



OUTPATIENT INR MONITORING AMONG WARFARIN ELLDERLY USERS AFTER DISCHARGING FROM A MEDICAL CENTER IN TAIWAN

醫學中心使用 WARFARIN 老人病患出院後 INR 的監測

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Background: The elderly patients should be more cautious about their monitoring of warfarin use for many reasons after discharging from hospitals. The aim of this study was to explore the follow-up monitoring approaches and outcomes among those warfarin elderly users after discharging from a medical center.

Method: A retroactive observational study was conducted in China Medical University Hospital (CMUH), a 2000-bed medical center in Taichung. Those elderly patients who admitted to inpatient services in CMUH from August 2010 to July 2011 and who had ever received warfarin treatment during hospitalizations were of interest. Each patient was followed-up for three months after discharging from CMUH for their medication use and INR monitoring. Their corresponding warfarin indications and INR monitoring were evaluated. The normal range of INR was established on 1.5 to 3.5 for the various indications of warfarin use, such as embolism treatments and preventions. We defined abnormal INR assessments for those who were either too low or too high INR values in the 3rd month or 2nd month if only one or two measures in the first two months were made. The descriptive analysis was performed for the variables of interest.

Results: Of 790 elderly patients had ever prescribed with warfarin during hospitalizations, 52.53% were male. The top three prescribers of warfarin during hospitalizations for these elderly patients were cardiologists, neurologists and pulmonologists (accounted for 83.41% of all visits). After discharge from CMUH, only 13.5% (N=107) of elderly warfarin users were continuously followed-up for their INR values. 56.1%, 53.3% and 61.7% of them were measured for their INRs in the first, second, and third month, respectively. During three-month observation period after discharge, 47.7% of them were ever measured for their INRs once in three months, 33.6%



for twice, and 15.7% for three times. 51 elderly warfarin users (47.7%) were followed-up INR inappropriately and 58 elderly (60.7%) had encountered abnormal INR assessments.

Conclusions: While less than one in seven warfarin elderly users were followed-up for their INR values after discharge from CMUH, half of them or more have encountered either inappropriate monitoring or abnormal INR values. For these vulnerable elderly patients, the use of warfarin and its monitoring would be important and need to be warrant, especially, for those who had extremely values of INRs.