

## An Observational Study on Urinary Catheterization with Emphasis on Infection Control Practices

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**Introduction:** Urinary tract infections (UTI) are predominant nosocomial infections. Of them, catheter-associated UTI (CA-UTI) is prevailing. Of the reasons behind CA-UTI, factors associated with catheterization plays a vital role. Identification of such reasons would scrutinize the preventive measures of CA-UTI.

**Objective:** To find out the compliance with standards in the urinary catheterization.

**Methodology:** A descriptive-cross-sectional study was conducted observing hundred urinary catheterizations done at a secondary-care hospital in Sri Lanka during 01-10-2018 to 15-10-2019. The study was conducted through the hospital infection control nurse. Study observations, including measures taken before, during and after each catheterization were recorded. The observations were assessed against the catheterization guidelines provided in the infection control manual of Sri Lanka. The level of satisfaction in each measure was considered when the correct measure was followed in >75% of catheterizations.

**Results:** Of the 100 catheterizations, 85 were from wards, 11 in the preliminary care unit and four in the intensive care unit. Before the catheterization, patients' privacy was secured in 96% of patients. Healthcare worker (HCW) was introduced by himself/herself to the patient in none of the catheterizations. In all cases, patients' details were confirmed with the patient records (name, age, admission number) in the bed head ticket. In 64% of patients, they were inquired for relevant allergies (plaster, povidone or latex). In 86% of cases, HCW explained the catheterization procedure to patients and obtained verbal consent. Requirements for the procedure were checked in the catheterization tray in 97% of cases. Washing hands with soap and water and wear sterile gloves were observed in 66% of catheterizations. Catheterization was done by a medical officer in 55% and 45% was done by a nurse. However, the cleaning of patients' genital area before catheterization was done by a medical officer in 9%, nurse in 32% and a laborer in 59% of patients. During the procedure, the urethra was lubricated with sterile anesthetic gel in 34% and the catheter was lubricated with anesthetic gel in all catheterizations. After catheterization, the catheter bulb was inflated with the ideal volume of water in all cases and the catheter was anchored to thigh securely with plaster in 87%. Urine bag kept below the level of the bladder in all cases. Following catheterization, the patients' perineal area was cleaned in 31% of patients. In 96% of catheterizations, HCWs washed hands after the procedure. Documentation of procedure in the BHT was done in none.

**Conclusion:** Satisfactory measures were taken in the pre-catheterization stage as explaining the procedure to the patient, obtain consent and verify patient details. However, measures were unsatisfactory as inquiring about relevant allergies, wash hands, and wear sterile gloves before the procedure. Though trained personnel did the catheterization, the same person did not do the cleaning of the perineal area, which is very important. After catheterization, cleaning of the perineal area was not performed in majority and recording of the procedure was not satisfactory at all.

Keywords: "Urinary catheterization; catheter-associated UTI"

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