

## **Analysis of the drug-related problems identified by the Polish community pharmacists participating in PCAHD (Pharmaceutical Care in Arterial Hypertension and Diabetes) Project**

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**Background:** Polish law defines pharmaceutical care as one of the professional pharmaceutical services, however it has not been widely implemented in the community pharmacies. Pharmaceutical Care in Arterial Hypertension and Diabetes Project (PCAHD Project) led by the Department of Social Pharmacy Jagiellonian University Medical College focuses on making the idea of pharmaceutical care better known among Polish community pharmacists.

**Purpose:** Analysis of the drug-related problems (DRPs) identified by Polish community pharmacists participating in the PCAHD Project.

**Methods:** Pharmacists, who voluntarily joined the Project, conducted pharmaceutical care in accordance with the guidelines prepared by the Department of Social Pharmacy. The drug-related problems (DRPs) were identified and classified by the pharmacists, based on the PCNE classification (version 5.01 from November 2009 until June 14th, 2010 and version 6.2 from June 15th, 2010 until December 31st, 2013). Classification of the DRPs identified by the participating pharmacists was then assessed by the Department research team.

**Findings:** From November 2009 until June 14th, 2010, 36 DRPs were found in the pharmacotherapy of 11 patients. Contraindications (P2.4), lack of administration of the drug (P4.1) and interactions (P5.1, P5.2) were most frequently identified DRPs (19,4% of DRPs, each). The most common cause was inappropriate drug selection (C1.1, 36,7% of DRPs) and new symptom or indication (C1.7), inappropriate timing of administration and/or dosing intervals (C2.1) and suspicion of side-effect (C4.3, 11,1% of DRPs, each). 24 DRPs (66,7% of DRPs) were associated with drugs used in the cardiovascular disorders and 8,3% of DRPs - with drugs used to treat diabetes.

From June 15th, 2010 until December 31st, 2013 77 DRPs were identified in the pharmacotherapy of 30 patients. Not optimal therapy effect (P1.2, 57,1% of DRPs) and untreated indication (P1.4, 14,3% of DRPs) were the most often identified DRPs. 68,8% of DRPs were associated with drugs used in the cardiovascular disorders and 19,5% of DRPs - with drugs used in diabetes.

**Conclusion:** Most of the drug-related problems identified by Polish community pharmacists are associated with effectiveness of pharmacotherapy.