INTRODUCTION

Stroke enhancement in acute stroke unit (ASU) is one of the key hospital plans in TKOH. In July 2009, ASU in designated Cubicle (ASUC) was established to streamline better coordination and promotion patient access to full rehabilitation activities by multi-disciplinary team. Besides, the Active Lifestyle Therapeutic Exercise Program (ALTEP) in the Physiotherapy stroke clinic was established for early discharge support. It was equipped with a coordinated and seamless pathway to liaise with the integrated stroke clinic and the minor stroke nurse clinic of Department of Medicine (Fig. 1).

OBJECTIVES

1. To enhance quality of care by early discharge support to facilitate shorter hospital length of stay (LOS) and low un-planned re-admission rate.
2. To enhance functional mobility, balance, endurance capacity recovery and health related quality of life (HRQOL) for stroke survivors.

METHODOLOGY

The present evaluation was carried out in parallel with a pragmatic clinical trial to evaluate the effectiveness of ALTEP. ALTEP focused on home-based exercise education, patient/relatives empowerment, assessment plus triage of rehabilitation training program and active lifestyle living advice.

Stroke survivors who were direct discharged back home during July to December 2009 from ASUC were recruited in the ALTEP. Those discharged during January to June 2009 were regarded as prior-ALTEP period. The LOS during ALTEP period and the prior-ALTEP period was compared. After 3-months post ALTEP, the overall functional mobility (comfort gait speed), balance (Timed up and go test), endurance capacity (6 min walk distance) and HRQOL (36-item Short Form) were evaluated.

RESULTS

340 Stroke survivors (157 female and 183 male) were discharged from ASUC in 2009. 69 patients were direct discharged home in the prior-ALTEP period and 94 were in the ALTEP period. The unplanned re-admission rate was lower in ALTEP period when compared with prior-ALTEP period. The NIHSS score at admission was not significantly different between two groups (p=0.05, ANOVA analysis) (Table 1). However the average LOS of patients directly discharged home during ALTEP period was significantly shorter (mean difference is 1.12±0.49 days, p< 0.05, ANOVA analysis) (Fig. 3). Total 105 hospital bed days were saved for 94 patients. Among 94 stroke survivors directly discharged home from ASUC, 76 joined the ALTEP whereas 62 patients completed the 3-months rehabilitation. Results showed that the functional mobility, balance, endurance capacity and the 8 domains in HRQOL were significantly improved (p<0.004 with Bonferoni adjustment, repeated measured ANOVA) (Table 2, Fig. 4).

CONCLUSION

The impact of multi-levels stroke enhancement in TKOH since July 2009 demonstrated significant functional and healthcare cost beneficiaries. The additional set up of the Physiotherapy stroke clinic, as a new and innovative service, enhanced early home discharge support. The total LOS was shorter and un-planned re-admission rate was low. The continuity of ALTEP rehabilitation was effective to improve the functional mobility and enhance HRQOL of stroke survivors.

Fig. 1. Seamless Pathway of Physiotherapy Stroke Clinic liaises with various multidisciplinary stroke clinics for ASUC early discharge support.