Secondary Prevention in Ischemic Stroke: A pilot Study of Nurse-led Stroke Review Clinic (NSRC)

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Introduction
For ischemic stroke survivors, an early follow up in physician-led clinic is not always feasible due to heavy workload in public hospitals. A program is required to provide fast review of post-stroke patients and to offer continual care in order to bridge the gap before patients are reviewed by physicians.

Objectives
To evaluate the effectiveness of a Nurse-led Stroke Review Clinic (NSRC) in secondary prevention of ischemic stroke.

Methodology
A prospective randomized controlled pilot study was carried out in an acute stroke unit of a regional hospital. Subjects were recruited and randomized between November 2011 and January 2012. Primary endpoint was the public health care utilizations whereas secondary endpoints included cardiovascular risk factors control (smoking, blood pressure, glucose and lipids), stroke knowledge, medications compliance scale and patients’ satisfaction score. Evaluations of primary and secondary endpoints were carried out at 3 months.

Result
There were 3 and 7 Accident and Emergency Department (AED) attendances in the intervention and control group respectively. Among them, 2 cases from each group were admitted and all cases were not due to ischemic stroke recurrence. Six subjects (29%) from intervention group stopped smoking whereas 1 subject (6%) quitted smoking in control group (p<0.01). There was no statistical difference in mean systolic blood pressure, mean diastolic blood pressure, blood glucose control (fasting blood and HbA1c) and LDL level at 3 months. Medications compliance was better in intervention group than conventional group in terms of scoring but it was not statistical
significant. The superiority in mean stroke knowledge score (26 vs 19, p<0.01) and patients’ satisfaction score of intervention group were significant (24 vs 18, p<0.01). In conclusion, NSRC did not alter the health care utilizations and the changes in biomedical parameters were not significant at 3 months. Therefore its effect on preventing ischemic stroke recurrence could not be demonstrated. Effect on medications compliance was inconclusive but we could demonstrate a significant improvement in smoking cessation and stroke knowledge. Also stroke survivors were more satisfied with this post discharge program. The failure of demonstrating a strong positive effect could be due to short duration of follow up and hence we suggest to expand our study with a larger sample size and with longer duration of follow up.