ABSTRACT

Reducing Length and Variability of Patient Wait Times (PWT) in Patient Service Centres

INTRODUCTION

CLN – 5 to 30 min

METHODS AND MATERIALS

MEASURE PHASE – Gather current process information

RESULTS

IMPROVE PHASE – Create experiment and recommend changes

CONCLUSION

REFERENCES

DEFINITION PHASE – Define and validate problem; verify customer requirements: create objective, scope, metrics, team

ANALYZE PHASE – Evaluate data and determine significant root causes

IMPACT PHASE – Implement change: optimize and reduce control and monitor handoff to process owner

DECREASE PHASE – Outline next phase of analysis

Figure 3. Time series graph

Figure 2. Flowchart A

Figure 1. Flowchart B

Figure 4. Flowchart C

Figure 5. Averseness of the Six Sigma Master Black Belt, was utilized to apply an integrated approach to Lean and Six Sigma tools. A team composed of a Lean Six Sigma Black Belt, a PSC Supervisor and four PSC frontline staff followed DMAIC methodology and Lean principles to improve process performance.

The initial project occurred at one pilot location with planning for best practice rollout to the other 17 sites scheduled to occur after the trial at the pilot site.

The team summarized two points as follows: Graphical and statistical analyses of the first two opportunities did not produce conclusive evidence of impact on Patient Arrival to Draw Complete cycle time. The last 3 areas of opportunity included: waste/flow/room issues and patient waiting/room control of which did not lend very well to data collection. As a result of these conclusions a Failure Modes and Effects Analysis (FMEA) was completed to help assess risk to the customer of any of the key process inputs derived from the C&E Matrix.

The FMEA allowed focus on areas where the potential to produce the largest impact on PWT during the ImprovePhase. The FMEA also captured potential root causes and allowed the team to assess the new process' ability to reduce the risk observed at baseline.

Data indicated that front end processes (Arrival to Order Entry) were the largest contributor to extended PWT and variability. See Figure 3.

The pilot project began for roll out to all 17 remaining sites. New LIS implementation occurred during August 2009.

Through Lean tools such as process flow diagrams, Fishbone analysis and Mistake Proofing of data entry processes post new LIS implementation, improved performance was demonstrated clearly in the pre and post fitted target for Patient Wait Time (PWT) from 'Arrival at PSC to Collection of specimen' is 80% of patients seen in 30 minutes.

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Although there was some resistance to change at the beginning of the pilot, staff who enthusiastically agreed not to revert to the previous process and planing was essential for a successful implementation.

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