

**Presentation Type:**

Poster Presentation

**The Process of Developing and Implementing a Simplified Guideline for Hand Hygiene in the Operating Room**

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**Background:** Most studies on improving hand hygiene compliance (HHC) focus on clinical wards. The 5 Moments of Hand Hygiene, as stated by the WHO, are less easy to identify in an outpatient setting or procedure rooms. Therefore, observing compliance of these moments in an outpatient clinic or among healthcare workers (HCWs) in the operating room (OR), is far more difficult. Nonetheless, proper hand hygiene in the OR is of utmost importance to prevent postoperative wound infection. **Objective:** We developed and implement a scoring instrument with simplified moments of hand hygiene for nonsterile HCWs in the OR. **Methods:** All 13 hospitals of the Antibiotic Resistance Network Southwest Netherlands were asked to submit their guidelines on hand hygiene in the OR. These guidelines were, after discussion, combined into 1 guideline, describing different hand hygiene areas for different groups of nonsterile HCWs in the OR. After asking for feedback and incorporating these adjustments, the guideline was converted into a policy document. Based on this document, a paper scoring instrument was developed to observe HHC in the OR in a uniform way across all hospitals. The Erasmus University Medical Center Rotterdam, the Netherlands (Erasmus MC) acted as a pilot hospital where the implementation of the scoring instrument was studied. **Results:** The policy document has been approved by the infection committees of all 13 hospitals. The preliminary data of the pilot in the Erasmus MC, although still ongoing, are as follows. Hand hygiene in the OR was observed at 4 different time points. The anesthetist was observed once during 4 procedures in 3 different ORs. At the other 3 time points, the OR assistants (ie, OR nurses and circulating nurses) were observed during 4 procedures in 4 different ORs. Hand hygiene moments were easy to identify; the paper scoring instrument could be used to record observations of HHC in the OR. **Conclusions:** The guideline with the simplified moments of hand hygiene for nonsterile HCWs in the OR has been successfully implemented. The pilot test in the Erasmus MC already showed that, after defining the hand hygiene moments in the OR, the HHC in the OR is easier to observe and record using the scoring instrument. Moreover, the instrument has provided clarity for HCWs regarding the moments at which they should disinfect their hands.

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**The Role of Routine Practice in Healthcare Worker Strategies when Doffing Unfamiliar Personal Protective Equipment**

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**Background:** Appropriate doffing of personal protective equipment (PPE) prevents healthcare worker (HCW) self-contamination and spread of pathogens. HCWs may encounter an array of PPE types (eg, gloves, gowns, masks) and designs (eg, masks with elastic ear loops vs ties) during their duties, some of which may be unfamiliar. We know little about how HCWs strategize when doffing unfamiliar PPE. As part of a larger study examining the doffing process and the risk of self-contamination, we used qualitative methods to explore factors influencing HCW PPE doffing strategies. **Methods:** In total, 70 HCW participants from 2 Midwestern academic hospitals were assigned to 1 of 4 doffing simulation scenarios. In the first 3 scenarios, participants were asked to doff 3 mask designs (n = 10), 2 gown designs (n = 10), or 2 glove designs (n = 10). In the fourth scenario, HCWs with different levels of training (n = 40) participated in 2 doffing simulations randomized per participant: a distraction simulation and a nondistracted simulation (using identical PPE types and designs). In all scenarios, participants were instructed to doff in their usual manner. Doffing performances were video-recorded. Participants then reviewed the recordings and took part in short semistructured interviews about their performance. Interviews were audio-recorded, transcribed, and analyzed using thematic analysis. **Results:** When faced with unfamiliar PPE during the simulations, participants were required to problem solve. In so doing, participants reported drawing on their day-to-day routine practices with familiar PPE to inform their doffing strategies. Aspects of routine practice identified as influential included PPE types typically worn, PPE donning and doffing order, doffing frequency, familiar PPE design cues, and experience tailoring strategies to specific patient care contexts. Participants frequently reported the desire to avoid self-contamination as driving doffing strategies and problem solving, but they also noted unique patient care demands related to their specific roles when they explained their doffing decisions. At the same time, HCWs identified lack of familiarity, lack of training, and nonintuitive design as barriers to doffing appropriately when encountering unfamiliar PPE. **Conclusions:** Different PPE designs may not be interchangeable, and proper doffing techniques may not be intuitive. The previous experiences of HCWs informed their strategies when doffing unfamiliar PPE. However, this practice sometimes caused them to use inappropriate doffing techniques and resulted in self-contamination. This finding has important implications for hospital policies and procedures regarding the introduction of new PPE and indicates that HCWs need training when new items are introduced.

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