

## Abstract

### Pharmacists' attitudes towards direct anticoagulants

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**Introduction and Objective:** Pharmacists are involved in providing of professional information about direct oral anticoagulants (DOAC) treatment during DOAC dispensation to patients. Their attitudes and knowledge about DOAC treatment are therefore crucial for optimisation of pharmaceutical care of patients taking DOAC. The objective of this thesis was to analyze attitudes, experience, habits and opinions of pharmacists regarding the DOAC treatment.

**Methodology:** Pharmacists from three District Pharmacists' Associations (OSL) were addressed to participate in an electronic anonymous questionnaire between March and May 2021. Questionnaire consisted of 32 items focusing on the frequency of DOAC dispensation, pharmacist self-confidence about DOAC, information provided to patients during DOAC dispensation, benefits and limits of DOAC treatment compared to treatment with warfarin, and patient adherence to DOAC treatment. The results were processed using descriptive statistics and further analyzed by parametric and nonparametric tests.

**Results:** A total of 162 pharmacists participated in the survey, of whom 139 were included in the final analysis, as they had an experience with dispensing DOAC in previous year (mean age 37,8 years; 91 % women). Response rate of the questionnaire from all three OSLs was 14 %, the highest was among pharmacists from OSL Brno-venkov. Most respondents were employed in a "street" community pharmacy (42 %); in hospital pharmacy it was 11%. Majority of respondents received a master's degree (64 %); 47 % had acquired specialized qualification. More than half of respondents (54 %) dispensed DOAC at least once every two days. As the frequency of DOAC dispensation increased, so did the self-confidence of respondents while dispensing DOAC ( $p < 0,001$ ). Respondents from hospital pharmacies were the most confident in providing information about DOAC ( $p = 0,044$ ). During dispensation, self-confident respondents used to inform patients more about the indications of DOAC treatment ( $p = 0,003$ ), handling the DOAC ( $p < 0,001$ ), possible side effects of DOAC treatment ( $p = 0,001$ ), even about the possible drug interactions between DOAC and other drugs ( $p = 0,001$ ). Most pharmacists considered DOAC to be safer (78 %) and equally effective (42 %) drugs compared to warfarin. According to more than half of the respondents (61 %), patients were adequately educated from their prescribing physician about the principles of DOAC treatment. Pharmacists felt the same responsibility for the patients education as physicians, but they were limited mostly by lack of time and patients' interest. Medication adherence in patients with atrial fibrillation was considered to be adequate by most of the respondents. They perceived motivational interviews

with a healthcare professional and individual consultations in pharmacy as the most important tools for promoting adherence.

**Conclusion:** Pharmacists feel self-confident about DOAC treatment and are aware of their role in patients education. Nevertheless, more effort needs to be placed in awareness of risks and benefits of DOAC, and in verification that patients had correctly understood the information they obtained.