

## INTISARI

### PENGGUNAAN HbA1c SEBAGAI FAKTOR PREDIKSI LUARAN BURUK PADA PASIEN INFARK MIOKARD AKUT ELEVASI SEGMENT ST (IMA-EST)

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**Latar Belakang:** Kasus serangan jantung infark miokard akut elevasi segmen ST (IMA-EST) merupakan penyebab mortalitas tertinggi di dunia. Pasien IMA-EST apabila disertai dengan kadar HbA1c yang tinggi sering menimbulkan komplikasi berupa luaran buruk berupa *major adverse cardiovascular event (MACE)*. Namun, hubungan keduanya belum sepenuhnya diketahui dengan jelas.

**Tujuan:** Untuk melihat hubungan antara kadar HbA1c terhadap luaran buruk, yaitu kejadian *MACE* pada IMA-EST.

**Metode:** Desain penelitian ini adalah studi kohort retrospektif dengan menggunakan data sekunder pasien IMA-EST yang dirawat di RSUP Dr. Sardjito. Pencuplikan sampel dilakukan secara konsekutif. Subjek dibagi berdasarkan kadar HbA1c, yaitu subjek HbA1c < 6,5% dan HbA1c ≥ 6,5%. Data dianalisis hubungan antara kadar HbA1c dengan kejadian *MACE* selama perawatan di rumah sakit.

**Hasil:** Sebanyak 145 subjek dibagi dalam 2 kelompok. 92 subjek kelompok HbA1c < 6,5% dan 53 subjek kelompok HbA1c ≥ 6,5%. 15 subjek (16,3%) dari kelompok HbA1c < 6,5% mengalami *MACE*. Sedangkan pada subjek kelompok HbA1c ≥ 6,5% terdapat 14 pasien (26,4%) mengalami *MACE* sehingga didapatkan nilai p 0,143. Selain itu, didapatkan pula *risk relative* sebesar 1,62 dengan 95% konfidensi interval sebesar  $0,85 \leq \mu \leq 3,08$ .

**Simpulan:** Kadar HbA1c tidak berpengaruh signifikan terhadap luaran buruk pasien IMA-EST berupa kejadian *MACE*.

**Kata Kunci:** infark miokard akut, STEMI, IMA-EST, HbA1c, luaran buruk, *major adverse cardiovascular events (MACE)*.

## ABSTRACT

### ***HbA1c USAGE AS A PREDICTION FACTOR OF BAD OUTCOME IN ST SEGMENT ELEVATION MYOCARDIAL INFARCTION (STEMI) PATIENTS***

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**Background:** Heart attacks acute myocardial infarction ST segment elevation (STEMI) is still the highest cause of mortality in the world. STEMI patients that is associated with high HbA1c levels often lead to bad outcomes such as complications of major adverse cardiovascular events (MACE). However, the relationship is not yet fully known.

**Objective:** To see the relationship between HbA1c and the incidence of MACE as a bad outcomes.

**Methods:** This study design was a retrospective cohort study using secondary data of STEMI patients who were treated at the Dr. Sardjito Hospital. Sampling was taken consecutively. The subjects were divided into two groups, subject group with HbA1c < 6,5% and subject group with HbA1c ≥ 6,5%. Data were analyzed the relationship between HbA1c levels with the incidence of MACE during hospitalization.

**Results:** A total of 145 STEMI patients were divided into two groups. Subject group with HbA1c < 6.5% of 92 patients and subject group HbA1c ≥ 6.5% of 53 patients. In group with HbA1c < 6.5%, there were 15 patients (16,3%) experienced MACE. While on group HbA1c ≥ 6.5%, there were 14 patients (26,4%) experienced MACE. After being analyzed, obtained p-value of 0.143. In addition, it was obtained also risk relative of 1,62 with a 95% confidence interval of  $0.85 \leq \mu \leq 3,08$ .

**Conclusions:** HbA1c levels did not significantly influence the MACE events as the bad outcome of STEMI patients.

**Keywords:** acute myocardial infarction, STEMI, IMA-EST, HbA1c, major adverse cardiovascular events (MACE).