

# Assess The Knowledge Regarding Prevention Of Catheter Associated Urinary Tract Infection Among ICU Staff Nurses

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*Abstract: Urinary tract infections (UTIs) are the most common type of hospital-acquired infection, and most of these, are associated with indwelling urinary catheters-associated UTIs (CAUTIs). A descriptive study was conducted to assess the knowledge regarding prevention of catheter associated urinary tract infection among ICU staff nurses working in selected hospital at Indore. 30 ICU staff nurses were selected by non probability purposive sampling technique. Data was collected through structure knowledge questionnaire. The demographic data revealed that most of the staff nurses in the study 11(36.66%) were belonged to 20-25 years of age, 46.66 % were GNM, 53.33% unmarried, 46.66% had 0-3 experience. The finding of study shows that 70% ICU staff nurses were having average level of knowledge, 23.3% of them had above average level of knowledge regarding catheter associated urinary tract infection. The mean score 16.66 concluded that ICU staff nurses have average level of knowledge regarding catheter associated urinary tract infection.*

**Keywords: Knowledge, ICU staff nurses, catheter associated urinary tract infection.**

## I. INTRODUCTION

Hospital-acquired infections are a common, costly, and potentially lethal patient safety problem. The most common hospital-acquired infection is urinary tract infection (UTI), which accounts for almost 40% of all nosocomial infections. Most hospital-acquired UTIs are associated with urinary catheters, a commonly used device among hospitalized patients. Up to 25% of hospitalized patients have a urinary catheter placed during their stay; these catheters often cause considerable discomfort and embarrassment to patients. The substantial morbidity associated with nosocomial UTI generates additional health care costs. Several practices have been evaluated to prevent hospital-acquired UTI.

Such practices include using indwelling catheters only when necessary, removing catheters when no longer needed via the use of various reminder systems, using antimicrobial catheters in patients at highest risk of infection, using external (or condom-style) catheters in appropriate men, using portable ultrasound bladder scans to detect post void residual urine amounts, maintaining proper insertion technique, and using alternatives to indwelling urethral catheters, such as

suprapubic or intermittent catheterization. Practices that are no longer recommended because of lack of evidence include use of antimicrobial agents in the drainage bag, rigorous frequent meatal cleaning, and use of bladder irrigation.

## NEED FOR THE STUDY

Urinary tract infection account for 32% of all health care –associated infection and is the most common nosocomial infection in intensive care units. Urinary catheters are used routinely in ICUs, usually for frequent and accurate monitoring of urinary output. Once inserted, catheters tend to remain in place after appropriate indications for their use. Urinary infection in critically ill patient are associated with increase in length of stay and mortality. Use of indwelling catheter can lead to complications. Most commonly catheter is associated with urinary tract infections. Duration of catheterization is the major risk factor. These infections can result in sepsis, prolonged hospitalization, additional hospital costs and mortality.

Keeping the above information and personal experience the investigator believe that lack of adequate knowledge and

hygiene practice are most common cause for urinary tract infection among adolescent girls nurses being the part of health team have responsibility to educate the adolescent girls and show correct pathway to prevent urinary tract infection. Hence the above maintained factors motivated the investigator to undertaken the study.

STATEMENT OF THE PROBLEM

“A Descriptive Study To Assess The Knowledge Regarding Prevention Of Catheter Associated Urinary Tract Infection Among Icu Staff Nurses In Selected Hospital In Indore M.P.”

OBJECTIVES OF THE STUDY

- ✓ To assess the pre-test knowledge regarding prevention of catheter associated urinary tract infection among ICU staff nurses.
- ✓ To find out the association knowledge regarding prevention of catheter associated urinary tract infection with socio demographic variable ICU staff nurses.

HYPOTHESIS

AT 0.05 LEVEL OF NO SIGNIFICANCE

H1: There is significant association of socio demographic variables with the knowledge regarding prevention of catheter associated urinary tract infection.

H1<sub>0</sub>: There is no significant association of socio demographic variables with the knowledge regarding prevention of catheter associated urinary tract infection.

II. METHODOLOGY

A quantitative descriptive survey research approach was used in the study, 30 ICU staff nurses of Greater Kailas Hospital, Indore were selected by using non probability purposive sampling technique. Data was collected by using socio-demographic & structured knowledge questionnaire & analysed through descriptive & inferential (chi-square test) statistics.

III. RESULTS AND FINDINGS

SECTION: A DESCRIPTION OF SOCIO DEMOGRAPHIC CHARACTERISTICS OF ICU STAFF NURSES

This section deals with the description of socio-demographic variables, in the study

- ✓ Most of the ICU staff nurses 11(36.66%) were belonged to 20-25 years of age, whereas 10 (33.33%) of staff nurses, were in 31 -35 years of age, and 8 (26.66%) were in 26-30 year and only 1 (3.33%) wear in >36 year.
- ✓ 46.66 % were GNM and 46.66% B.Sc nurses and only 6.66% were P.B.sc.
- ✓ 53.33% unmarried and 46.66% were married.

