



Service Priorities and Programmes
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How Does Occupational Therapy Work with Botulinum Toxin for the Treatment of Upper Limb Spasticity?

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Introduction

Spasticity is "Velocity-dependent increased resistance to passive limb movement in people with upper motor neuron syndrome" (Lance 1980). Cases with traumatic brain injury, stroke are commonly associated with spasticity. The underlying principle of treating spasticity is when it causes problems for patient's functioning or care provision. The basis of management is physical and Botulinum Toxin (BT) treatment. There is no cure for spasticity, but it is better to be managed by BT parallel with appropriate therapy with the engagement of patient and family/carers.

Objectives

1. To develop service guidelines, standard of care, outcome measures & documentation system related to Spasticity Management 2. It aims at promote patients' functional capabilities, including - Active Function: Functional Improvement in Activities of Daily Living and Upper Limb function ; - Passive Function: Decrease Carer Burden; - Avoid Progression of Impairment and Optimize posture and seating to improve tissue viability; - Enhance Impact of Conventional Rehab Intervention

Methodology

In-patients and out patients who were recruited in the structured spasticity program from Botox Clinic of Neurosurgical and Medical Rehabilitation specialties, were received Occupational Therapy Treatment. Outcome Measures included : 1) Physical Measurement eg AROM, Modified Ashworth Scale; 2) Symptom Evaluation e.g. Visual Analog Scale on pain; 3) Functional Evaluation e.g. Functional Hemiplegic Upper Extremity-HK (7-level), Leeds Arm Spasticity Impact Scale: Measure the impact of spasticity on the functional use and care for the hemiparetic arm; Arm Activity Measure: Assess the functional use or impact on care for the hemiparetic arm; 4) Patient Participation Evaluation : Goal Attainment Rating Scale; Periodical Cases Review : Pre-BT Injection Assessment, Post-BT Injection one week, one month, two month and three month respectively.

Result

The standardized OT service for spasticity management program was implemented since November, 2012. 15 cases who received BT treatment over upper limbs have attended OT treatment. Two cases were completed 3-month spasticity management program. Periodical assessment was carried out. Both cases showed improvement in symptom and physical measures. Case with active upper limb control gained functional use after intensive OT departmental UL training and home program; whereas case without active control attained improvement in terms of easing carer burden with hand splintage and home program offered.