



Service Priorities and Programmes Electronic Presentations

Convention ID: 1004

Submitting author: Mr Wai Lam William Wong

Post title: Physiotherapist I, Prince of Wales Hospital, NULL

Streamline of Rehabilitation Pathway in Total Knee Replacement through Lean Approach

Wong WL(1), Chung KY(2), Cheung PT(2)

(1)Physiotherapy Department, Prince of Wales Hospital, (2)Orthopaedics & Traumatology Department, Prince of Wales Hospital

Keywords:

Physiotherapy

Total Knee Replacement

Lean Approach

Rehabilitation Pathway

Introduction

In the past, most patients after Total knee replacement (TKR) in Prince of Wales Hospital (PWH) would transfer to Tai Po Hospital (TPH) for rehabilitation. Only indicated cases would continue rehabilitation in PWH Physiotherapy Department (PT) after discharging from TPH. Service reconstruction took place in 2013, patients after TKR would directly discharge from PWH and continue rehabilitation in OPD PT. With the sudden increase in demand in PT service in OPD, the waiting period for PWH TKR cases varied from few days to few weeks after discharge, it was not ideal as seamless rehabilitation arrangement would decrease the risk of suboptimal rehabilitation outcome and prolonged rehabilitation period

Objectives

1, To eliminate non-value added process in TKR rehabilitation and definite a seamless pathway with different departments. 2, To format a win-win solution for both patient and involved departments

Methodology

Data from 35 cases of TKR in PWH from July to October 2013 was analyzed, the rehabilitation pathway after operation was explored with the current state map and standard work sheet. Non-value added processes were then eliminated. A new planned patient flow was constructed to connect the in-outpatient rehabilitation pathway. All TKR cases in PWH in November and December 2015 were then analyzed again to examine the fluency of the new pathway.

Result

Four kinds of waste were identified. They were discharge patients awaiting OPD PT service, excessive transporting of patient, duplication in documentation and service repetition in patient empowerment and education. A new patient flow and service model were formatted aiming at waste elimination. A special scheduled session in PT OPD for TKR cases weekly was set up, to decrease service repetition, so as to

increase intake and decrease waiting list for TKR cases. OPD PT referral form and loaning form for walking aid would make a/v for patient/relative to minimize transportation to PT department. OPD PT would share the information from discharge summary (database), concerning the past medical history, operation and discharge status, to decrease the time for history taking of new cases. Since November 2015, all TKR cases were managed with the new planned flow, the average day to first PT OPD session after discharge decreased from 12.6 to 4.3 days and the average length of stay decreased from 11.3 to 8.3 days. The processing time for TKR cases decreased by 40% in PT OPD. There are positive, win-win results in the fluency of the new patient pathway.