PRESCRIPTION CIRCULATION IN PHARMACIES – PROOF OF ADHERENCE TO THERAPY

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Introduction. In case of cardiovascular disease and diabetes incorrect and irregular drug use with lack of adherence to treatment can cause severe clinical manifestations of the disease, repeated hospitalization and even death. Cardiovascular disease is the most common cause of death in the world. According to the World Health Organization (WHO) 17,5 million people die of cardiovascular disease, while 1,5 million die of diabetes annually. Many of whom are of working age. In Latvia cardiovascular diseases is also the main cause of death.

Aims, materials, and methods. The aim of the research was to examine the factors affecting patient adherence to antihypertensive and antidiabetic therapy based on prescription circulation in drug stores. A retrospective quantitative study was conducted from December 2014 to January 2015 analyzing prescription circulation and dispensed drugs for arterial hypertension and diabetes treatment at „Aura-Farm" Ltd. pharmacies. The information was summarized in a database, using the following criteria – the prescription start date, the patient`s sex, diagnosis code, the prescribed medication by its chemical name, quantity, dosage regimen, prescription dispense date, amount of drugs patient received, drug price and patient co-

payment amount. The obtained data was statistically analyzed using SPSS software.

Results. During the study 134 prescriptions were analysed. The most frequent number of prescriptions per patient was one (n = 66; 49.3%), two (n = 36; 26.9%) or three (n = 19; 14.2%) being less common. The main part of prescription medication was administered for cardiovascular disease therapy (88.8%) and less for diabetes treatment (11.2%). In almost all prescriptions the dosage form was a tablet (99.2%). Most often doctors used drug trade names (n = 129; 96.3%) and only in 5 prescriptions (3.7%) the medicinal international non-proprietary name was used. Although the prescribed and issued Brand-Name and generics drugs ratio remained constant, 73 prescriptions (56.2%) prescribed and dispensed Brand-Name drugs, 43.8% of the cases - generic drugs. In most cases (n=117; 87.3%), the start date of the prescription corresponds to the date of dispense. Only 17 prescriptions (12.7%) had different start and dispense dates. 14 prescriptions had been dispensed within the same calendar month of the issue of the prescription, while 3 (2.3%) were dispensed later during the period of validity. Patients with two or more prescriptions collect their medication within the same calendar month less frequently than those with a single prescription, respectively 14.3% versus 33.3% (p = 0.432).

Conclusions. The wide use of Brand-Name drugs in prescriptions indicates a certain amount of chronic patients who receive drugs for the treatment of a particular disease repeatedly. These patients could be the target group to preserve long-term adherence. The frequency of Brand-Name drug prescribing and dispensing illustrates patient awareness of long-term drug effects. Medication dispensation not within the calendar month of the start date of the prescription is rarely observed, which could be explained with possible patient drug accumulation.