



Service Priorities and Programmes Electronic Presentations

Convention ID: 772

Submitting author: Mr Bryan Ping Ho CHUNG

Post title: Physiotherapist I, Tai Po Hospital, NTEC

Stratification of stroke rehabilitation: 5-year profiles of functional outcomes

BPH Chung

Physiotherapy Department , Tai Po Hospital

Keywords:

stroke
rehabilitation
physiotherapy
functional outcome
profiles
stratification

Introduction

Stroke was the fourth leading cause of deaths in Hong Kong in 2014. Inpatient stroke rehabilitation services require high intensity of manpower and resources. By understanding the functional profiles of stroke patients, rehabilitation teams could predict the length of training, functional gain of patients so as to facilitate appropriate care plan as well as shorten the length of stay.

Objectives

To stratify functional profiles of stroke patients according to admission mobility level in order to predict the length of training and functional gain of patients.

Methodology

This was a retrospective review. The stroke database of physiotherapy department was retrieved and reviewed for patients who have received multi-disciplinary stroke rehabilitation in Tai Po Hospital from 2011 to 2015. Patients' demographic characteristics, length of training (LOT) and functional outcomes were obtained from the database. The functional outcomes were Modified Functional Ambulation Category (MFAC) and Modified Barthel Index (MBI). The MFAC is a 7-point Likert Scale (1 -7) that is used to classify a patient's walking capacity. Gait is divided into seven categories, ranging from no ability to walk and requires manual assistance to sit or is unable to sit for 1 minute without back or hand support (MFAC 1) to the ability to walk independently on level and non-level surfaces, stairs, and inclines (MFAC 7). MBI measures the participant's performance on ten functional items including self-care, continence, and locomotion. The values assigned to each item are based on the amount of physical assistance required to perform the task and added to give a total score ranging from 0-100 (0 = fully dependent, 100 = fully independent) with higher scores indicating higher levels of physical function. Comparison between the patient groups were based on Pearson and ANOVA test.

Result

A total of 3,085 stroke patients' data were retrieved and reviewed, 51.3% of them were male and 48.7% were female. Their mean age was 74.78 ± 12.24 . The majority of them (71.8%) were first stroke and 28.2% were recurrent stroke. Upon discharge, there were 2,722 of patients (88.2%) completed the rehabilitation program and with the mean length of training of 21.9 ± 18.42 . We found that the LOT is correlated to the admission mobility level as assessed by MFAC, the Pearson Correlation was -0.326. For example the LOT of patients with admission MFAC 1 (Lyer) was 28 days and the LOT of patients with admission MFAC 7 (outdoor walker) was 7 days. We further stratified the patients into 3 functional groups according to the admission MFAC i.e. Non-walking Group with MFAC 1-2, Assist-walking Group with MFAC 3-5 and Self-walking Group with MFAC 6-7. When compared the difference between the discharge and admission MBI (i.e. MBI gain), Assist-walking Group has the statistical significant improvement ($p = 0.000$) in MBI gain (50.09%) than the Non-walking Group (30.79%) and the Self-walk Group (19.12%). Stratify stroke patients according to admission Modified Functional Ambulation Category is practical in stroke rehabilitation to predict the length of training and functional gain.