The Impact of Clinical Pharmacist Managed Anticoagulation Management Service Versus Routine Medical Care on the Clinical Outcome of Atrial Fibrillation Patients

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"Clinical pharmacy"

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بِسْمِ اللَّهِ الرَّحْمَـٰنِ الرَّحِيمِ

"الرَّحْمَنُ * عَلَّمَ الْقُرْآنَ * خَلَقَ الْإِنْسَانَ * عَلَّمَهُ الْبَيَانَ "﴿١-٤﴾ الرحمن

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Dedication

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List of abbreviations

Abbreviation	***Stands for***
ACCP	American Collage of Chest Physicians
ACE	AntiCoagulation Europe
ADRs	Adverse Drug Reactions
AF	Atrial Fibrillation
AKA	Anticoagulation Knowledge Assessment questionnaire
ALT	Alanine Transaminase
AMS	Anticoagulation Management Service
ANOVA	Analysis Of Variance
AST	Aspartate AminoTransferase
ASUHs	Ain Shams University Hospitals
CAD	Coronary Artery Disease
CBC	Complete Blood Count
CTCAE	Common terminology criteria for adverse events
CYP	Cytochrome-P
DCC	Direct Current Cardioversion
DDIs	Drug-Drug Interactions
DM	Diabetes Mellitus
DVT	Deep Venous Thrombosis
ECG	Electro Cardio Graph
EHRA	European Heart Rhythm Association
ESC	The European Society of Cardiology
FDA	Food Drug Administration
GIT	Gastrointestinal tract
HIT	Heparin Induced Thrombocytopenia
Hgb	Hemoglobin
INR	International Normalized Ratio
ISI	International Sensitivity Index
IV	Intravenous

List of abbreviations

Abbreviation	***Stands for***
Kg	Kilogram
L	Liter
LMWHs	Low Molecular Weight Heparins
LV	Left ventricular
mg	Milligram
MI	Myocardial Infarction
ml/min	Milliliter per minute
NSAID	Non Steroidal Anti Inflammatory Drug
OAC	Oral Anticoagulant
PE	Pulmonary Embolism
PT	Prothrombin Time
RBCs	Red Blood Cells
SD	Standard Deviation
S.Es	Side effects
SPSS	Statistical Package for Social Sciences
S.Cr	Serum Creatinine
TTR	Time in Therapeutic INR Range
USA,US	United States of America
VKAs	Vitamin K Antagonists
VKOR	Vitamin K Epoxide Reductase
VTE	Venous Thrombo Embolism
WHO	World Health Organization
WHO ERC	World health organization Research Ethics Review Committee
Yrs	Years

Abstract:

Objectives: To assess impact of pharmacist managed anticoagulation management service on Egyptian atrial fibrillation patients' anticoagulation management, incidence of bleeding events and thromboembolic events, incidence of warfarin drug and food interactions. ***Patients and methods:*** Prospective, randomized, controlled study comparing 30 atrial fibrillation patients who received routine medical care, with 30 atrial fibrillation patients subjected to clinical pharmacist managed anticoagulation management service. Follow up was done continuously for 6 months. The principal safety outcomes were percentage time in therapeutic range (%TTR), anticoagulation knowledge assessment questionnaire (AKA), major bleeding or thromboembolic events, adverse drug reactions (ADRs) and warfarin-drug interactions (DI). ***Results:*** study group's TTR levels were significantly ($p< 0.001$) higher as compared to control group. The patients' AKA scores were significantly ($p< 0.001$) increased in study group compared to control group. Study group had a significantly lower frequency of bleeding ($p<0.001$) and no significant difference in thromboembolic ($p= 0.154$) or nonspecific episodes ($p= 0.303$) versus control group, Study group had a significantly lower frequency of warfarin drug interactions ($p= 0.004$) and no significant difference in frequency of warfarin food interaction ($p= 0.17$) versus control group. ***Conclusion:*** Pharmacist managed anticoagulation management service improved patients' INR control, frequency of acute complication and of warfarin drug interactions and patients' level of anticoagulation education.