

Hand Hygiene Practices Among Health Care Workers



By
Dr. Manpreet Kaur

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Introduction

- Hand Hygiene is considered the most important and effective universal precaution for infection control in health care setting.
- Proper hand hygiene compliance is associated with the reduction in HAIs and forms the core of patient safety.

HAI's Impact and Burden

- Length of stay (LOS)
- Morbidity and mortality
- Financial burden
- Personal costs to patient/family

Objective

- To describe the Level of Hand Hygiene Knowledge among HCWs .
- To evaluate Hand Hygiene practices based on" WHO 5 Moments of Hand Hygiene."
- To determine Hand Hygiene Compliance among Doctors and Nurses.

Methodology

- Study type - Descriptive and cross-sectional study
- Study place - Sterling Hospital , Vadodara
- Study time – 10th Feb – 10th May 2017
- Study sample size - 400 participants
- Study population - Nurses, Doctors ,Physiotherapist, Dialysis Technicians,Phlebotomist,Others.
- Study departments –
All Critical Care Areas (MICU / SICU, ICCU, TCU, DIALYSIS, BMT, CCU)
Wards - GW & GW A/C
 - Emergency department
 - Special/Semi Special wards

Purpose of the Hand Hygiene

- Promote a culture of safety
- Reduce HAIs such as
 - Catheter-associated urinary tract infections (CAUTI)
 - Central line-associated blood stream infections (CLABSI)
 - Ventilator Associated Pneumonia (VAP)
- Reduce transmission/acquisition of Multi Drug Resistant Organisms (MDRO)
- Reduce risk of outbreaks

Why should you clean your hands?

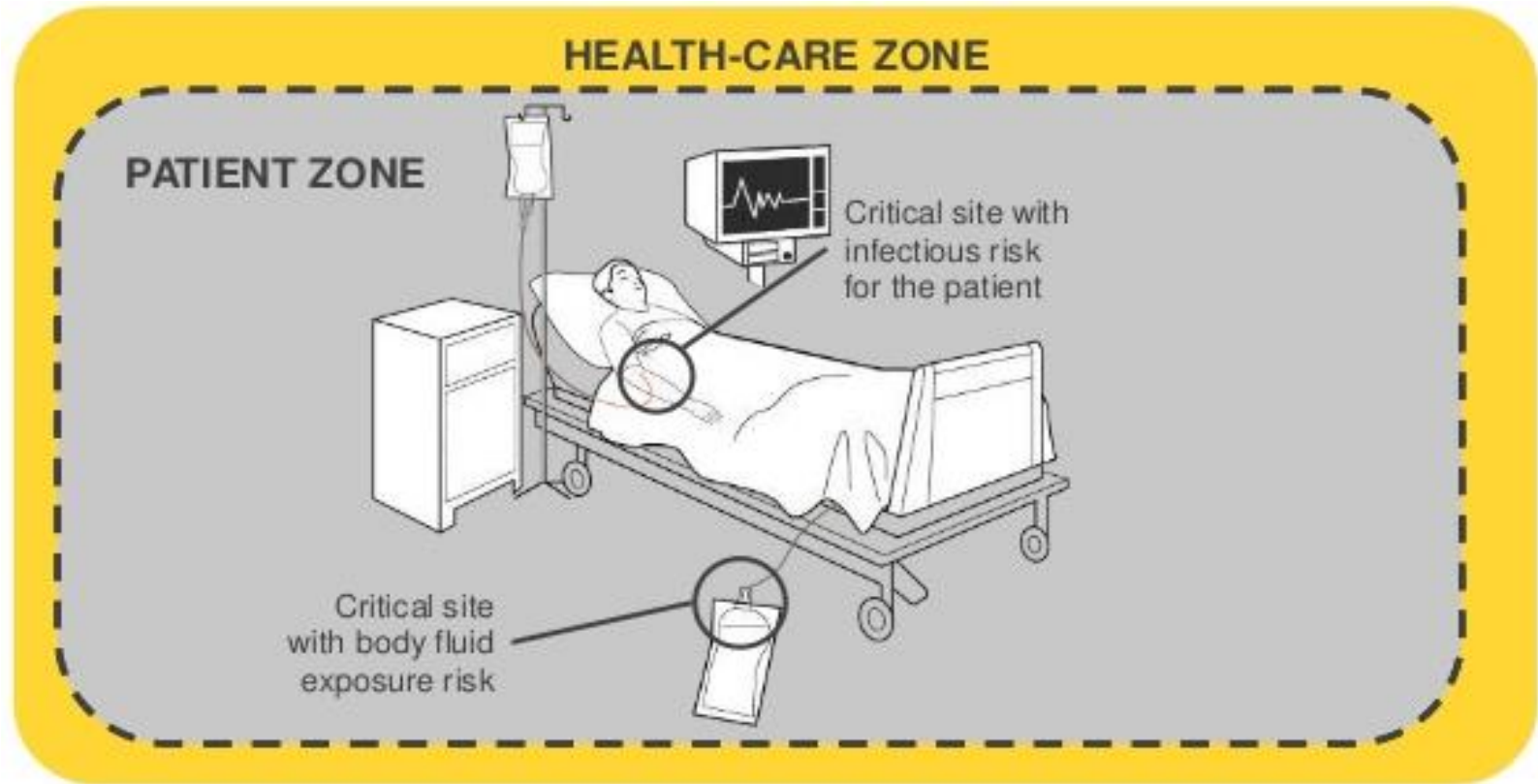
- ✓ Protect the patient against harmful germs carried on your hands or present on his/her own skin.
- ✓ Protect yourself and the health care environment from harmful germs.



