

## Abstract

**Introduction:** Oral anticoagulants are used with the two goals of treating thrombosis and also preventing its occurrence in different indications such as deep vein thrombosis. These drugs are divided into two categories: vitamin K antagonists (VKAs) and direct oral anticoagulants (DOACs). In recent decades, DOAC has been suggested as a suitable alternative to warfarin, in order to treat thromboembolic diseases and also to prevent them. Among the advantages of DOAC compared to VKA, we can point out the rapid onset and neutralization of the anticoagulant effect, less drug and food interactions, and no need to monitor the drug effect with a laboratory parameter, which in many cases makes DOAC a reasonable and suitable option as It acts as an anticoagulant. Considering the superiority of this category compared to warfarin, it is important to examine the prescription pattern and the current position of DOAC in the treatment of patients and its compliance with valid international guidelines. This study was conducted in order to investigate the pattern of oral anticoagulants prescription and its compliance with standard guidelines in the Imam Khomeini (RA) educational and therapeutic hospital in Ardabil during the second 6 months of 1400.

**Methodology:** In this study, the files of patients for whom the treating physician had prescribed oral anticoagulants were reviewed and various data including patient demographic information (gender, age, BMI, etc.), type of oral anticoagulants, dose of oral anticoagulants, Prescription indication, underlying diseases, other drugs used, hemoglobin level, platelet count, kidney and liver function, hospitalization department, echocardiography data (in AF patients) were recorded. The data collection tool was a checklist made by the researcher, which was prepared based on the objectives and required data. The obtained data were analyzed with the help of SPSS version 26 software.

**Findings:** In the 200 patients studied, the percentage of warfarin drug prescription was 72% and DOAC was 28%. The highest percentage of prescription of DOACs was related to apixaban (56.36%) and the lowest percentage was related to dabigatran (3.63%). In terms of appropriateness or inappropriateness of choosing oral anticoagulants (based on guidelines) in 40.5% of cases it was appropriate and in 59.5% it was inappropriate. In terms of the distribution of patients according to the prescribed dose of oral anticoagulants, in patients receiving warfarin in 99.30% of patients the prescribed dose was appropriate and in patients receiving DOAC in 67.85% of patients the prescribed dose was appropriate.

**Conclusion:** According to the current study and its comparison with previous studies and valid guidelines, our results indicate that the prescription pattern of oral anticoagulants in Imam Khomeini Hospital (in the second 6 months of 1400)

does not fully match the guidelines of the European Heart Rhythm Association 2021 (EHRA). is It is necessary to revise and make the necessary corrections in .the prescription pattern of these drugs

**Keywords:** vitamin K antagonists, direct oral anticoagulants, prescription pattern, guideline