



Service Priorities and Programmes
Electronic Presentations

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Nurse Warfarin Clinic in Tuen Mun Hospital: A Service Review on Quality and Efficiency Gain

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Introduction

In 2013, there were over 2400 out-patients taking warfarin in Tuen Mun Hospital. The follow up frequency varied from 16-20 weeks and was below international standard of 4-8 weeks. A nurse warfarin clinic was set up at 2014 to cater cardiac patients with warfarin therapy. It was run at 2 sessions per week with the aim to keep follow-up at most of 8 weeks interval. Whereas more frequent follow-up would be offered to those with recent dose adjustment or other interactive medication change. Patients with serial international normalized ratio (INR) remained stable for 6 months, telephone follow-up would substitute clinic attendance. Also, one session education talk aiming to enforce patients' knowledge in self-care and compliance was offered to all new patients.

Objectives

To review efficacy and service quality of nurse warfarin clinic

Methodology

(1)The quality of warfarin therapy in the clinic was reviewed using the Time in Therapeutic Range (TTR) method. It estimates the percentage of time a patient's INR is within the desired treatment range and is widely-used as an indicator of anticoagulation control. It is commonly used to assess the risks of adverse events versus benefits of warfarin therapy. As mentioned in many studies, a marked benefit was found against stroke and total vascular events for patients who had mean TTRs $\geq 65\%$ over 6 months. (2)The efficacy of nurse clinic was evaluated from patient's perspective by self-administered questionnaire after follow up for 6 times. It focused on patients' knowledge and confidence in drug compliance. (3)In term of time saving in medical consultation, out-patient attendances in the medical stream and nurse clinic was reviewed for predictive benefit.

Result

(1)In 2017, there were 101 warfarin patients recruited to nurse warfarin clinic. Exclude those who were in default, hospitalized and with follow-up below 6 months, there were

56 patients underwent 520 INR measurements eligible for TTRs analysis using the Rosendaal Method. The mean TTR was 65.5%. Of the sample patients, 22 of them (39%) were in good control category with TTR > 70%. (2) 95 valid questionnaires were reviewed. 93% patients expressed improved understanding in warfarin use and its side-effect. 98.9% of them stated that they were confident in compliance to the treatment and diet restriction. (3) There were 1390 nurse clinic attendances in 2017. When comparing with cardiac doctor's clinic attendance of 7338 and an average consultation time of 13 minutes, there would be 301 hours saving of doctors' work and 16% reduction in outpatient consultation. In sum, nurse clinic is efficient in managing warfarin patients and reduction of doctor's workload in out-patient setting.