

HAND HYGIENE PRACTICES IN MEDICAL STAFF OF TERTIARY CARE HOSPITALS OF LAHORE

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ABSTRACT

With increasing resistance to antibiotics it has become important to prevent the nosocomial infection. Hence as hand hygiene being the most important prevention intervention, this study aimed at exploring hand hygiene practices in junior doctors and nurses of tertiary care hospital of Lahore to further the need of improvement if established.

Methodology: 40 nurses and 60 house officers were interviewed in this cross sectional survey and were asked about their hand hygiene practices the difficulty in performing hand hygiene and ways to improve it. Results: It was found that 50(50%) respondents used some form of hand hygiene after touching every patients while 13(13%) after touching 2-3 patients and 26(26%) after on an average of 10 patients. 11 (11%) said that if the hands were soiled from patients' secretions only than they practiced hand hygiene. Vast majority 76 (76%) used alcohol hand rub for hand hygiene predominantly. 31 (31%) graded hand hygiene as time consuming, 27 (27%) as inconvenient, 22 (22%) as useless, 20 (20%) said it caused skin dryness/irritation, When asked what are reasons behind poor hand hygiene practice 96 (96%) responded answered high patient load, 74 out of 100 (74%) soap/water/alcohol rub inaccessible. Only 28% of doctors and 17% of nurses correctly identified 5 moments of hand hygiene according to WHO. When inquired what actions can be done to maximize hand hygiene 77 (77%) said regular advocacy seminar, 46 (46%) said vigilant audit from quality control, 64 (64%) said optimizing patient load/doctor per duty and 74 out of 100 (74%) said that easy access of soap and water and provision of alcohol rub by hospital administration.

Conclusion and Recommendation: Hand hygiene practices were sub optimal and can be improved through regular advocacy seminars, audit, decreasing patient load and providing easy access to soap/water/alcohol rub.

Keywords: Hand hygiene practices, junior doctors, nurses.

INTRODUCTION

Hand hygiene is one cost effective measure to reduce the toll of nosocomial infection and cross infections in any health care setting.¹ In developed countries, 5-15% Health care associated infections are observed while in ICU patients it goes to 9-37%. In Europe, hospital wide prevalence rates are 4.6-9% with added economic burden of 13 -25 million euros. While in developing world with paucity in data and limited resources and non existence of very basic infection control measure the prevalence rates are much high. With scarcity of good quality reporting, the rates are single hospital based and show an understatement of the problem reporting between 14-19% nosocomial infections.^{2,3}

Recent studies have found low awareness level regarding hand hygiene among medical students and certified healthcare providers.^{4,5,6,7,8} Azam Al Khadi pointed out that only 55% of medical students the would be physicians were well aware of indications of

hand hygiene and concluded that efforts are required on a serious note to improve the situation.⁹

Pettit observed in teaching hospital situated in Geneva, Switzerland that hand hygiene was 48% which improved to 57.8% after consistent hand hygiene reinforcement campaign.¹

Same author reports that adherence was associated with the awareness of being observed, the belief of being a role model for other colleagues, a positive attitude toward hand hygiene after patient contact, and easy access to hand-rub solution. Conversely, high workload, activities associated with a high risk for cross-transmission, and certain technical medical specialties (surgery, anesthesiology, emergency medicine, and intensive care medicine) were risk factors for nonadherence.¹⁰

A systematic review conducted on hand hygiene practices reports very interesting facts, showing better compliance in nurses(48%), than physician(32%) and

lower compliance in ICUs (30%–40%) than in other settings (50%–60%).¹¹

With increasing resistance to antibiotics and presence of newer resistant strains it has become of paramount importance to prevent the cross infection from occurring. Hence the study aimed at exploring hand hygiene practices in junior doctors and nurses of Lahore general hospital to further the need of improvement if established.

