

Hospital Infection Control- Basic Awareness and Implementation



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Introduction



Health care-associated infection (HCAI), also referred to as “nosocomial” or “hospital” infection, is defined as: “An infection occurring in a patient during the process of care in a health-care facility which was not present or incubating at the time of admission. This includes infections acquired in the hospital but appearing after discharge, and also occupational infections among staff.”

HCAI is acknowledged as the most frequent adverse event in health care, but the global burden remains unknown because of the difficulty of gathering reliable data.

Studies published from 1995 to 2008, the overall prevalence of HCAI in developed countries varies between 5.1% and 11.6%.

RATIONALE

According to the available evidence, the impact of HCAI implies prolonged hospital stay, long-term disability, increased resistance of microorganisms to antimicrobials, massive additional financial burden for health systems, high costs for patients and their family, and unnecessary deaths.

Some infections, such as bloodstream infection and ventilator associated pneumonia, have a more severe impact than others in terms of mortality and extra costs.

Directly attributable to bloodstream infection in critically ill patients has been estimated to be 16–40% and the increase in length of stay between 7.5–25 days.

Very few studies from developing countries assessed HCAI impact and no report provided national estimates. Increased length of stay associated with HCAI varies between 6 and 23 days in non-critically ill patients. In developing countries, crude excess mortality in adult critically ill adults affected by ventilator-associated pneumonia is reported to be as high as 27.5%.

Objectives

- To assess the infection control measures obtained by hospital.
- To assess the knowledge regarding the infection control practices by medical and non -medical staff
- To assess the practical implementation of the infection control practices on the regular basis.
- To identify the training needs if any for the staff.

METHODOLOGY

Study Type

- Cross-sectional study.

Study Area

- ICUs (Medical, Surgical, Cardiac), Wards (general ,private, semi-private, super deluxe)

Sampling method

- Convenient sampling method

Study Participants :

- Staff of the respective departments and nursing staff

Sample size

- 54 nursing staff directly involved with the patient care.

- Interview checklist.

**Study
Technique**

- Structured questionnaire,
Checklist

Study Tool



**Data
Collection
Plan**

**Data
analysis**

- surveyed 54 nursing
staff
- data interviews and
observation

MS-Excel sheets

Essential standard precaution-

Standard precaution should be considered minimum requirements for infection control. Implementing standard precaution minimizes the risk of transmission of infection from person to person even in high –risk situation. In this study 5 important components included are as follows-

