

# Abstract

## **Analysis of patient adherence to treatment by DOAC II**

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**Introduction and aim:** Dosing interval may be an important factor influencing adherence to direct oral anticoagulant (DOAC) therapy. In terms of adherence, a once-daily regimen appears to be a better alternative. However, there may be a higher risk of treatment failure if the dose is missed. The aim of the practical part of the thesis was to analyse patients' attitudes and experiences with DOACs, complemented by data from medical records, with a focus on aspects related to DOAC dosing.

**Methods:** Data collection for this prospective study was carried out from 2020 to 2022 at the Internal Cardiology Outpatient Clinic of the University Hospital in Brno. Patients aged  $\geq 18$  years on DOAC treatment with indicated atrial fibrillation (FS) were approached to participate in the study. Each patient underwent a structured interview with a trained pharmacist on the day of study entry and again after 3 and 6 months. Two validated and three supplementary questionnaires were used in the interview. Patients' attitudes, experiences and satisfaction with DOACs, their method of use, including dosage and timing of DOACs, other drugs and preparations used, and questions about their self-assessment of their health status were elicited. Retrospective patient data were obtained from medical records. Data were analysed using descriptive statistics.

**Results:** 96 patients with a mean age of  $73.3 \pm 8.1$  years participated in the study, 53 (55.2%) of whom were male. A total of 81 (84.4%) patients were retired and 27 (28.1%) were living alone at home. The next most common comorbidity other than FS was arterial hypertension. Patients were taking a mean of  $7.1 \pm 3.1$  medications according to medical records. The DOAC representation in the medical records was 38 (39.6%) for rivaroxaban, 25 (26.0%) for apixaban and 33 (34.4%) for dabigatran. Dabigatran was always taken twice daily, apixaban was taken once daily in 4 (4.2%) patients and 1 (1.0%) patient reported taking rivaroxaban every other day.

**Conclusion:** Satisfaction with DOACs may be reduced by patients' concerns about adverse effects and drug-drug interactions. Patient re-education is required, with emphasis on the need to adhere to regular DOAC dosing intervals. Healthcare professionals should consider monitoring DOAC activity in patients with cumulative risk factors as a tool for more accurate prediction of DOAC doses.

**Key words:** medication adherence, atrial fibrillation, DOAC.