



A STUDY ON HOSPITAL ACQUIRED INFECTION AND PREVENTION RECOMMENDATIONS IN TERTIARY CARE HOSPITAL

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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 study about hospital acquired infections and prevention recommendations with reference to tertiary care hospital.

Methods: 150 hospital employees were accessed using a questionnaire with 31 questions regarding Hospital infection control.

Results: 92% of the respondents are aware on all types of Hospital Acquired Infections and prevention recommendations. Personal Protective Equipment is an effective barrier for infection control, 36% of the respondents are answered strongly agree. Quality of sanitation services provided in hospital, 36% of the respondents are answered Excellent, 42% of the respondents are answered good.

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, healthcare

INTRODUCTION

Good hygiene practice in hospitals and in operating theatres is mandatory to minimize nosocomial postoperative infections. Health care-associated infection is a major cause of morbidity and mortality. Patients expect to be treated and cared for in clean conditions, and not be exposed to the risks of acquiring an infection by poor practice on the part of healthcare workers. Cleaning regimes are paramount in controlling the spread of infection in the hospital environment. They play a significant role in reducing the instances of healthcare associated infections that can be transferred; from the healthcare practitioner to the patient; from the environment to the patient and from patient to patient. Theatre walls, ceiling and floor finishes should be impermeable to bacteria and able to endure frequent wet chemical cleaning. Curved joints between walls, ceilings and floor aid effective cleaning and drying (Davey and Ince 2004). Kim et al 2006 highlights the importance of high standards of ward cleaning to stop the spread of methicillin-resistant *Staphylococcus aureus*. British infection control doctors argue that instead of attempting to apply limited MRSA control measures, which are impossible to achieve, infection control has a duty to press for investment in cleaning (Barrett et al 2003). Hospital cleaning services play a key part in minimizing the risk of hospital acquired infections, which have serious consequences for patients and lead to significant costs. A meta analysis of three randomised controlled trials showed that cleaning is essential to containing MRSA, gastrointestinal, and other types of infection outbreaks (Anderson and Rasch 2000) (Griffith et al 2007). This view is reinforced by Noone and Griffiths 2004 who conducted one large randomized study on hospitalized patients showing the only intervention used to combat a glycopeptides-resistant enterococci (GRE) infection outbreak at a UK hospital was a very thorough and systematic cleaning of the wards, after which reduction in both the level of environmental contamination and the numbers of infected patients were noted.

AIM

To study about hospital acquired infections and prevention recommendations with reference to tertiary care hospital.

MATERIAL AND METHODS

This is an observational study conducted in a tertiary care hospital. It is a subset of population, in this study 150 hospital employees are selected based on the possibility of getting exact information

required for the project. Well designed questionnaire with 31 questions were distributed to the participants.

RESULTS

Table 1 Quality of hospital hygiene

S. No.	Particulars	No. of Respondents	Percentage
1.	Excellent	28	18.7
2.	Good	65	43.3
3.	Ok	36	24.0
4.	Bad	21	14.0

Table 2 Personal Protective Equipment is an effective barrier for infection control

S. No.	Particulars	No. of Respondents	Percentage
1.	Strongly agree	54	36.0
2.	Agree	63	42.0
3.	Neutral	20	13.3
4.	Disagree	11	7.3
5.	Strongly disagree	2	1.3

Table 3 Follows all of the steps of hand washing, as stated in WHO guidelines

S. No.	Particulars	No. of Respondents	Percentage
1.	Yes	140	93.3
2.	No	10	6.7

Table 5 Hospital management giving counseling for the employees on preventing hospital acquired infections

S. No.	Particulars	No. of Respondents	Percentage
1.	Yes	119	79.3
2.	No	31	20.7

Table 6 Mention awareness level of preventing hospital acquired infections

S. No.	Particulars	No. of Respondents	Percentage
1.	Very high	25	16.7
2.	High	49	32.7
3.	Moderate	42	28.0
4.	Low	24	16.0
5.	Very low	10	6.7

62% of the respondents are male and 38% of the respondents are female. 32.7% of the respondents are aged between 18 – 25 yrs, 38% of the respondents are aged between 26 – 35 yrs, 20% of the respondents are aged between 36 – 45 yrs and 9.3% of the respondents are aged between 46 – 55 yrs. 18% of the respondents are Doctor, 57.3% of the respondents are Nurse and 24.7% of the respondents are Other Medical staff. 92% of the respondents are aware on all types of Hospital Acquired Infections and prevention recommendations, 3.3% of the respondents are unaware on all types of Hospital Acquired Infections and prevention recommendations and 4.7% of the respondents are can't say anything. Quality of hospital hygiene, 18.7% of the respondents are answered Excellent, 43.3% of the respondents are answered Good. 100% of the respondents are using Personal Protective Equipment. 14.7% of the respondents are answered sometimes wear fresh gloves before patient's examination, 26.7% of the respondents are answered always wear fresh gloves before attending patients. 100% of the respondents are answered that they follow the guidelines/ protocols for catheter care in hospital. Infection control examination in hospitals for MRSA, has been done regularly. 100% of the respondents are answered that Hospital facility tracks MRSA infection Training programmes and awareness campaigns are helpful in preventing infection in hospital, 16.7% of the respondents are strongly agree, 36.7% of the respondents are Agree. Overall satisfaction about Hospital Acquired Infections and its prevention recommendations in hospital, 16% of the respondents are Highly satisfied, 26.7% of the respondents are Satisfied, 26.7% of the respondents are Neutral, 16% of the respondents are Dissatisfied and 14.7% of the respondents are Highly dissatisfied.

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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