

ABSTRACT

BACKGROUND:

Health care-associated infections such as catheter-associated urinary tract infections (CAUTIs) are prevalent in resource-limited settings. This study was carried out to determine whether a multifaceted intervention targeting health care personnel would reduce CAUTI rates in a public hospital located in a resource-limited setting.

METHODS:

A one group, pretest-posttest study was carried out from March to July 2012 in a public district hospital in Nairobi, Kenya. Patients admitted to adult medical wards, and who received urinary catheters, were evaluated for symptomatic CAUTIs using a modified definition by the Centers for Disease Control and Prevention. After collecting baseline CAUTI rates for 8 weeks, a multifaceted intervention consisting of lectures, reminder signs, and infection prevention rounds (week 9) was implemented. The postintervention rate of CAUTIs was measured over 7 subsequent weeks. Bivariable analysis was performed to determine whether the intervention was associated with reduced CAUTIs.

RESULTS:

A total of 125 patients received urinary catheters, with 82 preintervention and 43 postintervention. Mean duration of catheterization did not change between phases (6.9 vs 5.6 days, respectively, $P = .322$), but catheter utilization ratio decreased from 0.14 to 0.09 ($P < .001$). There were 13 preintervention CAUTIs (for 30.4 infections per 1,000 catheter-days) and no postintervention CAUTIs ($P = .002$).

CONCLUSION:

In this resource-limited setting, the baseline rate of CAUTIs was high. A low-cost, multifaceted intervention resulted in decreased urinary catheter use and CAUTI rates.

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KEYWORDS:

Developing settings, Health care-associated infections, Infection surveillance and prevention, Quality improvement interventions