# STEMI PATIENT IN TYPE C-HOSPITAL: TO TREAT OR NOT TO TREAT?

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# **Abstract**

ST-elevated myocardial infarction (STEMI) caused by complete occlusion of an epicardial coronary artery. Revascularization is mandatory in saving infark related teritory. In JKN (Indonesian National Health Insurance) era, there are some limitacy of type-C hospital in managing STEMI patient and there is no report of primary-PCI. Fibrinolytic become an option with onset less than 12 hours. We conducted a descriptive study, data taken from medical records between April 2014- January 2018. STEMI was diagnose from symptoms and ECG pattern. There were 48 STEMI patients with onset less than 12 hours (42 males and 6 females). The mean age was 52 years old with the oldest 74 years old and the youngest 30 years old. All of them 48 (100%) patients were covered by JKN and received fibrinolytic therapy with door-to-needle mean time was 28,87 minutes and in-hospital mortality rate was 8,3% (4 patients). The most risk factor of STEMI is hypertension (47,9%). There were 12 patients came with onset more than 12 hours.

Type-C hospital during JKN era can contribute to optimal management of STEMI patient by delivering fibrinolytic theraphy. Hypertension was still the most common risk factor for STEMI patients.

# Introduction

Pre-hospital thrombolysis in STEMI has been a topic of intense research and studies all over the world, with the intention of minimizing cardiac muscle damage as well as the need of a Primary PCI and stenting, depending on individual patient requirements. The application of telemedicine has been strongly mooted in pre-hospital thrombolysis, and many hospitals and institutions are actively supporting such programs. This article is intended to discuss the available thrombolytic drugs and to recommend the best possible options to achieve reperfusion and minimization of tissue injury after intravascular thrombosis, especially in STEMI

# Methods and Materials

#### Objective:

To describe the management of STEMI patient in type-C hospital.

#### Methods:

We conducted a descriptive study, data taken from medical records between April 2014- January 2018. STEMI was diagnose from symptoms and ECG pattern.

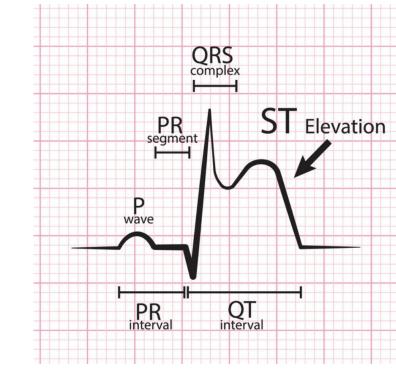
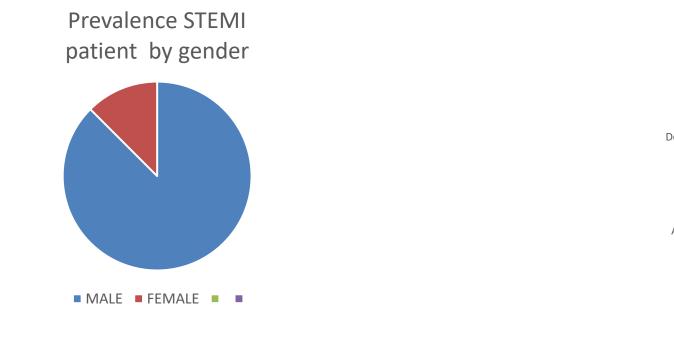


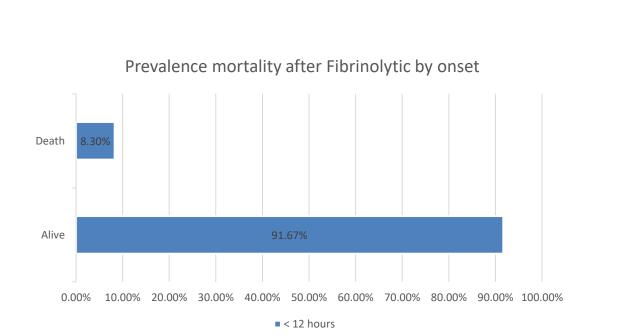
Figure 1. ECG pattern in STEMI

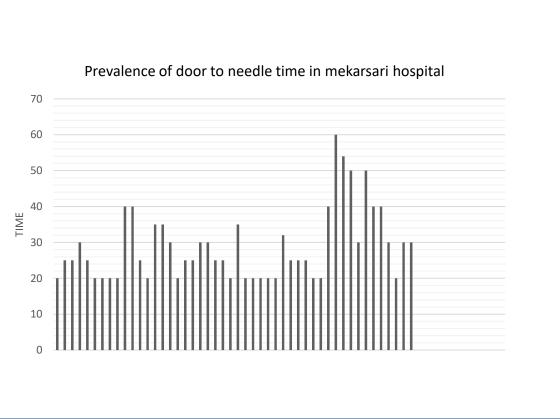
#### Results

There are 48 subject with onset less than 12 hours, consist of 42 males and 6 females, which had an average age of 52 years old with the oldest 74 years old and the youngest 30 years old. All of them 48 (100%) patients were covered by JKN and received fibrinolytic therapy with door- to-needle mean time was 28,87 minutes and inhospital mortality rate was 8,3% (4 patients).

