

## **Antithrombotic questionnaire tool for evaluation of multiple antithrombotic therapy**

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### **Abstract**

#### Introduction

Treating a patient with multiple antithrombotics requires a careful balance between prevention of thrombotic events and risk of bleeding.(1) For adequate medication surveillance a pharmacist needs to know at least the indication and start date of therapy. Hospital pharmacists have access to the medical record to acquire this information. Earlier studies have shown that a considerable number of patients are overtreated with multiple antithrombotic therapy and are therefore exposed to an unnecessary high bleeding risk. (2,3) Hospital pharmacists are capable to identify these overtreated patients and can advise physicians to adjust the antithrombotic therapy in order to improve medication safety. Community pharmacist have no access to the medical record to acquire information on indication and start date of therapy and can therefore not easy assess the correctitude of antithrombotic therapy in patients using multiple antithrombotic therapy. Patient knowledge of their antithrombotic therapy may be a useful information source to assess the correctness of antithrombotic therapy. Therefore, we designed a study to assess the diagnostic value of a antithrombotic questionnaire tool compared to the hospital's medical record information tool as gold standard.

#### Methods

This cross-sectional study was conducted in eight community pharmacies within the catchment area of the Spaarne Gasthuis hospital Haarlem/Hoofddorp, the Netherlands. A standardized questionnaire was developed as antithrombotic questionnaire tool. The pharmacist assessed whether the antithrombotic therapy was correct or potentially incorrect based on answers given by patients (intervention) and based on the medical record (gold standard).The primary outcome of the study was the sensitivity and specificity of the antithrombotic questionnaire tool to identify patients with potentially incorrect antithrombotic therapy.

#### Results

Of the 108 included patients, 95 patients (88%) answered the questions in the questionnaire tool for indication and start date of therapy. For these 95 patients the pharmacist assessed that in 81 patients (85%) the antithrombotic therapy was correct and in 14 (15%) potentially incorrect. Based on the medical record, 86 patients (91%) were assessed as correct and 9 patients (9%) as potentially incorrect. The sensitivity of the tool was 100% and the specificity 94%.

#### Conclusion

This study demonstrated that this antithrombotic questionnaire tool is reliable to assess whether antithrombotic therapy is potentially incorrect.

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