

**PERBANDINGAN EFEKTIVITAS ANTARA PENGGUNAAN REGIMEN  
INSULIN BASAL-BOLUS DAN *PRE-MIXED* TERHADAP ANGKA  
KEJADIAN PENYAKIT KARDIOVASKULAR PADA PASIEN DIABETES  
MELITUS TIPE II DI RSUP DR. SARDJITO YOGYAKARTA**  
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### INTISARI

**Latar Belakang:** Diabetes Melitus (DM) tipe II merupakan salah satu penyakit tidak menular tertinggi di dunia dan Indonesia. DM tipe II juga dapat menyebabkan komplikasi diantaranya kejadian kardiovaskular mayor (KKM) seperti stroke, gagal jantung, kematian, dll. Terapi DM tipe II ada bermacam-macam seperti obat antihiperqlikemia oral maupun suntik, dan salah satunya adalah penggunaan regimen insulin basal-bolus dan *pre-mixed*.

**Tujuan:** penelitian ini bertujuan untuk mengetahui mengetahui efektivitas antara penggunaan regimen insulin basal-bolus dan *pre-mixed* terhadap angka kejadian penyakit kardiovaskular mayor pada pasien terdiagnosis diabetes melitus tipe II di RSUP Dr. Sardjito pada tahun 2016-2020

**Metode:** menggunakan rekam medis dan data obat. Subjek penelitian adalah pasien diabetes melitus tipe II yang mendapatkan regimen insulin basal-bolus ataupun *pre-mixed* di RSUP Dr. Sardjito Januari 2016-Desember 2020. Penelitian ini ingin melihat asosiasi penggunaan regimen insulin basal-bolus dan *pre-mixed* terhadap angka kejadian kardiovaskular mayor melalui analisis deskriptif maupun statistik

**Hasil:** Subjek penelitian yang mendapatkan regimen insulin basal bolus yang mengalami persentase KKM sebesar 21.57% dan *pre-mixed* 13.14%, dengan kategori usia terbanyak yang terkena KKM adalah Lansia Akhir (56-65 Tahun). Hasil uji statistik menemukan hubungan yang signifikan antara penggunaan regimen insulin basal-bolus/*pre-mixed* dengan angka KKM ( P-value : 0.001 ; 95% CI : 1,287 - 2,725)

**Kesimpulan:** Terdapat asosiasi yang signifikan secara statistik antara penggunaan regimen insulin basal-bolus atau *pre-mixed* dengan angka kejadian kardiovaskular mayor..

**Kata kunci :** Diabetes Melitus tipe II, Insulin, Kejadian Kardiovaskular Mayor

**COMPARISON OF EFFECTIVENESS BETWEEN THE USE OF BASAL-BOLUS AND PRE-MIXED INSULIN REGIMENS ON THE INCIDENCES OF MAJOR ADVERSE CARDIOVASCULAR EVENT IN TYPE II DIABETES MELLITUS PATIENTS IN RSUP DR. SARDJITO YOGYAKARTA**

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**ABSTRACT**

**Background:** Diabetes Mellitus (DM) type II listed as one of the highest prevalence of non-communicable diseases in the world and Indonesia. Type II diabetes can also cause complications including major adverse cardiovascular events (MACE) such as stroke, heart failure, death, etc. There are various types of DM type II therapy, such as oral and injectable antihyperglycemic drugs, and one of them is the use of basal-bolus and pre-mixed insulin regimens.

**Objective :** This research aims to determine the effectiveness between the use of basal-bolus and pre-mixed insulin regimens on the incidence of major cardiovascular disease in patients diagnosed with type II diabetes mellitus at RSUP Dr. Sardjito in 2016-2020.

**Method:** This research used medical records and drugs database. The research subjects were patients with type II diabetes mellitus who received either a basal-bolus or pre-mixed insulin regimen at RSUP Dr. Sardjito January 2016-December 2020. This research keen to looked the association between the use of basal-bolus and pre-mixed insulin regimens on the number of major cardiovascular events through descriptive and statistical analysis.

**Result:** Subjects percentage who received basal bolus insulin or pre-mixed insulin regimen therapy experienced MACE 21.57% and 13.14% respectively, which late elderly age category (56-65 years old) affected the most by MACE. The results of statistical tests found a significant relationship between the use of basal-bolus/pre-mixed insulin regimens and the incidence of MACE (P-value: 0.001; 95% CI: 1.287 - 2.725).

**Conclusion :** There was a statistically significant association between the use of a basal-bolus or pre-mixed insulin regimen and the incidence of MACE.

**Keyword :** Type II Diabetes Mellitus, Insulin, Major Adverse Cardiovascular Events



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