3.1.1 Hand hygiene

3.1.2 Safe infection and infusion process

3.1.3. Transmission –based precaution

3.1.4. CAUTI (catheter associated urinary tract infection)

3.1.5. Central line infection.

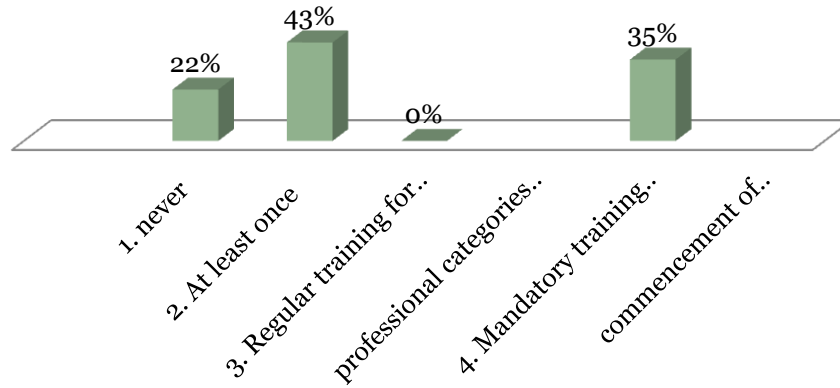


figure 4:Training -Hand Hygiene

Hand hygiene

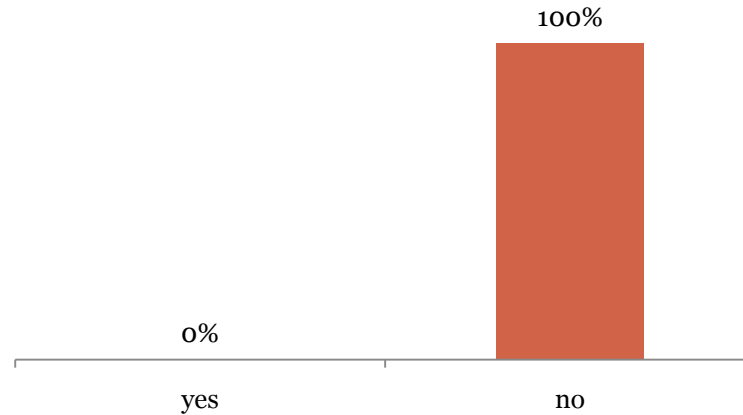


Figure8:Consumption of hand rub/soap monitored

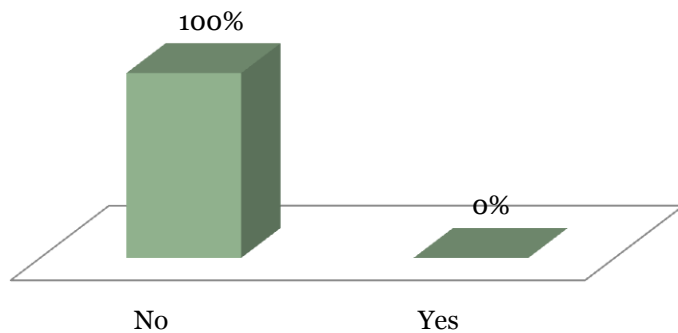


Figure9:Before handling food and medications

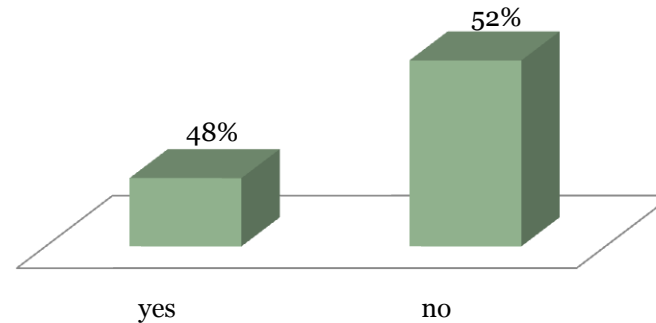


Figure11:Before and after touching patient

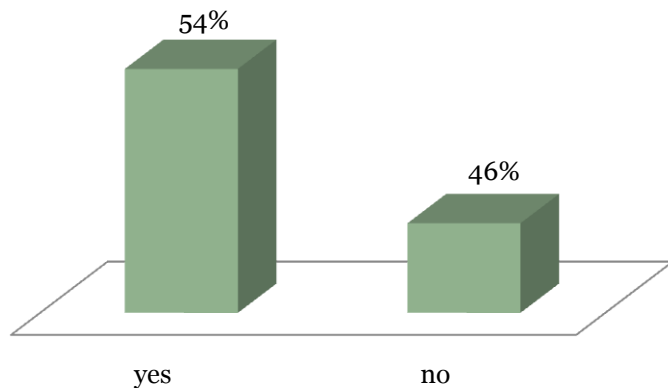


Figure12:Before handling invasive device

