Antidiabetic Cost Effectiveness Analysis of Overweight Type 2 Diabetes Mellitus Patients Outpatient National Health Insurance (JKN) in RSUD Kota Yogyakarta

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ABSTRACT

Diabetes mellitus is a chronic disease characterized by an increase in blood sugar levels or hyperglycemia and a metabolic disturbance in lipids and proteins. Most of the risk factors for patients with diabetes mellitus are overweight and obesity. Treatment of diabetes mellitus requires ongoing medical care that requires substantial health costs. The Indonesian Government holds a National Health Insurance using the INA-CBG's financing system or the Indonesian Case Base Group. The aims of this study was to determine the effectiveness of therapy, the description of therapy, and the difference in real costs with the rates of INA CBG's. This study was an observational analytic study with a cross sectional design. Sampling is done by purposive sampling method and retrospective data collection from medical record data and patient cost details. The subjects of this study were overweight type 2 diabetes mellitus patients who were outpatients of JKN in RSUD Kota Yogyakarta in 2018. The study subjects were 74 patients, the results showed that therapies that are widely used by overweight patients are mixed analogue insulin therapy, while the highest effectiveness of therapies is alpha glucosidase, biguanid, thiazolidinedione, long-acting insulin, sulfonylurea which has percentage of effectiveness was 100%. The average direct medical cost of overweight patients with type 2 diabetes mellitus in RSUD Kota Yogyakarta was 441,976.8. Based on ACER, a cost-effective therapy is alpha glucosidase inhibitor with biguanid obtained a value of 1,936.70. Difference in real costs with the INA CBG's rate of + 1,973,680. The statistical test results used at 7 days and 23 days using the Mann Whitney test, the results of 7 days $p = 0.006$ or $p < 0.05$ which means that there are significant differences and the results of 23 days $p = 0.640$ or $p > 0.05$ which means that there are insignificant differences.

Keywords: Cost-effectiveness analysis, diabetes mellitus, anti diabetic, overweight