KEY POINT SUMMARY

OBJECTIVES

To examine how often incorrect hand hygiene is practiced due to the lack of distinguishability between different hand hygiene solutions located near washbasins.

DESIGN IMPLICATIONS

Consistent placement of hand hygiene products can reduce confusion among staff, visitors, and patients, thereby promoting proper hand hygiene and potentially reducing the risk of HAIs. Hand hygiene products also should be properly labeled in an easily readable manner, and should be located as close to the washbasins as possible.

Hesitation and Error – Does product placement in an emergency department influence hand hygiene performance?

Stackelroth, J., Sinnott, M., & Shaban, R. Z. 2015 | *American Journal of Infection Control.* Volume 43, Issue 9, Pages 913-916
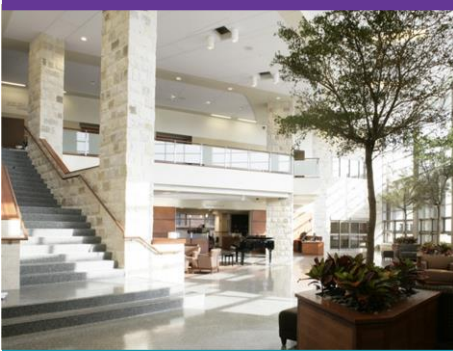
Key Concepts/Context

Previous research has thoroughly established the important role proper hand hygiene plays in reducing and controlling healthcare-associated infections (HAIs). Nonetheless, previous studies also show that poor hand hygiene practices remain common in both public and private hospitals. In order to promote effective hand hygiene habits within healthcare environments, designers focus on ensuring that hand hygiene products are easily available and accessible. Indeed, previous research has shown that simply by placing hand hygiene products closer to care areas, better hand hygiene is practiced. However, there has been little research into how effectively healthcare practitioners are able to differentiate between hand washing products that are located near one another.

Methods

This study took place in a 760-bed adult hospital in a metropolitan area. The hospital's emergency department (ED) featured 21 hand-washing basins, 16 of which had soap solution located to the left and moisturizer to the right (labeled Type L washbasins), while the remaining five featured an inverse design (labeled Type R washbasins). ED staff and visiting non-ED personnel were observed for a period of 18 days through cameras situated near the hand washing stations. Day 10 was analyzed for results in order to avoid the Hawthorne effect associated with participants' knowledge of the cameras. Researchers watched for three variables: 1) which product was used to clean hands; 2) whether or not an incorrect product was used; and 3) whether or not hesitation was displayed by the basin user.

Findings

459 hand hygiene episodes were observed on the selected day of analysis, with 171 occurring at Type L and 288 occurring at Type R basins. 412 episodes were

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performed using the appropriate soap, while 27 episodes were performed incorrectly. Incorrect users chose either moisturizer instead of soap, or used only alcohol-based solutions in place of soap. Hesitation was observed in 26 episodes. Overall, there was a rate of 6.2% incorrect usage and 5.8% hesitation. The authors argue that the lack of consistency between the placement of hand-washing solutions contributes to these results.

Limitations

The authors note a few limitations in this study. This study took place in one hospital over a relatively short period of time. While measures were taken to avoid the Hawthorne effect, results may have been influenced by participant awareness of the study. The lack of visible product differentiation and inconsistent positioning were not directly studied as contributing factors to error or hesitation rates.

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