- ✓ 46.66% wear 0-3 experience, 26.66% were 4-6 year experience 13.33% were 7-9 year experience and 10% were > 10 year experience.
- ✓ 20(66.66%) practice education clinical duty, 6(20%) were training programme, 3(10%) were supervision, and 1(3.33%) were mass media.
- ✓ Seminar workshop attending 18 (60%) were 1,6 (20%) were 2, 4(13.33%) were no experience,2(6.66%) were 3.

SECTION-B: DESCRIPTION OF KNOWLEDGE SCORE FINDING RELATED TO KNOWLEDGE SCORE ASSESSMENT

- ✓ This section deals with the description of knowledge score.
- ✓ Mostly 21(70%) staff nurses working in ICU had average knowledge regarding catheter associate urinary tract infection.
- ✓ 7(23.33%) staff nurses working in ICU had good knowledge regarding catheter associate urinary tract infection.
- ✓ 2(6.66%) staff nurses working in ICU had Poor knowledge regarding catheter associate urinary tract infection.

DESCRIPTION OF ASSOCIATION OF KNOWLEDGE SCORE WITH A SOCIO DEMOGRAPHIC VARIABLE

Mean and standard deviation of knowledge score was calculated in which, the mean value was 16.66 and the standard deviation was 3.2001 Chi square was used to find the association of knowledge score with selected socio demographic variables. It was found that the p value was 0.7756 and was less than the table value. Thus, the study revealed that there is no significant association of knowledge scores with selected socio demographic variables.

S. NO	KNOWLEG E SCORE	FREQUEN CY	PERCEN TAGE	MEAN SCORE	SD
1	POOR 0-10	2	6.66%	16.666	3.2001
2	AVERAGE VALUE 11-20	21	70%		
3	GOOD VALUE 21-30	7	23.33%		

Table 4.2: Description of Knowledge Score

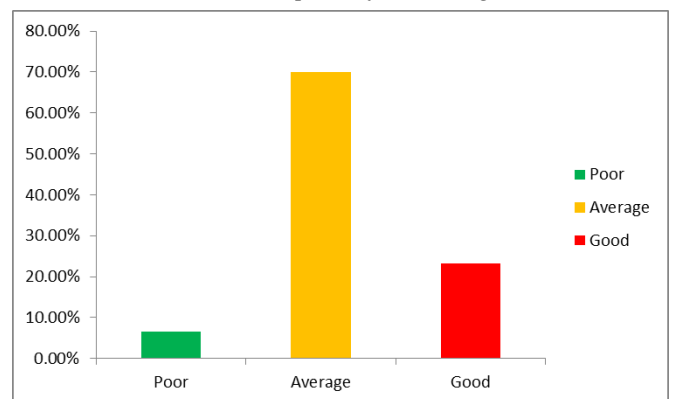


Figure 1

#### IV. IMPLICATION

The implication of the study could be discussed under three broad areas, mainly nursing education, Nursing practice and Nursing research.

#### V. NURSING EDUCATION

Nurse education can be used to develop newer effective teaching strategies in order to enhance the learning among ICU staff nurses in hospital.

Planned teaching programme can be conducted to improve the knowledge of ICU staff nurses.

#### NURSING ADMINISTRATION

Nurse's administrator should take an initiative in providing continuous education on catheter associated infection among ICU staff nurses in their hospital.

Nurse's administrator should assign the senior ICU staff nurses to conduct planned teaching programme on catheter associated infection and newly joined ICU staff nurses in hospital.

#### NURSING RESEARCH

- ✓ There is a need for extended and intensive nursing research in the different ICUs.
- ✓ Extensive research is needed in the area to assess knowledge level of catheter associated infection, so that the insufficiency can be treated.

#### NURSING SERVICE

There is need to develop in-service education and educational programme for ICU staff nurses, to improve knowledge regarding catheter associated urinary tract infection. So that the ICU staff nurses can prevent the urinary tract infection.

#### VI. CONCLUSION

The micro study was to assess the knowledge level among staff Nurses regarding catheter associated urinary tract infection and find its association with selected demographic

variables. After detailed analysis the findings revealed of the following results.

- ✓ Majority of staff Nurses working in a greater kailash Hospital, Indore have average knowledge.
- ✓ Mean score of knowledge score among staff Nurses was 10.6.
- ✓ There was a significant association of knowledge scores with selected socio demographic variables.

The overall experience of conducting the study was enjoyable. The response of the participants was an encouraging hand for the investigator. The constant help and support of the guide and co-guide provided a positive reinforcement for successful completion of the study. The study was a new learning experience for the investigator.

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