The Golden Rules for Hand Hygiene

- ✓ Perform exactly where delivering health care to patients
- ✓ its essential to perform "My 5 Moments for Hand Hygiene" approach
- ✓ Prefer hand rubbing, if available. Why?
- ✓ Wash your hands with soap and water
 - when visibly soiled
 - after contact with a patient environment with C. difficile.
- ✓ Perform hand hygiene using the appropriate technique and time duration.

The geographical conceptualization of the transmission risk



World Health
Organization

Patient Safety

A World Alliance for Safer Health Care

SAVE LIVES

Clean Your Hands

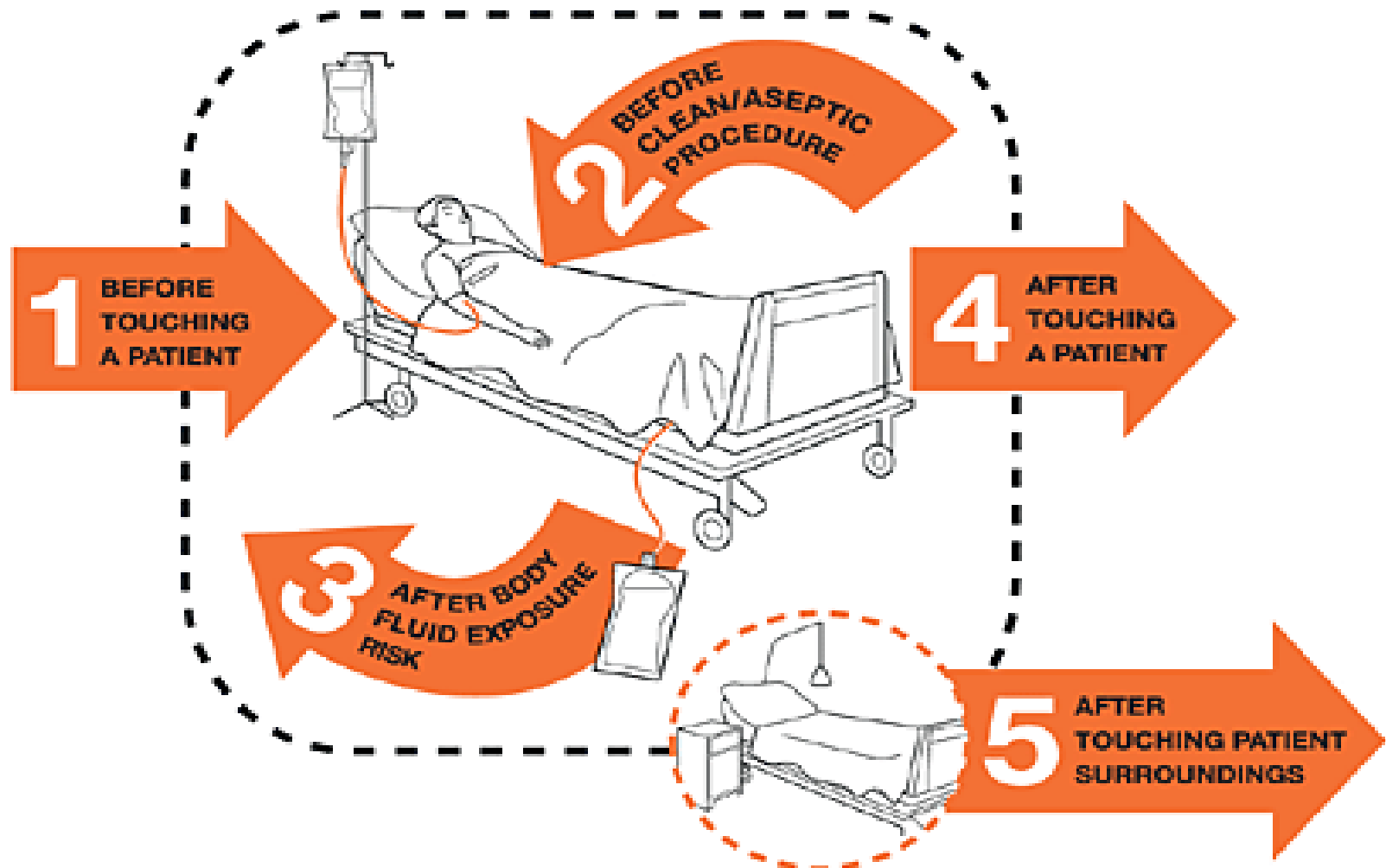
OPTIMAL HAND HYGIENE SHOULD BE PERFORMED