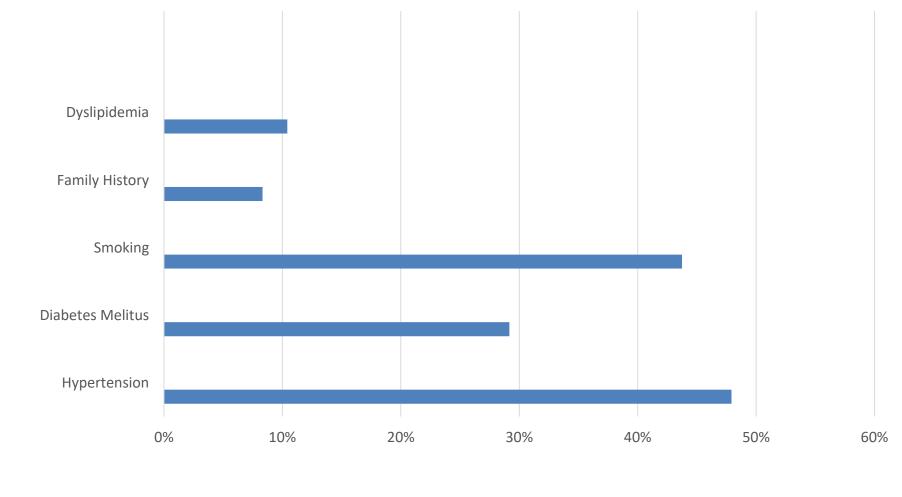
The risk factor of STEMI is hypertension (47,9%), Smoking (43,75%), Diabetes Melitus (29,17%), Dyslipidemia (10,42%) and family history (8,33%). There were 12 patients came with onset more than 12 hours.



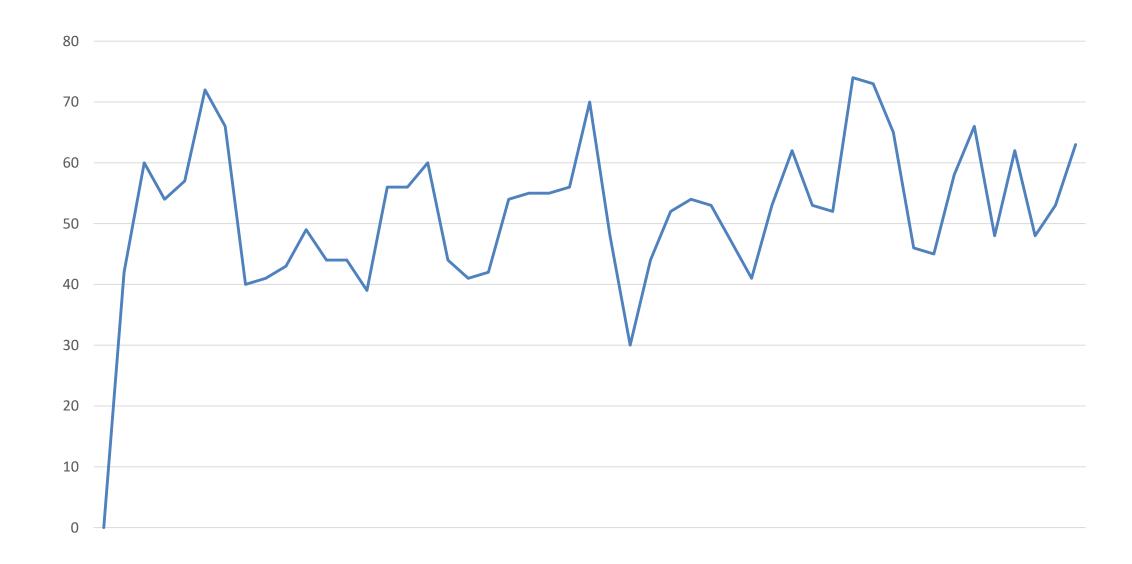




#### Chart 1. Prevalence of STEMI patient by risk factor



#### Chart 2. Pervalence of STEMI patient by age (the youngest 30 yo)



#### Discussion

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#### Conclusions

Type-C hospital during JKN era can contribute to optimal management of STEMI patient by delivering fibrinolytic theraphy. Hypertension was still the most common risk factor for STEMI patients.

### **Future Directions**

Type C Hospital In Indonesia should have PCI, so treatment for STEMI patients could be more effective.

## **Contact Information**

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# Acknowledgements

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