

Hand hygiene using hand rub ethanol for disinfection preparation by healthcare workers

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Abstract

We conducted a questionnaire for fact-finding about hand hygiene using hand rub ethanol for disinfection preparation by healthcare workers.

The subjects were 276 people from the Tokushima National Hospital staff.

The rate of use of hand hygiene when they might be exposed to bodily fluids was high, but the rate of use after having touched the neighboring environment of the patients was low. One of the reasons that hand-washing was not done was that nurses could distinguish the hand-washing from hand-washing. Acquisition of the right knowledge of hand hygiene is necessary.

Introduction

In the guidelines of the American Centers for Disease Control and Prevention (Centers for Disease Control and Prevention: CDC) (2002) for hand hygiene in healthcare settings, there has been a switch from "hand-washing using soap and running water" to "hand rub ethanol for disinfection preparation" as the first choice for hand hygiene to relieve the spread of pathogenic microbes among patients and healthcare workers. As a result, it is recommended that we use hand rub ethanol for disinfection preparation. WHO has proposed five timings when were with it or less of hand hygiene in "Guidelines on hand hygiene in medical care" in 2009 [1], 1) Before contact with the patients; 2) Before cleanliness and sterility treatment; 3) When one might be exposed to blood or bodily fluid; 4) After contact with the patients; 5) After contact with surfaces around the patients. The Tokushima National Hospital has many wards for patients with muscular dystrophy of the long-term medical treatment type, and wards for neurological intractable disease. It is difficult for most of the inpatients to change by themselves. Because

cross-infection by the hands of healthcare workers is considered a route of infection in such a situation, thorough hand hygiene is particularly necessary. Furthermore, there are many patients detaining gastrostomy, a nasogastric tube, tracheal cannula. As for the custody of these healthcare-related appliances, the prevention of infection is important to become the risk factor of pathogenic microbe transmission. Therefore, we conducted fact-finding on hand hygiene with hand rub ethanol for disinfection preparation by the nursing staff. We can make use of the present conditions determining it in education on the prevention of infection in the future. Furthermore, we hope that this will lead to prevention of infection by healthcare workers.

Subjects and methods

The subjects were 276 people from the Tokushima National Hospital staff, including 13 physicians, 196 floor nurses, 27 nurses' assistants / medical treatment assistants, five child instructors / childcare people, 17 physical therapists / occupational therapist / language hearing

people, five medical technologists, and three radiographers. 210 questionnaires were collected (76% questionnaire recovery rate). After every five occasions of hand hygiene, we asked about self-assessment of the normal business routine scene. Furthermore, we asked the reason why hand-washing was not done. The self-assessment required an answer from a graded range of six from "we do not do it at all" to "we always do it". We adorned the questionnaire content to each type of job.

Results

In the answers from the nursing staff, the rate of use of hand-washing was high when the nurse might be exposed to blood or bodily fluid. The rate of use was low after contact with surfaces around patients and before contact with the patients. **Figures 1-3** show a summary of answers. We found that the rate of use of nurses' assistants and medical treatment assistants was low before entering the sickroom. The rate of use after having left the sickroom was higher than that before entering the sickroom.

Discussion

The antiseptic percentage of the finger of the nursing staff was high when it might be exposed to bodily fluid. After having touched the neighboring environment of the patients, the rate of use of hand hygiene was low. The low rate was thought to be because there was little recognition that a hand could be contaminated after having touched the neighboring environment of the patients. Thus, the subjects may be conscious only of visible pollution. Because they washed their hands using soap and running water, many nurses seemed to think that the alcohol-based hand rub was unnecessary. The hand rub ethanol for disinfection preparation was thought to be kinder to skin than soap and hand-washing with water [1]. Also, it is possible to perform easily in the healthcare setting because clean water, soap and a towel are unnecessary. In other words, hand-washing with alcohol-based hand rubs is a desirable method for those busy with many duties.

