



A STUDY TO ASSESS THE LEVEL OF KNOWLEDGE REGARDING ANTICOAGULATION THERAPY AMONG PATIENTS ATTENDING CARDIAC CLINICS IN SELECTED HOSPITALS AT PERINTHALMANNA WITH A VIEW TO PREPARE AN INFORMATION BOOKLET

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ABSTRACT:

The present study entitled “Assess the level of knowledge regarding anticoagulation therapy among patients attending cardiac clinics at selected hospital, Perinthalmanna with a view to prepare an information booklet” is based on the following **Objectives:** Assess the level of knowledge regarding anticoagulation therapy among patients attending cardiac clinics, Find out the association between the level of knowledge of patients regarding anticoagulation therapy with their selected socio demographic variables. **Methodology:** Quantitative approach was used for the study and the investigators adopted Non-experimental Descriptive research design. This study was based on Health Promotion Model by Nola J Pender. The present study was conducted in Moulana Hospital and EMS Hospital, Perinthalmanna among 60 samples using non-probability purposive sampling technique. Data were collected by using structured knowledge

questionnaire to assess the knowledge regarding anticoagulation therapy. **Analysis:** Data were analyzed by using descriptive and inferential statistics. **Results:** The study result shows that 60% of patients have moderate knowledge, 31.7% patients have good knowledge and 8.3% patients have poor knowledge regarding anticoagulation therapy. The study also revealed that there is a significant association between duration of anticoagulation consumption and knowledge regarding anticoagulation therapy among patients attending cardiac clinics. **Conclusion:** In the present study the researchers investigate that a study to assess the level of knowledge regarding anticoagulation therapy among patients attending cardiac clinics at selected hospitals, Perinthalmanna with a view to prepare an information booklet. The Researchers concluded that 60% of patients have moderate knowledge, 31.7% patients have good knowledge and 8.3% patients have poor knowledge regarding anticoagulation therapy. Patients with better knowledge of the risk and benefit of oral anticoagulant therapy exhibit better adherence than those with inadequate knowledge.

Key word - Assess, Knowledge, Anticoagulation therapy, Patients attending cardiac clinics, Information booklet

BACKGROUND OF THE STUDY:

Cardiovascular diseases are a group of disorders of the heart and blood vessels and include coronary heart diseases, cerebrovascular diseases, rheumatic heart diseases and other conditions. These are the leading cause of death globally. Of these deaths, 85% are due to heart attack and stroke. People with cardiovascular disease or who are at high cardiovascular risk (due to the presence of one or more risk factors such as hypertension, diabetes or hyperlipidaemia) need early detection and management using counselling and medicines. Cardiac clinics are the clinics which helps people to understand about the health of their heart and which will help them to reduce the risk for heart and blood vessel diseases. Every cardiac clinics have it's team members which includes cardiologist, nurses, exercise specialist, lab technicians and dietician. One of the most important part of haemostasis is the clotting of blood. Blood clot comprises of a series of complex chemical processes plays a pivotal role in the repair of blood vessels. When there is an abnormality in any part of the system that controls bleeding, it can lead to haemorrhage or excessive clotting. These are potentially life- threatening. Anticoagulation is the first-line treatment for venous thromboembolism and has an important role in the treatment and prevention of blood clots. Anticoagulants which are considered "high alert medications" can often lead to adverse drug events in the in-patient and out-patient setting if not managed appropriately. High alert medications referred to drugs that have an increased risk of causing significant harm when used in error. It is included in the management of myocardial infarction, during percutaneous interventions, and in patients with mechanical heart valves. Anticoagulants are the medicine that helps to prevent blood clot formation. This therapy is very important in patients with cardiac disorder because it will prevent the formation of harmful

thrombi by decreasing the ability of the blood to clot. Heparin and warfarin are the commonly used anticoagulant. In out-patient health care setting oral anticoagulants are the drugs of choice. Monitoring of therapeutic anticoagulation indices, international normalized ratio (INR) are required in a routine manner. Patient knowledge regarding the anticoagulant drugs and anticoagulation therapy can improve anticoagulation control with decrease in adverse drug reactions and other associated complications. Assessment of current patient knowledge is necessary to increase the standard of anticoagulation therapy. Patient who received anticoagulation therapy in out-patient setting and on long term basis needs a close monitoring because it retains a higher risk of bleeding too. Realising this in our study we have aimed to assess the knowledge about anticoagulation therapy in patients attending cardiac clinics in selected hospitals.

