

## **ABSTRACT**

Beta Blockers have been widely used since this class of drugs has extensive pharmacological activity but only a small number of indications have been registered in the FDA and/or BPOM. This study was conducted to evaluate the suitability of indication of beta-blocker drug use in RSUP Dr. Sardjito Yogyakarta.

The study was designed as descriptive research. Retrospective data was collected using simple random sampling technique through patient's medical record at Dr. Sardjito who received beta-blocker drug therapy in March 2016. The drug use profile was described by analyzing the use of beta-blocker drugs for the diagnosis of the disease and recorded on the medical record sheet. The suitability of the beta-blocker drug use indication was analyzed with reference to FDA-approved and/or BPOM-approved indications.

In March 2016, of 419 samples of medical records studied, the frequency of use of beta-blockers in RSUP Dr. Sardjito were bisoprolol 78.28%, propranolol 9.31%, carvedilol 9.07%, timolol 3.10%, and metoprolol 0.24%, which the highest frequency were for the treatment of hypertension, angina, and heart failure. The on-label uses were found in 362 patients (86.40%), whereas the off-label uses were found in 57 patients (13.60%). The off-label uses in 38 patients (66.67%) were supported by scientific evidences and 19 patients (33.33%) were not supported by scientific evidences. Scientific evidences of the uses of beta-blockers were for atrial fibrillation, premature ventricular complex, premature atrial complex, angina pectoris, mitral regurgitation, aortic stenosis, aortic regurgitation, tetralogy of fallot, hypertrophic cardiomyopathy, bleeding prophylaxis of esophageal varices, hyperthyroidism, and epilepsy.

**Kata kunci: beta blocker, beta blocker drug use, RSUP Dr. Sardjito**

## INTISARI

Penggunaan beta bloker selama ini cukup tinggi dikarenakan obat golongan ini memiliki aktivitas farmakologi yang luas namun hanya sebagian kecil indikasi yang telah terdaftar di FDA dan/atau BPOM. Penelitian ini bertujuan untuk mengevaluasi kesesuaian indikasi penggunaan obat golongan beta bloker di RSUP Dr. Sardjito Yogyakarta.

Penelitian ini mengikuti rancangan penelitian deskriptif. Pengambilan data dilakukan secara retrospektif menggunakan teknik *simple random sampling* melalui rekam medik pasien di RSUP Dr. Sardjito yang menerima terapi obat beta bloker pada bulan Maret 2016. Profil penggunaan obat digambarkan dengan menganalisis penggunaan obat beta bloker untuk diagnosis penyakit sesuai yang dialami pasien dan tercatat pada lembar rekam medik. Kesesuaian indikasi penggunaan obat golongan beta bloker dianalisis dengan mengacu pada indikasi yang telah disetujui FDA dan/atau BPOM.

Pada bulan Maret 2016, dari 419 sampel rekam medis yang diteliti, frekuensi penggunaan beta bloker di RSUP Dr. Sardjito berturut-turut adalah bisoprolol 78,28%, propranolol 9,31%, karvedilol 9,07%, timolol 3,10%, dan metoprolol 0,24%, dimana penggunaan tertinggi untuk penanganan penyakit hipertensi, angina, dan gagal jantung. Penggunaan beta bloker sesuai indikasi ditemukan pada 362 pasien (86,40%), sedangkan penggunaan diluar indikasi resmi pada 57 pasien (13,60%). Penggunaan diluar indikasi resmi pada 38 pasien (66,67%) didukung bukti ilmiah dan 19 pasien (33,33%) tidak didukung bukti ilmiah. Gambaran bukti ilmiah terhadap penggunaan beta bloker diluar indikasi resmi adalah untuk terapi *atrial fibrillation*, *premature ventricular complex*, *premature atrial complex*, *angina pectoris*, *mitral regurgitation*, *aortic stenosis*, *aortic regurgitation*, *tetralogy of fallot*, *hypertrophic cardiomyopathy*, profilaksis *bleeding* pada *varices esophageal*, hipertiroid, dan epilepsy.

**Kata kunci:** beta bloker, penggunaan obat beta bloker, RSUP Dr. Sardjito