Quality Improvement: Achieving Zero HAIs for over 365 Days

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Purpose
In a 76-bed acute care hospital offering inpatient and outpatient services, a 31-bed emergency department, diagnostic imaging and cardiac catheterization, we have established a commitment of zero harm through executive leadership support, strategic initiatives, and continuous quality improvement. An opportunity was identified in 2021 to reduce the amount of Hospital Acquired Infections (HAI). In 2021 the hospital had 11 HAIs.

Relevance of Significance
The Centers for Medicare and Medicaid Services (CMS) Hospital Inpatient Quality Reporting Program requires reporting of colon and abdominal hysterectomy surgical site infections (SSIs), central line–associated bloodstream infections (CLABSIs), methicillin-resistant Staphylococcus aureus (MRSA) bacteremia, catheter-associated urinary tract infections (CAUTIs), and Clostridioides difficile infections (CDIs). The results of these report are analyzed to develop hospital benchmarks [3]. Throughout the COVID-19 pandemic hospitals did see an increase in HAI rates [1]. In order to decrease HAIs healthcare systems need to focus efforts around appropriate infection prevention training and education [2].

In 2020, the organization did not have any HAIs. 2019 Q3 through 2021 Q1, the organization did not have any events of CLABSIs. In 2021 Q2 & Q3 there were five CLABSIs. In 2020, the organization had zero CAUTIs. In 2021, the organization had two CAUTIs during the Q3 & Q4. In 2020 Q4, the organization achieved zero CDI cases. In 2021 Q1, the organization had three accounts of CDIs. In 2020 Q2, the organization had 1 SSI. In 2022 Q1, there was one SSI.

In the Medical Surgical & Orthopedics service lines there were zero HAIs in 2020. In Q1 2021 the units had 2 events of CDI. In Q2 2021, the units had two CLABSI events. In Q3 2021, the service line had one CAUTI. Across the facility there was an opportunity to enhance patient safety and the quality of care provided to patients.

Strategy & Implementation
In 2021, new leaders were on boarded to the organization including the Director of Quality, Director of Med/Surg, Manager of Med/Surg, and four Clinical Nurse Coordinators. The Director and Manager of Med/Surg utilized the transformational leadership elements to improve patient experience, employee engagement, quality and safety.

Exhibiting the four factors of transformation leadership: inspiration motivation, idealized influence, intellectual stimulation and individualized consideration fostered a positive employee experience and enhance unit quality metrics. Through inspirational motivation a sense of purpose and challenge for the nursing staff allowed for buy-in to the quality improvement initiatives. Intellectual stimulation consisted of focus on solutions rather than highlighting problems and implementing new practices. Practicing what you preach is how the service line implemented the element of idealized influence. Nurse leaders conducting audits and rounding on patients and staff showed the staff the leaders prioritized quality improvement and would perform duties they are asking of others. Staff were supported through idealized function to provide rewards for innovation and creativity.

A quality improvement plan, incorporating evidence-based practice tools and strategies, was established to create a culture of safety and commitment to zero harm. In Q2 2021, the unit leaders implemented a daily review of devices for necessity. Lines are reviewed in each unit prior to the morning daily hospital leadership meeting and reassessed at the daily afternoon leadership meeting. In Q3, 2021 implementation of daily review of MRSA screening order, MRSA decolonization orders and daily review of CHG bathing compliance. In Q4 2021, staff received HAI prevention education and leaders began data collection and frequent discussions around device bundle compliance. In Q4 2021, each unit began to utilize a publically posted quality dashboard. In Q1 2022, directors, managers and clinical nurse coordinator partnered together to implement a new hand hygiene auditing process to monitor compliance. In Q2 2022, escalation pathways were implemented for C. Diff, blood cultures and urine cultures. In Q3 2022, report optimization of MRSA reduction including CHG bathing, mupirocin ordering, and hand hygiene compliance. Additionally in Q3 2022, the organization implemented the use of antimicrobial barrier caps for hemodialysis catheters.
Evaluation and Outcomes
Through data evaluation, education, collaboration and accountability the medical-surgical service line was able to achieve over one year of no healthcare acquired infections. Our dedication to patient safety has impacted our patient experience. We have achieved a 10% increase in our patient experience and increase our percentile rank by over 40 points. Our employee engagement has maintained above 75% over the last year.

References
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