The objective of antithrombotic therapy in atrial fibrillation (AF) is prevention of stroke or systemic thromboembolism. Vitamin K antagonists (VKA) are the standard of care, but the new oral anticoagulants (NOACs) are simple and at least effective as VKA. They do not need monitoring and show a better safety profile, especially where it intracranial hemorrhage concerns.

The disadvantage of NOACS that there are hard to monitor. For the thrombin blocker dabigatran aPTT (activated partial thromboplastin time) is a relatively weak indicator of the anticoagulant stateitable for the oral Xa blockers. These lab results are only reliable within 2 hours after drug intake.

The aPTT may provide a qualitative assessment of the presence of dabigatran. If the aPTT level at trough (i.e. 12–24 h after ingestion) still exceeds twice the upper limit of normal, this may be associated with a higher risk of bleeding, and may warrant caution especially in patients with bleeding risk factors. The prothrombin time (PT) may provide a qualitative assessment of the presence of factor Xa inhibitors rivaroxaban, apixaban or edoxaban. Like the aPTT for dabigatran, these respective tests are not sensitive for the quantitative assessment of the NOAC effect. Quantitative tests for the NOACs for routine use do not exist yet. Moreover, there are no data on a cut-off of the future specific tests below which elective or urgent surgery is safe and, therefore, their use in this respect cannot be recommended at this time. INR is useless when NOACs are applied.

References