Assessment of the Surgical Staff Knowledge towards the Methods of Transmission of the Urinary Tract Infection at Selected Surgical Units, Saudi Arabia

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Abstract: Urinary tract infection (UTI) is one of the frequently widespread infections affecting the elderly patients. The aim of this article was to assess surgical staff knowledge towards the methods of transmission of the UTI. Looking forwards utilizing strategies for improving the management of UTI in elderly surgical inpatients.

Keywords: Urinary Tract Infection, Knowledge & Surgical Units

1. Methods

A descriptive research design was utilized in the current research. A total of 150 surgical staff at selected surgical units was given a structured questionnaire On June, 2016. They were asked to indicate their knowledge towards the methods of transmission of the UTI. For each item concerning the knowledge towards the methods of transmission of the UTI the proportion of surgical staff perspectives towards measuring their level of knowledge about the methods of was calculated. Descriptive statistics like percentage was used to describe the findings using SPSS 20.

2. Results

The current research study objectives were to assess the surgical staff perspective toward methods of transmission of the UTI. Mean knowledge about of items pertaining to surgical staff towards the methods of transmission of the UTI within the study setting was (73.1%).

3. Conclusions

Concerning the surgical staff knowledge toward the methods of transmission of the UTI, contained by the study setting, the data findings showed that; there was a highest level of surgical staff knowledge towards the modes of transmission of urinary tract infection within the selected setting.

4. Introduction

Nowadays, infectious diseases is consider as one of the most common evidence based concepts to be investigated and involved in most of the surgical researches. Urinary tract infection (UTI) is one of the frequently widespread infections affecting the elderly patients. Nevertheless; UTI is over diagnosed and over treated in most of the health care setting all over the world. (Rao & Patel ,2009).

According to McMurdo &Gillespie, (2000), hospitalization put patient at associated risks, including risk of infection. Nosocomial infections, or hospital-associated infections, are estimated to occur in Five percent of all acute care hospitalizations, or two million cases per year. Hospital-associated infections have been identified as one of the most serious patient safety issues in health care. Postponing urination, pregnancy, menopause, frequent intercourse, records on urinary infection during childhood are considered as predisposing factor to the infection. A quarter of women who reported urinary infection for the first time would be re-infected in less than 3 months. Early diagnose of urethral infection was considered very important to prevent relapse and indication of its complications such as rental failure, adhesions among pregnant women, abortion and early delivery.

Woodford & George, (2009) , mentioned that infections that be converted into clinically obvious after forty eight hours of hospitalization are well thought-out hospital-associated. Risks factors for hospital-associated infections are generally categorized into three areas: iatrogenic, organizational, or patient-related. Iatrogenic risk factors include invasive procedures like intubation, indwelling vascular lines, urine catheterization and antibiotic use and prophylaxis. Organizational risk factors include such things as contaminated air-conditioning systems, contaminated water systems, staffing, and physical layout of the facility as open beds close together). Examples of patient-related risk factors include severity of illness, immunosuppressant, and length of stay.

Attributable to increased risk of infection associated with urinary catheters, a number of practices have been evaluated in an attempt to reduce the incidence of urinary catheter-
related infections. These include alternative approaches to use of urinary catheters and antimicrobial urinary catheters. (UTI) is known as a common infection among women; in more than 95 percent of cases urinary infection is created by a certain group of bacteria; the major pathogen of urinary infection is E.coli bacteria, which is a normal bacterial flora in intestines. It seems that the reasons for increased prevalence of such infections among women are proximity of their urethral and anus, short length of urethral and warm and wet environment of perinea (Boscia,et al., 2012).

5. Methods

A descriptive research design was utilized in the current research. A total of 150 surgical staff of selected surgical units, Saudi Arabia, were given a structured questionnaire during June 2016. This number constitute, more than two third of the surgical staff of the time of data collection. All wards representing units concerning all the subspecialties’ were consider as a setting for the current research. The surgical staff at each unit was contacted to discuss the importance of the research and the study protocol. An anonymous 20-items questionnaire was adopted from valid & reliable tool using the guidelines from a Taxonomy for Augustine (1993). All questions had fixed answer categories.

