The recovery of functional mobility in patients with stroke in the first month of rehabilitation

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Introduction
Stroke is one of the major causes of disability in adult population world-wide. The ultimate goal of physiotherapy intervention for stroke survivors is to optimize their functional mobility. By understanding the mobility outcome of patients with different severity of disease at an early phase, would facilitate a more realistic goal setting and a better triage of patient into different rehabilitation settings.

Objectives
To examine the mobility recovery of the stroke patients within the first month of rehabilitation.

Methodology
A cohort study of patients with the diagnosis of stroke admitted to the QMH. Their mobility was measured by modified functional ambulatory category (MFAC) and modified rivermead mobility index (MRMI) on day 3, 7, 14, 21 and 28 of admission.

Result
A total of 256 patients were recruited in which 24 cases were lost in follow-up at rehabilitation hospitals. The average length of stay (LOS) in QMH was approximately 7 days, 39% of the patients were able to be discharged directly home while the other 61% were transferred to extended care hospitals for further rehabilitation. The average total LOS was around 40 days and it was negatively correlated (r= - 0.75, p= 0.00) to the initial mobility of patient (MRMI at day 3). Their mobility was significantly improved after the 28 days of rehabilitation (p= 0.00) and the greatest improvement was found to be within the first week. Out of the 90 patients who suffered from severe motor impairment that were unable to walk with major assistance on admission
(MFAC 1 and 2), 38% of them were able to walk independently after rehabilitation while 50% of them remained chair bounded despite significant improvement in MRMI (p=0.00). As for those cases who were able to walk a few steps with major assistance on admission (MFAC ≥ 3), 77% of them were able to walk independently after rehabilitation. Patients who were presented with severe physical impairments on admission, although they were very dependent in their mobility initially, more than one-third of them were able to resume independent walking after rehabilitation. Since the study only examined the MFAC and MRMI up till 28 days after stroke, it is inconclusive and essential not to under-estimate the rehabilitation potential of the severe physically impaired patients.