Analysis of Problems in Oral Anticoagulants Clinical Usage by Patients with Atrial Fibrillation

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Introduction. Old generation oral anticoagulants (OAC) have been first line medication for prevention of thrombembolic events by patients with non-valvular atrial fibrillation (AF) for a long time, although the usage of vitamin K antagonists causes a lot of problems for patients and physicians. Novel OAC promises to solve those problems; however, their implementation in practice is less efficient in Latvia.

The aim, materials and methods. The aim of this study was to analyse the main problems of OAC clinical usage by patients with non-valvular AF and by professionals treating them. The study enrolled 103 patients with non-valvular AF under OAC therapy at Pauls Stradins Clinical University Hospital, Riga, Latvia. Problems associated with OAC side effects and interactions, awareness of patients, complexity of OAC usage were analysed from patients' perspective. Second study group included 101 medical practitioners with clinical experience in treatment and care of non-valvular AF patients applying OAC. Difficulties during the choice of OAC and the beginning of the therapy, patient care and communication were analysed from the physicians' point of view.

Results. In patients group were 82.5% users of vitamin K antagonists (VKA) and 17.5% users of novel OAC (NOAC). In VKA group were 30.6% patients prior cardioversion compared to 100% in NOAC group ($p < 0.001$). According to CHA2DS2-VASc scale, median in VKA group was score of 3 [95% CI 2−4], in NOAC group score of 2.5 [95% CI 2−4]. Statistically significant higher incidence of side effects was by VKA users. Less than a half of patients followed the interaction of active substances with OAC in both groups, besides patients were less informed about this aspect compared to OAC side effects and INR controls in VKA group. By VKA users more than 50% had difficulties to adjust OAC dose and to keep the INR between 2.0 and 3.0. 31.8% had problems with INR controls while 90.6% were regularly undergoing INR control, mostly one to two times a month.

In physicians group there were 13.9% cardiologists, 20.8% doctors-internists, 23.8% general practitioners, 8.9% doctors of other specialities, 32.7% resident physicians. 48.5% did use NOAC in their practice, mostly prescribing them rarely/rather rarely, but 81.3% of physicians who did not prescribe/prescribed NOAC rarely were willing to do it more often. High costs and not sufficient clinical experience were mentioned as main problems for NOAC. According to physicians the main problems for VKA are lack of understanding and cooperation from patients, poor INR control and difficulties in dose adjustment. 82% of doctors did explain interaction of active substances with OAC to their patients. Before the beginning of OAC therapy, physicians mostly (> 50%) considered thrombembolic events in medical history, the age of patient, vascular diseases, patients' compliance and financial situation. In practice doctors most often face noncompliance, difficulties to control coagulation parameters and to keep them in therapeutic range.

Conclusions. Clinical usage of OAC for AF patients is more complicated in VKA group due to side effects, complexity of use and lack of information.

Physicians find use of NOAC less problematic and they would be ready to use NOAC in practice more often if financial issues were solved.

Before the beginning of OAC therapy, thrombembolic and bleeding risk factors are not considered enough, preferring social aspects of drug use.