METHODOLOGY

A cross sectional study was conducted to explore awareness and practice of hand hygiene among junior doctors and nurses and for this reason 60 house officer and 40 nurses were interviewed.

RESULTS

60 junior doctors and 40 nurses were interviewed, 29(29%) doctors were males and 31(31%) were females and all nurses were females. Table 1

It was found that 50(50%) respondents used some form of hand hygiene after touching every patient while 13(13%) after touching 2-3 patients and 26(26%) after on an average of 10 patients. 11 (11%) said that if the hands were soiled from patients' secretions only than they practiced hand hygiene. Vast majority 76 (76%) used alcohol hand rub for hand hygiene predominantly while only 24 (24%) washed hands predominantly. Table 2

Table 1: Characteristics of respondents n = 100

Characteristic		Frequency	Percentage
profession	House officer	60	60%
	Nurses	40	40%
Gender	Males	29	29%
	females	71	71%

31 (31%) graded hand hygiene as time consuming, 27 (27%) regarded it as inconvenient, 22 (22%) said it was useless and doesn't play much role in prevention of infections, 20 (20%) said it caused skin dryness/irritation. When asked whether patient load compromised their hand hygiene 96 (96%) responded answered as yes and when asked whether they found easy access to materials for hand hygiene as soap and water or alcohol rub, 74 out of 100 (74%) were found dissatisfied with easy access to these necessities. Only 28% of doctors and 17% of nurses correctly identified 5 moments of hand hygiene according to WHO. When inquired what actions can be done to maximize hand hygiene 77 (77%) said regular advocacy seminar, 46 (46%) said vigilant audit from quality control, 64 (64%) said optimizing patient load/doctor per duty and 74 out of 100 (74%) said that easy access of soap and water and provision of alcohol rub by hospital administration can improve the situation. Table 2

Table 2: Hand hygiene practices n = 100

Variables	Responses	Frequency	Percentage
Frequency of hand hygiene	After every patient	50	50%
	After 2-3 patients	13	13%
	After 10 patients	26	26%
	Only when hands are soiled	11	11%
Predominant method used for hand hygiene	Alcohol rub	76	76%
	Soap/water	24	24%
Reasons for not observing hand hygiene	inconvenient	27	27%
	Time consuming	31	31%
	useless	22	22%
	Skin dryness/irritation	20	20%
Moments of hand hygiene according to WHO	Correctly identified	24	24%
	Couldn't identify correctly	76	76%
How can hand hygiene be improved	Regular Advocacy seminars	71	71%
	Quality control audit	46	46%
	Easy access to soap/water of alcohol rub	64	64%
	Decreasing patient load	74	74%

DISCUSSION

While resistance to antibiotic is on the increased and has harassed the medical personal, the toll of nosocomial infections remains a big challenge for hospital administration, physicians and public health workers. Hand hygiene is regarded as one of the most important intervention in prevention of hospital acquired infections.

As 50% of doctors were found to be practicing good hand hygiene by this study similar results were shown by Petit et al that was 48%.¹ Studies reported that feeling of being observed and easy access to hand rub solution¹⁰ while such observation were also made by our study which reported that 46% medical staff agreed that audit from quality control and 74% agreed that easy access to hand hygiene material could improve hand hygiene practices. Similar to our study, high workload was conversely associated with hand hygiene¹⁰ as pointed out by a big majority i.e., 64% respondents said that optimizing patient load may improve the situation.

As found by Petit et al that awareness seminar improved hand hygiene⁴ similar were our noting where 77% pointed out that regular advocacy seminar may help improving it.

CONCLUSIONS AND RECOMMENDATIONS

Hand hygiene practices were not adequate in junior doctors and nurses nor were their knowledge. Thus it is highly recommended that hospital administration should regularly arrange advocacy seminars, arrange audit, provided soap and water or alcohol rub along bedsides and in OPDs to ensure easy access and reduce patient load per doctor so that his quality of hand hygiene may be improved.

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