The questionnaire was pilot-tested and dealt with the following topics: demographic data; data concerning knowledge towards the methods of transmission of the UTI. Descriptive statistics like percentage was used to describe the findings using SPSS 20. All categories data were analyzed using the Chi-squared test with or without Yates’ correction; Statistical significance for all analyses was presumed for P at 0.05.

6. Results

The current research study objectives were to assess the surgical staff perspective toward methods of transmission of the UTI. The Mean knowledge about of items pertaining to surgical staff towards the methods of transmission of the UTI within the study setting was (73.1%).

Regarding the surgical staff knowledge toward the methods of transmission of the UTI, contained by the study setting, the data findings showed that; there was a highest level of surgical staff knowledge towards the modes of transmission of urinary tract infection within the selected setting.

| Sl. No. | Knowledge of Items                                                                 | Frequency of correct Response | Percentage of correct Responses |
|--------|-----------------------------------------------------------------------------------|-------------------------------|--------------------------------|
| 1      | Hospital acquired infections are the result of self infection, cross infection & environmental infection | 20                            | 40                             |
| 2      | The single most important measure for preventing HAI is hand washing               | 43                            | 86                             |
| 3      | The common causative organism of UTI is E. Coli                                 | 37                            | 74                             |
| 4      | HAI's are transmitted through body fluids, staff hands and reusable equipment     | 45                            | 90                             |
| 5      | Immunization is not a universal precaution                                         | 44                            | 88                             |
| 6      | Hemoglobin less than 11 gm % is not a sign of infection.                          | 48                            | 96                             |
| 7      | Patients receiving immunosuppressive therapy are more susceptible to HAI          | 44                            | 88                             |
| 8      | In case of UTI, bacterial count of 10 CFU/ml of Urine c/s is significant          | 22                            | 44                             |
| 9      | Sterilization is a process of killing of microorganism including spores           | 43                            | 86                             |
| 10     | Gluethyde is to be changed every 28 days                                        | 45                            | 90                             |
| 11     | More than 15 CFU organisms are grown in an agar plate                             | 9                             | 18                             |
| 12     | Sterile technique is not necessary for nose gastric feeding.                      | 41                            | 82                             |
| 13     | The most important factor involved in hand washing is friction                    | 24                            | 48                             |
| 14     | HAI is synonymous to nosocomial infection                                         | 39                            | 78                             |
| 15     | Moisture enhances the trans-mission of micro-organisms                            | 48                            | 96                             |
| 16     | Boiling is a method of sterilization                                              | 16                            | 32                             |
| 17     | Chemical disinfection is the best method of sterilizing surgical instruments      | 38                            | 76                             |
| 18     | If a person doesn't show sign and symptoms of disease, he can't transfer a disease | 49                            | 98                             |
| 19     | Alcohol is an effective disinfectant when rubbed in skin.                         | 39                            | 78                             |
| 20     | UTIs are one of the most common forms of HAI                                      | 37                            | 74                             |

Mean knowledge about of items pertaining to Surgical Staff towards the methods of transmission of the UTI within the study setting was (73.1%).

7. Discussion

The response rate to the current research was excellent, suggesting that this was an area of importance for surgical staff. In this research, more than two third of the surgical staff were replied that there was a high level of knowledge towards the transmission of urinary tract infection compared to a study conducted by Ciavarelli, Figlock & Sengupta who studied the factors in aviation of the staff awareness in relation to methods of UTI transmission it revealed that the hospital staff reported (46%) of the surgical staff in relation to organizational culture safety. Moreover, In Saudi Arabia, it was reported that there was a lack of skills in relation to utilization of the universal measures to prevent the transmission of UTI Urinary tract infection is a common infection among women and is followed by several complications. The aim of this study was determine the prevalence and factors influencing prevention of urinary tract infection based on health belief model. A cross-sectional study was conducted among 166 female students in...
The current study recommend utilization of continuous educational measures to enhance the surgical and other Health care providers to increase their knowledge towards the methods of transmission of the UTI. Furthermore applying performance feedback and increased availability of specialist equipments are imperative for improving management of UTIs in the elderly.

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