



**PATIENTS PERSPECTIVE AND AWARENESS OF WARFARIN TREATMENT AT
QUEEN ALIA HEART INSTITUTE (QAHI), AMMAN-JORDAN**

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ABSTRACT

Objective: to explore the perspective and awareness of patients who are taken warfarin therapy at (QAHI) hospital, Amman Jordan. Method: a cross sectional survey of qualitative questionnaire to measure 95 participants patients perspective and awareness who contact and get education at anticoagulation clinic at (QAHI) hospital. Results: moderate to high degree of knowledge, perceptive, and awareness of participant patients, overall awareness is 68%, highest score related to question 4, lowest value related to question 8 by score of 52%. Conclusion: more efforts is needed of anticoagulation clinics, pursuing updates and the last therapeutic guideline of warfarin treatment, educations of patients regarding drug and food interactions.

KEYWORDS: Warfarin treatment, (QAHI), anticoagulation, blood INR.

INTRODUCTION

Warfarin is the main oral anticoagulation used at Queen Alia Heart Institute(QAHI), It's very important that you take warfarin exactly as directed. The blood thinner (warfarin) makes the blood flow easily through our veins, it is used to treat patients who have had previous blood clot as, pulmonary embolism, and deep vein thrombosis or it is used to prevent blood clot in the future with high risk patients.^[1] The main side effect of warfarin is bleeding so it is very important to monitor the warfarin through a blood test called the international normalized ratio (INR). However (QAHI) have new generations of anticoagulation like Eliquis (apixaban), Xarelto (rivaroxaban), Pradaxa (dabigatran) the majority of people take warfarin as anticoagulation, so monitoring and evaluation through anticoagulation clinic at (QAHI) which was established in 2014, the role of clinics is to provide education, blood test, dosing instructions for patients, and type of food they have to eat and not eating, the staff of clinics compose of pharmacist and nutritionist, they work closely with each other two times every week to monitor, and manage the dose of warfarin for patients, if the blood results of the patients show stable result they can visit the clinic from 8 to 12 weeks, but if they show unstable blood results regarding INR, their should be instant treatment. The aim of our study is to explore the perspective and awareness of Patients who are taken warfarin tablets at (QAHI), Amman- Jordan.

METHOD

An ethical approval to perform this study was obtained from Royal Medical Services Directorate (DRMS).

This study was conducted in Queen Alia Heart Institute, one of the Royal Medical Services hospitals that cover the heart medical needs of most of Jordan populations.

Throughout a cross sectional survey, qualitative questionnaire were prepared and adapted upon another study was done in Hong Kong in 2003.^[2]

The study team took place during august 2018, patients were conveniently chosen, A full discussion for benefits and aims of this study expressed to the patients, The questionnaire had two parts first one for demographic characteristics of patients chosen for this study (table 1), the second part asked patients about using of warfarin like dose, strength, color, Missed doses, drug and food interaction (table 2).

RESULT

During our study, 100 patients were asked to participate in this questionnaire, 95 of them (95%) agreed. Table 1 show the demographic characteristics of patients, majority of them is above age sixty years, years of warfarin treatment is doesn't reflect real difference between patients, also gender is relatively the same. The second part of questionnaire measure the perceptive and awareness of patients who are taking warfarin as shown at table 2, the results reveal a variation in the percentage of awareness, for instance question (4) reflect high value of awareness (91%), in contrast question (8) reflect moderate awareness of patients (52%), the other question reveal good awareness of patients. The overall average of question is (68%).

Table 1: Demographic characteristics of the participants (n= 95).

