

# Safety of non-vitamin K antagonist oral anticoagulants - coronary risks

**Expert Opinion on Drug Safety, 15:6, 731-740**

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## **Abstract**

### Introduction

Since the approval and commercialization of non-vitamin K antagonist oral anticoagulants (NOACs; apixaban, dabigatran, edoxaban, and rivaroxaban) several studies and meta-analyses have raised safety concerns regarding myocardial infarction (MI) risk among NOAC-treated patients, particularly with dabigatran. Uncertainty remains regarding the coronary risk associated with dabigatran, and whether this putative risk also applies to the other NOACs.

### Areas covered

In this review, the coronary risks of NOACs based on findings from placebo-controlled trials are discussed, and randomized controlled trials and major cohort studies in AF patients are also appraised. We performed a random-effect meta-analysis, including both interventional trials and observational studies ("real-world" data). Further estimates were retrieved from the meta-analysis of coronary risk among NOAC-treated patients with concomitant AF and coronary disease.

### Expert opinion

Currently, the best available data from both clinical trials and observational studies do not support the claim that patients treated with NOACs, including dabigatran, are at increased coronary risk. However, a definitive conclusion cannot be made (especially regarding dabigatran) and further data are required to address the coronary risks, mostly of high-risk patients. As with any therapeutic intervention, the possible complications should be balanced against the potential benefits at an individual patient level.

## **Keywords**

NOACs, DOACs, TSOACs, apixaban, dabigatran, edoxaban, rivaroxaban, myocardial infarction