

ORAL ABSTRACTS

1228. Preventing Catheter-Associated Urinary Tract Infection in Acute Care Hospitals: Results from a National Collaborative

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Background. Catheter-associated urinary tract infection (CAUTI) is the most common device-associated infection in acute care hospitals. CAUTI prevention centers on promoting appropriate catheter use, compliance with aseptic insertion, and proper maintenance. Additionally, behavioral and cultural changes play an essential role in implementing key CAUTI prevention practices.

Methods. *On the CUSP: Stop CAUTI*, funded by the Agency for Healthcare Research and Quality and led by the Health Research & Educational Trust, is a national collaborative that aims to reduce CAUTI. The main features of the project are: 1) dissemination of information to state hospital associations and hospitals; 2) data collection; 3) guidance on essential CAUTI prevention practices (i.e., "technical" components); and 4) emphasis on understanding the socio-adaptive aspects. Catheter utilization and CAUTI rate data were collected during baseline (3 months), implementation (2 months) and sustainability (4 quarters) phases. Multilevel negative binomial models, adjusted for hospital bed size, rural location, critical access status, teaching affiliation, and intensive care unit (ICU), were used to assess changes in catheter utilization and CAUTI.

Results. 985 units (58.2% non-ICUs, 41.8% ICUs) from 640 hospitals in 31 different states have completed their participation in the first 4 cohorts (additional hospital cohorts are currently being enrolled, including some emergency departments). Overall, CAUTI has decreased by 14.7% (3.9%-24.3%, $p = 0.009$). Among non-ICU units, CAUTI has decreased by 32.5% (18.3%-44.1%, $p < 0.001$), but remained the same in the ICU (slope = 1.1%; -13.2%-17.9%, $p = 0.89$). Catheter utilization decreased by 8.7% (7.9%-9.4%, $p < 0.001$) in non-ICUs, but slightly increased in ICUs by 1.3% (0.5%-2.0%, $p = 0.001$).

Conclusion. A national collaborative focusing on both the technical and socio-adaptive aspects of CAUTI prevention can successfully reduce CAUTI rates and catheter use, primarily in non-ICUs. More work is underway to evaluate factors affecting progress in ICUs. Given the successes realized in reducing CAUTI, we believe that our model of multidisciplinary and large-scale improvement may be useful to address other hospital-acquired conditions.

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