

Catheter-associated urinary tract infections in intensive care units can be reduced by prompting physicians to remove unnecessary catheters.

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摘要

Abstract

OBJECTIVE: Indwelling urinary catheters are the most common source of infections in intensive care units (ICUs). The aim of this study was to evaluate the efficacy of nurse-generated daily reminders to physicians to remove unnecessary urinary catheters 5 days after insertion. **DESIGN:** A time-sequence nonrandomized intervention study. **SETTING:** Adult ICUs (medical, surgical, cardiovascular surgical, neurosurgical, and coronary care) of a tertiary-care university medical center. **PATIENTS:** All patients admitted to the adult ICUs during a 2-year period. The study consisted of a 12-month observational phase (15,960 patient-days) followed by a 12-month intervention phase (15,525 patient-days). **INTERVENTION:** Daily reminders to physicians from the nursing staff to remove unnecessary urinary catheters 5 days after insertion. **RESULTS:** The duration of urinary catheterization was significantly reduced during the intervention phase (from 7.0 ± 1.1 days to 4.6 ± 0.7 days; $P < .001$). The rate of catheter-associated urinary tract infection (CAUTI) was also significantly reduced (from 11.5 ± 3.1 to 8.3 ± 2.5 patients with CAUTI per 1,000 catheter-days; $P = .009$). There was a linear relationship between the monthly average duration of catheterization and the rate of CAUTI ($r = 0.50$; $P = .01$). The excess monthly cost of antibiotics for CAUTI was reduced by 69% (from $\$4,021 \pm \$1,800$ to $\$1,220 \pm \941 ; $P = .004$). **CONCLUSION:** This study demonstrated that a simple measure instituted as part of a continuous quality improvement program significantly reduced the duration of urinary catheterization, rate of CAUTI, and additional costs of antibiotics to manage CAUTI...