Warfarin interactions and related side effects among outpatients in Estonia

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Background Warfarin is one of the most commonly used oral anticoagulants worldwide, but the numerous drug interactions involving warfarin are also well known. In addition to the identification of warfarin drug interaction, more information would be needed to manage the interaction and related side effects in daily clinical practice.

Purpose To identify warfarin drug interactions and analyse the frequency and characteristics of related side effects in outpatients of Estonia.

Method At GP centres 77 at least 50+ patients using warfarin and at least one more medicine were recruited. They were asked to self-assess the experienced complaints related to the use of medicines and the questions were focused on warfarin bleeding-related side effects as large bruises on skin, nosebleed, bleeding of gums and/or mucosal bleeding, red urine, bleeding during excreting and black stool. Information about INR values of previous 6 months was included by GPs. In this study the range of INR values 1.80 to 3.20 was considered as applicable for patients using warfarin. Warfarin drug interactions were identified by using SFINX-PHARAO database (SFINX ? Swedish, Finnish, INteraction, X-referencing; PHARAO ? Pharmacological Risk Assessment On-line). Type C4, D1, D2, D3 or D4 drug interactions, as clinically relevant, were included in the analysis.

Findings Warfarin drug interactions were identified in 45% of the study patients. The most commonly used medicines interacting with warfarin were amiodarone, simvastatin, ibuprofen and paracetamol. Bleeding-related but not severe side effects of warfarin were described by 60% of the patients with warfarin drug interactions. The most common problems were large bruises on skin and bleeding gums and/or mucosal bleeding. Patients with warfarin drug interactions had lower INR values than required. However, assessing the change of INR values was insufficient to detect warfarin drug interactions, especially in case of concomitant use of NSAIDs. Bleeding events were also reported by 45% of patients without clinically relevant warfarin drug interactions.

Conclusion Monitoring of the INR values and focusing only on drug interaction databases is not always sufficient to assess side effects that are caused by warfarin interactions. To ensure patients? safety, more patient centred approach is needed and attention has to be paid on patients? experiences connected with the use of medicines.