NEED AND SIGNIFICANCE:

Heart disease is the leading cause of death affecting both women and men. According to the World Health Organization nearly 17.5 million lives are lost due to heart disease worldwide. Globally around 110 million men and 80 million women have cardiovascular diseases. World Health Organization estimated that about 60% of the total world's cardiac patient will be Indians. Within India, the rates of CVD vary markedly with highest in states of Kerala, Punjab and Tamil Nadu. Moreover, these states also have the highest prevalence of raised cholesterol levels and blood pressure. The very high mortality from CHD and stroke indicates that CVD is quite high in Kerala. The crude and age-adjusted prevalence of any CAD in men were 14.6 and 9.8 % and in women were 17.9 and 14.3 % respectively. From 2011-2020 the use of overall anticoagulants was increased from 56.3-64.7%, majority of the users are cardiovascular patients. The use of direct oral anticoagulants increases from 4.7%- 47.9%, while warfarin use declined from 52.4%-17.7%. The main reason behind this is changes in physician preference, patient refusal and bleeding events. A prospective cohort study was conducted to investigate patient knowledge, the level of information provided, and medication adherence in patients treated with warfarin at a primary health care service. 60 patients were selected. A questionnaire was administered to test patients' knowledge about their prescriptions and the level of information provided by the health team. The 8-item Morisky Medication Adherence Scale (MMAS-8) and International Normalized Ratio (INR) were used to verify adherence to treatment. The result shows that 83.3% of the participants had been given insufficient information by the health team, 50% did not know how to use the medication correctly, 86.7% were not adherents to the treatment according to MMAS-8 and 63.3% were outside of the correct INR range. The study concluded the need to improve the quality of information provided to users and to develop strategies to improve adherence to treatment. OAC knowledge was assessed with seven newly generated items containing questionnaire asked face-to-face during a PMC and by telephone two weeks later. Knowledge gaps, pharmacists' spontaneous interventions, and patient satisfaction were documented by observing pharmacy students. Of all patients (n = 81), the number of patients with one or more knowledge gaps decreased from

66% to 31.3% after PMC ($p < 0.001$). NOAC patients ($n = 31$) had more knowledge gaps than VKA patients ($n = 50$; $p < 0.05$). Most patients (98.6%) were satisfied with the counselling provided by the pharmacists. The study concluded that majority of chronic OAC patient shows knowledge gaps. Oral anticoagulants are risk-prone drugs and complex patient understanding is vital for promoting the rational use of oral anticoagulants. Patients with better knowledge of the risk and benefit of oral anticoagulant therapy exhibit better adherence than those with inadequate knowledge. Evaluation of patient's knowledge is the first step to improve the quality of anticoagulation therapy and patient care. Despite numerous studies, exploring the association between knowledge and medication adherence, relationship between these variables was less explored in patients with cardiovascular diseases who are taking anticoagulant treatment.

REVIEW OF LITERATURE:

An epidemiological study was conducted in Tamil Nadu to estimate the prevalence and associated factors of cardiovascular diseases across Indian states among men and women aged ≥ 45 years. 56,935 adults and their spouses aged 45 years and above were included in the study. Multivariable logistic regression was used to assess the association between behavioural factors and CVDs in both men and women. The result shows that the prevalence of CVDs was 5.2% among adults ≥ 45 years, hypertension was 46.7%. Men and women have a similar prevalence of diabetes (11.9%) and cholesterol (2.3%). Prevalence of physical inactivity was 30.3%. The study concluded that the prevalence of CVDs and lifestyle risk factors among middle-aged and elderly poses severe concerns. The study also suggested that the key to prevent CVDs is controlling hypertension, diabetes, hypercholesterolemia, and increasing physical activity among adults aged ≥ 45 years.

A prospective cohort study was conducted from March 4th to August 27th, 2020 among 12 hospitals and 60 clinics of M Health Fairview system (USA) to investigate the relationship between 90-day anticoagulation therapy among outpatients before COVID-19 diagnosis and the risk for hospitalization and mortality and Inpatient anticoagulation therapy and mortality risk. Of 6195 patients, 598 were immediately hospitalized and 5597 were treated as outpatients. The overall case-fatality rate was 2.8% ($n = 175$ deaths). Among the patients who were hospitalized, the inpatient mortality was 13%. In-patients who were not on anticoagulation (before or after hospitalization) had an increased risk for mortality, HR (95% CI = 2.26, 1.17–4.37), $p = 0.015$. The study concluded that outpatients with COVID-19 who were on outpatient anticoagulation at the time of diagnosis experienced a 43% reduced risk of hospitalization. Failure to initiate anticoagulation upon hospitalization or maintaining outpatient anticoagulation in hospitalized COVID-19 patients was associated with increased mortality risk.

A non-experimental descriptive study was conducted in Pune to assess the knowledge regarding anticoagulation therapy among cardiac patients. The research study was based on "Health Belief Model". A

quantitative research approach with non-experimental descriptive survey method was used. The total sample size was 200 cardiac patients. The tools used for data collection were demographic variable and assessment of knowledge. The data were collected and analysed using descriptive and inferential statistics. The study result shows that 70% of the cardiac patients had average knowledge, 10% had good knowledge and 20% of them had poor knowledge regarding cardiac anticoagulation therapy. The study concluded that there is great need for improving the knowledge among the patients. Study also recommended that health education should be given at cardiac clinics for the patients in order to improve the knowledge and the patients should be encouraged to gain knowledge through information booklet, television, peer group and internet.

