



## Service Priorities and Programmes Electronic Presentations

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### **Ambulatory status of stroke patients in ambulatory setting**

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#### **Introduction**

Different assessment tools such as Modified Functional Ambulation Classification (MFAC) and 6 Metre-timed Test (6MTW) are used to identify stroke patients as community walker, but their correlation has not been well studied in ambulatory settings. Before rehabilitation, predicting whether patients with stroke can be a community walker after rehabilitation is essential. It helps to set realistic rehabilitation goal with patients and we can allocate therapeutic resources effectively from the beginning.

#### **Objectives**

1) To evaluate the effectiveness of Haven of Hope Hospital Medical and Geriatric Rehabilitation Centre (MGRC) rehabilitation program on gait speed and ambulatory function of patients with stroke. 2) To find out the correlation between gait speed and outdoor ambulatory function of patients with stroke. 3) To predict community walker upon discharge.

#### **Methodology**

A total of 241 patients were consecutively treated in Haven of Hope Hospital Medical and Geriatric Rehabilitation Centre (MGRC) in the period between September 2013 to August 2015. 171 patients were recruited for analysis and 70 patients were excluded. The mean gait speed in patients with Modified Functional Ambulation Classification (MFAC) V, VI and VII on admission and upon discharge were compared to identify the effectiveness of MGRC rehabilitation program. Community walkers upon discharge were identified in those who were classified as MFAC Category VII. Pearson's correlation was used to assess concurrent validity of MFAC with 6MTW. One-way ANOVA was used to assess discriminative power of MFAC, assessing the mean gait speed difference in MFAC Category V to VII. Multivariate logistic analysis was used to assess the relationships between community walker and other predictive variables.

#### **Result**

On admission, there were 124 patients (72.4%) who can ambulate without assistance, which are of MFAC Category V to VII. Upon discharge, there were 144 patients (84.2%) could ambulate without assistance. 10 patients were classified as community walker on admission while 53 patients were classified as community walker upon

discharge. The mean gait speed in MFAC Category VII was 1.008m/s on admission and 0.844m/s upon discharge.

MFAC on admission and upon discharge significantly correlated with 6MTW ( $\rho=0.690$ ,  $p<0.001$ ;  $\rho=0.712$ ,  $p<0.001$ ). The mean gait speed in patients in both initial and upon discharge increased from MFAC Category V to VII. Mean gait speed in Category VII was significantly higher than in Category VI. Mean gait speed in Category VI was also significantly higher than that of Category V.

Multivariate logistic regression showed that age on admission was the significant variables related to community walker upon discharge.