**AT THE
POINT-OF-CARE**

Point-of-care – refers to the place where three elements occur together: the patient, the health-care worker, and care or treatment involving patient contact (within the patient zone)

WHO 5 Moments of Hand Hygiene



Why observe Hand Hygiene Practices?

- To determine the degree of hand hygiene compliance
- To identify the most appropriate interventions based on observation for hand hygiene
 - Promotion
 - Education and
 - Training
- Observation results (compliance rates) can be reported to health-care workers
 - to explain the current practices of hand hygiene
 - to highlight the aspects demanding improvement
 - to compare baseline with follow-up data to show possible improvements resulting from the promotion efforts.

Hand Washing Technique



How to observe hand hygiene?

Methods for measuring Hand Hygiene

- Directly observing
- Measuring product use
- Conducting surveys
- ✓ Direct observation is considered the “gold standard” of measurement methods.
- ✓ Allows observer to see
 - who is (and who is not) adhering to guidelines
 - to give prompt feedback when improvement is needed.
- ✓ Allows HCWs to evaluate factors that may influence hand hygiene guideline adherence.

Hawthorne Effect

- Initial Hawthorne effect took place in Hawthorne plant of western electricity company in 1920's & 1930's
- avoid the Hawthorne Effect while making hand hygiene observations



Hawthorne Effect:

The phenomenon that subject behavior changes by the mere fact that they are being observed.

Poor Hand Hygiene Compliance

- Non Availability of Soap, Paper, Towels & Hand rub
- Poor Attitude of Staff
 - Lack of Interest
 - Lack of sincerity
- Insufficient time- workload, Emergency and understaffing
- skin irritation and dryness
- Inconvenient placement of wash basins/sinks
- Inadequate knowledge of guidelines, protocols or technique for HH
- Wearing jewelry
- Fingernails, nail polish and artificial nails
- Perception that no need to wash hands if wearing gloves
- Patient care is priority

Time constraint = Major obstacle for Hand Hygiene



Adequate Hand Hygiene with soap and water requires = 40-60 seconds

Adequate Hand Hygiene with hand rub requires = 20-30 seconds

Average time adopted by HCWs = <10 seconds

Key points on Hand Hygiene and Gloves Use

The use of gloves does not determine indications for hand hygiene; rather, hand hygiene influences the appropriate use of gloves.



Hand hygiene and Gloves Use

- Hand hygiene should be performed
 - before putting on gloves
 - immediately after removing gloves
- Gloves must be detached to follow WHO 5 Moments for Hand while providing care to a single patient
- Do not apply hand hygiene products on gloves
- Avoid prolonged and random use of gloves

