

# Comparing quality of life and treatment satisfaction between patients on warfarin and direct oral anticoagulants: a cross-sectional study

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**Introduction and aim:** Patient quality of life (QOL) while on long-term oral anticoagulant therapy has been receiving greater attention in recent years due to the increase in life expectancy brought about by advances in medical care. This study aimed to compare the QOL, treatment satisfaction, hospitalization and bleeding rate in patients on long-term warfarin versus direct oral anticoagulants (DOAC).

**Methods:** This was a cross-sectional study of patients with non-valvular atrial fibrillation (NVAF) or venous thromboembolism (VTE) on long-term anticoagulant therapy attending the cardiology clinic and anticoagulation clinic of the University Malaya Medical Centre from July 1, 2016, to June 30, 2018. Patient QOL was assessed by using the Short Form 12 Health Survey (SF12), while treatment satisfaction was assessed by using the Perception of Anticoagulation Treatment Questionnaire 2 (PACT-Q2).

**Results:** A total of 208 patients were recruited; 52.4% received warfarin and 47.6% received DOAC. There was no significant difference in QOL between warfarin and DOAC based on SF12 (physical QOL,  $P=0.083$ ; mental QOL,  $P=0.665$ ). Nevertheless, patients in the DOAC group were significantly more satisfied with their treatment compared to the warfarin group based on PACT-Q2 ( $P=0.004$ ). The hospitalisation rate was significantly higher in the warfarin group than the DOAC group (15.6% versus 3.0%,  $P=0.002$ ). Clinically relevant minor bleeds and severe bleeding events were non-significantly higher in the warfarin group than the DOAC group (66.7% versus 40.0%,  $P=0.069$ ).

**Conclusion:** Compared to warfarin, treatment of NVAF and VTE with DOAC showed comparable QOL, higher treatment satisfaction, lesser hospitalization, and a non-significant trend toward fewer bleeding episodes.

**Keywords:** quality of life, treatment satisfaction, convenience, warfarin, direct oral anticoagulants

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## Introduction

Warfarin, a vitamin K antagonist, has been widely used for decades to treat or prevent stroke and systemic embolism in patients with atrial fibrillation (AF) or venous thromboembolism (VTE). Warfarin has narrow therapeutic index, which requires frequent international normalized ratio (INR) monitoring to prevent bleeding complications and to maintain therapeutic efficacy. The target range of INR may vary depending on the indications for anticoagulation.<sup>1,2</sup> The use of warfarin is challenging, as there is considerable interpatient variability in the daily maintenance dose of warfarin. In addition, numerous foods and drugs as well as alcohol are