

Prevalence of Effective Hand Washing Among the Health Care Personnel of Yenepoya Medical College

“To Evaluate the Hand Hygiene Practices Among Health-Care Workers Visiting Intensive Care Unit of a Tertiary Care Hospital: An Observational Study”

Dr. Shambhulinga Purad, Dr Jagadeesh G, Dr. Sangamesh A, Dr. Syed W.P.

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I. Need for study

Nosocomial transmission of infections is an established problem faced by most health-care set-ups around the world. Transmission of infections is most common by the hands of the health-care workers. It has been established that effective hand hygiene reduces the nosocomial transmission of infections. Hand hygiene is the single most important measure to reduce the risk of transmission of health-care related infections. Hand washing techniques have been propagated by most health authorities. Hand washing techniques are included in the curricula of most health-care professionals during their training. However, a large section of health-care professionals do not follow this simple measure resulting in increased risk of health-care associated infections.

This study is being done to evaluate the hand hygiene practices of health-care professionals visiting the Intensive Care Unit (ICU) of a tertiary care hospital, Yenepoya Medical College Hospital.

II. Review of Literature

Basurrah MM and Madani TA (1) studied the handwashing and gloving practices among the consultants, residents, nurses, interns and medical students attending the medical and surgical wards of a 1250 ward hospital in Riyadh and observed that only 6.7% of the study population washed hands before patient contact and 23.7% of them washed hands after patient contact. Adherence to hand washing was 70% among medical students, 69.2% among interns, 18.8% among nurses, 12.5% among residents and 9.1% among consultants.

Novoa AM and colleagues in 2005 (2) evaluated the hand hygiene adherence in a tertiary hospital. 1254 opportunities of hand hygiene were observed in 247 health-care workers. Compliance varied according to the hospital area, 69% in the ICU and compliance after patient contact was twice as that before patient contact.

Randle J and colleagues (3) observed hand hygiene compliance among health-care workers, patients and visitors over a period of 24 hours using ‘five moments of hand hygiene’ observation tool. A total of 823 hand hygiene opportunities were monitored. Compliance was 47% among doctors, 75% among nurses, 78% among allied health professionals. The compliance among patients and visitors was 56% and 57% respectively. Hand hygiene compliance varied depending on which of the five moments of hygiene health-care workers had undertaken with compliance rates of 100% before an aseptic task, 93% after body fluid exposure, 68% before patient contact, 80% after patient contact and 50% after contact with patient’s surroundings. Lower levels of compliance were observed during early shifts.

Creedon SA (4) studied healthcare workers’ hand decontamination practices. It was observed that the hand hygiene compliance was 53% among healthcare workers, which improved to 83% after implementation of multifaceted interventional behavioural hand hygiene program.

Patarakul K and colleagues (5) conducted a survey of hand-hygiene compliance and attitudes of health-care workers and visitors in the intensive care units of King Chulalongkorn Memorial Hospital. It was observed that the overall hand-hygiene compliance was less than 50%.

III. Hypothesis

Based on review of literature, it is found that the compliance of hand-hygiene is poor among health-care professionals and is varied among different classes of health-care professionals. Hence the hypothesis: “There is poor compliance of hand-hygiene among the health-care professionals visiting the ICUs.”

IV. Objectives of the study

The aim of this study is to evaluate the compliance of hand-hygiene among health-care professionals visiting the ICU in the Yenepoya medical college Hospital,

Objectives:

1. To study the hand-hygiene practices of health-care professionals visiting the ICU.
2. To assess effective hand washing techniques among health-care professionals visiting the ICU.
3. To assess the hand-hygiene as per the “five moment hand-hygiene” observational tool.

V. Methodology

6.1 Study Design

Descriptive study

6.2 Materials and Methods

After ethical committee approval and informed consent, health-care professionals visiting the ICU will be observed for compliance of hand-hygiene practices and effective hand wash technique.

Position of the health-care worker and frequency of hand wash as per ‘five moment hand-hygiene’ observational tool will be assessed and recorded.

Health-care professionals hand hygiene practices will be compared with the WHO effective hand hygiene guidelines.

6.3 Source of the data

Health-care professionals visiting ICU in Yenepoya Medical College.