Prevent Cross-Contamination with Proper Glove Removal Techniques



1. Remove first glove by peeling it off from top to bottom



2. Peel off second glove from the inside



3. Throw them away immediately



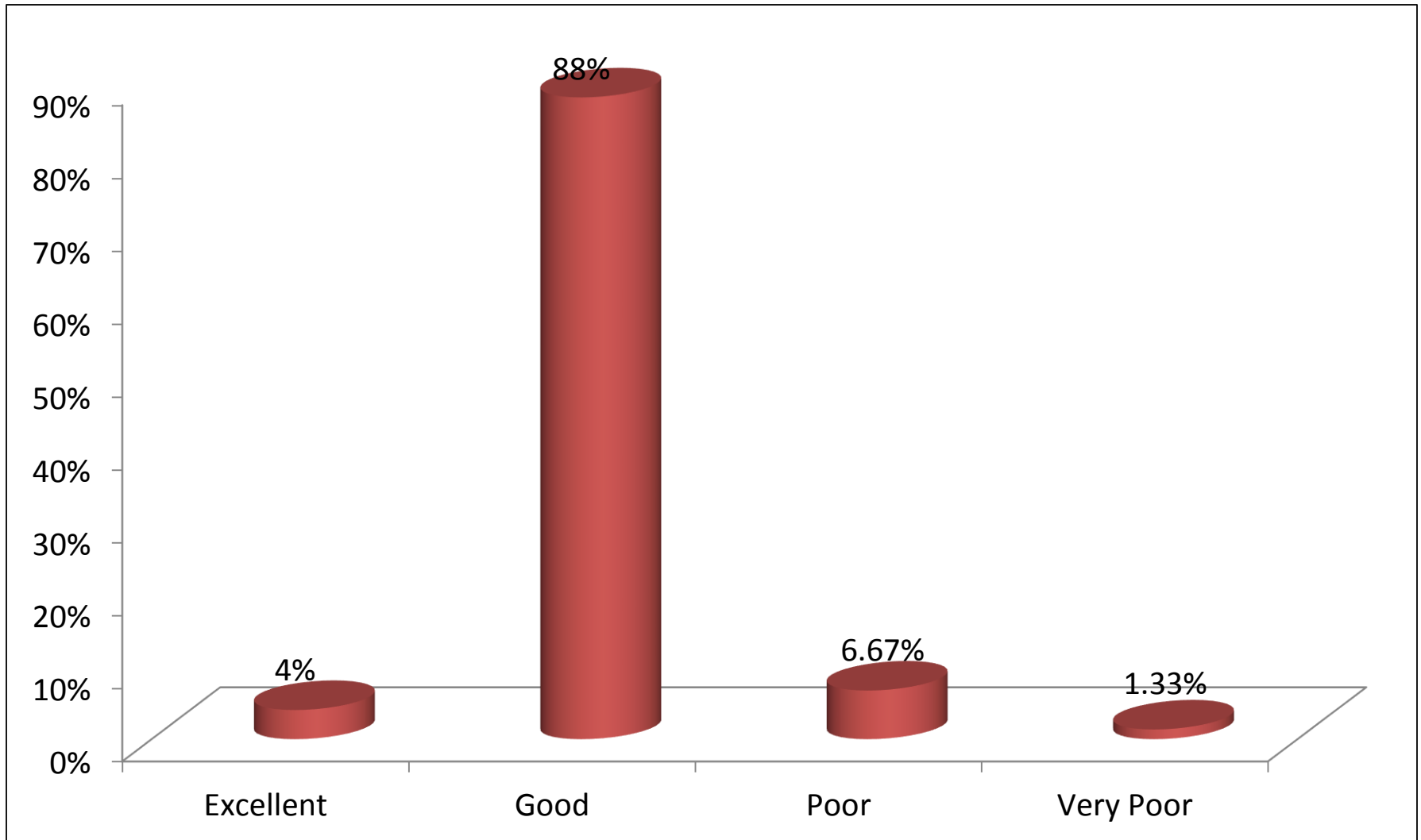
4. Wash your hands thoroughly

Key Findings

Table1:- shows HH Knowledge among HCWs

Level of Knowledge	Category	Frequency	Percentage %
Excellent	80% and Above	6	4%
Good	51-79%	132	88%
Poor	31 – 50%	10	6.67%
very poor	30% and below	2	1.33%
Total		150	100%

Graph 1:

