

Bath Basin Elimination:

Removing the bath basin to reduce catheter-associated urinary tract infection in critically ill patients

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Purpose

The purpose of this study was to compare the effectiveness of two methods of patient bathing and incontinence care on overall cost and patient outcomes for catheter-associated urinary tract infections (CAUTI) in critically ill patients.

Background

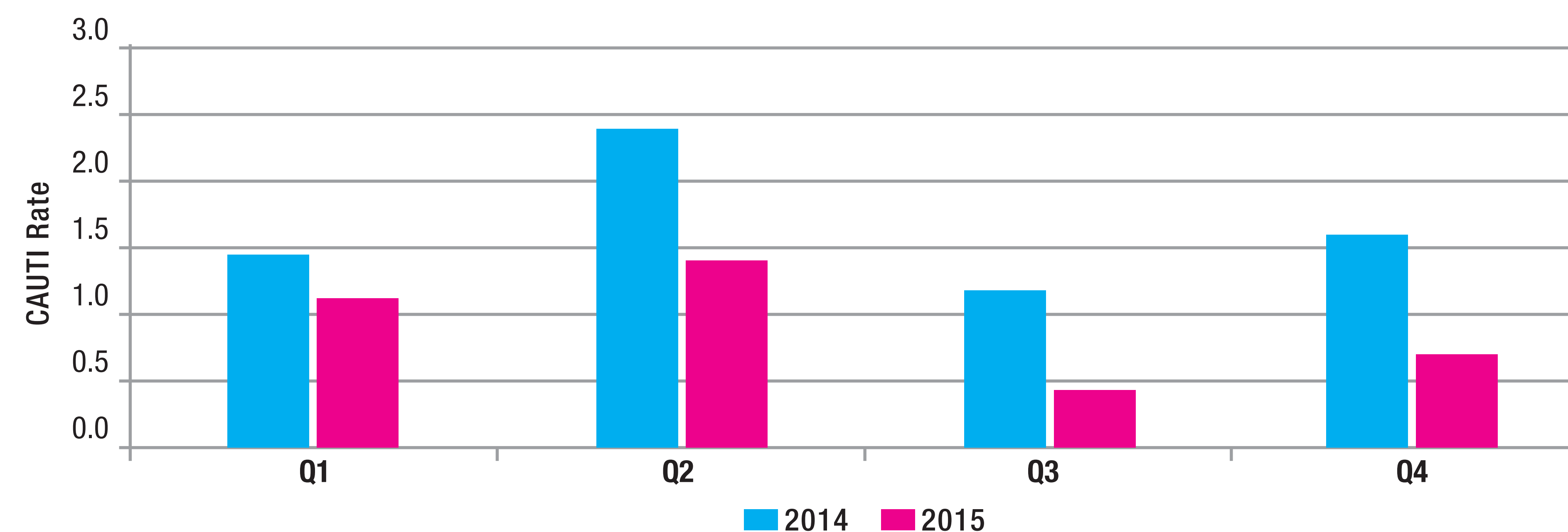
Healthcare-associated infections (HAI) are common, costly, and associated with significant morbidity and mortality. Prevention strategies are often underutilized, particularly for CAUTI. CAUTI rates by hospital are now publically available and the Centers for Medicare and Medicaid Services (CMS) will no longer reimburse hospitals for the additional costs of caring for patients who develop CAUTI. A growing body of evidence supports that the removal of reusable bath basins can reduce CAUTI.

Methods

- CAUTI rates were measured for a 12-month period on all hospital units (2014) to provide a baseline measure.
- The 2014 standard of care in the general care units was once-daily bathing with soap, water, peri-spray and reusable bath basins; incontinence care was performed as needed using the same supplies.
- In January 2015 a new bathing and incontinence care protocol was implemented where all basins were eliminated and replaced by a one-time use packaged bathing product.
- Product cost and CAUTI were measured for a 12-month period (January –December, 2015).

Results

- There were 22 CAUTIs in the 2014 time period and 9 CAUTIs in the 2015.
- This represents a 59% reduction in CAUTI.
- Return-on-investment (ROI) was calculated by using the differences in supply costs associated with each bathing process as well as the cost avoidance attributed to CAUTI reduction.
- ROI for the 12-month intervention period was \$33,234.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014 Catheter Days	1,210	1,211	1,063	1,276	999	1,056	1,095	1,121	1,146	1,105	1,076	987
# of CAUTI	2	3	0	3	4	1	2	2	0	2	0	3
2014 CAUTI Rate	1.7	2.5	0.0	2.4	4.0	0.9	1.8	1.8	0.0	1.8	0.0	3.0
2015 Catheter Days	916	710	961	697	714	681	886	822	540	883	866	1050
# of CAUTI	2	0	1	2	0	1	1	0	0	1	1	0
2015 CAUTI Rate	2.2	0.0	1.0	2.9	0.0	1.5	1.1	0.0	0.0	1.1	1.2	0.0

The removal of the basin has been shown to reduce risk factors for UTIs¹.

1. Stone S, et al., Removal of bath basins to reduce catheter-associated urinary tract infections. Poster presented at APIC 2010, New Orleans, LA, July 2010.

2. Guide to the Elimination of Catheter-Associated Urinary Tract Infections (CAUTIs), APIC, 2008; 5, 40

Conclusion

The use of the new bathing and incontinence care protocol will continue throughout the hospital, with ongoing tracking of compliance, clinical outcomes and cost. These findings add to the emerging body of evidence supporting the benefit of basin elimination on HAI reduction and the associated economic benefits.