



Service Priorities and Programmes
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Submitting author: Ms Chan Yuk Ying

Post title: Physiotherapist I, Queen Mary Hospital,

A multi-disciplinary team approach – spasticity management for neurosurgical patients with Botulinum Toxin injection

Chan YY(1); Kwan YF(1); Chan MT(2); Fung KC (2); Taw BBT (3); Lo SM (4); Li MW (4); Kwong T (5); Chan KC (5)

(1)Department of Physiotherapy, QMH (2)Department of Occupational Therapy, QMH

(3)Department of Neurosurgery, QMH (4)Department of Neurosurgery, QMH

(5)Department of Prosthetic & Orthotic, QMH

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Introduction

Spasticity in neurosurgical patients can cause pain, decrease range of motion of joints and even progress into limb contracture. These make basic nursing care and rehabilitation more difficult. The multi-disciplinary team approach in spasticity management for neurosurgical patients aims at preventing the complications.

Objectives

Aim at improving the range of motion and preventing the development of contracture.

Methodology

Patients were selected from the multi-disciplinary joint meeting monthly. The selected patients were assessed by the therapists to identify the muscle groups needed for spasticity management. A baseline assessment was taken. Spasticity management including Botulinum Toxin injection, positioning, stretching, application of splintage and serial casting were provided by multi-disciplinary team. Reassessments were repeated at one month and two months post injection. Outcomes measures included passive range of motion (PROM), Modified Asworth Scale (MAS - which has 6 grades), catching angle of Tardieu Scale and Goal Attaining Score (GAS).

Result

There were a total of 9 cases selected for spasticity management from June, 2012 to December, 2013. The reassessment at 2 months post-injection could be completed for 5 cases only. Drop out from the program were mainly due to transfer to convalescence hospital, discharge to other country or medical complications. At one month post-injection, all 9 cases showed improvement. There were 42.3%, 75.9% and 59.1 % increment in PROM, catching angle of Tardieu Scale and GAS respectively. There was also 1.7 grade improvement in MAS. The 2 months post-injection reassessment could be completed for 5 cases only. Among the 5 cases, only one case could maintain the improvement while the other 4 cases showed deterioration in PROM and catching angle of Tardieu Scale but still better than the pre-injection condition.

Compared with the pre-injected condition, there were 24%, 50.8% and 77.9 % increment in PROM, catching angle of Tardieu Scale and GAS respectively. There was also 1.9 grade improvement in MAS. Spasticity management with multi-disciplinary approach was effective in improving the range of motion of joints and preventing the development of contractures which could facilitate the rehabilitation of neurosurgical patients. Favorable outcomes were depended on the professional input from various disciplines and cross specialties collaboration.