Factors Predicting Functional Independence and Discharge Destination among Stroke In-patient-A Retrospective Cohort Study

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Introduction
Early and accurate prediction of rehabilitation outcomes of stroke patients can facilitate customized plans of care and more time for liaison and/or making referrals between colleagues.

Objectives
This study intends to explore factors predicting stroke survivors discharge destination & clinically significant functional gain after stroke rehabilitation.

Methodology
This is a retrospective cohort study, which included stroke in-patients transferred to KH from 1st April, 2015 to 31th March, 2016. Patients from OAH, recurrent stroke, episodic death cases were excluded. The outcomes of interest are (a) 'discharge home' and (b) 'clinically significant functional gain' (i.e. one or more level improvement in KH local triage of stroke protocol by motor subscale of the Functional Independence Measure [FIM-MM]). Potential predictors in different aspects including disease characteristic, social and demographic information, impairment and disability measures and rehabilitation process were retrieved from CDARS, CMS-FIM module. All predictors were put into univariate logistic regression. Significant predictors were then put into multivariate logistic regression. The study was approved by KCC REC.

Result
Of 574 stroke survivors age ranged from 34 to 97 years, 280(48.8%) were 74-year-old or below, 275(47.9%) were female, 382(66.6%) suffered from ischemic stroke, 138(24%) suffered from hemorrhagic stroke, 67(11.7%) lived alone. 296 (51.6%) were discharged home and 165 (28.7%) had one or more level increase in FIM-MM. Significant predictors identified in univariate regression for (a) included age, premorbid living with family/relative, FIM cognitive and motor score group, GCS, NG tube feeding, LOS, no hypertension diagnosis. Those for (b) were age, stroke type, FIM cognitive and motor score group, GCS, Morse Fall Scale, NG tube feeding, LOS. In multivariate logistic regression, the significant predictors for (a) were i) age