



Service Priorities and Programmes Electronic Presentations

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Shortening of waiting time for new medical referral registration in Occupational Therapy Outpatient Department by Six Sigma approach

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Introduction

New referrals for Occupational Therapy Outpatient service need to obtain an initial appointment personally from the registration counter of our Department. Currently have an average waiting time of almost 20mins from submitting a medical referral at the reception counter to leaving the Occupational Therapy Outpatient Department, in extreme cases, it may be more than 30 minutes. But worst of all, most of the patients cannot get a new appointment time after such a long waiting time, since the therapists may not be available for identifying the appointment. Problems occur in identifying which specialty team the referral belongs to, and the therapist may not be available for helping in triage of the referral at the time the patient arrive, this results in a long lead time for the whole process For patient, it is too much waiting and is a waste of time in walking back and forth and queue up for twice.

Objectives

To reduce the waiting time for new referral registration by 30%. With no extra manpower is available, re-engineering of the process is needed; however, different ranks of staff have different expectation towards the changes which would affect the compliance to improvement initiative.

Methodology

DMAIC is a data-driven quality strategy used to improve processes. It is an integral part of a Six Sigma initiative. "DMAIC" is an acronym indicating Six Sigma business performance guidelines used to Define, Measure, Analyze, Improve, and Control business performance. In Defining the registration problem, voice of stakeholders are surveyed and the registration process is analyzed through the high level mapping, then a business charter was drawn up specifying the scope of activity, opportunity for improvement, the project goals, and customer (internal and external) requirements. In the measuring phase, the waiting time, processing time were measured with different tools such as the pareto chart, spaghetti diagram, current state value stream map, with respect to the different components of the registration

process. Then the root causes for long waiting time in registration were analyzed, and the critical factors for, poor performance (defects) were identified with the fishbone diagram. The improvement plan was drawn up with the following steps:

Design a referral triage guide for reference of clerical staff Training to clerical staff on use of triage guide Contact therapist for quick enquiry of clerical staff
Inform staff about new registration mechanism for leaving the referral for therapist to issue appointment next day A Failure mode and effect analysis and a control plan was drawn up to monitor newly developed improvement plan and the future process performance.

Result

A new registration procedure was established for new medical referral registration, a triage guide is present for clerical staff to assist in referral triage when therapists are not present, and a control plan is present for monitoring of the process. Significant difference is found in the waiting time before and after the improvement plan was implemented with $p < 0.01$. The average waiting time for registration of a new medical referral has reduced from 16.45 minutes to 1.76 minutes, which is a reduction of 89.33%. In conclusion, the six sigma process is a powerful tool to lead an organization to stronger performance standards and has helped to reduce the referral registration time in Occupational Therapy Out-patient Department.