Improvement of Outpatient Infusion Suite Workflow Using the Lean Concepts
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Problem:
The infusion suite is a high-risk, high-volume ambulatory clinical care setting where safety and reliability are essential for patients to receive their chemotherapy treatments. Nursing staff was experiencing increases in overtime, staff fatigue, lack of restful breaks, and irregular workflow, which contributed to a decrease in staff satisfaction. These factors potentially contribute to an increase risk to patient safety.

Evidence:
Baseline data collected using video observations, staff and patient surveys, and expert consultation revealed inefficient workflows and decreased satisfaction. Variability in patient timeliness and acuity for daily treatments resulted in uneven loading of patient assignments and excessive patient waits for nursing care.

Strategy:
An interdisciplinary team comprised of nursing, physicians, quality improvement specialists, and operational leaders was formed and introduced to “Lean” concepts. Opportunities for improvement were identified, and a pilot plan was implemented with a small group of early adopters.

Practice Change:
A revised nurse assignment model was developed which consisted of assigning patients to nurses on a rotational basis as the patients arrived. In this way the assignments were level-loaded (spread demand over time and staff) and preparation for patient care occurred just-in-time.

Evaluation:
The indicators selected to demonstrate improved workflow included: time between receiving patients; lunch breaks and overtime of nursing staff; and patient and staff satisfaction.

Results:
The infusion suite has achieved level loading of patient assignments to staff resulting in improved workflow, a significant decrease in overtime, and facilitation of lunch breaks.

Recommendations:
Staff involvement and leadership support has been the critical reason for success. Staff is empowered through participation, and given the opportunity, support and resources to research, develop, and understand the need for change, better compliance is achieved.
Lessons Learned:
In order to achieve successful change, it is critical to include front line staff and support them in collecting and sharing data; and conducting the research to support evidence-based change.

Bibliography:

Dartmouth-Hitchcock Value Institute Intermediate Level Training