

**ANALISIS KOMBINASI OBAT ANGIOTENSIN CONVERTING ENZYME  
INHIBITOR (ACE-I) DAN ANGIOTENSIN RESEPTOR BLOCKER (ARB)  
DENGAN FUROSEMID PADA PASIEN HIPERTENSI DAN PENYAKIT  
GINJAL KRONIK DI BANGSAL PENYAKIT DALAM  
RSUP DR. M. DJAMIL PADANG**

**TESIS**

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## ABSTRAK

**Analisa Kombinasi Obat ACE-Inhibitor dan ARB+Furosemid pada Pasien Hipertensi dan Penyakit Ginjal Kronik di Bangsal Penyakit Dalam RSUP Dr. M. Jamil Padang. Hesti Effendi, Pascasarjana Universitas Andalas. 2017. Di bawah bimbingan Helmi Arifin dan Nasrul Zubir.**

Penelitian ini bertujuan untuk mempelajari perbedaan efektivitas kombinasi obat ACEI-Furosemid dengan ARB-Furosemid dalam menurunkan kadar kreatinin, kadar ureum, dan tekanan darah pada penderita hipertensi dan penyakit ginjal kronis. Penelitian ini merupakan penelitian *ex-post-facto* dimana data diambil dari rekam medik pasien hipertensi dan penyakit ginjal kronis di Bagian Penyakit Dalam Rumah Sakit Umum dr. M. Jamil Padang, Sumatera Barat.

Desain penelitian yang digunakan adalah desain uji hipotesis Anova 2x3. Hipotesis diuji pada alfa 0,05. Hasil penelitian menunjukkan bahwa kombinasi ARB-Furosemid lebih banyak (86,2%) dibandingkan kombinasi ACEI-Furosemid (13,8%). Lebih lanjut, penelitian ini menunjukkan bahwa kombinasi obat ACE inhibitor plus furosemide dan ARB plus furosemide sama efektifnya dalam menurunkan kadar kreatinin, kadar ureum, dan tekanan darah pada pasien hipertensi dan penyakit ginjal kronis.

Dilihat dari dosis yang dikategorikan menjadi dosis kurang, dosis sesuai, dan dosis berlebih, meskipun secara klinis terdapat perbedaan perubahan kadar kreatinin, kadar ureum, dan tekanan darah pada penderita hipertensi dan penyakit ginjal kronik, secara statistik, tidak ada perbedaan antara kategori tiga dosis. itu. Dari segi efek interaksi, ternyata tidak ada interaksi antara kombinasi obat dan dosis obat baik dalam menurunkan kreatinin darah maupun menurunkan ureum darah. Namun demikian, terdapat interaksi antara kombinasi obat dan dosis obat dalam menentukan penurunan tekanan darah.

Berdasarkan hasil penelitian ini, disarankan agar pemberian obat antihipertensi, baik kombinasi ACEI-Furosemid maupun kombinasi ARB-Furosemid untuk menurunkan kreatinin, ureum, dan tekanan darah dapat digunakan dengan dosis yang sesuai dengan kebutuhan pasien. kondisi klinis. Selain itu, pemilihan kombinasi obat antara ACE inhibitor dan furosemid atau ARB dan furosemid perlu memperhatikan efek samping obat. Misalnya, lebih baik menggunakan kombinasi ARB dan furosemid.

## ABSTRACT

**Analysis of Combinations of ACE-Inhibitors and ARB + Furosemide in Hypertension and Chronic Kidney Disease Patients in the Internal Medicine Ward of RSUP Dr. M. Jamil Padang. Hesti Effendi, Andalas University Postgraduate 2017. Under the supervision of Helmi Arifin and Nasrul Zubir.**

The purpose of this study was to compare the efficacy of ACEI-Furosemide and ARB-Furosemide in lowering creatinine, urea, and blood pressure in individuals with hypertension and chronic renal disease. This is a retrospective study in which data were extracted from the medical records of patients with hypertension and chronic kidney disease in the Internal Medicine Ward of the General Hospital dr. M. Jamil Padang in West Sumatra.

A 2-by-3 Anova hypothesis test design was utilized. The hypothesis was evaluated using an alpha value of 0.05. The results demonstrated that the ARB-Furosemide combination was superior to the ACEI-Furosemide combination by 86.2%. In addition, this study demonstrated that the medication combinations ACE inhibitor plus furosemide and ARB plus furosemide were equally efficient in lowering creatinine, urea, and blood pressure in individuals with hypertension and chronic renal disease.

Although clinically there were differences in changes in creatinine levels, urea levels, and blood pressure in patients with hypertension and chronic kidney disease based on the doses that were categorized as insufficient, appropriate, and excessive, statistically there were no differences between the three dose categories. Regarding interaction effects, it turns out that there is no interaction between drug combinations and drug doses in lowering blood creatinine and urea. Still, there is a relationship between medicine combinations and drug doses and blood pressure lowering.

Based on the findings of this study, it is indicated that antihypertensive medicines, including the ACEI-Furosemide combination and the ARB-Furosemide combination, can be administered at levels determined by the patient's clinical situation. In addition, while selecting a pharmacological combination between an ACE inhibitor and furosemide or an ARB and furosemide, it is important to consider the adverse effects of the drugs. For instance, it is preferable to combine ARB with furosemide.