

Drug-related problems among patients with arterial hypertension and/or diabetes type 2 in Pharmaceutical Care in Arterial Hypertension and Diabetes (PCAHD) national programme

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Background The PCAHD programme was a national scientific programme focused on implementation of pharmaceutical care into Polish pharmacies' daily practice. Pharmacists from community pharmacies were supposed to identify and solve drug-related problems (DRPs). However it was anticipated that the number of detected DRPs was underestimated.

Purpose The retrospective qualitative and quantitative analysis of drug-related problems among PCAHD programme patients from October 2009 to the end of 2013.

Method PCAHD database was retrospectively analysed by the researcher to identify DRPs. Database included records of patients with arterial hypertension and/or diabetes type 2 at least 3 months after first prescription for antihypertensive and/or blood glucose lowering medication, able to communicate with others, with full legal capacity, included to PCAHD programme. Patients with myocardial infarction or stroke during 6 months before inclusion, depression, schizophrenia, dialysis, after transplantation of organs or tissues, visually impaired, drugs, alcohol or medicines dependent were excluded. Only records with adequate information (medications, diseases) were examined. DRPs were identified according to Polish guidelines, documents of summary of product characteristics and other available information. PCNE classification v.6.2 was used to characterize DRPs.

Findings 85 patients were included, 64.7% of them were women. Mean age of the patients was 63.7 years and mean pharmaceutical care process time - 102 days. 864 products (806 medications and 58 dietary supplements/medical devices) were mentioned in the patients' documentation (an average of 10.1 products per patient). 505 different products were identified, among them 449 different medicinal products. 178 (35.2% of 505) products were classified into The Anatomical Therapeutic Chemical (ATC) classification system C group and 83 (16.4% of 505) products into A group. 389 DRPs (an average of 4.6 DRPs per patient) and 575 causes (an average of 1.5 causes per one DRP) were identified. 222 DRPs (57.1%) were related to product from ATC C group and 86 DRPs (22.1%) - to product from ATC A group. 188 DRPs (48.3% of 389) were classified into P1.3 group, 115 DRPs (29.6% of 389) - into P1.2 group and 35 DRPs (9.0% of 389) into P3.2 group. 272 DRPs (69.9% of 389) were potential. 17.7% of DRPs were identified by the pharmacists who provided pharmaceutical care.

Conclusion Drug-related problems are common among patients with hypertension and/or diabetes type 2. It is necessary to emphasize the importance of DRPs during pharmacists' training. Pharmacists should focus on their patients' pharmacotherapy analysis to ensure safer and more efficient care.