



KEY POINT SUMMARY

OBJECTIVES

To determine the location of hand washing sinks for healthcare workers (HCWs) who are caring for patients with CDI, and to gauge how these locations impact hand washing compliance.

DESIGN IMPLICATIONS

Sinks that are highly visible from patient care zones could help boost hand hygiene compliance overall. Conversely, sinks that are far away or that require frequent turning to locate could cause significant drops in hand-washing compliance.

Impact of sink location on hand hygiene compliance after care of patients with *Clostridium difficile* infection: a cross-sectional study

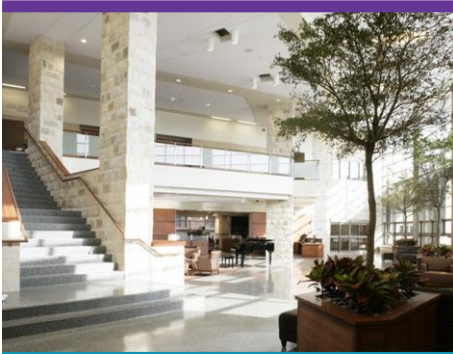
Deyneko, A., Cordeiro, F., Berlin, L., Ben-David, D., Perna, S., & Longtin, Y. 2016 | *BMC Infectious Diseases* Volume 16, Issue 203, Pages 1-7

Key Concepts/Context

Hand hygiene is typically identified as the most important infection control measure. Many healthcare settings have adopted alcohol-based hand rub solutions because they are extremely easy to use, are accessible, and are effective against microbes. One limitation of alcohol-based hand rubs, however, is their ineffectiveness against spore-forming organisms such as *Clostridium difficile* infection (CDI). Thus, hand washing in sinks rather than rubbing with solutions is highly recommended after caring for patients with CDI. While there are many existing studies examining the general impact of sink location on hand hygiene compliance in healthcare environments, very few previous studies focus specifically on compliance rates after contact with patients with CDI.

Methods

This study took place over the course of four months across 15 different wards in a single 637-bed tertiary medical center. Trained observers used unobtrusive observation to audit healthcare workers' hand hygiene compliance after making contact with a patient afflicted with CDI. There was an average of one sink available for healthcare workers per 10.7 beds. Prior to the audits, a researcher visited the 15 wards and took note of the specific locations of sinks (hallway, medication room, etc.), their distance from patient areas, and whether or not the sink was visible from the patient's room. If a sink was not visible from a patient's room, the number of 90-degree turns required to reach the sink was noted. Five potential variables were formulated as predictors: glove use, direct visualization of the sink, number of 90-degree turns, proper glove removal, and distance to the sink.



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Findings

Half of all the closest sinks were located in nursing stations on the day of CDI diagnosis. Hallways and medication rooms were the next most common locations, respectively. Sink locations on the day of diagnosis were similar (in distance measured in meters) to their locations in relation to CDI patients within 24 hours of diagnosis. Both on the day of CDI diagnosis and 24 hours afterward, one-third of sinks were found directly visible from the patient zone, and in half of all occasions, healthcare workers had to turn 180 degrees or more to reach a sink. Use of gloves was associated with higher hand washing compliance, as were shorter distances the sinks from patient zones. Compliance was at its best when sinks were directly visible from the patient zone.

Limitations

This study examined a relatively small sample size from a single hospital while focusing on a handful of specific variables. The authors note that the small number of observations limited the number of variables that could be included in their multivariate analysis. Healthcare worker perspectives weren't taken into account, which could have provided insight into this specific institution's hand washing culture.

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