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Incidents associated with indwelling urinary catheter in hospitalized patients: a cross-sectional study

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ABSTRACT

Aims: to map the occurrence of incidents associated with the use of indwelling urinary catheter in hospitalized patients in the medical and surgical clinic of a university hospital; to analyze the findings regarding the best practices applied to the safe management of the indwelling urinary catheter; to discuss strategies for improvements in maintenance and monitoring of safe care for patients using a indwelling urinary catheter.

Method: This is an observational, descriptive, cross-sectional and quantitative study carried out in a university hospital in Rio de Janeiro, with patients hospitalized in medical and surgical clinics using an indwelling urinary catheter. The study will consist of monitoring the occurrence of incidents between the first 24 hours of catheter installation and up to a maximum of 30 days. Data will be processed by the Statistical Package for the Social Sciences, version 22.0 and the main statistical tests used will be chi-square, Fisher's Exact, Kolmogorov-Smirnov and Shapiro-Wilk.

Descriptors: Urinary Catheters; Catheters, Indwelling; Patient Safety; Nursing.

INTRODUCTION

Bladder catheterization (BC) consists of introducing a catheter into the urethral meatus to the internal bladder, establishing a urine drainage pathway, and can be classified as either indwelling urinary catheterization or intermittent urinary catheterization⁽¹⁻³⁾.

In clinical practice, 20% to 50% of hospitalized patients are submitted to indwelling urinary catheterization, whose excessive stay can lead to serious incidents^(2,3).

It is estimated that 35% to 45% of hospital infections are due to urinary tract infection (UTI), of which 80% are linked to indwelling urinary catheterization^(1,2). In addition to UTI, other incidents may be associated with this probe, such as urethral trauma, false path, urethritis, urethral fistula, prostatitis, and penile necrosis⁽¹⁾.

Any intercurrent associated with indwelling urinary catheterization deserves a peculiar look from the nursing team, since it assumes all the leading role in maintaining this device, acting as one of the main barriers to mitigation of incidents^(1,3).

Thus, it is up to the nurses to monitor the potential circumstances that may or may not cause damage, in order to propose preventive measures and training of their team to provide specialized and safe care.

AIMS

- Map the occurrence of incidents associated with the use of indwelling urinary catheter in patients hospitalized in the medical and surgical clinic of a university hospital;
- To analyze the findings regarding the best practices applied to the safe management of the indwelling urinary catheter;

- To discuss strategies of improvements for the maintenance and monitoring of the safe care to the patients in use of indwelling urinary catheter.

METHOD

This is an observational, descriptive and cross-sectional study of a quantitative approach, to be developed in a university hospital in Rio de Janeiro, based on clinical and surgical hospitalization services that have five wards with six beds each.

The sample will be composed of 79 patients hospitalized in medical and surgical clinic units of the university hospital, selected from the inclusion and exclusion criteria established and that are in accordance with the Informed Consent Term (IC).

The inclusion criteria were: patients over eighteen years of age, able to respond verbally to requests; individuals hospitalized in medical and surgical clinic units, with up to 24 hours of indwelling urinary catheter installation. Patients using intermittent bladder catheterization, cystostomy and/or preservative for urine collection will be excluded from the sample.

The data collection, scheduled to take place from July to September 2018, will be carried out in two main stages. The first will consist of a thorough reading of the medical records to identify the previous history and clinical characterization of the participants, and for a daily monitoring of the evolutions and prescriptions, electronic and manual, of the medical and nursing staff, seeking, for example, justifications for permanence of the bladder catheter and the description of the complications associated with indwelling urinary catheterization.

In the second stage, the management of the indwelling urinary catheter and its compo-

nents will be observed, with four main topics: bladder catheter, collection bag, genital organ, and urinary flow.

Such topics were determined based on the international guidelines proposed by the Guidelines for preventing infections associated with the insertion and maintenance of short-term indwelling urethral catheters in acute care and by the Guideline for prevention of catheter-associated urinary tract infection.

Each topic will have specific variables to be monitored, such as catheter fixation, tracing, catheter integrity, pocket positioning, urine volume and lesions per device.

Aiming to monitor from the initial moment to the one that the literature points out as neuralgic^(1,3), the observations will occur between the first 24 hours of catheter installation up to a maximum of 30 days.

From the collected data, a database will be built and it will be analyzed by the Statistical Package for the Social Sciences, version 22.0, and by the application Microsoft Excel 2007. To verify the association between the occurrences of an incident with the qualitative variables, the chi-square test or the Fisher's Exact Test will be used. For the inferential analysis of the quantitative variables, the normal distribution hypothesis will be verified by means of the Kolmogorov-Smirnov and Shapiro-Wilk tests.

Through ethical-legal issues, referred to by the National Health Council, this research was approved by the Research Ethics Committee of Anna Nery Nursing School, under CAAE 84469418.7.0000.5238 and opinion number 2,618,017.

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