STUDY OF AWARENESS AND PRACTICES OF INFECTION CONTROL, AMONG HOSPITAL STAFF IN INTENSIVE CARE UNIT

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ABSTRACT

Introduction: Hospital-acquired infection also known as nosocomial infection — is an infection that is contracted from the environment or staff of a healthcare facility. It can be spread in the hospital environment, nursing home environment, rehabilitation facility, clinic, or other clinical settings.

Aim: To assess the practices for infection control measures and to identify the major factors hampering infection control measures in ICU

Methods: 30 ICU staffs were accessed using a questionnaire regarding infection control.

Results: 30 participants in the study, 86% of the staff follows all of the steps of hand washing, as stated in WHO guidelines, 74% of the staff said they always wear fresh gloves before patient examination, 53% said that they always dispose off waste in a right colour coded dustbin, ICU has any guidelines/protocols for patient oral health care, 68% of the respondents followed it, 98% of the staff agreed that good catheter care practices help in avoiding various infections in patients.

Conclusion: Good infection control is essential but the complex nature of infection means that it is not always easy to achieve. Continuous training and monitoring will prevent infections.

KEYWORDS : Hospital Acquired Infections, Quality, Intensive care unit

INTRODUCTION

Hospital acquired infections (HAIs) are common in intensive care unit (ICU) patient and are associated with increased morbidity and mortality. The main reason being severity of illness, interruption of normal defense mechanism (e.g. mechanical ventilation), malnutrition & inability to ambulate make it more susceptible to multi drug resistant organism (MDRO). It may not be possible to eradicate all hospital-related infections. However, an effective infection control program provides optimum protection. Despite progress in public health and hospital care, infections continue to develop in hospitalized patients, and may also affect hospital staff. The burden of HAI is substantial in developed countries, where it affects from 5 per cent to 15 per cent of hospitalized patients in regular wards and as many as 50 per cent or more of patients in intensive care units. In developing countries, the magnitude of the problem remains underestimated or even unknown largely because diagnosis of hospital acquired infection is complex and surveillance activities to guide interventions require expertise and resources. Studies also show that patients hospitalized in ICUs are 5 to 10 times more likely to acquire nosocomial infections than other hospital patients.

AIM

To assess the practices for infection control measures and to identify the major factors hampering infection control measures in ICU

MATERIALS AND METHODS

The study was primarily conducted to assess the three factors responsible for noncompliance of infection control measures–awareness, practices and management support. Primary data were collected through questionnaire on awareness and practices about hospital acquired infection. In-depth interviews were conducted of the ICU staff and personnel involved in the control of hospital-acquired infections including the ICU in-charge. The tools were prepared based on the hospital-acquired infection guidelines provided by the World Health Organization (WHO) and Centre for Disease Control (CDC). The tools were pre-tested before data collection and proper approval was obtained from the appropriate authority prior to the study. The limitation of the study was that the HAI control practices could not be observed but evaluated based on a self designed questionnaire and interview schedule.

RESULTS

30 participants in the study, 6 doctors including 3 senior consultants and 3 junior consultants were questioned regarding infection control. 10 staff nurses which include ICU in-charge, 6 ICU interns, 4 nursing interns, 6 B.Sc. Nursing students posted for training in IUC were included.
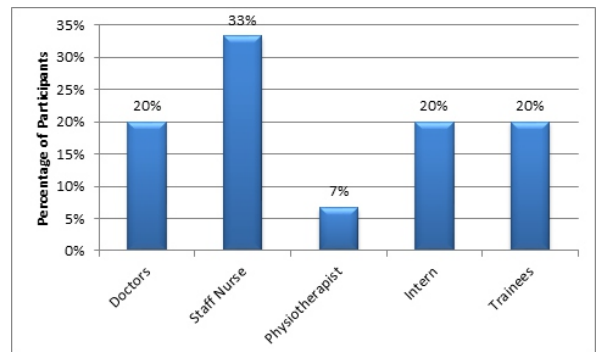

Figure 1 Distribution of Study participants

96% of questionnaire respondents believed that Personal Protective Equipment is an effective barriers for infection control. 94% staff agreed that hand mediated transmission is the major source of cross infection. According to the questionnaire response 92% of the staff said that they follow all five moments of hand hygiene. 86% of the staff follows all of the steps of hand washing, as stated in WHO guidelines. 74% of the staff said they always wear fresh gloves before patient examination while only 12% said they do it sometimes. While in actual practice as per direct observation only 52% of them wore fresh gloves before patient procedures, out of which the percentage was highest for physiotherapists. Out of the 30 respondents 53% said that they always dispose off waste in a right colour coded dustbin, 22% did it frequently, 19% did it sometimes, 4% rarely did it and only 2% of the staff members never did it. Good oral health care reduces colonization of micro organisms in the oral cavity and 84% of the staff agrees to it. When asked if the ICU has any guidelines/protocols for patient oral health care, 68% of the respondents said yes, 10% said no and 28% did not know about it. When asked if the staff followed these patient oral health care practices as per the guidelines/ protocols , 78% agreed to it while in actual practice only 54% did it. The staff had mixed views about the quality of sanitation services provided in the ICU. Only 30% felt it was excellent, 53% thought it was good, 17% said its

OK. 82% staff agreed that all the patient care equipments are sterilized properly in the ICU , 18% did not agree with the above statement. 98% of the staff agreed that good catheter care practices help in avoiding various infections in patients. When asked from the staff if there are any guidelines/protocols for catheter care in the ICU, 78% said yes, 8% said no and 14% did not know about it. 57% said they frequently follow these while 4% did it only occasionally. When asked if CMEs , training programmes and awareness campaigns are helpful in preventing infection in ICU, 90% of the staff agreed to it.

DISCUSSION

The awareness level about the Hospital Acquired Infections and prevention recommendations should be improved among the hospital employees. All the hospital employees are recommended to use personal protective equipment includes masks, eye protection and clothing during working hours to prevent Hospital Acquired Infections. All the hospital employees should wear fresh gloves while handling or examine the patients to prevent hand mediated transmission of cross infection. The hospital management needs to recommend its employees to follows all the five moments of hand hygiene and follows all of the steps of hand washing, as stated in WHO guidelines. All the bio medical wastes should be disposed in right colour coded dustbin to prevent transmission of diseases while disposed it. The quality of sanitation services and quality of hospital hygiene provided in hospital should be improved. All the patient care equipment's should sterilized properly. Good catheter care practices should be practiced in hospitals in avoiding various infections in patients. The hospital employees need to follows the guidelines/ protocols for catheter care in hospital. The hospital management need to give counseling for the employees on preventing hospital acquired infections. The instrument transport vehicles should be cleaned daily. All the employees need to participate in Infection control programs conducted by the hospital management. The hospital should have enough rooms, high bed counts to reduce the chance of preventing hospital acquired infections. The bed occupancy rates are compromising good infection prevention and control practices. The hospital management need to provide training programs and awareness campaigns to preventing infection in hospital. The training should be specifically related to infection control. The training offered during normal work hours will help the employees better and on job training will help the employees to understand better. All the hospitals should successfully implement the prevention recommendations to improve its operational efficiency.

CONCLUSION

Good infection control is essential but the complex nature of infection means that it is not always easy to achieve. Accurate surveillance that provides information to clinicians about where improvements can be made, comprehensive education, regular updates, and good hospital policies are all necessary to control the spread of Hospital acquired infections.

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