An Analysis of Diabetic Medicine Utilization in TURKEY

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Objectives

The rational treatment of all diseases, but especially a chronic disease that have common systemic effects, medium and long-term complications such as diabetes is extremely important. There are different data sources such as clinical trials, questionnaires, surveys, observations or real world data to analyze outcomes of clinical practice. This study base on a real world data that contain one of the highest populations all over the world. The aim is to understand medicine utilization in Type II diabetes, especially refer the initial prescription, in Turkey.

Methodology

In order to examine this topic, the volume and costs of anti-diabetics, preference rates of the active substances, first prescription behavior of physicians were taken from database (MEDULA) of Social Security Institution (SSI), the government based reimbursement agency of Turkey from year 2007 to 2014. We reviewed the volume and cost of anti-diabetics for the whole patient population registered to the system and financed by SSI from 2007 to 2013, and compare to other groups in the same ATC levels. The initial treatment preferences and initial diagnose distribution is analyzed according to the type of the specialty of the physicians. All of the pharmaceutical consumption analysis regard to ATC coding system and delivered from pharmacies. Descriptive analysis was conducted.

Results

Consumption of diabetic medicines rose from 638 million TL to 1.116 million TL between 2007 and 2013, respectively. The majority of the increase came from insulin and analogs that rose from 254 million TL to 664 million TL during the same period. 84.17% of naïve diabetic patients had been started diabetes treatment protocols without insulin in 2013. In addition, metformin was used as 76.24% of all patients in 2013 among them. 65.4% of diabetic patients diagnosed between 40-64 age in 2013. Approximately 70% of all patients were diagnosed by internal physicians in 2013, that ratio seems growing in recent years.

Change in A10 group ATC3 unit consumptions

Conclusion

Diabetic medicines are one of the mostly consuming medicines in Turkey. In addition, the consumption of diabetic medicines is rising every year. Diabetic protocols without insulin or including metformin have the highest percentage of all treatment protocols. Patients were diagnosed with internal physicians while it was expected as family physicians depending on clinical guidelines. The lack of the referral system during appealing to different levels of health care services may cause this output. The analysis may be a guide for policymakers to understand how the diabetes is managing in Turkey.