

UNIVERSITI TEKNOLOGI MARA

**THE TIMELINESS OF
STREPTOKINASE
ADMINISTRATION AND ITS
RELATIONSHIP WITH
IN-HOSPITAL MORTALITY IN
ACUTE MYOCARDIAL
INFARCTION PATIENT**

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I declare that the work in this dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

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ABSTRACT

The reduction in mortality of acute myocardial infarction (AMI) patients is more striking when fibrinolytic is delivered early. A Malaysian guideline recommends initiation of fibrinolytic therapy in the emergency department (ED) within 30 minutes of arrival. The primary study objective is to determine the timing to streptokinase administration with comparison to the Malaysian guidelines and the relationship of the door-to-needle (DTN) time with in-hospital mortality. The study also examined the risk of bleeding with streptokinase and the contributing factors (day and time of ED arrival) that may affect DTN time. A retrospective study was conducted in Hospital Sultanah Aminah Johor Bahru on AMI patients admitted to the Coronary Care Unit and received streptokinase from ED. The data were taken from the ED admission records from January 2013 till September 2014. A total of 86 patients were enrolled in this study. Only 37.2% of the patients were treated according to guidelines. There was no significant association between DTN time and in-hospital mortality ($p=0.292$). 12.8% of them had bleeding episodes after receiving streptokinase. Day and time of ED arrival did not significantly affect the DTN time; $p=0.778$ and $p=0.575$, respectively. This study found that the timeliness of streptokinase administration was not associated with in-hospital mortality, yet DTN time of ≤ 30 minutes were achieved in less than half of AMI patients. Patients had mild or moderate bleeding risk after receiving streptokinase. ED staffs give priority to treat AMI patients as the highest acuity patients at all time.

Keywords: streptokinase, door-to-needle time, mortality, bleeding, contributing factors

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