Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Correspondence

Why do we fail complying with hand hygiene recommendations in COVID-19 wards?

Dear Editor,

Hand hygiene (HH) is an essential and cost-effective part of infection containment (Blot et al., 2022; Makhni et al., 2021; Wang et al., 2021). Though often inadequate, HH compliance (HHC) is especially important in endemic situations. Compromised HHC begs for an in-depth approach determining the obstacles to appropriate HHC in the COVID-19 pandemic era. This demands open discussion with the involved staff.

Methods

After IRB approval (ASF-0020-21), a convenient sample of 50 nurses were subject of a semi-structured interview in a single-center study. Nurses were eligible when having worked for at least two months in a COVID-ward between March 2020 and February 2021.

Results

Demographics

74% was female with a mean age of 38 years (±9.4) and on average 12 years of professional experience (±9.9); 70% hold a bachelor's degree; 18% a master's degree (Appendix table 1).

Content analysis

82% of the respondents stated HHC was not performed adequately, if at all. Moreover, 42% stated, regarding themselves, that they are not following HH guidelines, mainly by means of double gloving *"I wear two pairs of gloves and change the external pair between patients"* (Table 1). The main reason for these behaviors (Table 1) were fear of COVID-19 (50%), work overload (34%), and unclear HH guidelines (18%). Respondents recommended better guidance (66%) and workload alleviation (24%).

Discussion

Partial HHC puts patients in danger of cross-infection and mortality (Perez et al., 2020; Grasselli et al., 2021). In anonymous interviews, respondents described low levels of HHC. Fear of COVID-19 exposure is found to be main reason for low HHC. It is not only for personal safety, but also for the safety of staff members' families. Addressing this concern, both in the current COVID-19 pandemic and in future outbreak situations is vital.

Nurses expressed guidelines confusion. New, unfamiliar disease produced confusion, with often unclear or even contradictory guidelines published frequently.

It is essential to communicate the updated guidelines clearly and briefly to the staff. Additionally, recurrent face-to-face, personal interactions with the experts is needed to alleviate concerns and improve staff members' sense of security. Personal examples set by leaders (official and unofficial) are also crucial.

Work overload is another reason for low HHC. The inverse correlation between work overload and HHC is well-established. There is no easy solution, given the worldwide shortage of healthcare providers and the pandemic. Coping strategies include effective triage and recruitment of less-skilled workforce for low-skill treatments.

Our research relays the voices of the COVID-19 wards nurses, speaking openly about their difficulties. Frank responses allow deep understanding of reasons for inadequate HHC. Our findings should serve as a basis for HHC improvement interventions. As the interviews were conducted just as COVID-19 vaccination had begun, the findings might represent the reality of any future pandemics without available vaccines.

Study limitations

First, recall bias is possible since respondents were interviewed regarding past events. Second, the single-center design limits the generalizability of our findings. Finally, convenience sampling cannot rule out the remote theoretical possibility that particularly non-compliant staff recruited for the study.

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Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Table 1
Interview questions and responses.

Interview questions
What is your professional experience? (length of work) [years]
How long you work in current workplace? [years]
What is your assignment in COVID ward?
What period of time you worked in COVID ward? [month]
What is the policy regarding HH in COVID ward?
How you receive the HH policy information in COVID ward?
What actually happens in COVID ward? (regarding HH compliance)
Does staff fulfill the HH policy?
Do you fulfill the HH policy?
What in your opinion the reasons staff (and/or you), not fulfilling the policy?
What should be done differently so staff (and/or you) will fulfill the HH policy?
Reasons for inappropriate HHC – quotations of the nurses' responses
"I do not understand why, when I need to be covered from head to toe, I should then expose my hands"
"I am afraid to expose my hands in the COVID ward"
"I am afraid of being infected. It is life-threatening to me and my family"
"I am not sure that taking my gloves off and washing my hands can prevent COVID infection"
"I am afraid of the exposure to COVID every time I take my gloves off," especially, "if I had a small wound or skin flaw that could allow COVID to penetrate my skin."
"We enter the ward with no exposed skin, and change gloves 4 times when we exit the ward! So, what is the reason to expose our hands while in the ward?!"
"Fatigue, stress, pressure, emergency situations, work overload, and staff shortages."
"The guidelines were unclear and inconsistent."
Recommendations from respondents to improve hand hygiene compliance – quotations of the nurses' responses
"face-to-face explanations"
"detailed responses to staff questions and concerns."
"explanation and proof that hand exposure does not result in COVID infection,"
"providing proof by means of personal example."
"adding more staff"
"allocating fewer patients to each nurse"
"lowering the burden"

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.iccn.2022.103299.

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