both groups. D2B data were collected from medical records and 30 day mortality data were retrieved from Singapore Central Databank. **Results** Out of the 641 STEMI patients, 369 (57.6%) patients utilized AS whereas 272 (42.4%) were self-presenters. Median D2B time for AS group was significantly shorter when compared to SP group (54 mins vs 64 mins, $p < 0.001$). It took a significantly shorter time for ED physicians to activate the cath. lab for AS group when compared to SP group (13 mins vs 20 mins, $p < 0.001$). But there was no significant correlation between the modes of presentation with 30-day mortality for both groups. **Conclusion** Our findings showed that median D2B time was significantly shorter in AS group than SP group although this did not translate to a better clinical outcome.