

EVALUASI FARMAKOEKONOMI DAN *DRUG RELATED PROBLEMS* (DRP) PADA PENGGUNAAN ANTIHIPERTENSI *BETA BLOCKER* DIBANDING *ANGIOTENSIN II RECEPTOR BLOCKER*: KAJIAN BIAYA DAN BIOMARKER TEKANAN DARAH PASIEN RAWAT INAP DI RSU ROYAL PRIMA MEDAN

ABSTRAK

Penelitian ini bertujuan mengevaluasi farmakoekonomi dan *drug related problems* (DRP) pada penggunaan antihipertensi golongan *beta blocker* dibandingkan *angiotensin II receptor blocker* (ARB) berdasarkan biaya dan biomarker tekanan darah pasien rawat inap di RSU Royal Prima Medan. Penelitian ini merupakan studi observasional analitik dengan desain retrospektif menggunakan data rekam medis pasien hipertensi rawat inap periode Oktober–Desember 2025. Sampel penelitian berjumlah 120 pasien, terdiri dari 60 pasien pengguna *beta blocker* dan 60 pasien pengguna ARB. Hasil penelitian menunjukkan bahwa total biaya pengobatan per episode rawat inap pada kelompok *beta blocker* lebih rendah dibandingkan kelompok ARB, yaitu Rp 1.176.000 berbanding Rp 1.591.200. Efektivitas terapi berdasarkan penurunan tekanan darah sistolik ≥ 20 mmHg menunjukkan hasil yang relatif sebanding, yaitu 78,3% pada kelompok *beta blocker* dan 81,7% pada kelompok ARB, dengan perbedaan yang tidak signifikan secara statistik ($p=0,638$). Nilai ACER pada kelompok *beta blocker* juga lebih rendah dibandingkan ARB, yaitu Rp 15.019 per % pasien efektif dibandingkan Rp 19.475 per % pasien efektif. Nilai ICER sebesar Rp 122.118 per % peningkatan efektivitas menunjukkan bahwa tambahan biaya pada ARB tidak sebanding dengan peningkatan efektivitas yang diperoleh. Dapat disimpulkan bahwa *beta blocker* lebih cost-effective dibandingkan ARB pada pasien hipertensi rawat inap di RSU Royal Prima Medan.

Kata Kunci: hipertensi, *beta blocker*, ARB, farmakoekonomi, cost-effectiveness, DRP.

**PHARMACOECONOMIC EVALUATION AND DRUG RELATED
PROBLEMS (DRP) IN THE USE OF BETA BLOCKER
ANTIHYPERTENSIVE THERAPY COMPARED WITH ANGIOTENSIN II
RECEPTOR BLOCKER: A COST AND BLOOD PRESSURE BIOMARKER
ANALYSIS IN HOSPITALIZED PATIENTS AT RSU ROYAL PRIMA
MEDAN**

ABSTRACT

This study aimed to evaluate pharmacoeconomics and drug related problems (DRP) in the use of beta blocker antihypertensive therapy compared with angiotensin II receptor blocker (ARB) based on treatment cost and blood pressure biomarkers in hospitalized hypertensive patients at RSU Royal Prima Medan. This was an analytic observational study with a retrospective design using medical record data from hypertensive inpatients during October–December 2025. The sample consisted of 120 patients, including 60 beta blocker users and 60 ARB users. The results showed that the total treatment cost per hospitalization episode was lower in the beta blocker group than in the ARB group, at IDR 1,176,000 versus IDR 1,591,200. Treatment effectiveness based on systolic blood pressure reduction of at least 20 mmHg was comparable, with 78.3% in the beta blocker group and 81.7% in the ARB group, and the difference was not statistically significant ($p=0.638$). The ACER value was also lower in the beta blocker group than in the ARB group, at IDR 15,019 per effective patient percentage versus IDR 19,475 per effective patient percentage. The ICER value of IDR 122,118 per 1% increase in effectiveness indicated that the additional cost of ARB was not proportional to the effectiveness gained. It can be concluded that beta blocker therapy is more cost-effective than ARB in hospitalized hypertensive patients at RSU Royal Prima Medan.

Keywords: hypertension, beta blocker, ARB, pharmacoeconomics, cost-effectiveness, DRP.