

# KNOWLEDGE AND ADHERENCE TO WARFARIN'S TREATMENT REGIMEN AMONG PATIENTS IN ALSHAAB AND AHMED GASIM HOSPITALS, SUDAN, 2018.

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**AHMED; Lina Nasr Mahmoud<sup>1</sup>**

## RESUMO

Lina Nasr Mahmoud Ahmed<sup>1</sup>

1:MBBS at Khartoum University Faculty of Medicine

**Summary:** Warfarin is an oral anticoagulant drug that needs continuous clinical and laboratory monitoring due to its narrow therapeutic index and life threatening complications. The aim of this study is to assess knowledge and adherence of patients toward their Warfarin treatment regimen and to identify barriers that prevent patients to take their warfarin therapy regularly. In this cross-sectional study, a systematic random sample of 307 patients was selected from Alshaab teaching hospital heart section and Ahmed Gasim Hospital. Data were collected by anonymous interview based questionnaires. 57.98% of the studied patients had moderate overall knowledge score, and more than half of them had good adherence levels (62.2%). The study shows that: Forgetting (43.7%) was the main barrier preventing the patients from taking their medication. In conclusion, majority of the studied patients had moderate overall knowledge score about Warfarin Oral Anticoagulant, and more than half of them had good adherence levels. "Forgetting" was the main barrier preventing the patients from taking their medication.

**Background:** Warfarin is an oral anticoagulant drug that needs continuous clinical and laboratory monitoring due to its narrow therapeutic index and life threatening complications (1). The main purpose of its utilization is to maintain a certain level of anticoagulation effect as well as minimizing the risk of hemorrhagic complications. A patient's risk of either complication (thrombosis or hemorrhage) is determined by time and the extent that his or her international normalized ratio (INR) lies outside the suggested therapeutic range (2). International Normalized Ratio (INR) must be monitored closely in patients taking warfarin therapy and the dose must be adjusted based on results of INR. Effective anticoagulation depends on: demographic factors, patient education, drug knowledge and adherence (3).

This study aims to assess knowledge and adherence of patients toward their Warfarin treatment regimen and to identify barriers that prevent patients to take their warfarin therapy regularly.

**Methods:** In this cross-sectional study, a systematic random sample of 307 patients was selected from Alshaab teaching hospital heart section and Ahmed Gasim Hospital. Data were collected by anonymous interview based questionnaires in the period between September 2018 and December 2018.

**Results:** Male patients (52.5%) exceeded females (44.8%), the mean age was 48.79. About 57.98% of the studied patients had moderate overall knowledge score, and more than half of them had good adherence levels (62.2%). The study shows that: Forgetting (43.7%) was the main barrier preventing the patients from taking their medication, followed by drug unavailability (36.8%) and high cost (19.5%). There are statistical significant differences between patient's age/education and their level of knowledge ( $p=0.008/p=0.011$ ). The correlations between patients' adherence to Warfarin Oral Anticoagulant and their level of knowledge is statistically insignificant ( $r=0.647$ ,  $p=0.739$ ). There are significant association between patients' level of adherence and the time from

<sup>1</sup> MBBS at Khartoum University Faculty of Medicine, linanasr22@gmail.com

which the patient start to take warfarin (p-value= .034).

**Conclusion:** The majority of the studied patients had moderate overall knowledge score about warfarin oral anticoagulant, and more than half of them had good adherence levels. Results highlighted positive significant correlations between patient's age/education and their level of knowledge (p=.008, p=.011). Also there are significant association between patients' level of adherence and the time from which the patients start to take warfarin (p-value=.034). Whereas, no significant correlations between patients' adherence to warfarin and their level of knowledge. "Forgetting" was the main barrier preventing the patients from taking their medication, followed by dug unavailability and high cost. Limitations of this study is that it's is cross-sectional, which limits the establishment of cause and effect relationship between exposure and outcome. The researcher didn't use Morisky scale for adherence due to some issues. Didn't revise the patient's records and depend on patients' answer which sometimes may be misleading.

**Recommendation:**

- An instructional program for patients and their families should be developed to improve their knowledge, adherence, as well as reduce incidence of warfarin side effects prior to their discharge from the hospital.- Efficient multidisciplinary effort from all healthcare providers is needed to make warfarin treatment more successful.- Future researches about warfarin therapy should use Morisky scale for adherence assessment.

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**PALAVRAS-CHAVE:** Warfarin – knowledge – adherence– barriers