1.4 Sample Size for single proportion

6.5 Inclusion Criteria

- a. Be 18 years old or older.
- b. Health-care professional at Yenepoya Medical College Hospital.

6.6 Exclusion Criteria

None

6.7 Statistical Analysis

Collected data will be analysed by Chi-square test .

VI. Results

Total 126 Health care workers who visited the Medical ICU of Yenepoya Medical College Hospital were observed during the study.

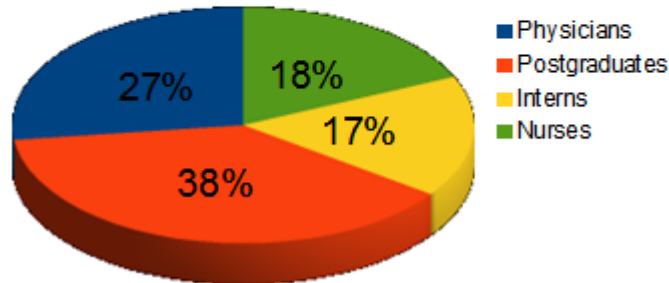
Among them Physicians-34, Postgraduates-48, Interns-21 and Nurses-23. All of them observed for Hand washing, whether done or not?, If done, Effectively done or not?. They were observed during 5 moments in ICU, 1.Starting of ICU visit, 2. Between each patient, 3. After contact with surrounding, 4.Before clinical procedure, 5. End of ICU visit.

Total number of health care workers

Health care worker	No of persons
Physicians	34
Postgraduates	48
Interns	21
Nurses	23
Total	126

Health care workers distribution

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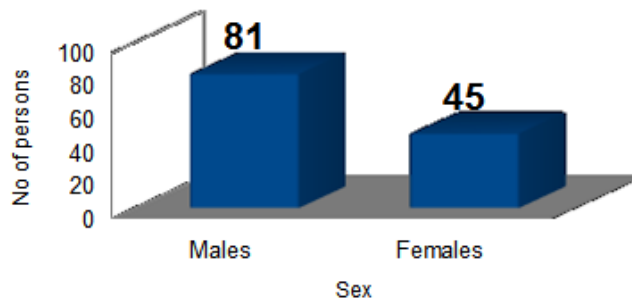


Gender Distribution

Sex	No of persons
Male	81
Female	45
Total	126

Gender Distribution

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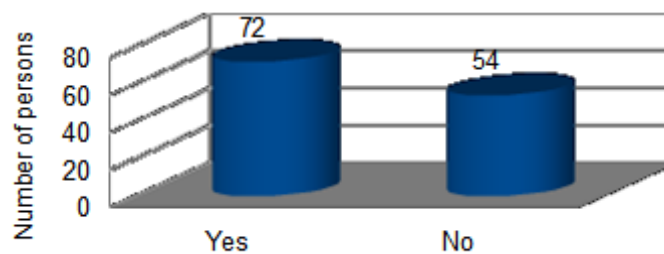


Hand wash done

Hand wash done	No of persons
Yes	72
No	54
Total	126

Hand wash done

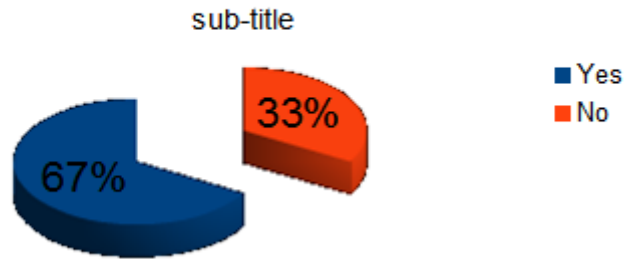
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Effective hand wash done

