

# A Descriptive Study to Assess the Knowledge on Infection Control among Staff Nurses in I.C.U in Selected Hospitals in Chennai

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**Abstract:** *The aim and objective of the study was to knowledge on infection control among staff nurses in I.C.U in selected Hospitals Chennai, India. A descriptive study was adopted. A total of 30 nurses participated in the present study, randomly chosen from I.C.U. An observational checklist was used for data collection after getting their informed consent. Self-made scoring system was used to categorize the participants as whether they follow the correct practice, partially correct practice or the incorrect practice. Purposive sampling technique was adopted to select the sample of the study. The result of the study concluded that the frequency and percentage distribution of level practice on infection control among staff nurses reveals that 24(80%) staff nurses were found following correct practices, 4(13.3%) of staff nurses were found following partially correct practices, and 2(6.7%) were following incorrect practices. The study reveals that some nurses were correctly practicing the various aspects of infection control but for some who were not found to be completely responsible for infection control in the hospital; their problems were sort out such as inadequate staff in the I.C.U; less supervision, increase workloads, etc. It is the responsibility of the nurse to care for the environment and public health particularly in relation to the infection control. The importance of training regarding infection control cannot be overemphasized; lack of proper and complete knowledge about infection control impacts practices of appropriate waste disposal among staff nurses in the hospital.*

**Keywords:** Nurse, infection Control, infection control management, I.C.U, hospital

## 1. Introduction

Microbes are everywhere in the biosphere and their presence in variably affects the environment they are growing in. The effects of microbes on their habitats can be beneficial or harmful or in apparent with regards to human affairs. The beneficial effects of microbes drive from their metabolic activities in the environment, their associations with plants and animals and their use in food production and biotechnological processes. The primary harmful effect of microbes upon our existence and civilization is that they are an important cause of disease in animals and human beings, and they are agents of spoilage and decomposition of our foods, textiles and dwellings. A microbe, which is capable of causing infectious disease in human being, is called a pathogen. Four groups of microbes contain pathogens: Bacteria, Fungai, Protozoa and Viruses. Pathogens are the cause of infectious disease (Madison, 2006).

Infection is the invasion of the body by pathogenic microorganism that invades the issue and overcome the patient's resistance and multiplies. In healthcare settings the patients may be infected by their own organism called as endogenous infection or may be by organism from other people called as exogenous infection. Cross infection organisms are present and are resistant to several antibiotics especially in health care facilities like surgical wards, intensive care units (Ananthanarayan, 2002).

Nosocomial infections are defined as an infection acquired during or as a result of hospitalizations. The

patients neither have these infections nor are incubating these infection on admission. Generally a patient who develops an infection after 48 hours of hospital admission is considered to have a nosocomial infection. Some nosocomial infection may not as disease immediately and can manifest event after discharge (Abraham, 2003).

Infection is common but often avoidable complication of health care which has major the patient and the health care service. It has been estimated that up to one third of (Hospital) infection could be prevented by improved infection control practice. (Haley 1985)

Infection occurs in hospitals and health post because patients who visit these facilities have often many different illness; while in the hospital or health post they may transmit these organisms through direct or indirect contact. Factors which make a person more likely to get infected are of certain ages (newborn's, elderly) underlying diseases (diabetes, malnourishment). Drug therapy (antibiotics, steroids) and invasive procedures (surgery and catheterization) (Ayllife, 1992).

Two modes of contact transmission exist, direct and indirect contact transmission. Direct contact transmission consist of direct body surface to body surface contact and physical transfer of bacteria between a susceptible host and an infected or colonized individual, for example bathing or turning a patient. Indirect contact transmission involves contact of a susceptible host with contaminated objects like medical instruments, dressings, used gloves

that are not changed between patient's care and unwashed hands (Kelly, 2002).

In an intensive care unit, people are crowded and health care workers are frantically running from patient to patient. Hand washing might not be adhered to assiduously enough. Health care workers going from a wound site to an intravenous catheter without washing their hands can trigger infection among many patients (Wenzel, 1999).

Nosocomial infections contribute greatly to morbidity, mortality and often length of stay in the intensive care unit (ICU) with enormous additional costs by patients and their families. Multi-drug resistance is the another notorious character of these organisms (John 1999).