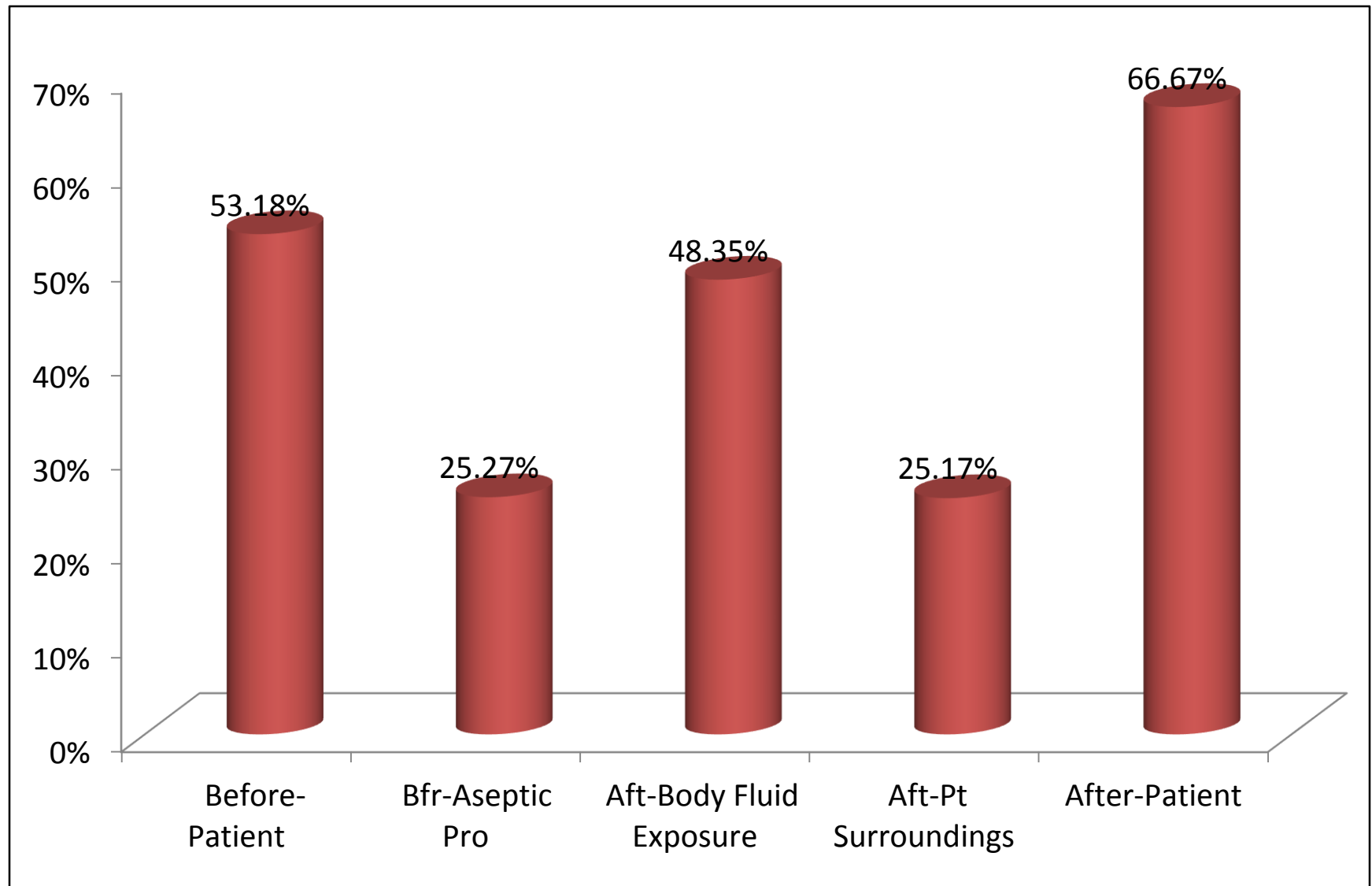


Graph 1: shows level of Hand Hygiene Knowledge among HCWs

Table 2:- shows WHO 5 Moments of Hand Hygiene practices data among HCWs

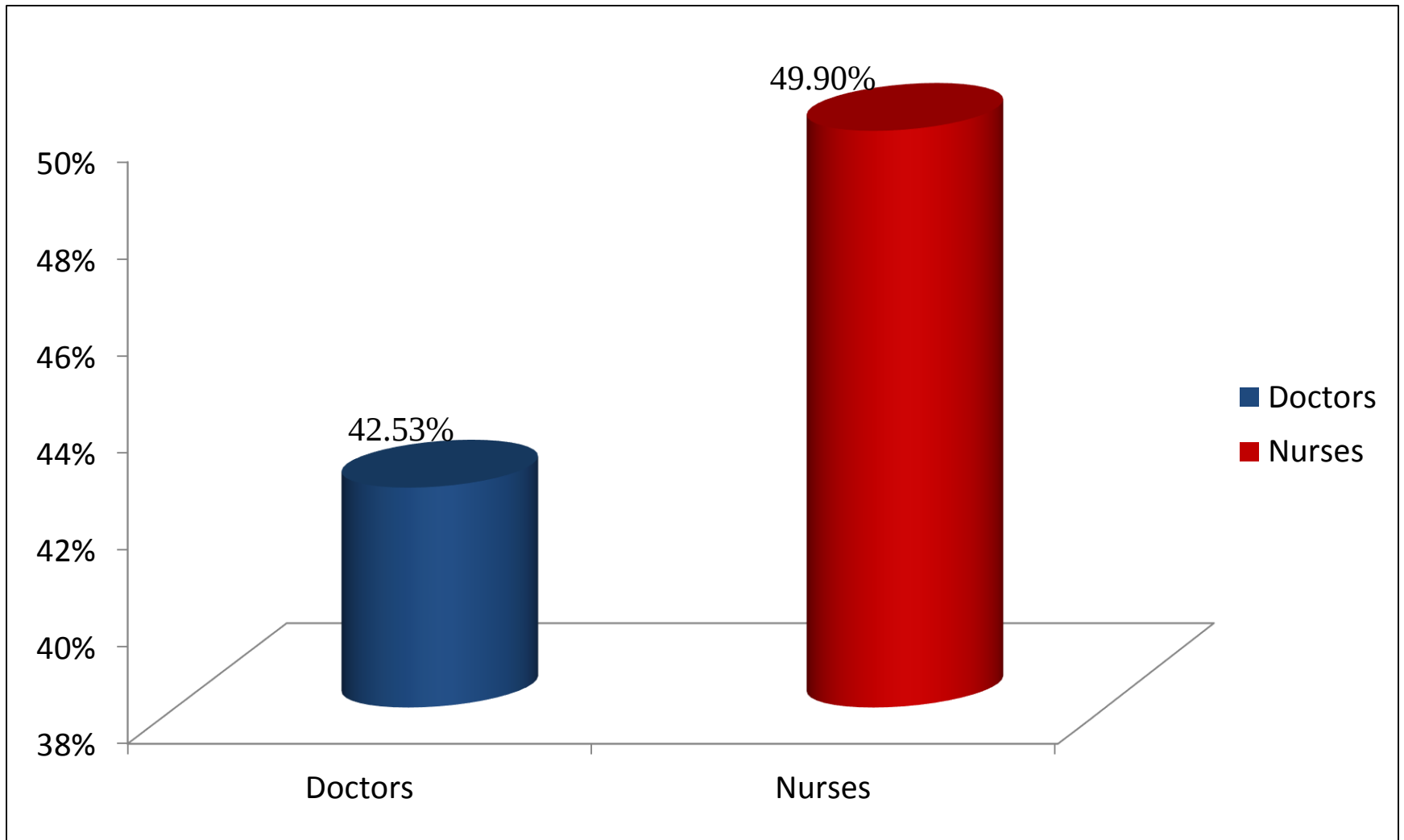
	Before Patient Contact	Before Aseptic Procedure	After Body Fluid Exposure	After Patient Surroundings	After Patient Contact	Overall
Correct	117	23	44	38	144	366
Observed	220	91	91	151	216	769
Compliance rate	53.18%	25.27%	48.35%	25.17%	66.67%	47.50%

Graph 2:



Graph 2: shows Moment Specific HH Compliance Rates.

Graph 3:



Graph 3:shows HHC Rate Amongst Doctors and Nurses

Discussion

- Healthcare workers were not informed that their hand hygiene practices were being observed.
- One main limitation of this study was the method of collecting the audit data as direct observation may alter Health Care Workers behavior regarding hand hygiene if they were aware that they were being observed, (Hawthorne effect).
- During some of the audit sessions , there was a shortage in the number of staff members due to less number of patients in the hospital, thus limiting the amount of data collected.



Conclusion

- From study, it was found that Hand hygiene compliance was inadequate at only 47.50% despite healthcare workers having good hand hygiene knowledge.



Keys to Success/Challenges

- System change
 - Ensure adequate supply
 - Assess tolerability and acceptability of products
- Dedicated adherence improvement programme
 - Optimize product use
 - Training and Education
 - Monitoring and Feedback
 - Motivation
- Reminders in workplace
 - Provide and display posters and leaflets
 - Encourage competition and rewards for better HH performance



*Thank
you*

