



## PILOT STUDY ON PREVENTION OF HOSPITAL ACQUIRED INFECTION IN A 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.

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

**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.

**Results:** The awareness level about the Hospital Acquired Infections and prevention recommendations should be improved among the hospital employees. All the hospital employees should wear fresh gloves while handling or examine the patients to prevent hand mediated transmission of cross infection.

**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.

### MATERIALS 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. The data sources could be either problem specific and primary data or historical and secondary in nature. Primary Data as the name suggests is in original, problem or project-specific and collected for the specific objectives. The accuracy and relevancy is reasonably high. Secondary Data as the name implies is that information which is not topical or research specific and has been collected and compiled by some other people/researcher or investigation body. This type of data is recorded and published in a structured format, and thus is quicker to

access and manage. In most instances, unless it is a data product, it is not too expensive to collect. Basic hospital acquired infection questions were asked to the hospital staffs.

### RESULTS

**Table 1 Quality of hospital hygiene**

| S. No. | Particulars | No. of Respondents | Percentage |
|--------|-------------|--------------------|------------|
| 1.     | Excellent   | 36                 | 24.00%     |
| 2.     | Good        | 42                 | 28.00%     |
| 3.     | Ok          | 51                 | 34.00%     |
| 4.     | Bad         | 21                 | 14.00%     |

**Table 6 Mention awareness level of preventing hospital acquired infections**

| S. No. | Particulars | No. of Respondents | Percentage |
|--------|-------------|--------------------|------------|
| 1.     | Very high   | 44                 | 29.33%     |
| 2.     | High        | 36                 | 24.00%     |
| 3.     | Moderate    | 54                 | 36.00%     |
| 4.     | Low         | 12                 | 8.00%      |
| 5.     | Very low    | 4                  | 2.67%      |

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 means 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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