Oral presentations

1 DECREASING TIME TO GOAL ENTERAL FEEDS IN CHILDREN WITH MEDICAL COMPLEXITY WITH FEEDING INTOLERANCE

Abigail Musial, Owen Densel, Conor Merritt, Lacey Yeager, Angela Younts, Jodi Kelley, James Rudloff, Lori Herbst, Angela Statile, Amanda Schondelmeyer. *Cincinnati Children's Hospital Medical Center, USA*

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Background One third of children with medical complexity (CMC) fed by gastrojejunostomy (GJ) or gastrostomy tube (GT) admitted to our institution experience feeding intolerance, or inability to achieve target enteral intake combined with symptoms of gastrointestinal dysfunction or underlying illness. Despite its prevalence, feeding intolerance management is variable and can lead to delayed achievement of goal nutrition and unnecessarily long hospital stays.

Objectives Decrease median time from enteral feed initiation to goal feeds from 3.5 days to 2.5 days in CMC fed via GJ or GT admitted for feeding intolerance.

Methods A multi-disciplinary team of nurses, nurse practitioners, pediatric residents, hospitalist and gastroenterology physicians, parents, and a dietitian conducted this local quality improvement project. Key drivers included: standardized approach to feeding intolerance management, consistent assessment of parental feeding goals, high provider buy-in, timely and accurate bedside formula delivery, and clear communication of the feeding plan. Plan-do-study-act cycles included

formulation and implementation of a feeding intolerance management algorithm, provider education and reminders to use the new algorithm, and provider feedback emails. A run chart tracked the effect of interventions on median time to goal enteral feeds and followed established run chart rules for special cause for analysis. Length of stay was measured pre and post intervention.

Results Median time to goal enteral feeds for CMC fed via GJ or GT decreased from 3.5 days to 2 days (figure 1). There was no change in length of stay.

Conclusions Through creation and implementation of an algorithm to standardize feeding intolerance management for hospitalized CMC, we decreased time to goal enteral feeds but did not change length of stay. Future work will include incorporating the algorithm into electronic health record order sets and studying the impact of the algorithm on patient nutritional outcomes.

2 IMPROVING EFFICIENCY & THROUGHPUT IN THE CANCER CENTER AT TUFTS MEDICAL CENTER FOR LINKED CLINIC AND INFUSION VISITS

Leidy Guzman, Aliya Rajwani, Julie Sherman. *Tufts Medical Center, USA*

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Background The COVID-19 pandemic created new social-distancing guidelines, which exacerbated existing patient access issues at Tufts Medical Center Cancer Center. A recent survey showed treatment delays associated with COVID-19 in 27%

Abstract 1 Figure 1

Abstract 2 Figure 1

Abstract 2 Figure 2

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

¹Raana Siddiqui, ¹Naseer Al Naimi, ¹Reham NEGE Hassan, ²Maryanne Gillies. ¹Hamad Medical Corporation, Qatar; ²Institute for Healthcare Improvement, Qatar

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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