UNITY HOSPITAL: UTILIZING MEDLINE’S ERASE CAUTI® PROGRAM TO REDUCE HOSPITAL-ACQUIRED INFECTIONS IN THE DELIVERY OF SAFE, QUALITY CARE

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Quality Improvement Goal
Unity Hospital continuously monitors for hospital-acquired infections (HAI’s), including catheter-associated urinary tract infections (CAUTI). Through data monitoring of infection markers, Unity Health System has identified areas for improvement to reduce urine Nosocomial Infection Markers (NIMs), and reduce the number of CAUTIs to enhance outcomes. Opportunities identified include: increasing nurse/provider communication/collaboration; educating nurses regarding best practice techniques for catheter insertion; empowering nurses to actively evaluate clinical indications or need for catheter insertion, along with early Foley discontinuation; and reinforcing patient education. By focusing on these initiatives, Unity Health System is able to provide safe, quality care and reduce the risk of HAI’s. The reduction of urine NIMs not only enhances patient outcomes but also promotes organizational efficiency. With the implementation of the Value Based Purchasing (VBP) program by Centers for Medicare & Medicaid Services (CMS), reimbursement is directly linked to quality outcomes and efficiency. Many organizations, including Unity Health System, continue to strive for best quality and care outcomes.

Facility Demographics
Unity Hospital is a 340-bed, nonprofit hospital. It is accredited by The Joint Commission, and the hospital’s intensive care unit ranks in the Top 100 in the United States. In 2009 Unity Hospital had 14,687 discharges and a total of 147,265 patient days.

Unity Health System offers a wide range of services including:
• Emergency center
• Endoscopy unit
• Family birth place
• Intensive care unit
• Joint replacement center
• Spine center with pain management
• Residency program
• Stroke center
• Surgical center
• Vascular center

Unity Hospital strives to offer the latest advancements in treatment while giving the personal attention patients expect and deserve from a community health system. Not only are the physicians able to provide high quality medical services, clinical staff also provides compassionate care to make the patient feel as comfortable as possible.

The Challenge
Unity closely monitors HAI’s, including catheter-associated urinary tract infections (CAUTI). Through data monitoring of infection markers, Unity Health System has identified areas for improvement to reduce urine Nosocomial Infection Markers (NIMs), and reduce the number of CAUTIs to enhance outcomes. Opportunities identified include: increasing nurse/provider communication/collaboration; educating nurses regarding best practice techniques for catheter insertion; empowering nurses to actively evaluate clinical indications or need for catheter insertion, along with early Foley discontinuation; and reinforcing patient education. By focusing on these initiatives, Unity Health System is able to provide safe, quality care and reduce the risk of HAI’s. The reduction of urine NIMs not only enhances patient outcomes but also promotes organizational efficiency. With the implementation of the Value Based Purchasing (VBP) program by Centers for Medicare & Medicaid Services (CMS), reimbursement is directly linked to quality outcomes and efficiency. Many organizations, including Unity Health System, continue to strive for best quality and care outcomes.
tract infections (CAUTI). Instances in which a CAUTI developed, data was evaluated to determine the cause of the infection. While examining the cause of the infection in retrospect was valuable, a more proactive approach in infection prevention was imperative. It was essential to raise awareness of CAUTI and the significance of HAI’s within the facility, but more importantly the outcomes these have on our patients.

Throughout this process, we identified gaps in standardization and knowledge regarding the proper insertion technique and clinical indications of a Foley catheter. The decision to insert a Foley involves collaboration between medical and nursing staff; however, nurses must possess a sense a responsibility for ensuring the appropriate clinical decision. In addition, the nurses sought to feel more empowered to monitor a patient’s ongoing need for a Foley, ensuring its timely removal.

Inconsistencies were observed in the technique nurses used to insert Foley catheters. This was due to:

1. Variance in how nurses were initially taught the procedure;
2. Differing protocols at previous facilities where nurses have practiced;
3. Different types of Foley trays nurses have used in the past.

Given these challenges, Unity Hospital established the following new goals:

• Raise awareness of CAUTI prevention;
• Reduce catheter utilization;
• Provide clinical education for proper Foley insertion techniques;
• Enhance patient education;
• Reduce urine NIMs and overall CAUTI rate.

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The Solution
Medline’s ERASE CAUTI Foley catheter management program was introduced to Unity Hospital in April, 2010. The ERASE CAUTI program ties education, nursing power and industry product to promote best processes and decrease the opportunity for a CAUTI to develop.

The Medline program offered the tools to reduce the inconsistencies identified.

1. The one-layer tray presents the procedure components in an intuitive manner, guiding the nurse through the procedure from left to right. It is also more efficient to handle all the components in one layer, making it easier to maintain aseptic technique. The one layer tray is a neatly packaged clinical solution, not just a supply solution.

2. The accompanying education program is provided online through the e-learning site, Medline University. The education encompasses a video overview, three learning modules, and an interactive competency that the clinician uses to demonstrate knowledge of proper foley insertion.

3. Awareness tools are also included in the program to communicate program goals engaging the nurses in the education process, and to encourage the participation in the facility-wide effort to reduce CAUTI.

4. The patient education card resembles a greeting card, which every nurse reviews with their patients before insertion. This allows the patients to become an active participant in their care. The card, included in the tray, helps to bridge the knowledge gap for patients caring for their catheter once it is in place.

Awareness tools, education, and the tray design all emphasize evidence-based techniques that standardize practices for Foley catheters. The checklist on the front of the tray also serves as a useful tool that guides nurse’s practice when a Foley insertion is necessary.

