

Going Lean: Enhancing Efficiency of Physical Therapy in the Acute Care Environment

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Going Lean: Enhancing Efficiency of Physical Therapy Services in the Acute Care Environment

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Unique

Hospitals throughout the world are increasingly committing to and implementing quality improvement systems focusing on utilization of Lean principles developed by the Toyota Production Company. An academic, community Magnet health network committed to a formal approach of Lean methods they term the “System for Partners in Performance Improvement” (SPPI). The implicit goal is to use new knowledge and innovations to deliver the highest quality care. More specifically, SPPI utilizes Rapid Improvement Events (RIEs) to eliminate waste and repetition to operate at maximum efficiency.

The Physical Therapist in acute care encounters many obstacles in the flow of their work day, inclusive of patient availability; appropriate physician activity orders; equipment and space availability at the bedside; patient needs outside of standard physical therapy interventions; interruptions by other care givers and medical professionals; and documentation standard requirements.

The Physical Therapy Department in the presenting network sought to overcome these challenges, as well as prevent the consequences of prolonged bedrest, and improve the efficiency of the work flow for Physical Therapists utilizing Lean methodologies.

Purpose

The purposes of this project were to:

- 1) Educate clinicians on the appropriate utilization of Physical Therapy services
- 2) Provide 100% availability of equipment and tools necessary for the delivery of patient care services
- 3) Educate identified nursing units to assure functional assessment and progression of mobility for those patients who do not require skilled Physical Therapy intervention.

Foundation

The presenting network has utilized decentralized Physical Therapy services for nearly 20 years, assuring that patient care is provided solely at the patients’ bedside. The role of the Physical Therapist in this environment is impacted by the demands of health care to decrease costs, decrease length of stay, predict functional recovery, document functional outcomes, and plan discharge disposition. Decentralization also has a great impact on accessibility of equipment and tools necessary to provide care and effectively document in the electronic medical record.

Description

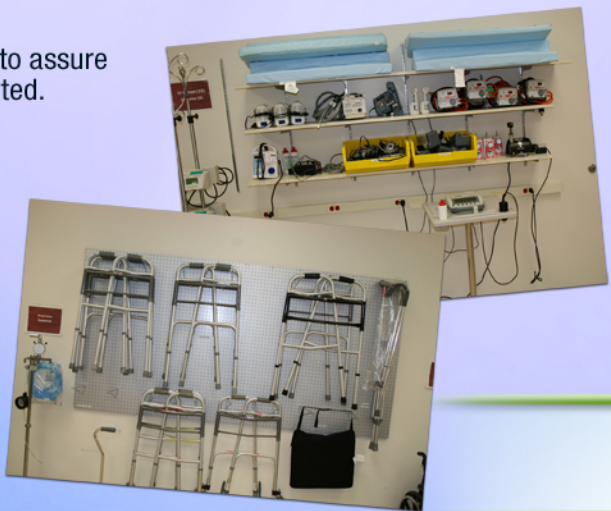
This presentation will detail the RIE process, implementation, and associated empirical outcomes intended to streamline Physical Therapy at the bedside throughout the presenting organization. The RIE occurred over a consecutive four day period. Participants included Physical Therapists directly involved in the process, as well as other key individuals such as staff nurses and a team leader trained in Lean techniques. Over the four days, participants thoroughly evaluated the current state and mapped out and rapid tested new and better ways to work.

Inherent in redesign is utilization of the “6-S Check-List”: Sort; Set in Order to Flow; Scrub; Safety; Standardize; and, Sustain. Solutions suggested for these challenges resulted in the execution of rapid experiments and baseline data collection on a pilot unit. These experiments included:

- Medical staff education on appropriate Physical Therapy consultation criteria;
- “6sing” (organizing) unit equipment rooms to provide readily accessible Physical Therapy equipment;
- Laptops for the therapists on the unit to ease documentation in the electronic medical record; and
- Continuing education with identified nursing units to assure mobility occurred and was appropriately documented.

Data collected included:

- 1) the percentage of patients consulted for PT who had an activity order, were mobilized per the order, and received appropriate documentation in the electronic medical record;
- 2) the percentage of appropriate Physical Therapy consults; and
- 3) the Physical Therapy productivity documented in hours/visit.

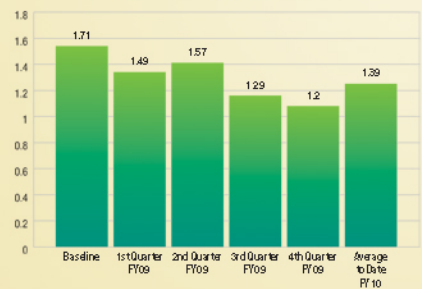


Observations

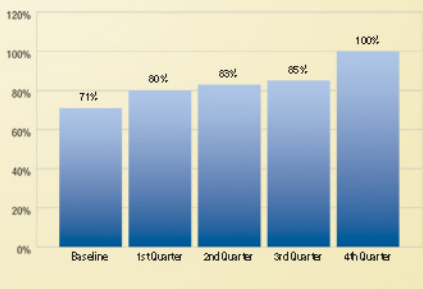
This process improvement project effectively achieved goals as follows:

- The percentage of inappropriate consults on the pilot unit fell from 28.8% to 0%;
- Percentage of patients who received an activity order increased from 50% to 100%;
- Patients who were mobilized according to the physician orders increased from 67% to 100%.
- Productivity of the Physical Therapist at the bedside improved from 1.71 hours per visit to 1.2 hours per visit.
- In addition, Physical Therapy staff reported improved satisfaction on this pilot unit.

Physical Therapy Hours Per Visit



Appropriate Physical Therapy Consults



Conclusions

The implementation of Lean principles requires commitment and support by management in all service lines throughout the organization. The success of these performance improvement processes on the pilot unit have resulted in expanding, or ‘feed forwarding’, to seven other units within the presenting network. Take home learnings will be of interest to attendees who desire to explore and implement Lean process improvement methods to promote exemplary professional practice in any setting.