

Satisfaction of Patients with Nonvitamin K Anticoagulants Compared to Vitamin K Antagonists: a Systematic Review and Meta-analysis

Thromb Haemost

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Abstract

Objective

To undertake a systematic review and meta-analysis to assess the satisfaction of patients receiving nonvitamin K anticoagulants (NOACs), compared with vitamin K antagonists (VKAs).

Methods

We searched CENTRAL, MEDLINE, Embase, and Clinicaltrials.gov for randomized controlled trials (RCTs) and observational studies. Two reviewers screened, extracted, and appraised data independently. We pooled data using a random-effects model. Outcome included treatment satisfaction, which was assessed by scores of Duke Anticoagulation Satisfaction Scale (DASS), Anticlot Treatment Scale (ACTS), Perception of Anticoagulant Treatment Questionnaire 2 (PACT-Q2), or Treatment Satisfaction Questionnaire for Medication version II (TSQM-VII) and their domains reported with 95% confidence intervals (95% CIs). We followed MOOSE and PRISMA guidelines.

Results

We included four RCTs and 16 observational studies, enrolling 18,684 participants overall. Compared with VKAs, treatment with NOACs improved the ACTS Burdens score by 4.21 points (95% CI: 2.99–5.43, $I^2 = 95\%$, combined $n = 6,180$), and ACTS Benefits by 0.49 points (95% CI: 0.18–0.81, $I^2 = 85\%$, combined $n = 6,171$). Switching from VKAs to NOACs improved the ACTS Burdens score by 5.33 points (95% CI: 3.53–7.14, combined $n = 3,097$). Compared with VKAs, treatment with NOACs improved the TSQM-VII Global Satisfaction score by 6.86 points (95% CI: 3.00–10.73, combined $n = 5,535$).

Conclusion

In patients with nonvalvular atrial fibrillation or venous thromboembolism, NOAC treatment is associated with greater satisfaction compared with VKAs. The switch from VKAs to NOACs was associated with improved patients' satisfaction. These effects were largely due to a lower degree of treatment burden with NOAC treatment.

Keywords: nonvitamin K anticoagulants, satisfaction, anticoagulation, vitamin K antagonists