## 2. Material and Method

A descriptive study was conducted to assess the knowledge on infection control among staff nurses in I.C.U. The study was conducted in selected Hospitals. Study participants included staff nurses working in the I.C.U. A total of 30 staff nurses participated in the study and were observed for infection control practices. An observational checklist was pre-designed to observe the practice of the staff nurses in I.C.U. There were 25 dichotomous questions prepared in the observational checklist. The data was collected by observing the practices of infection control and each correct practice was given a score of 'one' and wrong practices were given a score of 'zero'. Self-made scoring system was used to categorize the participants as whether they follow the correct practice, partially correct practice or the incorrect practice.

The score was interpreted as follows:

Level of Practice	Score of Percentage
Correct practices	>75%
Partially correct practices	51 – 75%
Incorrect practices	<50%

## 3. Results

The findings of the study are discussed in terms of objective and hypothesis of the study.

### Sample characteristics:

- Most of the subjects (90%) were in the age group of 21-30 years and minimum numbers of subjects (10%) were found in the age group of 40 years and above.
- Most of the subjects were female 93.3% and male 6.7%.
- With regard to professional qualification most of the subjects were GNM (40%), B.Sc(N) with (53.3%) and the minimum subjects was an post Bsc (N) covering only (6.7%) and the minimum subjects was M.Sc(N) (0%).
- Most of the subjects (20%) had 5-6 years, (3.3%) and above 6 years experiences, (33.3%) had 1.1-2 years experience, and minimum (36.7%) had 3 - 4 years experience and <1 year experience.
- Most of the subjects (33.3%) got information from the colleagues which may be due to comfort approach,

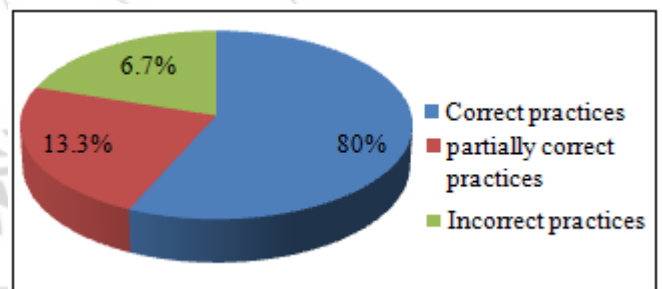
(16.7%) got information from the supervisors, (30%) got information from the doctors, and (20%) mass media which may be due to easy accessibility.

**The objective was to assess the knowledge on infection control among staff nurses in I.C.U.** The frequency and percentage distribution of level of practice on infection control among staff nurses reveals that 24(80%) had were following correct practices, 4(13.3%) of staff nurses were following partially correct practices, and 2(6.7%) were following incorrect practices.

**Table 1:** Level of practices on infection control among staff nurses in I.C.U

Level of practice%	No (n=30)	Percentage %
Correct practices	24	80%
Partially correct practices	4	13.3%
Incorrect practices	2	6.7%

Table 1 shows that 24(80%) of staff nurses were found following the correct practices, 4(13.3%) were found following partially correct practices and 2(6.7%) were found to be following the incorrect practices of infection control in I.C.U.



**Figure 1:** Percentage distribution on level of practices on infection control among staff nurses in I.C.U.

## 4. Discussion and Conclusion

The participants involved in this study were assessed for the practice with regards to infection control. The study showed that only 80% of the staff nurses were found to be following the correct practices on infection control. The rest were ignorant on all counts regarding the practice. The implication drawn from the study are of vital concern to all health care team members and need to be incorporated in both theory and practice. The importance of training regarding infection control management cannot be overemphasized; lack of proper and complete knowledge about infection control impacts practices of appropriate waste disposal. Factors such as increase workload, lack of staff in the I.C.U, less supervision also have a major impact on the practice of infection control. Thus the following recommendation needs to be implemented: (i) strict implementation of hand washing techniques rules is the need of the hour, supervision of hand washing programme in the hospital and its documentation, (ii) conducting the orientation programme for the new staff members and (iii) organizing continuous awareness programme amongst the staff members.

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