

## Study of TIMI-II Prognostic Criteria in Stemi



### Medical Science

**KEYWORDS :** TIMI II, STEMI, prognosis

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### ABSTRACT

**OBJECTIVE:-** To evaluate the clinical evolution of patient with acute MI, According to risk stratification by the TIMI score and evaluate the prognostic value. **MATERIALS AND METHODS:-** study consisted of 200 patients of MI treated in ICCU of tertiary care unit (Tcu). Acute MI was documented by 1) detailed history 2) physical examination 3) laboratory investigations (cardiac enzymes) 4) 14 leads ECG including RV leads. All patients of STEMI were thrombolysed with streptokinase I.V. therapy excluding the contraindications. We calculated and evaluated TIMI score for predicting 30 day mortality at time of presentation of fibrinolytic eligible patients with STEMI and 30 days mortality data was recorded. Primary end point of study was death due to any cause within 30 days. **Result:-** Out of 200 patients 72.50% were male. 27.50% were female, maximum 50.5% being in 51-70 years age group. Common modifiable risk factors were smoking, DM and hypertension. According to TIMI risk score, 22.5% of the patients were in low risk group, 34% of the patients were in medium risk group and 43.5% of patients were in high risk group. Out of them, mortality was seen maximum in high risk group (24.13%). **Conclusion:** TIMI risk score for STEMI may be readily applied at bed side at the time of presentation and captures mortality of prognostic information offered by full logistic regression model. Mortality increased proportionally with TIMI score.

### INTRODUCTION

Effective risk stratification is integral to management of acute coronary syndrome. Even among patients with ST-elevation myocardial infarction (STEMI), for whom initial therapeutic options

are well defined, patient risk characteristics impact short and long term medical decision making. Early risk assessment guides triage to alternative levels of hospital care, decisions regarding therapeutic interventions, and application of clinical pathways that direct patient care and use of clinical resource.

Despite well characterised risk predictors, reliable quantitative estimation of risk is challenging, as patients present with complex risk profiles requiring integration of numerous elements of qualitative and quantitative data. Thus, practical tools that enhance clinicians ability to rapidly and accurately assess risk are of substantial interest.

The THROMBOLYSIS IN MYOCARDIAL INFARCTION (TIMI) risk score for STEMI is a simple integer score that can be used at the bed side for risk stratification of patients at presentation of ST elevation acute coronary syndrome, derived from 14114 patients enrolled in the InTIME II (intravenous nPa for treatment of infarcting myocardial early) trial, the TIMI risk score is a robust clinical tool for mortality risk prediction in fibrinolytic-eligible patients with STEMI.

### AIMS AND OBJECTIVES

- To correlate the bed side TIMI Risk score analysis in patients admitted to ICU with STEMI
- To correlate the bed side TIMI Risk score analysis in patients admitted to ICU with STEMI
- To evaluate the clinical evolution of patient with acute myocardial infarction, according to risk stratification by the TIMI score
- To evaluate the prognostic value of TIMI risk score analysis in patients of STEMI

### MATERIALS AND METHODS

The material of this study consisted of 200 patients of acute myocardial infarction who were admitted in ICCU of a tertiary care unit. The presence of acute myocardial infarction was documented by

- Detailed history
- Physical examination

- Laboratory investigations
- 14 leads ECG including RV leads

All these patients were treated by Intravenous streptokinase (thrombolytic therapy) after excluding its contraindications.

After admission, complete record of history of the mode of onset precipitating factor, past history, personal history, presence of coronary risk factors and physical findings were recorded.

Laboratory investigations on admission included X-ray chest, haemoglobin, ESR, WBC count, CPK total, RBS, S.lipids, s.urea, s.creatinine, s. Electrolytes.

ECG was taken on admission and then was again taken 1) at 90 min after admission 2) after 6 hours of admission 3) after 12 hours of admission 4) after 24 hours of admission.

We calculated and evaluated a convenient bed side clinical risk score for predicting 30-day mortality at presentation of fibrinolytic-eligible patients with STEMI. The TIMI risk score for STEMI was created as the simple arithmetic sum of independent predictors of mortality weighted according to the adjusted odds ratios from logistic regression analysis in the Intravenous nPa for treatment of infarcting myocardium early trial (n=14114)

### OBSERVATION-

Out of 200 patients 72.50% were male. 27.50% were female. maximum 50.5% being in 51-70 years age group. Common modifiable risk factors were smoking (53%), hypertension (46.5%) and DM (24%). Following results were obtained:  
Low risk group (TIMI score 0-2) contained 45 patients had mortality of 2.20%,  
Medium risk group (TIMI score 3-5) contained 68 patients had mortality of 5.88%,  
High risk group (TIMI score >5) contained 87 patients had mortality of 24.13%.

### Conclusion:

TIMI risk score for STEMI may be readily applied at bed side at the time of presentation and captures mortality of prognostic information offered by full logistic regression model. Mortality increased proportionally with TIMI score.

### REFERENCE

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