Abstract:

BACKGROUND: Hawaii joined the On the CUSP: Stop BSI national effort in the United States in 2009 (CUSP stands for Comprehensive Unit-based Safety Program). In the initial 18-month study evaluation, adult ICUs decreased central line-associated bloodstream infection (CLABSI) rates by 61%. The impact of a series of novel strategies/tools in reducing infections and sustaining the collaborative in ICUs and non-ICUs in Hawaii was assessed.

METHODS: This cohort collaborative consisted of 20 adult ICUs and 18 nonadult ICUs in 16 hospitals. Hawaii developed and implemented six tools between July 2010 and August 2011: a tool to investigate CLABSIs, a video to address cultural barriers, a standardized dressing change kit, a map of the cohort’s journey, a 12-strategies leadership dashboard, and a geometric plot of consecutive infection-free days. The primary outcome measure was overall CLABSI rates (mean infections per 1,000 catheter-days).

RESULTS: A comparison of baseline data from 28 ICUs with 12-quarter (36-month) postimplementation data indicated that the CLABSI rate decreased across the entire state: overall, 1.57 to 0.29 infections/1,000 catheter-days; adult ICUs, 1.49 to 0.25 infections/1,000 catheter-days; nonadult ICUs, 2.54 to 0.33 infections/1,000 catheter-days, non-ICUs (N= 14),
4.52 to 0.25 infections/1,000 catheter-days, and PICU/NICU (N = 4), 2.05 to 0.53 infections/1,000 catheter-days. Days between CLABSIs in the adult ICUs statewide increased from a median of 5 days in 2009 to 70 days in 2011.

DISCUSSION: Hawaii successfully spread the program beyond adult ICUs and implemented a series of tools for maintenance and sustainment. Use of the tools shaped a culture around the continued belief that CLABSIs can be eradicated, and infections further reduced.
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