



Catheter-Associated Urinary Tract Infection Prevention Initiative on a Progressive Care Unit

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Abstract

Background: Urinary tract infections (UTIs) are the most common nosocomial infection, accounting for up to 40% of infections reported by acute care hospitals. Up to 80% of UTIs are associated with the presence of an indwelling urinary catheter. Twenty-five percent of inpatients and up to 90% of patients in an Intensive Care Unit (ICU) have a urinary catheter during hospitalization, often without an appropriate indication and care and maintenance of existing Foley catheters. Complications associated with Catheter-Associated Urinary Tract Infection (CAUTI) cause discomfort to the patient, prolonged hospital stay, and increased cost and mortality. It has been estimated that each year more than 13000 deaths are associated with UTIs. In the fourth quarter of 2013, the Progressive Care Unit (PCU), Mayo Clinic, Jacksonville, had three CAUTIs, which is above the national benchmark of 1.80.

Objective: To eliminate CAUTI on the Progressive Care Unit.

Methods: The CAUTI Prevention Workgroup developed and implemented the following interventions:

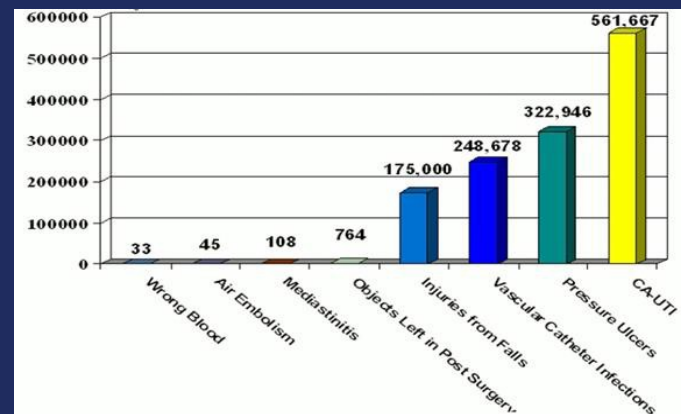
- Education to all staff involved in bedside patient care. The education involved a 1-hour presentation discussing the risk factors and complications of CAUTI, indications for insertion and continued use, and implementation of evidence-based practice to prevent CAUTI.
- Developed and implemented use of CAUTI prevention form.
- Created informational poster that supplemented the presentation.
- Weekly audits by workgroup to monitor staff compliance with CAUTI prevention protocol and use of CAUTI prevention form.

Results: Measurement of the CAUTI rate in 2014 showed a zero rate for the entire year. With ongoing implementation, we have maintained a zero rate as reflected in our data from January to October, 2015. Our Sample size for year 2013 was 540 Foley Days and the sample size for year 2014 was 1,520 Foley days.

Conclusions: The CAUTI prevention project showed successful outcomes. The CAUTI prevention protocol is unique to the Progressive Care Unit and has been proven effective. Implementation of this protocol in other high risk areas is highly recommended. We found a 95% compliance with the utilization of the CAUTI prevention form. Weekly audits have been deemed necessary to ensure compliance of protocol. Given the large impact we achieved on our CAUTI rates, the interventions listed above were implemented as routine processes in the PCU. The lessons learned included the importance of using a collaborative process involving providers, nurses, physical therapists, and nurses' aides to understand the problem, potential causes as well as to design and implement the interventions.

Prevalence

CAUTI is the most preventable healthcare acquired infection (HAI), but yet the most prevalent HAI seen in the United States (CDC, 2015)



Protocol

- Perform Foley care every 8 hours and PRN
 - Use liquid soap and water
 - Avoid the use of bar soap, basin, and wipes
- RN to assess necessity of the indwelling Foley catheter.
- RN to review order and collaborate with provider if Foley catheter is still deemed appropriate for continued use.
- Maintain the following interventions:
 - Hand Hygiene
 - Check for kinks in the catheter and tubing
 - Ensure Foley is properly secured
 - Maintain integrity of seal between catheter and tubing
 - Ensure Foley bag is six (6) inches above the floor, and below patient's bladder at all times
- Properly empty Foley bag every 8 hours or when bag is 2/3rds full.
- Documentation

CAUTI Prevention Form

Date of Insertion:	Aseptic Technique Bladder Ultra Sound Condom Catheter Do Not Use unless Clinically Necessary Early Removal	Patient's Sticker Provider Order Date:
Reason for Insertion:		
Date:	Shift: 0700-1500 1500-2300 2300-0700	Foley Care (MUST BE COMPLETED EVERY 8 HOURS, NOT ONCE A SHIFT) Initial
	Assess Risk, Place Initial	Provider aware of Foley, Initial
	All Implemented Interventions maintained, Initial	Time and Amount Drained:

This form served as a tool to remind registered nurses and nurses aides to ensure that the Progressive Care Unit CAUTI prevention protocol is being implemented appropriately.

