The efficacy of structured Stroke Nurse-led Clinic in modifiable risk factors control

May Mok(1), Yip K Y(1), Lee T Y(1), Chan Y S(1)
Department of Medicine(1) of Pamela Youde Nethersole Eastern Hospital (PYNEH)

Keywords:
Stroke Nurse-led Clinic
Stroke risk factors control
Efficacy
hyperlipidaemia
Hypertension
Diabetes

Introduction
After a completed stroke (not Transient Ischemic Attack -TIA), the rate of stroke recurrence ranges from 4 to 14% per year depending on the underlying etiology. Therefore, appropriate and timely stroke secondary prevention is essential. Stroke specialty nurse can play an important role in nurse-led clinic to provide comprehensive and effective secondary stroke prevention by monitoring in life-style modification and modifiable risk factors control.

Objectives
This study evaluated the efficacy of structured Nurse-led Clinic in secondary stroke risk factors management.

Methodology
A retrospective study was conducted to review the efficacy of a stroke nurse-led clinic in PYNEH from 2012 to 2013. The referral sources from Acute Stroke Unit (ASU) or medical wards. Stroke patients upon discharged either with or without out-patient stroke rehabilitation training were first screened by stroke nurses. And then, the recruited patients would attend the stroke nurse-led clinic at least two times within half year for education and management. The efficacy endpoints were measured by changes in biomedical parameters, lifestyle modification, drug compliance, numbers of risk factors controlled and patients’ satisfaction score within 6 months.

Result
There were 868 discharged stroke patients with or without out-patient rehabilitation. A
total of 392 patients (45.16%) with 793 attendances were recruited for providing continual care. There were 22 patients (5.61%) for defaulted follow up. At 6 months, 10 patients (2.55%) for recurrent stroke. The 3-month mortality was 0% but 1-year mortality was 1.02%. 74.93% of subsequent follow up patients have reduced more than 25% of their total numbers of stroke risk factors. For biomedical parameters, there was significant reduction in Low-density Lipoprotein to \( \leq 2.6 \text{mmol/l} \) in 163 (69.4%) out of 235 stroke patients with hyperlipidaemia. 149 (58.0%) out of 257 patients with hypertension met targets (<140mmHg Systolic Blood Pressure (SBP) or <130mmHg SBP for Diabetes). 27 (58.7%) out of 46 chronic smokers have ceased smoking. The mean patients’ satisfaction score was 9.52 out of 10(range 8 to 10). In conclusion, nurse-led clinic model can provide a continuity of care to stroke patients after discharge through modified & preventive strategies, health education, counseling and compliance monitoring. It is also recommended for secondary stroke prevention. Long term follow up with this model may further increase in-target rates of BP control and other stroke risk factors.