Non randomised control trial of standard catheter care protocol for prevention of catheter association urinary tract infection among patients with indwelling urinary catheter in intensive care units at Salem.

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ABSTRACT

CAUTI is the second most common nosocomial infection and more than one million cases affected in US hospital and nursing homes each year. The aim of the study was to evaluate the SCCP for prevention of CAUTI among patients with indwelling urinary catheter in ICU at Salem.

In this study, quantitative research approach with post test only control group research design was used and all the patients admitted in ICU of SKS hospital, Salem (Jan 2010-Apr 2011) who were placed on indwelling urinary catheter were selected as samples, till the sample size of 50 for control group and 250 for experimental group was achieved. Pilot study was conducted, the tool and study design were found to be feasible. The pre intervention incidence of bacteriuria and/or urinary WBCs was assessed in the urine sample collected within 24 hours of catheterization and post intervention incidence of bacteriuria and/or urinary WBCs was assessed on every third consecutive days of catheterization and 72 hours after removal of catheter. Post intervention incidence of bacteriuria and/or urinary WBCs assessed in urine sample collected 72 hours after removal of catheter only considered as incidence of CAUTI as different patients had catheter for various catheter days. Control group (4 months) received routine catheter care and the experimental group (11 months) received catheter care using SCCP implemented by ICU nurses. SCCP practice was monitored through observation check list by the researcher.

The data were collected and analyzed using descriptive and inferential statistics. The post intervention incidence of CAUTI was significantly higher (34%) in who received routine
catheter care (control group) as compared to who received SCCP (experimental group) (15.2%) with ‘z’ value being 3.1 which is significant at 0.05 level of significance. Further, the incidence of CAUTI as per 1000 indwelling urinary catheter days reveals that the experimental group had lower (42.9) incidence of CAUTI as compared to the control group (89.0) inferring that the intervention (SCCP implementation) has been effective in reducing the incidence of CAUTI.

The computed chi-square for association between the post intervention incidence of CAUTI was not found to be statistically significant with their selected personal variables viz. Age, Gender, Disordered body system, Reason for catheterization, indwelling urinary catheter size, history of Recent Antibiotic intake, History of Diabetes mellitus, Presently Antibiotic, Duration of ICU stay, Duration of indwelling urinary catheter days, SAPS II score on admission & Risk status for CAUTI among patients with indwelling urinary catheter in ICU.

*Implications:* The SCCP can be made in regular practice by ICU nurses as a routine, it will be much effective to reduce hospital acquired infection of CAUTI. A emphasis and reemphasis should be there by the educators in the clinical areas as well for the use of standard care protocol such as SCCP which can go long way to prepare professional nurse who can provide quality patient care. The nursing administrator can make a written policy and provide logistics to practice SCCP by nurses in rendering catheter care among patients with indwelling urinary catheter.

*Recommendation:* In future, a similar study can be done among homogenous samples or single intervention modification can be conducted to develop evidence based practices.

*Key words:* CAUTI- Catheter Associated Urinary Tract Infection, ICU- Intensive Care Unit, SCCP – Standard Catheter Care Protocol