

**KNOWLEDGE ON PREVENTIVE PRACTICES OF UTI IN PATIENT WITH  
INDWELLING CATHETER AMONG INTERNSHIP NURSING STUDENTS**

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**ABSTRACT**

A urinary tract infection (UTI) is caused by bacteria and that affects any part of the urinary tract. The main contributory agent is Escherichia coli. Even though urine contains a variety of fluids, salts, and waste products, it usually does not have bacteria in it. Once bacteria get into the bladder or kidney and grow in the urine, they cause a UTI. **AIM:** aim for the study was improve the knowledge of internship nursing students on preventive practices of UTI in patient with indwelling catheter. **MATERIAL AND METHOD:** In this study use research approach with pre- experimental design is used. Non probability convenience sampling technique was used for select the 6 samples of internship nursing students and data collection was done. Data was analyzed by using descriptive and inferential statistics such as standard deviation, chi-

test, and paired 't' test. **RESULT:** In the pretest conducted among 6 internship nursing students, pre-test average knowledge score 66.67% on preventive practices of UTI in patient with indwelling catheter among internship nursing students. After administered and nursing guidelines teaching program was given. In post test having good knowledge 5 (83.33%). **DISCUSSION:** In this research study findings discovered that nursing guidelines is highly useful in improving knowledge and practice of internship nursing students regarding preventive measures of urinary tract infection in patients with indwelling catheter.

**Keywords: knowledge, practice, preventive, UTI, patients, indwelling catheter, internship nursing students**

## **INTRODUCTION**

**“A healthy outside starts from the inside.”**

**Robert Urich**

The **urinary system**, also known as the renal **system** or **urinary tract**, consists of the kidneys, ureters, bladder, and the urethra. The purpose of the **urinary system** is to eliminate waste from the body, regulate blood volume and blood pressure, control levels of electrolytes and metabolites, and regulate blood pH. Narrow tubes called ureters hold urine from the kidneys to the bladder, a sac-like organ in the lower abdomen. Urine is stored in the bladder and emptied throughout the urethra.

Urinary tract infections are some of the most ordinary bacterial infections, affecting 150 million people each year worldwide.<sup>1</sup> UTIs are a significant cause of morbidity in infant boys, older men and females of all ages. Serious problem include frequent recurrences, pyelonephritis with sepsis, renal damage in young children, pre-term birth and complications caused by frequent antimicrobial use, such as high-level antibiotic resistance and Clostridium difficile colitis. UTIs are categorized as uncomplicated or complicated. Uncomplicated UTIs typically affect individuals who are otherwise healthy and have no structural or neurological urinary tract abnormalities.<sup>2,3</sup>

Several risk factors are associated with cystitis, including female gender, a prior UTI, sexual activity, vaginal infection, diabetes, obesity and genetic susceptibility<sup>4</sup>.

UTIs are defined as UTIs associated with factors that cooperation the urinary tract or host defence, including urinary obstruction, urinary retention caused by neurological disease, immune suppression, renal failure, renal transplantation, pregnancy and the presence of foreign bodies such as calculi, indwelling catheters or other drainage devices<sup>5</sup>

Indwelling urinary catheters are generally considered to be short term if they are in situ for less than 30 days and chronic or long term when in situ for 30 days or more<sup>6</sup>. Indwelling catheter use in acute care facilities is usually short term, while chronic catheters are most common for residents of long term care facilities. Clinical and microbiologic consideration may vary for short and long term catheters. Urinary catheter acquired infection is usually manifested as asymptomatic bacteriuria (CA-ASB). The term catheter associated urinary tract infection (CA-UTI) is used to refer to individuals with symptomatic infection.<sup>6</sup>

## **METHODOLOGY**

Quantitative research approach was used. In that Pre experimental research design was used. In the study knowledge on preventive practice of UTI is the independent variable and dependent variable is Knowledge on preventive practice of internship nursing students. The demographic variables are age, Gender, qualification and residential area. The study was conducted in Dhiraj hospital, Vadodara. The samples were selected using purposive sampling techniques. The population for the present study conducted in Dhiraj Hospital at Vadodara. In this study the sample is the internship nursing students who is having less knowledge. The sample for the present consists of 6 internship nursing students. In the study purposive sampling technique is found appropriate to select 6 internship nursing students.

## **RESULTS**

The majority of internship nursing students were 4 (66.67%) age group 23 year. In gender female were 5 (83.33%). education qualification 3 (50%), from bsc nursing and present placement area from critical care nursing 5 (83.33%) and residential area in that 4 (66.670%) were semi urban.

Pre-test knowledge score			post-test knowledge score			
	Knowledge score	Frequency	%	Knowledge score	Frequency	%
1	Good	01	16.67%	Good	05	83.33%
2	Average	04	66.67%	Average	01	16.67%
3	Poor	01	16.67%	Poor	00	00%

Table shows that; pre-test knowledge score on preventive practices of UTI in patient with indwelling catheter among internship nursing students. All participants in pre test having average knowledge and after administered and nursing guidelines teaching program was given. Inpost test having good knowledge 5 (83.33%).

The reliability of the nursing guidelines teaching program tool was  $r=0.92$  and practice checklist test found was 0.8 So tool to be highly reliable for data collection, indicates that the tool reliable for the research study.

## **DISCUSSION**

The majority of internship nursing students were 4 (66.67%) age group 23 year. In gender female were 5 (83.33%). education qualification 3 (50%), from bsc nursing and present placement area from critical care nursing 5 (83.33%) and residential area in that 4 (66.670%) were semi urban.

In this study should be regular, systematic review of any resident with a chronic indwelling catheter to conclude whether the catheter remains compulsory. Intervention should focus on remove the catheter, whenever feasible, minimizing catheter trauma, and early identification of catheter obstruction. Chronic indwelling catheters should not be changed routinely. They should be replace only if there is obstruction or other malfunction, or prior to initiating antimicrobial therapy when symptomatic urinary infection is treated.<sup>7</sup>

UTI is avital device-associated health care acquired infection. The use of an indwelling urethral catheter is associated with an increased frequency of symptomatic urinary tract infection and bacteremia, and extra morbidity from non-infectious complications. Infection control programs must develop, implement, and monitor policies and practices to minimize infections associated with use of these devices. A major focus of these programs should be to

limit the use of indwelling urethral catheters, and to remove catheters promptly when no longer required..<sup>8</sup>

Use of the urinary catheter should always be discontinuing as soon as appropriate. A 7–14-day regimen is suggested for most patients with UTI, despite whether the patient remains catheterized or not. A 5-day regimen with levofloxacin is likely to be sufficient for most patients with mild UTI. A shorter course, such as a 3-day regimen commonly used in uncomplicated UTI.<sup>9</sup>

## **CONCLUSION**

In this research study findings revealed that nursing guidelines is highly effective in improving knowledge and practice of internship nursing students regarding preventive measures of urinary tract infection in patients with indwelling catheter.

## **ETHICAL CONSIDERATION**

A formal ethical approval received from institutional ethical committee. Informed consent was obtained from participants and assured for anonymity.

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**CONFLICT OF INTEREST:** Author declared that no conflict of interest disclosed.

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