Abstract

Introduction: This study aims to determine the inpatient rehabilitation effectiveness (REs) and rehabilitation efficiency (REy) of hip fracture in a Singapore community hospital (CH), its association with socio-demographic variables, medical comorbidities and admission Shah-modified Barthel Index (BI) score as well as change in independent ambulation from discharge to 4 months later. Materials and Methods: A retrospective cohort study using data manually extracted from medical records of all patients who had hip fracture within 90 days and admitted to a CH after the operation for rehabilitation. Multiple linear regressions are used to identify independent predictors of REs and REy. Results: The mean REs was 40.4% (95% Confidence Interval (CI), 36.7 to 44.0). The independent predictors of poorer REs on multivariate analysis were older age, Malay (vs non-Malay) patients, fewer numbers of rehabilitative therapy sessions and dementia. The mean REy was 0.41 units per day [CI, 0.36 to 0.46]. The independent predictors of poorer REy on multivariate analysis were higher admission BI and being non-hypertensive patient. The prevalence of independent ambulation improved from 78.9% at the discharge to 88.3% 4 months later. Conclusion: CH inpatient rehabilitation therapy showed REs 40.4% and REy of 0.41 units per day and the optimum number of rehabilitative therapy session was from 28 to 41 in terms of rehabilitation effectiveness and the maximum rehabilitation efficiency was seen in those doing 14 to 27 sessions of rehabilitative therapy. The study also showed improvement in BI at discharge and improvement in the independent ambulation 4 months after discharge from the CH.


Key words: Modified Barthel Index, Length of stay, Length of weight bearing