Education

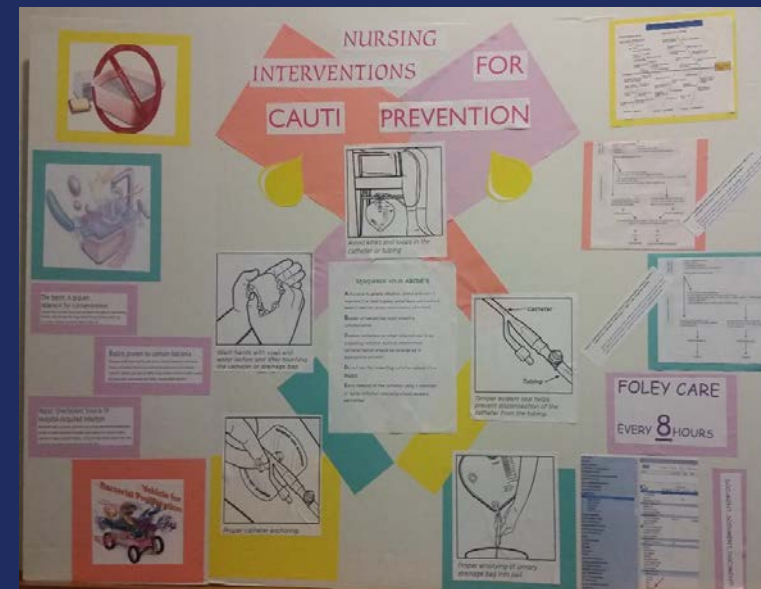
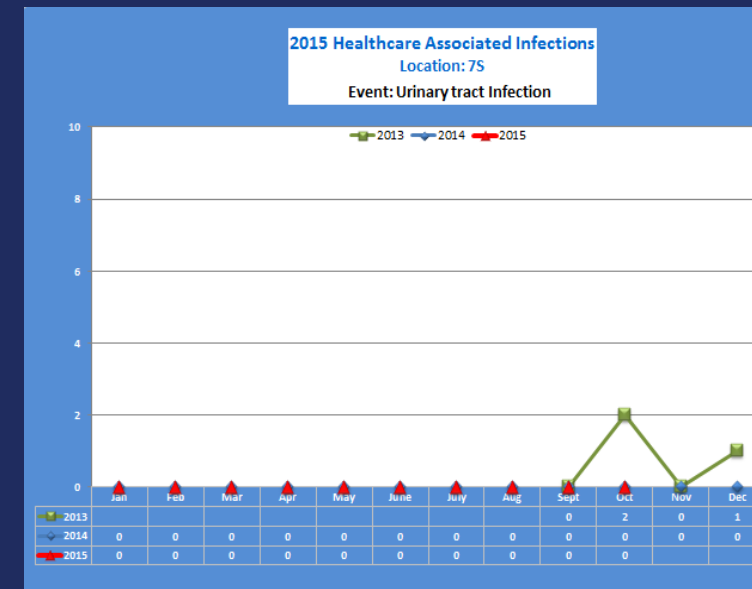


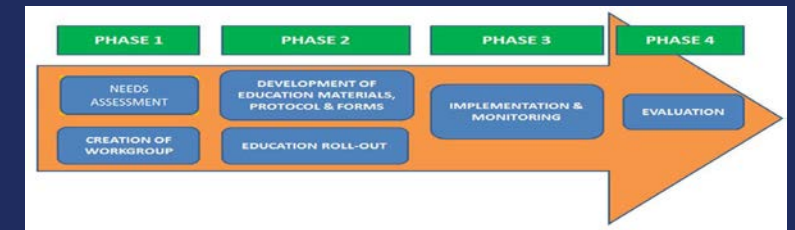
Chart Audit Form

Rm.#	Pt.'s Last Name Staff Assigned to Patient RN/PCT:	Physician Order Indication:	Date of Insertion Place of Insertion:	Documentation Under Tubes & Drains	Foley Care Documentation Completed
	Pt.'s Last Name: Staff Assigned to Patient RN/PCT: RN: PCT:	<input type="radio"/> No <input type="radio"/> Yes	Date of Insertion: Place of Insertion: ER Outside Facility Other Unit: OR 7S	<input type="radio"/> Urine Color <input type="radio"/> Odor <input type="radio"/> Daily Assessment Need <input type="radio"/> Catheter Assessed <input type="radio"/> Collection Device <input type="radio"/> Site Assessment <input type="radio"/> Date of Insertion <input type="radio"/> Charting Not Done	<input type="radio"/> No <input type="radio"/> Yes
	Pt.'s Last Name: Staff Assigned to Patient RN/PCT: RN: PCT:	<input type="radio"/> No <input type="radio"/> Yes	Date of Insertion: Place of Insertion: ER Outside Facility Other Unit: OR 7S	<input type="radio"/> Urine Color <input type="radio"/> Odor <input type="radio"/> Daily Assessment Need <input type="radio"/> Catheter Assessed <input type="radio"/> Collection Device <input type="radio"/> Site Assessment <input type="radio"/> Date of Insertion <input type="radio"/> Charting Not Done	<input type="radio"/> No <input type="radio"/> Yes
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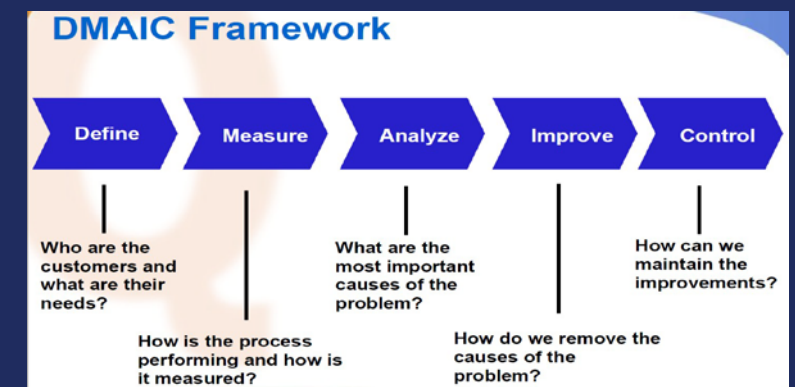
Results



Timeline



Change Process



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