Execution
After learning more about the program and demonstrating its capabilities to a group of staff
members and nurse leaders, Unity Hospital decided to trial the program in June 2010.

Step 1 - Process Improvement Plan
The organization’s first step was to create an overall process improvement plan. Team leaders, staff champions, directors and the Infection Prevention team collaborated to draft the plan. Meetings were held to discuss all components of the program including: steps of implementation, necessary tasks to complete, delegation of tasks, and the estimated date of completion for each task. The plan was communicated to all staff involved in the project and updated to reflect the current status of each step.

Step 2 - Education
The team worked to educate the end user clinical staff regarding the ERASE CAUTI program by utilizing the tools available on Medline’s e-learning site: Medline University. The program was rolled out to nurses and the education classes were conducted for two weeks. These online modules have since been added to clinical orientation as a mandatory core competency for new nursing staff. To date, over 500 nurses have completed the education classes online.

It’s essential to note that because the education is web-based, it was critical to evaluate the technical standards of the work station computers, as well as the facility network capability. When we experienced initial usability issues, Medline worked with the information technology (IT) department to make adjustments to the facility firewall and other technical concerns.

Step 3 - Trial the Tray
Following the completion of the competency, four units - - (the Emergency Department (ED), the Operating Room (OR), and medical surgical units 2300 and 2400) - - trialed the ERASE CAUTI Foley catheter tray for three weeks. As a supplement to the online education program, Medline support staff was available to demonstrate the components of the tray to all nurses in the participating units. Medline staff was on site throughout the trial process to support clinical staff, ensure communication and documentation of feedback. The outcomes of the trial were monitored and hospital-wide implementation was discussed.

“This decrease in urine NIMs demonstrates safe care delivery and a significant cost-avoidance for Unity Hospital.”

Step 4 - Implementation
Following a successful trial period, the program was rolled out facility-wide to all acute units in August 2010. Medline provided product support staff to assist during distribution and rollout. Educators demonstrated the product design and layout to familiarize the nursing staff with the new product. The mandatory online education and interactive competency taught the indications and alternatives to catheterization, aseptic technique and proper insertion of a Foley catheter, care and maintenance, signs and symptoms of CAUTI and timely removal. Ensuring proper education is a crucial step in the ongoing sustainability and success of the program.

Unity’s Solution for CAUTI Prevention:

- Maintain aseptic technique throughout procedure
- Enhance clinical education
- Implement awareness campaign
- More effectively educate the patient

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Results
Unity Hospital was satisfied with the results experienced within one month of implementing Medline’s ERASE CAUTI program. Data collected from the same time period one year prior to implementation (August 2009) revealed a marked reduction in urine NIMs.

Reduction in urine NIMs:
Unity Hospital uses a data surveillance system to track NIMs. This data collection system increases efficiency for reporting and internal process improvements by prescreening likely causes of HAI's. During the implementation of Medline’s ERASE CAUTI program, the rate of urine NIMs was closely monitored. Compared to the control period of August 2009, Unity Hospital observed a decrease in urine NIMs of 32% in August 2010. The data surveillance provider that Unity utilizes calculates a dollar amount associated with each NIM identified. The associated cost for each urine NIM is $3,637, which demonstrates a significant cost-avoidance based on the reduction in urine NIMs after the ERASE CAUTI Program implementation. This reduction in urine NIMs indicates fewer patients may be at risk for developing a CAUTI. Unity Hospital is very proud to share this demonstration of reduction in urine NIMs.

Reduction in CAUTI:
Although Unity Hospital experienced a very low rate of CAUTI in 2009, after implementing the ERASE CAUTI Program rates continue to trend downward. Because Unity Hospital had few incidences of CAUTI prior to implementation, success has been measured by demonstrating a decrease in NIMs post implementation of this program.

Summary of Clinical Outcomes
Standardization of Foley insertion technique, increased education, nurse/physician communication and collaboration, along with overall awareness of proper indications for use contributed to a 32% decrease in urine NIMs. This decrease in urine NIMs demonstrates safe care delivery and a significant cost-avoidance for Unity Hospital. Achieving these outcomes was possible thanks to Medline University’s online ERASE CAUTI education and competency course that simulates proper insertion technique. The education combined with a single layer tray design that follows the Center for Disease Control (CDC) Guidelines, plus the dedication and commitment to clinical excellence demonstrated by the clinical care team at Unity has made this initiative a success.

As a result, Unity has improved the standard of care for patients receiving a Foley catheter and has reduced the risk of CAUTI. Through continued use of the online education program for new clinical nurses, enhanced patient education and sustained use of the ERASE CAUTI tray, Unity anticipates continued clinical excellence and safe patient care delivery to better serve our community and our patients.

ABOUT THE AUTHOR
Erica Perez is the Clinical Educator at Unity Hospital in Rochester, New York. In this position, Erica has the responsibility of overseeing clinical education in the acute inpatient areas, developing and delivering inservices on new products, communicating updates of hospital policy and procedures and serves as the Infection Control liaison. Erica brings 18 years of nursing experience to this position with a specialty in Emergency Medicine and serves as a member of the New York State Emergency Nurses Association Genesee Valley Chapter. Serving the past roles of CNA, LPN, RN and BSN throughout her career allows Erica to effectively implement education programs while remaining sensitive to the participation of all roles in nursing practice. Most recently Erica has earned her Masters of Science in Nursing from Roberts Wesleyan College.