

## EVIDENCE FOR EQUIPMENT TRANSMISSION

### DURING PATIENT CARE

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#### ABSTRACT

##### Objectives

This study aimed to identify the prevalence of pathogenic organisms existing on samples collected from diaphragms of stethoscope, and cuffs of blood pressure and to compare before and after decontaminated with disinfectant among the cultured samples in clinical wards.

##### Method

A prospective observation study design was used. A total of 104 medical equipment (53 cuffs of blood pressure and 51 stethoscopes) were sampled that included before and after disinfection with Meliseptol rapid (50% kl/kl 1-Propanol 0.07%kl/kl Didecyl Dimethyl Amonium Chloride). Thus, cultures and the pathogenic micro-organisms were identified at Pasteur institute in HCM city.

##### Results

For both stethoscopes and blood pressure cuffs, there was a significant difference between the prevalence of pathogenic micro-organisms presents ( $P < .0001$ ), the number of colonies of pathogenic and a-pathogenic micro-organisms ( $\chi^2 = 679$  and degrees of freedom = 1,  $P < .0001$ ). The number of Coagulase negative Staphylococcus (CoNS) and a-pathogenic micro-organisms ( $\chi^2 = 5.79$ , degrees of freedom = 1,  $P = .016$ ) (table 4.8.1) before and after being decontaminated with disinfectant. In this study, the results were showed that for Coagulase negative Staphylococcus, the resistant proportions of Cefoxitin 30 and Erythromycin (19/26) were the highest to 73,08 % (19/26), continually, the one of the Azithromycin (24 $\mu$ g) was 69,23 % (18/26), and for three antibiotics Vancomycin, Neltimicin and Teicoplanin 20, their resistant proportions were 0 %.

##### Conclusion

This study showed the benefits of disinfectant in prevention and reduction of the contamination through medical equipment in clinical practice. Furthermore, disinfectant can reduce the number of colonies of pathogenic and a-pathogenic micro-organisms, the prevalence of pathogenic micro-organisms presenting on stethoscopes and cuffs of blood pressure meters after disinfection. There are 16

CoNS samples resisted Methicillin (MRCoNS) and 15 MRCoNS had MecA gene identified with Protein Chain Reaction (PCR). MRCoNS presenting on these medical equipments were the evidence of cross contamination or cross-infection from health care workers or patients to blood pressure cuffs and stethoscopes or conversely. The results serve as a reference for health professionals to be aware cross contamination and prevention strategies during patient care.

### **Keywords**

Pathogenic and a-pathogenic micro-organisms, Coagulase Negative Staphylococcus (CoNS), Methicillin resistant Coagulase Negative Staphylococcus (MRCoNS)

## A STUDY OF NURSE'S KNOWLEDGE AND SKILLS ON NOSOCOMIAL INFECTION CONTROL IN VIETNAM

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### Abstract

#### Objectives

This study aim was to evaluate the effectiveness of nurses training program on knowledge, and practice of nosocomial infection control at Cho Ray hospital in Vietnam.

#### Method

Pretest and posttest study design was used. A total of 108 nurses derived from 6 departments at the HepatoBiliary- Pancreatic, Orthopaedics, Digestive, Burns, Neurology A and Neurology B of Cho Ray Hospital participating in this research since 15/10/2014 to 15/02/2015. A survey on nurses' knowledge of nosocomial infection control as a baseline measurement, followed by 6 week training program as intervention strategy, the statistical differences were used to analyze the effectiveness of the training program derived from the baseline measurement and post-test. Finally, a checklist was used as a to observation tool to evaluate nurses' hand washing, and intravenous injection skills.

#### Results

There was a significant improvement in knowledge of hospital infection control among 108 nurses participating in this research. Before the training program, only (2.8%) 3/108 of the nurses could answer correctly all of 26 questions about general knowledge of infection control. However, 58.1% (63/108) of nurses answered all the questions correctly after six weeks training program. A paired t-test was used which indicated that a statistically significant difference between baseline and post-test after training with  $p < 0.01$ . Training programs enhance nurses' knowledge of infection control demonstrated training effect. The nurses also improved practice on hand hygiene which according to guidelines recommended by WHO and Ministry of Health of Vietnam, and intravenous injection skills significantly.

#### Conclusion

From results of this study implied that it was necessary to organize a standard training program of nosocomial infection control periodically for nurses to update their knowledge and practice. Even though they were well trained before working for the hospital, without regularly reminded about the importance of preventing

nosocomial infection, their knowledge and quality of practice on nosocomial infection might be deteriorated over time.

Keywords: Knowledge, Practice about infection control of nurses

## A SURVEY OF KNOWLEDGE, ATTITUDE AND SELF-CARE BEHAVIOR ON THE PATIENTS WITH COLOSTOMIES IN VIETNAM

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### Abstract

**AIM:** This research aimed to survey knowledge, attitudes and self-care behaviors of patients with colostomies who are members of Ostomy Supporting Group.

**BACKGROUND:** Literature on survey knowledge, attitudes and self-care behaviors of patients with colostomies in Vietnam was limited. This study was not only assess patients with colostomy overall, but also proposed to construct health education program in advance.

**METHOD:** A descriptive research design was used. Participants were recruited from the meeting of Ostomy Supporting Group in 23 March, 2014, at University medical Center Ho Chi Minh City in Viet Nam. The researcher set up 60 questions for patients to full fill the answers under instruction of the researcher. There were 112 participants participate in this study, however, only 100 valid questionnaires resulting in an 89 % response rate. The Statistical Package for the Social Sciences version 16.0 was used for analyzing the collected data by a combination of statistical procedures.

**FINDINGS:** In overall, 42 percentages of patients with colostomies who had good knowledge on colostomy, 63% showed positive attitudes toward to colostomy, and 73% demonstrated self-care behaviors on their colostomy. In addition, the relationship among knowledge, attitudes and self-care behaviors were statistically significantly. Knowledge has influenced attitudes and self-care behaviors among patients with colostomies.

**CONCLUSION:** This research has exposed patients' ability in self-care of their colostomies. Moreover, construction of health education program in advance was very important to upgrade patients' knowledge. Future studies need to focus on construction and evaluation patients education programs.

**KEYWORDS:** *Knowledge attitude, knowledge behavior, knowledge colostomy, attitude colostomy, self-care colostomy, colostomy.*