Patient-Centric Improvement Project: Streamlining Workflow Processes to Improve Efficiency in Ultrasound-Guided Procedures

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In a collaborative effort between the Departments of Radiology and Nursing, a multidisciplinary group of front-line staff sought to identify existing inefficiencies in our ultrasound procedure practice from the patient’s perspective.

Following the Six Sigma DMAIC (Define-Measure-Analyze-Improve-Control) methodology, the group set out to implement changes aimed at improving workflow processes to increase efficiency.

As a result of the initial analysis, three objectives were identified:
1. Unify all outpatient procedure workflows
2. Reduce the overall procedure lead time by 20%
3. Improve the morning on-time procedure start rate to 30%

Define (continued)

Communication Plan: GLOM-orUS

Affinity Diagram

Project Closure Report

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Lessons learned

1. A thorough, well-planned and organized approach to the “Define” and “Analysis” phases is essential to the project success.
2. Defining metrics, targets and documenting data collection methods are instrumental.
3. Managing change can be very challenging and can potentially derail a project.
   a. Anticipating barriers and proactively responding to concerns
   b. Counterbalancing measures
   c. Effective communication
d. Problem solving and trial redesign was critical.

Conclusions

The 11-month, interdepartmental, collaborative, quality improvement effort using the DMAIC framework was successful in improving the department’s efficiency by reducing unnecessary redundancies, decreasing delays and streamlining workflow processes. We succeeded in meeting our objectives of unifying the outpatient procedure workflows, reducing the total lead time for all procedures and improving the morning procedure on-time start rate.