Service Priorities and Programmes

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Motor Outcomes Audit on the Physiotherapy Stroke Rehabilitation Program in Haven of Hope Hospital

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Introduction

Stroke is the third leading cause of death in Hong Kong and causes severe disability and poor quality of life to the survivors. In 2012/13 and 2013/14, 308 and 282 stroke patients were admitted to our hospital for active rehabilitation. In order to review our treatment effectiveness and the rehabilitation outcomes of physiotherapy program, an outcome audit was conducted.

Objectives

To audit the motor rehabilitation outcomes of physiotherapy stroke rehabilitation program.

Methodology

Stroke patients admitted to Haven of Hope Hospital and referred to physiotherapy service between Feb 2012 and Jan 2014 were included. Subjects were selected by convenient sampling retrospectively. Motor outcomes including 1. Impairment level : Muscle power of proximal (ULpmp), distal upper limb (ULdmp), proximal (LLpmp) and distal lower limb (LLdmp) by Oxford Scale (score of 5 means full power and 0 means no control); 2. Functional activities : Barthel Index scores in transfer (BI-tran), mobility (BI-mob) and stair climbing (BI-st); 3. Modified Functional Mobility Categories (MFAC) (1=lyer, 2=sitter, 3=maximal assisted walker, 4=moderately supported walker, 5=walker with mild assistance or supervision, 6= independent indoor walker, 7=independent outdoor walker) were documented on admission and discharge. The assessors were the physiotherapist-in-charge of the patients who were blinded to the audit program. SPSS 17.0 was used for data analysis.

Result

65 patients (M:59; L hemiplegia:35; means age 73.98+9.55) were audited. All motor outcomes in terms of impairment level, functional activities and ambulation were significantly improved after rehabilitation program (ULpmp: 2.96+1.69 to 3.70+1.54; ULdmp: 2.76+1.79 to 3.47+1.72; LLpmp: 3.35+1.55 to 4.02+1.21; LLdmp: 3.21+1.65 to 3.97+1.28; BI-tran: 7.75+4.86 to 11.96+4.44; BI-mob: 5.78+5.02 to 11.83+4.70;

BI-st: 0.40+1.84 to 3.86+4.31; MFAC: 3.06+1.42 to 4.89+1.55; all p= 0.000). According to MFAC, 36.9% stroke patients belonged to lyers or sitters (MFAC 1-2), 60% belonged to assisted walkers (MFAC 3-5), and 3.1% belonged to independent walkers (MFAC6-7) on admission. After the rehabilitation program, 9.3% remained to be lyers or sitters, 41.6% progressed to assisted walkers and 49.3% progressed to independent walkers. The audit showed that physiotherapy rehabilitation program was effective in promoting motor recovery in stroke patients in terms of upper and lower limbs' muscle power, functional mobility and ambulation ability.