Quality of anticoagulation management with warfarin among outpatients in Tikur Anbessa Specialized Hospital

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Abstract

Introduction: Warfarin is the most widely used anticoagulant in the world. The difficulty of managing warfarin contributes to great potential for patient harm, both from excessive anticoagulation and insufficient anticoagulation.

Objective: To assess the INR control outcome measures for warfarin therapy, to investigate quality of warfarin prescribing and to assess level of patients’ knowledge on warfarin therapy among outpatients in Tikur Anbessa Specialized Hospital (TASH).

Methodology: The study was based on cross sectional study design involving retrospective chart review and Oral Anticoagulation Knowledge Assessment (OAKA) questionnaires. 360 patients’ charts were included and 130 patients were interviewed in this study.

Result: Patients spent 52.2%, 29% and 18.8% of the times in subtherapeutic, therapeutic and supratherapeutic ranges, respectively. The daily warfarin dose was increased in (50.9% and 36.9%) and decreased in (52.8% and 60.9%) of the times for occurrences of subtherapeutic and supratherapeutic International Normalized Ratio (INRs) to achieve target ranges of 2.0-3.0 and 2.5-3.5 respectively. The majority of patients (76.9%) had moderate knowledge on warfarin therapy. The mean score of patients on correct response was 11.8±2.5 (59.3%±12.8%). Among interviewed patients only 13.9% of them got passing scores.

Conclusion and Recommendation: This study found that quality of anticoagulation management with warfarin among outpatients in TASH was suboptimal. This was reflected by low Time in Therapeutic Range, longer INR monitoring frequency, minimal actions taken to adjust warfarin dose after occurrences of nontherapeutic INRs; and poor patients’ knowledge. Establishing pharmacist managed anticoagulation clinic which supported by computer software programs may be the integral part of anticoagulation management services in TASH.

Key words: warfarin, patient knowledge on warfarin, INR, Time in Therapeutic Range, warfarin dose adjustment.

Biography

Tamrat Assefa (B.Pharm, M.Pharm) studied Pharmacy at Addis Ababa University, School of Pharmacy, Ethiopia. He graduated in August 2007. He worked as Hospital Pharmacist from October 2007 to November 2010 in Tikur Anbessa Specialized Hospital (TASH). He then studied Pharmacy Practice in postgraduate program in the same university. His career and research interest is on anticoagulation management services and pediatric hematology/Oncology Pharmacy Services. He served as Pharmaceutical Services Directorate Director of TASH from May, 2012 to June, 2013. Tamrat is currently working as Clinical Pharmacist in hematology/Oncology unit of TASH.