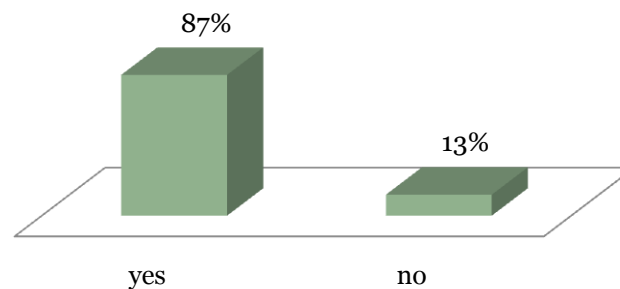


Figure17:Hand hygiene- before leaving the patient care area

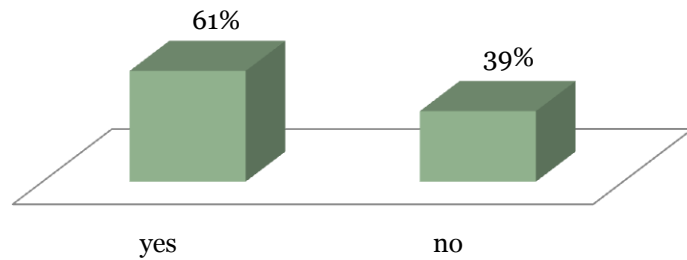


Figure13:After contact with body fluids, dressings

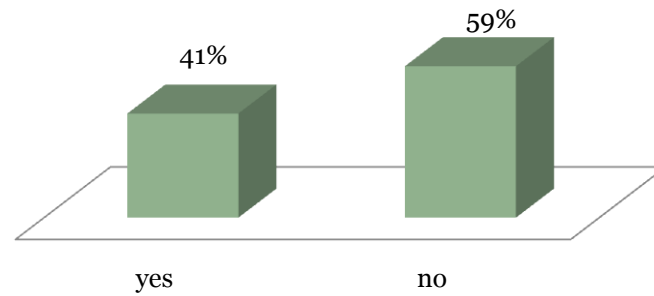


Figure15:After contact with patient surroundings

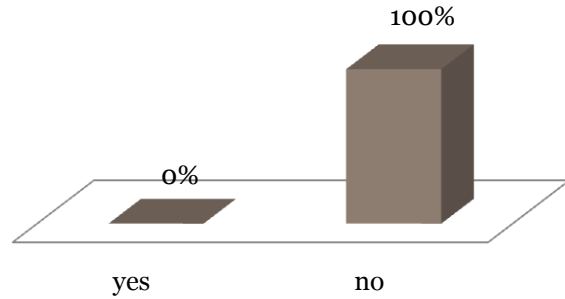


Figure24:Disinfection of rubber septum

SAFE INJECTION AND INFUSION PROCESS

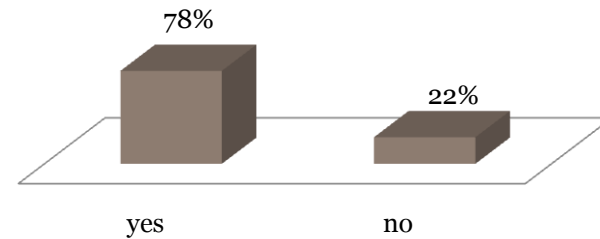


Figure28:sharps disposed in puncture-resistant sharp container

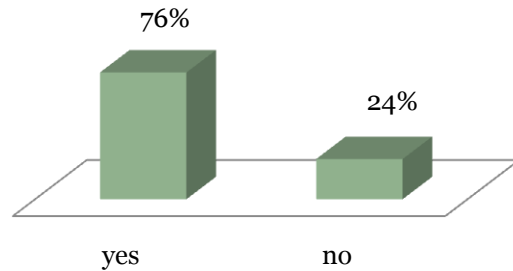
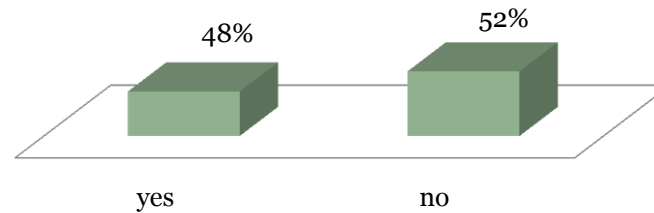


