Percent of DKA Patients with an Episode of Blood Glucose < 100 P Chart

Abstract 30 Figure 1 Percent of DKA patients with an episode of blood glucose <100 P chart

rates. All outcomes were analyzed on statistical process control charts.

Results From January 2017 through August 2019, 334 patients had confirmed DKA (bicarbonate level <15) and received IV insulin therapy in the ED or on the acute care unit. Following our interventions, the number of patients experiencing a low blood glucose level improved from 53% to 42% (figure 1). Order panel utilization rate remained at 96%. There was no change in our balancing measures.

Conclusions Use of QI methodology and standardized DKA management resulted in a meaningful reduction in the number of patients with a BG<100 mg/dL episode while on IV insulin.

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REDUCING VARIABILITY IN DISCHARGE COMMUNICATION REDUCES ADMINISTRATIVE BURDEN

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10.1136/bmj-2019-ih1.31

Background Streamlined discharge communication in transitions of care improvement models improve patient satisfaction, improve patient self-efficacy, and reduce readmissions. Yet, significant variability and quality exists in the After Visit Summary (AVS) which is used to guide the post-discharge needs of the patient.

Objectives We sought assess the feasibility, fidelity, acceptability, and effectiveness of a standardized, patient-centered AVS.

Methods Our multiprofessional and multidisciplinary stakeholder team was led by two physicians and had significant institutional support. We employed a tailored, hybrid

implementation strategy, blending components from Lean methodology, the Institute for Healthcare Model for Improvement, and the Consolidated Framework for Implementation Research. We assessed the feasibility (e.g. quality of AVS, usability of template), fidelity (e.g. template utilization rates), acceptability (e.g. direct stakeholder feedback, paging-system audit, patient call logs), and effectiveness (e.g. 30-day readmission rates and patient-centeredness) of our intervention (e.g. standardized, patient-centered AVS).

Results Our AVS template was written at a third grade reading level but retained all clinically-relevant information. Providers and patients approved of the template with 66% mean utilization (range 41% to 80%). After our intervention, we observed decreased 30-day readmissions (19.7% to 16.0%). Notably, after the introduction of AVS template, pages sent decreased by 3.67 pages weekly (95% CI=[-15.7, 14.0]), but this estimate was imprecise.

Conclusions Reducing variability and improving the quality of discharge communication, not only improves patient outcomes, but may also improve workflow for providers. These improved team dynamics are important to assess when considering an intervention that is operationalized by time and resource deprived employees.

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THE 4 MS STRATEGY TO FALL PREVENTION

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Background Despite the fact that many organizations have implemented fall risk scales to identify patients at risk, fall

Abstract 32 Figure 1

UTMC Multidisciplinary Fall Prevention New guidelines April 2016

Abstract 32 Figure 2

Abstract 32 Figure 3

RISK for fall, Remember the 4 M's...	Morse fall scale	Medication fall risk	Mental status questionnaire	Mobility
High	Score greater than 45	Greater than a score of 6	8-10 errors (severe cognitive impairment)	Zone 1 and 2
Moderate	Score 25-45		5-7 errors (moderate cognitive impairment)	Zone 3 and 4
Low	Score less than 25		0-4 errors (mild cognitive impairment to normal mental functioning)	Zone 5 and 6

Abstract 32 Figure 4

management continues to challenge healthcare providers. In 2015, we noticed the Morse scale alone was an inadequate tool to fully assess a patient's fall risk and began an intensive examination of our fall prevention protocol.

Objectives Our initial aim was to assess any inadequacies in our fall prevention policies or guidelines. Subsequently, we wanted to identify and establish interventions that were effective at preventing patient falls, especially among high fall risk patients.

Methods We selected Lean Six Sigma as our robust quality improvement (QI) methodology to conduct a detailed systems-based investigation. More specifically, we utilized fishbone diagrams, value stream maps, Pareto charts, flowcharts, control charts, and the 5 Whys throughout the study. Based on our findings, our team developed the 4 M strategy that promotes a multidisciplinary approach in the individualized and comprehensive assessment of a patient's Morse score, mental status, mobility, and medications. Furthermore, we periodically

evaluated our fall rates and analyzed our patient safety reporting to adjust the guidelines using additional quantitative methods.

Results Over the past 3 years, continuous monitoring of monthly falls demonstrated a 40% reduction within the acute care population after implementation of the revised fall risk protocol.

Conclusions Our strategy towards investigating the problem and devising data-driven solutions with robust QI tools was further facilitated through working with different disciplines, such as nursing, pharmacy, rehabilitation services, resident physicians, information technology, and health systems science specialists.