Effective hand wash done	No of persons
Yes	48
No	24

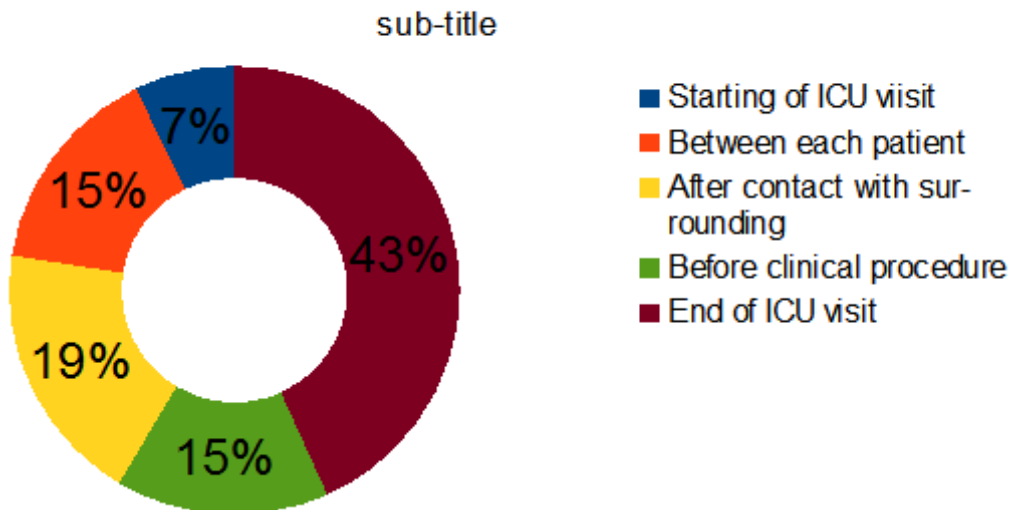
Effective Hand washing



Moments of Hand washing

Moments	No of persons
Starting of ICU visit	8
Between each patient	17
After contact with surrounding	21
Before clinical procedure	17
End of ICU visit	48

Moments of Hand washing

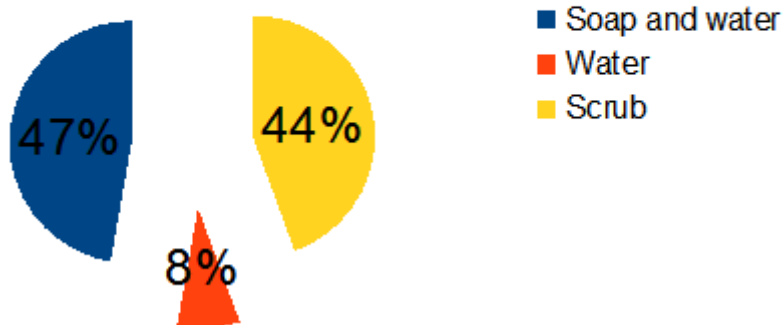


Method used

Method used	No of persons
Soap and water	34
Water	6
Scrub	32

Method used

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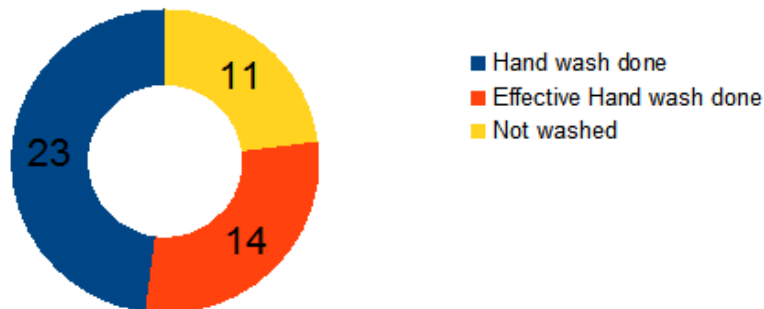


Physicians

Observed	34
Hand wash done	23
Effective hand wash done	14
Not washed	11

Physicians

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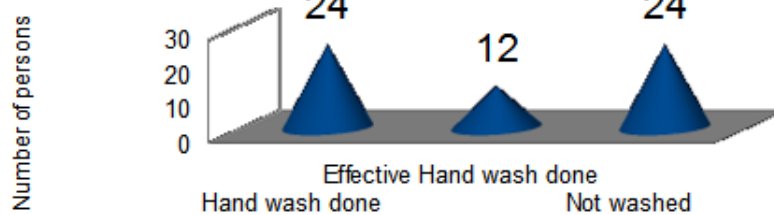


