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Improving Hand Hygiene Compliance through Human Factors

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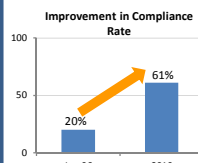
INTRODUCTION

With the release of World Health Organization (WHO) Guidelines on Hand Hygiene in Healthcare – First Global Patient Safety Challenge, Clean Care is Safer Care (2009), healthcare organizations over the world embarked in programs to create awareness, educate and remind healthcare workers, hospital administrators and health authorities to improve on hand hygiene compliance to prevent hospital acquired infections (HAI).

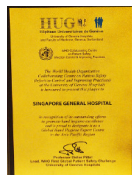
WHO 5 Moments of Hand Hygiene

1. Before Touching Patient
2. Before Clean/Aseptic Procedure
3. After Body Fluid Exposure
4. After Touching Patient
5. After Touching Patient Surroundings

Hand Hygiene Program in SingHealth



Multi-pronged approach from system change, training and education, evaluation and feedback to reminders to institutionalise a safety climate in our institutions had led to an increase in hand hygiene compliance from 20% in 2006 to 61% in 2010. In the same year, Singapore General Hospital was also recognised as one of the 4 Global Hand Hygiene Expert Centres by WHO.



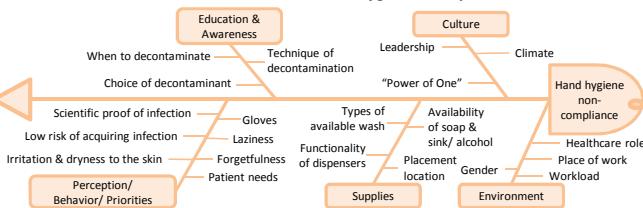
Sample of Awareness Programs found within the Institutions

Can we further improve hand hygiene compliance? Are there any human factors that are affecting hand hygiene compliance rate?

METHODOLOGY

Literature research was performed to identify key barriers that could affect hand hygiene compliance by healthcare professionals and they are categorised into various areas.

Barriers that Hinders Hand Hygiene Compliance



Conducting a Poll on "Why is Practising Hand Hygiene so Difficult?"

A poll "Why is Practising Hand Hygiene so Difficult?" was then conducted to gather initial feedback from the healthcare professionals on the relevancy of key barriers to them. This poll was targeted at the Doctors, Nurses and Allied Health Professionals.

CULTURE

- Q1 - "I do not see many of my colleagues following good hand hygiene practices."
- Q2 - "There is no emphasis on hand hygiene by my superior."

SUPPLIES

- Q7 - "The alcohol rub/soap is always not available when I need to clean my hands."
- Q8 - "The alcohol rub/soap is inaccessible."

EDUCATION & AWARENESS

- Q9 - "I am not sure when it is important for me to wash my hands."
- Q12 - "I am wearing gloves; I do not need to clean my hands."

ENVIRONMENT

- Q3 - "We are overwhelmed with work and have no time for cleaning hands."

BEHAVIOUR

- Q10 - "I forgot to clean my hands."

PERCEPTION

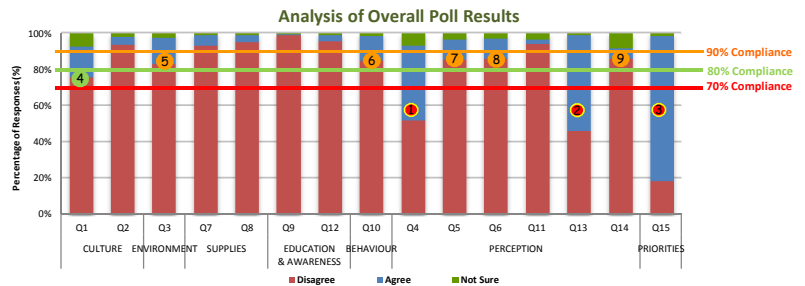
- Q4 - "If I were to follow the 5 moments of hand hygiene, I may have to wash them more than a 100 times a day!"
- Q5 - "There is low risk of infection in my area of work."
- Q6 - "My patients would feel offended if I were to clean my hands before touching him/her."
- Q11 - "There is low risk of transmission of infection in my area of work."
- Q11 - "There is no scientific evidence that hand hygiene would reduce the risk of transmission and acquiring of infection"
- Q13 - "Alcohol rub/soap dries and irritates my hand."
- Q14 - "My patients would feel offended if I were to clean my hands before touching him/her."

PRIORITIES

- Q15 - "Patient's immediate needs and safety are my utmost concerns."

RESULTS

1019 poll responses by doctors, nurses and allied health were received.



The prevailing general barriers that influenced all healthcare professionals:

1. Perception on the need for repeated number of hand cleaning everyday (in particular compliance with the "5 Moments of Hand Hygiene").
2. Alcohol rubs/ soap irritate and dry their hands.



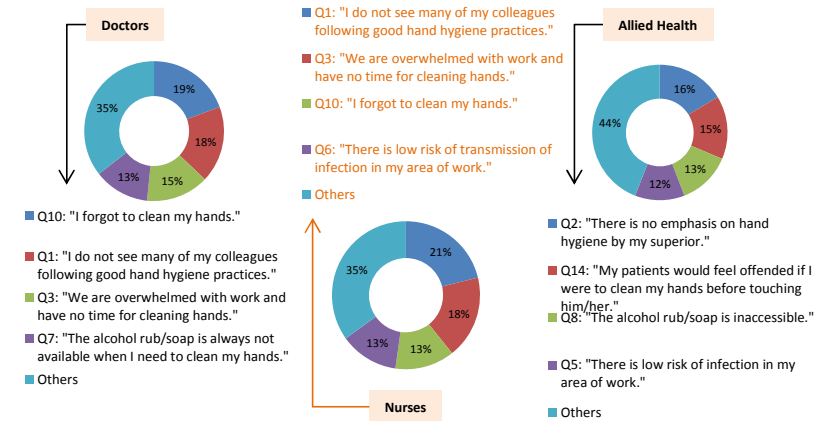
Contradicting Patient Safety Priority

80% of respondents agree that patient's immediate needs and safety are their utmost concerns; this is a contradicting response as hand hygiene is a major part of patient safety.

Additional Barriers for Different Compliance Targets

- 80% - Peer behavior
- 90% - Workload, forgetfulness, perceptions on risk transmission and infections and patients' feelings.

Analysis of Results (Excluding General Barriers) by Healthcare Professional



CONCLUSION

This project has shown that practising hand hygiene is a very personal decision. A multipronged strategy, supported by appropriate infrastructure, material as well as appropriate motivating factors are required to address specific barriers and healthcare professionals to encourage and further improve hand hygiene compliance.

ADDITIONAL INFORMATION

The project has successfully identified the key human factors that affect hand hygiene compliance. Further work to improve compliance using Human Factor Analysis and Classification System (HFACS) would be undertaken in a targeted manner to specific audience (e.g. clinicians, allied health professionals, nurses) and to address specific factors (e.g. frequency of cleaning hands and effects of alcohol rubs/ soaps) for better control. These initiatives would have to involve the Infection Control Nurses (ICN) in the respective Institutions and be supported by SingHealth Infection Control and Prevention Workgroup (SICPW).

REFERENCES

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