<i>Demographic profile of participants</i>	
Age (years)	
<50	14
50-60	17
60-70	23
70-80	25
>80	16
	95
Years of Warfarin treatment	
1—2	12
2—3	14
3—4	17
4—5	15
5—6	13
6—7	14
8<	10
	95
Sex	
Female	44
male	51
	95

Table 2: measurement of patients perspective and awareness of warfarin treatment at (QAHI), Amman Jordan.

	not at all aware	slightly aware	moderately aware	very aware	extremely aware	percentage
VALUE	1	2	3	4	5	
1. What is the (a) color and (b) strength of your warfarin tablet(s)?	7	15	35	25	13	65%
2. Do you know the indication for your warfarin therapy?	2	12	13	45	23	76%
3. Do you know what warfarin does to your body?	1	16	23	34	21	72%
4. Do you take your warfarin tablet regularly (say, in the past 1 week)?	0	0	1	40	54	91%
5. What will you do if you missed a dose?	7	19	24	34	11	65%
6. Do you know what may happen with under-anticoagulation?	13	15	30	23	14	62%
7. Do you know what may happen with over-anticoagulation?	11	16	25	22	21	65%
8. Do you know what drugs or food may interact with warfarin?	18	27	30	13	7	52%
9. When you visit a doctor or dentist, will you always tell them of your warfarin therapy?	13	16	26	22	18	63%
Average overall question						68%

DISCUSSION

The study is the first one that investigate the perspective and awareness of patients who are taking warfarin in Jordan, the results show variations in some question, so we decide to analysis each question separately, starting from question one which reveal patients knowledge of color and strength of warfarin tablet, the objectives of this question to identify volume of patients who recognize the warfarin tablet because of warfarin side effects, and prevent medical errors that could occur if not taken or wrongly taken the warfarin, this could end with

bleeding or the clotting in the blood, the question is correlated with question 6 and 7 which reflect the knowledge and behaviors of patients when their over or under dosage of warfarin, the patients awareness of these complications is critical for life safety of patients, the results of these questions show moderate awareness and knowledge of patients, more effort of education to patients is needed, by health care providers, pharmacists, doctors, and the warfarin clinic staff, the results of our study is similar with other studies done before.^[2,3]

Questions 3 and 4 reflect the patients knowledge and adherence to health care information that yield from ideal health care system at (QAH), the results of 76% and 72% of questions 2 and 3 respectively show medium to high awareness of the patients which reflect high adherence of the patients and good health care system at (QAH) hospital, in his review study Sayeed Nasser and his colleagues found that improved patient knowledge results in better anticoagulation control.^[4] The study also found that between 50% and 80% of patients have limited knowledge about the basic aspects of warfarin treatment.

Question 4 show high adherence of following the instructions of their physicians and drug treatment demand, in reality this question figure out the highest score of our study by 91%. next question 5 show the behavior of patients if they missed a dose of warfarin and what they do, the result of 65% reveal inadequate knowledge, their should be efficient and effective education throughout warfarin clinic, pharmacists, and physicians.

The lowest score of our study is found at question 8 by 52%, more educations and efforts should be done by pharmacist and nutritionist in this aspect, as we know fluctuations in dietary vitamin K food intake can have a significant outcomes on the degree of anticoagulation in patients treated with warfarin. In addition, the rising in use of dietary supplements and herbal products can lead to undesired results on patients life risk.^[5]

Eventually, average overall perceptible and awareness of patients toward warfarin therapy is 68% at (QAH) moderate degree need a lot of effort and educations for patients.

CONCLUSION

Foundation of anticoagulation clinic of (QAH) hospital one of royal medical services hospitals was brilliant thinking and step, in addition to the clinic rule of education the patients, monitoring and controlling of INR blood test level has taken place, what and how their food intake should be, clinical pharmacist consultant about warfarin and drug interactions, in our study we explore and understand the patients knowledge, awareness, behaviors, we found upon our qualitative study that their should be more efforts of this clinics staff, also increase the number of patients who are benefits from services of the clinics, extend the number of clinic hours, educations of patients should pursuit the last guidelines of warfarin therapy, updates of information of pharmacist and nutritionist.

This is the first study in Jordan of patients perceptible and knowledge who are taken warfarin, may another study should be done to put attentions and increase the awareness of patients who are taken warfarin.

Limitation

One of limitation of this study is the number of participant patients is small comparing with similar studies, and related to (QAH) hospital, so we cant generalize the results and conclusion to another hospitals at Jordan.

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