Figure39:PPE-goggles

TRANSMISSION – BASED PRECAUTIONS



**Figure40:Instruct patient to wear facemask while
exiting the room**

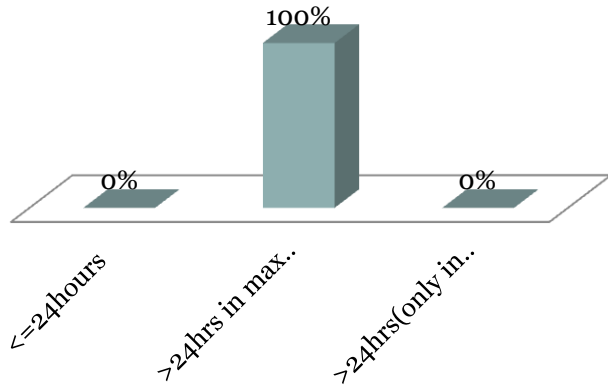


Figure43:Catheter placed

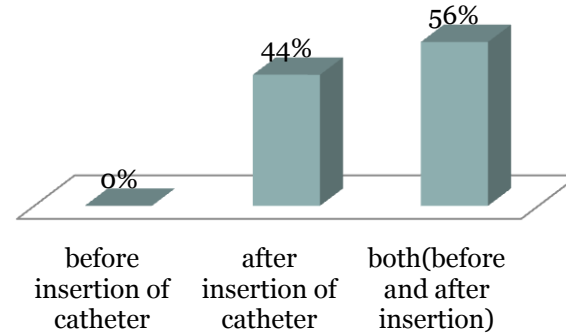


Figure44:Hand hygiene

CAUTI (catheter associated urinary tract infection)

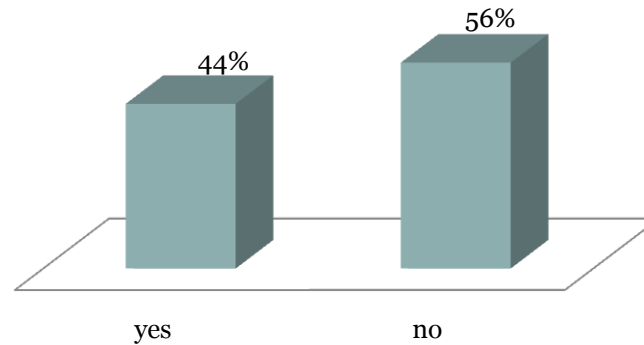


Figure47:separate clean container

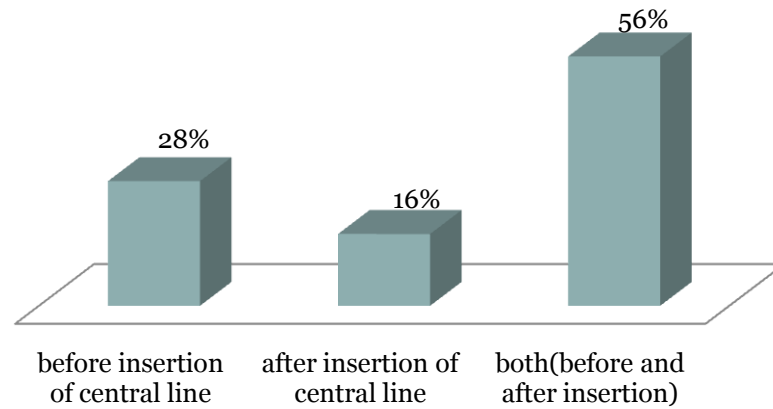


Figure 50:Hand hygiene

KEY FINDINGS

Main findings were

- 1) 22% of the staff is never trained for hand hygiene
- 2) 43% have attended hand hygiene training only once
- 3) Consumption of hand rub and soap is never monitored
- 4) Healthcare workers are not washing their hands after touching every patient, and sometimes not even after and before carrying invasive procedures.
- 5) Staff is not attending training regularly.
- 6) Housekeeping staff which is most illiterate part of hospital employees, they are not well informed about the practices need to be followed

Recommendations

- It was seen that 100% is completely aware about the infection control measures specially the hand hygiene but they lack in implementing their knowledge- due to lack of motivation, and due to lack of staff (unplanned holidays)
- Surprise inspections on weekly basis for the practical implementation of hand hygiene and PPE should be done and staff should be made aware of their safety and patient safety during the inspection round.
- The collected data can be analyzed and can be presented in the meetings before the management and grades can be issued to staff on basis of their knowledge and practical implementation.
- On the basis of above two points staff can be awarded, titled as staff of month or can be promoted accordingly.

Training-

- Few staff does not attend training due to busy schedule, so training can be planned and staff names can be send a week ago so that their duties can be planned accordingly can they can attend their training

Regular training should be planned which was found that it was not followed 100%.

- There should be a regular monthly check for the PPE consumed and hand rub and soap so that it can be assessed that staff is using or not.

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THANK YOU...