Infusion Center & Cancer Clinic Baseline:

WHAT WE DID

1

Site Visit at
Dana-Farber
Cancer Institute

10

Days of
Observations

3

Patient Interviews
Completed (VOC)

28

Subject Matter
Experts Interviewed

2

Week Long Time
Study

5

Data Sources
Used

CHAIR UTILIZATION BASELINE

Data collected by way of a Time Study in the Infusion Center every hour for 6/23/2020 to 7/2/2020 for a daily average of 31 patients

Infusion Center & Cancer Kaizen Outcomes:

Patient Flow Team:

Linked-Visits:

Pharmacy Team:

Abstract 2 Figure 3

of cancer patients(ASC-CAN 2020). Patient care & access delays impact clinical outcomes, patient satisfaction & revenue.

Objectives Baseline data from TMC Infusion Center demonstrated only 78–81% chair utilization between 11am–1pm, chair-waste time averaging 95 min & patient wait times averaging 101–126 min for linked provider-infusion visits(n=36). Objectives include decreasing patient wait times & improving throughput by 10%.

Methods Lean, Six-Sigma & IHI Model for Improvement methodologies were utilized to analyze current state & implement change strategies through a 3-phase Kaizen (figure 1). Phase 1 - Qualitative & quantitative tools, value-stream-map & driver-diagram (figure 2), were used to review current state & root causes with a subject matter expert multidisciplinary team. Three areas of opportunities were identified: patient flow between Infusion Center & Cancer Clinic, premixing drugs & lab turnaround time. Phase 2 - 4-hour Kaizen with 3 teams to root-cause analyze, design & simulate solutions. Phase 3 - Utilized Plan-Do-Study-Act methodologies to test solutions & gathered data outcomes for 30-days.

Results The patient flow team redesigned check-in/out & optimized waiting room space; resulted in 40%(n=16) wait time reduction, 53%(n=16) wasted chair time reduction, & created a one-directional flow to improve social distancing. The pharmacy team developed a drug premixing protocol based on

type, longevity & cost. They also established a nursing-pharmacy huddle to review scheduled patients. This resulted in 16%(n=496) increase of drugs processed under 1-hour. The lab team used visual cues to standardize delivery of lab samples & improve lab result turnaround time (figure 3).

Conclusions Kaizen & PDSA methodologies proved effective & led to positive efficiency & patient satisfaction outcomes. Leadership & executive support were crucial for change management. Next steps include continuous monitoring of interventions to sustain processes & scheduling optimization.

3

VALUE IMPROVEMENT METHODS ACROSS A HEALTHCARE SYSTEM DEMONSTRATING RAPID RESULTS AND INNOVATIVE EMERGENCE OF PRACTICAL EVIDENCE OF IMPROVEMENT

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10.1136/bmjopen-2020-IHI.3

Background In the era of value-based health care, providers are increasingly focused on delivering greater value to improve quality and reduce cost. Value Improvement provides the tools and techniques to empower frontline teams to achieve

Value Improvement methods across a healthcare system demonstrating rapid results and innovative emergence of practical evidence of improvement

Abstract 3 Figure 1

Outcomes

Abstract 3 Figure 2

Abstract 3 Figure 3

24% reduction in cost of consumables

Abstract 3 Figure 4

33% increase in compliance to oral hygiene

Abstract 3 Figure 5

50% improvement in the good quality of phone calls from nurses to physicians

7% decrease in cost of consumables

Abstract 3 Figure 6

24% decrease in rejected samples

Abstract 3 Figure 7

transformational outcomes in harm reduction, utilization of resource and improved team culture.

Objectives Apply Macro to Meso-system approach to Value Improvement to achieve national system wide strategic objectives. Apply Value Improvement methods to apply innovative approaches to build new evidence to reduce waste, harm and cost whilst improving multi-disciplinary team work and joy in work. Learn how to successfully scale up and spread value Improvement across a health system (figure 1).

Methods Value improvement focuses on improving performance, capacity & finance measures by achieving reliable care delivery eg early discharge, reduced rejected samples, reduction in falls, reduction in waste and consumable costs, whilst increasing joy in work. It has 3 components: Box Score, Visual Management Board and Weekly Multi-Disciplinary 15 minute Huddles. It was initially piloted, evaluated, spread to 2/6 units and 35 teams across the healthcare system. The audience would apply some inter- active learning to understand all key concepts and how to apply in their own setting

Results 24% decrease in rejected samples. Patient discharge before 1 pm reached 90% & sustained. 24% reduction in cost of consumables (figures 4, and 6). Improve theatre utilization to 80% (figure 7) and sustaining. 36% reduction in average waiting time in recovery (figures 2, 3, and 5).

Conclusions The Value Improvement approach offers a systematic method for continuously improving and innovating on a daily/weekly basis to achieve demonstrable results. This changes team culture as the team work to improve multiple projects to meet the needs of our patients, family and staff. By focusing attention and reporting out each week numerous improved measures created a way to engage staff in continuous innovation and improvement.

4

PROVIDING THE OPTIMAL RESIDENT EDUCATION EXPERIENCE DURING FAMILY CENTERED ROUNDS

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10.1136/bmjopen-2020-011114

Background Family Centered Rounds (FCR) allow the medical team to partner with patients and families in medical decision-making, improving patient communication and safety. Our children's hospital recently increased FCR utilization by implementing geographic-based teams. A balancing measure demonstrated that while the majority of respondents agreed that FCR provided the best patient care, only 20% felt FCR provided the best educational experience.

Objectives Increase the percentage of residents with a positive perception of the educational experience on FCR from 20% to 80% in 6 months.

Methods The Model for Improvement and sequential PDSA cycles were utilized. A needs assessment was conducted to identify barriers to education (figure 1). The FCR process was standardized to include formal presentations outside patient rooms, addressing several educational experiences previously reported as being negatively impacted by FCR. Rounding duration and the percentage of patients receiving FCR were measured daily, while monthly surveys tracked resident perception of the educational experience. Family satisfaction and comprehension surveys were collected quarterly.

Results Residents who perceive FCR as a positive educational experience improved from 20% to 75% (N=8, 6) (figure 2). Patients receiving FCR remained above 80% (N=267, 178, 209). 100% (N=14) of families understood their care plans