Postgraduates

Observed	48
Hand wash done	24
Effective hand wash done	12
Not washed	24

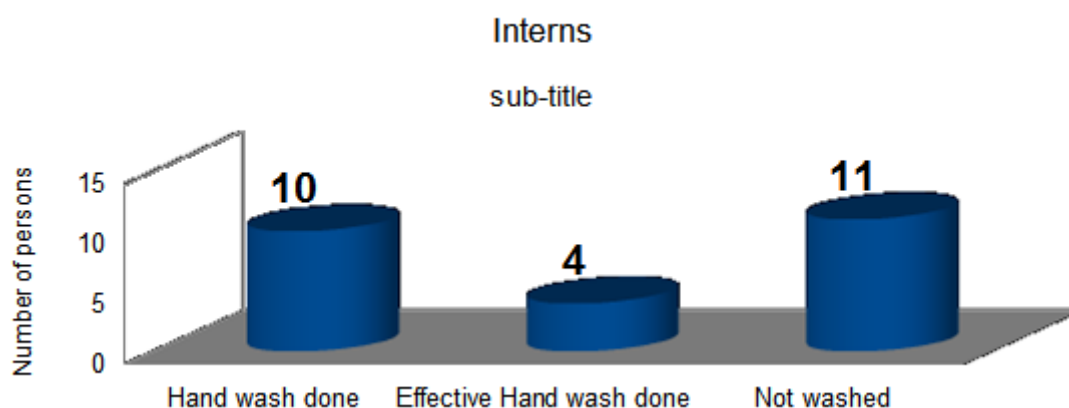
Postgraduates

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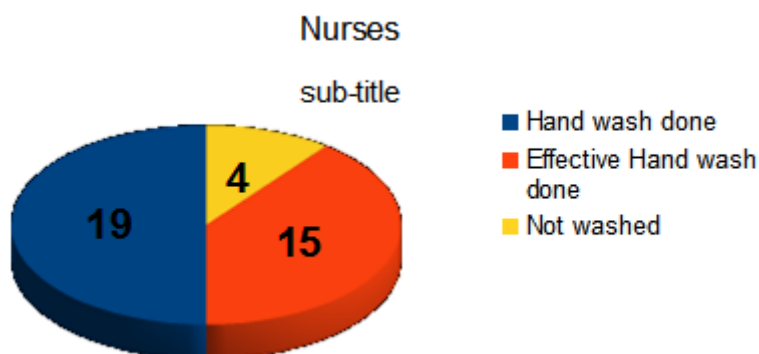
Interns

Observed	21
Hand wash done	10
Effective hand wash done	04
Not washed	11



Nurses

Observed	23
Hand wash done	19
Effective hand wash done	15
Not washed	04



VII. Conclusion

Hand washing technique usage is average in health care workers who are visiting medical ICU of Yenepoya Medical college and Hospital. Though few health care workers are washing but effective hand washing is not upto the mark. Health care workers need special teaching sessions, demonstration sessions to educate regarding the importance of Effective Hand washing which plays a key role in preventing hospital acquired infections. They also need to be taught regarding method and moments of Hand washing technique.

References

- [1]. Basurrah MM, Madani TA. Hand washing and gloving practice among health care workers in medical and surgical wards in a tertiary care centre in Riyadh, Saudi Arabia. Scand J Infect Dis. 2006;38(8):620-4.
- [2]. Novoa AM, Pi-Sunyer T, Sala M, Molins E, Castells X Evaluation of hand hygiene adherence in a tertiary hospital. Am J Infect Control, 2007;35(10):676-83.
- [3]. Randle J, Arthur A, Vaughan N. Twenty-four-hour observational study of hospital hand hygiene compliance. J Hosp Infect. 2010;76(3):252-5.
- [4]. Creedon SA. Healthcare workers' hand decontamination practices: compliance with recommended guidelines. J Adv Nurs. 2005;51(3):208-16.
- [5]. Patarakul K, Tan-Khum A, Kanha S, Padungpean D Jaichaiyapum OO. Cross-sectional survey of hand hygiene compliance and attitudes of health care workers and visitors in the intensive care units at King Chulalongkorn Memorial Hospital. J Med Assoc Thai. 2005;88(4):287-93.

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