Presentation Type:
Poster Presentation

Effect of an External Urinary Collection Device on Catheter Associated Urinary Tract Infections in Hospitalized Women

Lindsey Rearigh, University of Nebraska Medical Center; Mark Rupp, University of Nebraska Medical Center; Trevor Craig Van Schooneveld, University of Nebraska Medical Center; Gayle Gillett, Nebraska Medicine; Adrienne Sy, Nebraska Medicine; Luana Evans, Nebraska Medicine; Kelly Goetschkes, Nebraska Medicine; Terry Micheels, Nebraska Medicine; Elizabeth Lyden, University of Nebraska Medical Center

Background: Catheter-associated urinary tract infections (CAUTIs) are a common hospital-acquired infection (HAI) resulting in excess morbidity, mortality, and cost. Urine management can be a challenging issue, particularly in women, due to limited options for control of urinary incontinence. Issues with urinary leakage and worry for subsequent skin break down often leads to indwelling catheter insertion. In the spring of 2018, our facility implemented a female external urine collection device (EUCD) in efforts to decrease catheter days and to limit CAUTIs. **Methods:** Retrospective, 32-month (January 2017–August 2019), quasi-experimental, before-and-after study. Catheter use and CAUTI were defined according to CDC NHSN criteria. Poisson regression was used to model the rate of CAUTI (per 1,000 patient days [PD] and per 1,000 catheter days [CD]) comparing the 14 months prior to EUCD introduction with the 14 months after introduction and allowing a 3-month introduction period. **Results:** The CAUTI rate did not change significantly. The overall CAUTI rate per 1,000 PD decreased slightly from 0.24 to 0.20 ($P = 0.44$; model risk, 0.86; 95% CI, 0.58–1.26) whereas the rate per 1,000 CD increased slightly 1.5 to 1.6 ($P = 0.76$; model risk, 1.06; 95% CI, 0.73-–1.56). The CAUTI rate for men increased from 0.09 to 0.11 per 1,000 PD ($P = 0.42$; model risk, 1.29) and from 0.99 to 1.55 per 1,000 CD ($P = 0.17$; model risk, 1.56). For women, the rate of CAUTI decreased from 0.15 to 0.09 per 1,000 PD ($P = 0.10$; model risk, 0.61) and from 2.12 to 1.65 per 1,000 CD ($P = 0.38$; model risk, 0.38). A significant decrease in catheter days (CD per 1,000 PD; $P < .0001$) was observed for all hospitalized patients (from 158.56 to 128.3; model risk, 0.81), for men (from 87.06 to 72.15; model risk, 0.83), and for women (from 71.49 to 56.15; model risk, 0.79). Of 2,347 adverse events, 5 (0.2%) involved perineal skin breakdown and redness. Three events were related to malposition of the ECUD or inappropriate level of suction and 1 event was related to latex allergy and EUCD use. **Conclusions:** The introduction of a EUCD for women was associated with a significant decrease in indwelling catheter usage. A trend toward a decrease in CAUTI per 1,000 PD for women was observed ($P = .10$). Additional studies on whether the EUCD is associated with changes in UTI rates (both CAUTIs and noncatheter UTIs) as well as cost implications of EUCD are warranted.

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Effect of Removing Contact Precautions for Multidrug-Resistant Organisms on Hospital Infections in a Pediatric Health System

Matthew Linam, Emory University; Dorian Hoskins, Children's Healthcare of Atlanta; Preeti Jaggi, Emory University Hospital; Mark Gonzalez, Children's Healthcare of Atlanta, Pathology; Renee Watson, Children's Healthcare of Atlanta; Andi Shane, Emory University School of Medicine

Background: Discontinuation of contact precautions for methicillin-resistant *Staphylococcus aureus* (MRSA) and vancomycin-resistant Enterococci (VRE) have failed to show an increase in associated transmission or infections in adult healthcare settings. Pediatric experience is limited. **Objective:** We evaluated the impact of discontinuing contact precautions for MRSA, VRE, and extended-spectrum β-lactamase–producing gram-negative bacilli (ESBLs) on device-associated healthcare-associated infections (HAIs). **Methods:** In October 2018, contact precautions were discontinued for children with MRSA, VRE, and ESBLs in a large, tertiary-care pediatric healthcare system comprising 2 hospitals and 620 beds. Coincident interventions that potentially reduced HAIs included blood culture diagnostic stewardship (June 2018), a hand hygiene education initiative (July 2018), a handshake antibiotic stewardship program (December 2018) and multidisciplinary infection prevention rounding in the intensive care units (November 2018). Compliance with hand hygiene and HAI

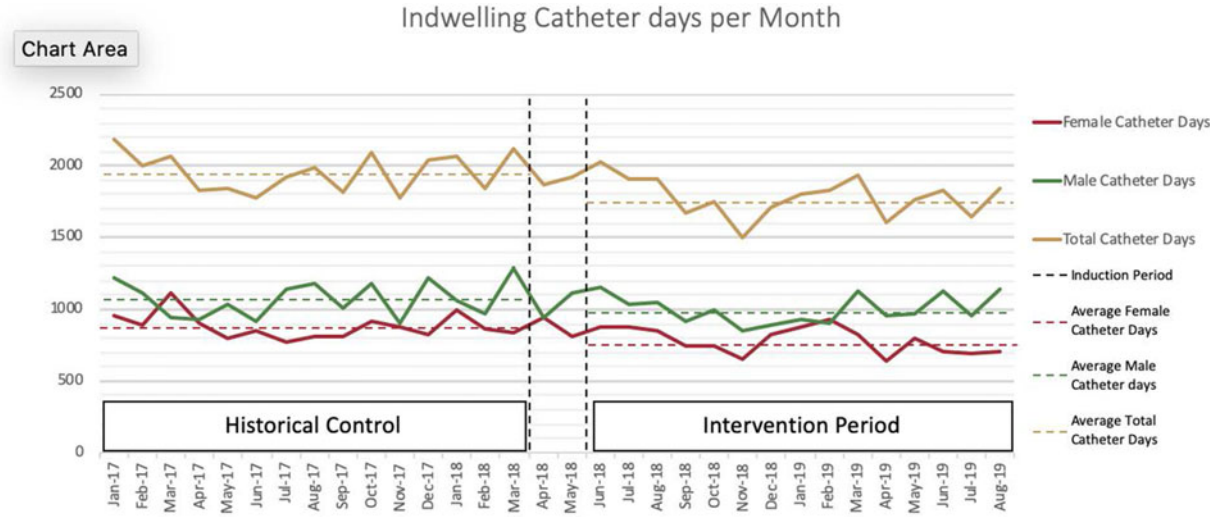

Fig. 1.