

COST-EFFECTIVENESS STUDY OF ANTIDIABETIC DRUGS IN TYPE 2 DIABETES MELLITUS PATIENTS FROM MUMBAI, INDIA

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Background: Diabetes is fast gaining the status of a potential epidemic in India, with >62 million individuals currently diagnosed with the disease.¹ India currently faces an uncertain future in relation to the potential burden that diabetes may impose on the country. An estimated US\$ 2.2 billion would be needed to sufficiently treat all cases of type 2 diabetes mellitus (T2DM) in India.² Many interventions can reduce the burden of this disease. However, health care resources are limited; thus, interventions for diabetes treatment should be prioritized.

Objectives: The present study assesses the cost-effectiveness of antidiabetic drugs in patients with T2DM from Mumbai, India.

Methods: A prospective cross-sectional study was performed to assess the cost-effectiveness of antidiabetic drugs in patients with T2DM. Face-to-face interviews were conducted by using a validated questionnaire in a total of 152 (76 males, 76 females) patients with T2DM from F-North Ward, Mumbai, India. Cost-effectiveness was determined on the basis of a drug's cost, efficacy, adverse drug reactions, safety of administration, frequency of administration, and bioavailability.

Results: The glimepiride plus pioglitazone combination was the most cost-effective (international normalized ratio [INR]: 3.7/unit of effectiveness), followed by glimepiride (INR: 6.6/unit of effectiveness) prescribed in nonobese patients with T2DM. Glimepiride plus metformin was the most cost-effective (INR: 5.9/unit of effectiveness) followed by metformin (INR: 6.7/unit of effectiveness) prescribed in

obese patients with T2DM. Cost-effectiveness (INR/unit of effectiveness) varied from 3.7 to 45.2. Seventeen percent of the patients with T2DM included in this study received less cost-effective antidiabetic drugs.

Conclusions: Prescriptions of cost-effective antidiabetic drugs (83%) were more common than less cost-effective antidiabetic drugs (17%) in patients with T2DM from Mumbai, India.

Key words: antidiabetic, cost-effectiveness, diabetes mellitus, India.

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References

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