STATEMENT OF THE PROBLEM:

A study to assess the level of knowledge regarding anticoagulation therapy among patients attending cardiac clinics in selected hospitals in perinthalmanna with a review to prepare an information booklet.

OBJECTIVES:

- ❖ Asses the level of knowledge regarding anticoagulation therapy among patients attending cardiac clinics
- ❖ Find out the association between the level of knowledge of patients regarding anticoagulation therapy with their selected socio-demographic variables
- ❖ Find out the association between the level of knowledge of patients regarding anticoagulation therapy with their selected clinical variables

HYPOTHESIS:

The hypothesis is tested at 0.05 level of significance.

H₁: There is a significance association between level of knowledge of patients regarding anticoagulation therapy with their selected socio-demographic variables.

CONCEPTUAL FRAMEWORK:

The study was based on Health Promotion Model by Nola J Pender.

RESEARCH METHODOLOGY:

Research approach: Quantitative research approach

Research design: Non experimental Descriptive research design

Setting: The study was conducted in Moulana Hospital Perinthalmanna and EMS Memorial Cooperative Hospital Perinthalmanna.

Sample: patients attending cardiac clinics at Moulana Hospital perinthelmana and EMS Hospital Perinthalmanna who met sampling criteria.

Sample size: In this study sample size is 60

Sampling technique: Non probability purposive sampling technique

Tools and techniques: Demographic performa, clinical performa and structured knowledge questionnaire

INSTRUMENTS:

Part 1:

Demographic and clinical performa: Age, gender, education, occupation, marital status, and clinical variables consist of duration of disease, duration of anticoagulation consumption, previous knowledge, family history of disease.

Part 2:

Structured knowledge questionnaire: Total score on 18, the score of 15-18 is considered as good, 8-15 considered as average and a score of 0-8 is considers as poor.

DATA COLLECTION PROCESS:

The present study was conducted in moulana hospital and EMS hospital perinthelmana. Formal permission from the hospital authorities was obtained. The selection of samples was done based on inclusion and exclusion criteria. The consent from family was obtained. Assessment of demographic and clinical data was done and the assessment of knowledge regarding anticoagulation therapy was done using structured knowledge questionnaire.

ETHICAL CONSIDERATION

Ethical clearance was taken from hospital authorities and ethical committee.

RESULTS:

SECTION A – Distribution of demographic characteristics of patients attending cardiac clinics

The majority of the Cardiac patients belongs to the Age group above 50, 26% included in Age group 46 – 50, 12% included in Age group of 41 – 45 and 5% patients are included in 35-40.32% of study subjects are Males and 28% are Females.73% study subjects have Primary Education, 18% have Higher Secondary Education, 5% study Population are Graduate and 4% are Post Graduated.71% of study subjects are Non-Medical Professionals, 24% are Unemployed, 5% are Medical Professionals.86% of study subjects are Married, 8.3% are Single, 1.7% are Divorced, 4% of study subjects are Widow/Widower.

SECTION B – Distribution of clinical characteristics of patients attending cardiac clinics.

Duration of the disease is less than 4 years in 36.6% patients, 36.6% is included in 5-8 years of duration, 18.4% patients is included in 9 – 12 years of duration and 8.4% patients is included in greater than 12 years of duration. Duration of anticoagulant consumption is 2-3 year in 40% patients, greater than 3 year in 23.3% patients, 1-2 year in 20% patients, less than one year in 16.7% patients.55% patients do not have previous information and 45% patients is having previous information regarding anticoagulation therapy.38.3% patients have family history of cardiac diseases and 61.7% patients are not having family history of cardiac diseases.

SECTION C – Assessment between knowledge regarding anticoagulation therapy

The percentage of knowledge regarding anticoagulation therapy among patients attending cardiac clinic, shows that 60% of patients have moderate knowledge, 31.7% patients have good knowledge and 8.3% patients have poor knowledge regarding anticoagulation therapy.

SECTION D – Association between knowledge regarding anticoagulation therapy and selected demographic variables

There is no significant association between socio-demographic variables of patients attending cardiac clinics and their knowledge regarding anticoagulation therapy.

SECTION E – Association between knowledge regarding anticoagulation therapy and selected clinical variables

There is an association between duration of anticoagulation consumption and knowledge regarding anticoagulation therapy among patients attending cardiac clinics and there is no association between other clinical variable and knowledge regarding Anticoagulation therapy among patients attending cardiac clinics.

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