

INTERVENTIONAL PATIENT HYGIENE (IPH) CASE STUDY AT THE BEDSIDE

Maryanne McGuckin, Dr. ScEd, MT(ASCP), Arlene Shubin

University of Pennsylvania, Dept of Physical Medicine & Rehab, Philadelphia, PA

BACKGROUND

Interventional Patient Hygiene (IPH) has been defined as a comprehensive, evidence-based intervention and measurement model for reducing the bioburden of both patient and healthcare worker. IPH components include hand hygiene, oral care, skin care/antiseptics and catheter site care. These evidence-based interventions can reduce the incidence of certain healthcare-acquired infections (HAIs), including urinary tract infections (UTIs).

PROBLEM

In April 2005, a decision was made—based solely on cost factors—to remove a prepackaged bathing product from the institution and replace it with standard basins, tap water and paper towels. Infection surveillance led to the temporal association of an increase in the UTI rate and the removal of the prepackaged bath.

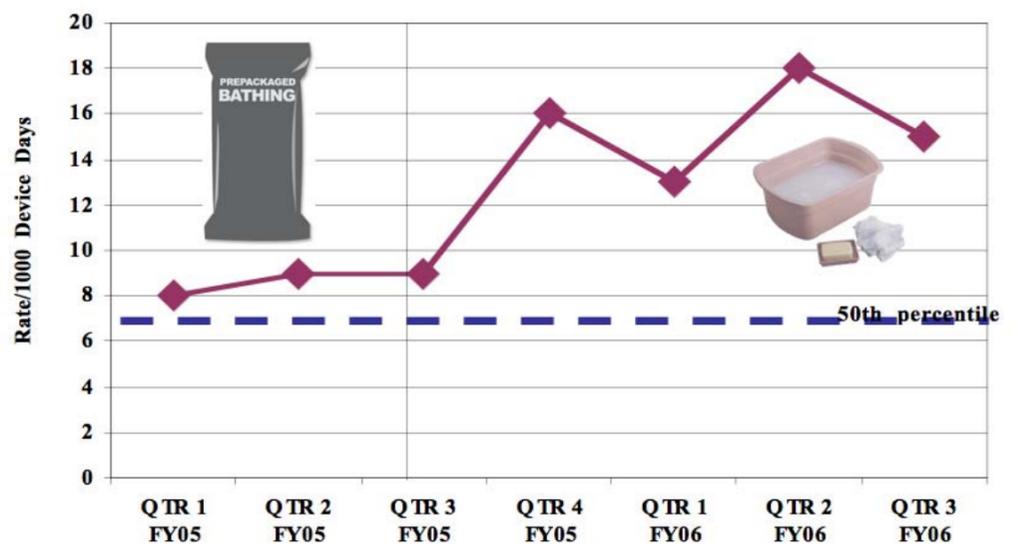
There is strong evidence that bathing patients using basin tap water can serve as a source of cross-contamination and that prepackaged, disposable washcloths are desirable for critically ill patients:

- Both Larson and Vernon found lower microbial counts on patients' skin after a prepackaged bath versus the basin; however, neither reached statistical significance.^{1,2}
- After sampling basins, Shannon reported that the high colony count found in bath water is similar to the number of bacteria found in urine from patients with UTIs.³
- Clark concluded that clinicians should give closer scrutiny to the use of tap water with immunocompromised patients, patients with fresh surgical wounds, and patients at higher risk of infection.⁴

Clearly, the basin should be considered as a major source of HAIs.

RESULTS

UTI Rate – Removal of Prepackaged Bath Product QTR 3 FY05



Effect of Bathing with Basin/Water and UTI Rate, LOS and Costs

UNIT CENSUS: 14				
Phases	Product Cost	No. of UTI	Median ^d LOS 17 Days	Median ^d Cost (4857.00)
I Prepackaged Bathing Washcloths (9 months)	\$10,530 ^a (\$3.00)	25	175	\$117,175
II Basin/Water (9 months)	\$3,510 ^b (\$1.00)	48	336	\$224,916
III Additional Product Cost, UTI, LOS, COSTS	\$7,020	23 ^c	161	\$107,741

a. Based on 3 packages of 8 towels each. b. Based on product cost of towels, soap, and basin. c. Difference between phase I prepackaged/phase II basin water. d. Cost: Chen YY, Chou YC, Chou P. Impact of nosocomial infection on cost of illness and length of stay in intensive care units. Infect Control Hosp Epidemiol. 2005 Mar;26(3):281-7.

CONCLUSION

The \$7,020 saved by eliminating the prepackaged bathing product resulted in 23 additional UTIs, 151 additional hospital days and a cost of \$107,741. We must take responsibility for basic nursing care practices, partnering with infection control for measurement and educating administrators/materials managers that apparent cost savings cannot be considered independent of clinical impact.

Information presented at the American Professional Wound Care Association National Conference, Philadelphia, PA, April 2007.

REFERENCES: 1. Larson EL, et al., Am J Crit Care. 2004 May;13(3):235-41. 2. Vernon MO, et al., Arch Intern Med. 2006 Feb 13;166:306-12. 3. Shannon RJ, et al., J Healthcare Safety, Compliance & Infection Control. 1999 Apr;3(4):180-4. 4. Clark AP, John LD, Clin Nurse Spec. 2006 May-Jun;20(3):119-23.