Prescription Pattern of Glucose-Lowering Agents in Patients with Type 2 Diabetes Mellitus and Dyslipidaemias: A Cross-Sectional Study

Abstract

Background

Type 2 diabetes mellitus (T2DM) commonly coexists with dyslipidaemia and substantially elevates the risk of cardiovascular complications. Appropriate selection and rational use of antidiabetic and lipid-lowering medications are central to improving long-term outcomes. Assessment of prescribing trends using World Health Organization (WHO) prescribing indicators helps evaluate the quality and rationality of pharmacotherapy in routine clinical practice.

Methods

A cross-sectional observational analysis was performed on 600 outpatient prescriptions issued to patients diagnosed with T2DM and dyslipidaemia at the General Medicine outpatient department of MGM Hospital, Chhatrapati Sambhaji Nagar (Aurangabad), India. Information regarding patient demographics, WHO core prescribing indicators, and patterns of antidiabetic and hypolipidemic drug utilization was collected. Descriptive statistical analysis was conducted using Microsoft Excel.

Results

The study population comprised 49.67% males and 50.33% females, with a male-to-female ratio of 0.98. An average of four medications was prescribed per prescription. Injections were included in 23.2% of prescriptions, while antibiotics were prescribed in 6%. Drugs prescribed by generic name accounted for 96.8%, and 92.8% belonged to the essential medicines list. Statins were the most frequently prescribed lipid-lowering agents (78%), followed by fenofibrates (12%) and ezetimibe (8%). Among oral antidiabetic agents, dipeptidyl peptidase-4 (DPP-4) inhibitors were most commonly prescribed (60.9%), followed by sulfonylureas (57.8%) and biguanides (56.4%).

Conclusion

The prescribing pattern reflects predominant use of DPP-4 inhibitors and statins in patients with T2DM and dyslipidaemia, along with high compliance with generic and essential medicine prescribing. However, the observed degree of polypharmacy highlights the importance of regular prescription audits to promote rational drug use.

Keywords: Type 2 diabetes mellitus, dyslipidaemias, drug utilization, WHO prescribing indicators, oral hypoglycaemic agents