Service Priorities and Programmes

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Submitting author: Mr Bryan Ping Ho CHUNG
Post title: Physiotherapist I, Tai Po Hospital, NTEC

Enhancing Utilization of New Robotic Walking Therapy

Chung BPH, To AKY, Sit CSY, Lo CTM,Lau TFO
Hospital Authority

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Introduction

Robotic walking therapy is a global new technology in physiotherapy to improve the walking ability of patients suffered from stroke and other neurological disorders. In Tai Po Hospital, robotic walking therapy was provided by a robot system called Lokomat Pro and operated by trained physiotherapists with Lokomat certification. After launching the service for around half year, we found that it was underutilized in medical patients. The Physiotherapy Department of Tai Po Hospital started a continuous quality improvement (CQI) project to enhance the utilization of this new intervention for medical patients.

Objectives

To enhance the utilization of robotic walking therapy for medical patients in Tai Po Hospital.

Methodology

A CQI project was implemented in the Physiotherapy Department of Tai Po Hospital. In order to find out the reason of underutilization, a questionnaire was designed according to the cause and effect diagram of Kaoru Ishikawa (1968). The questionnaire was completed by all physiotherapists working for medical patients in Tai Po Hospital and was evaluated in late July 2014. The reasons of underutilization were summarized as below. (1) Case physiotherapists who were not Lokomat certified operators were unfamiliar with the benefit and the selection criteria of robotic walking therapy, so they seldom recruited patient for robotic walking therapy. (2) Crashing between the daily routine of patients and the time slots of robotic walking therapy sessions. (3) No centralized data-base of candidates who were suitable for

robotic walking therapy. (4) No relieving practice between the Lokomat operators. Since August 2014, some interventions were implemented including (1) carried out a couple of in-service training for targeted physiotherapists to reinforce the benefit and the selection criteria of robotic walking therapy, (2) rearranged the daily routine of patients who needs robotic walking therapy with other disciplines, (3) set up a centralized data-base of medical patients who were suitable for robotic walking therapy and (4) arranged a relieving practice so Lokomat operators can cover others' duty of robotic walking therapy.

Result

After the project implementation, the mean attendance of robotic walking therapy per month was dramatically increased from 3.1+3.1 sessions of pre-CQI period (January to July 2014) to 27.0+9.3 sessions of post-CQI period (August to Dec 2014). With concerted effort, this CQI project was effective to boost the utilization of the new robotic walking therapy in Tai Po Hospital.