Reference

1. WHO Patient Safety Curriculum Guide:Multi-professional Edition 2011. World Health Organization 2011

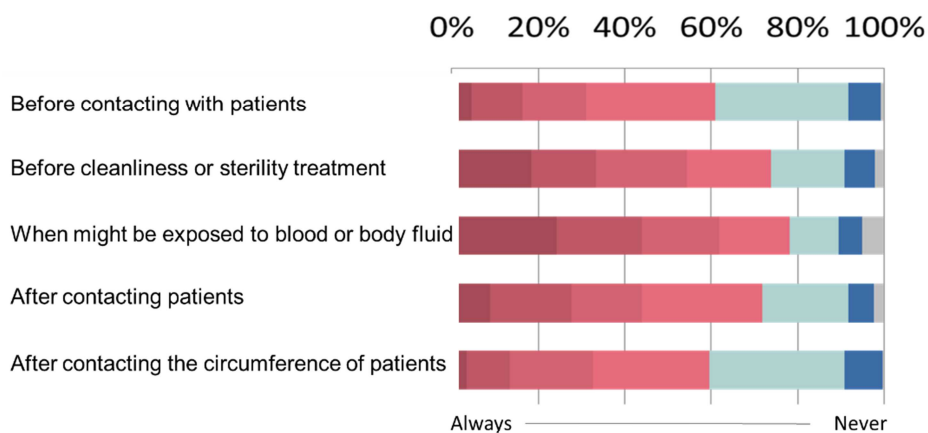


Figure 1. Summary of answer from floor nurses (N=137)

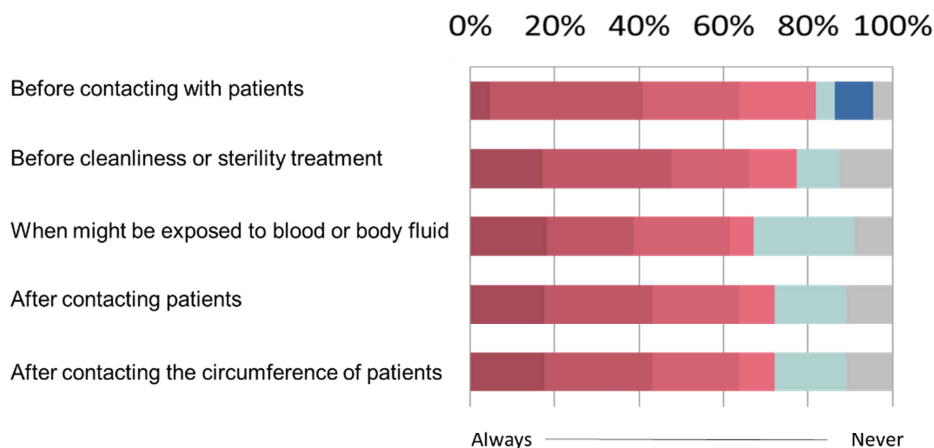


Figure 2. Summary of answer from outpatient nurses (N=11)

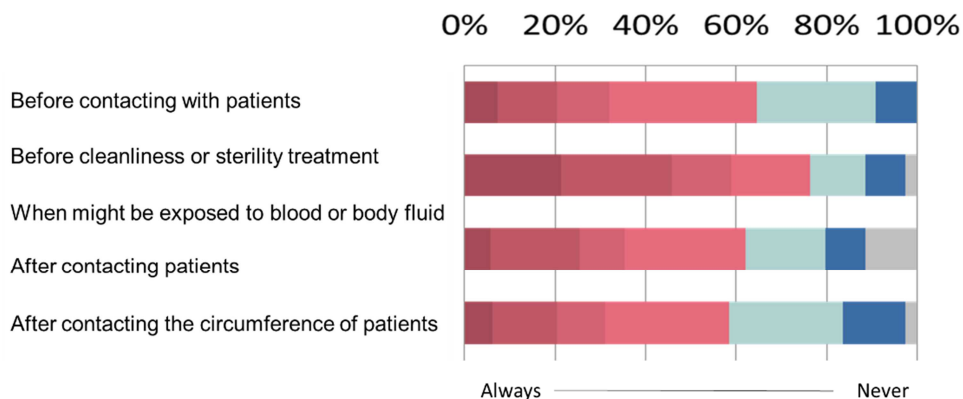


Figure 3. Summary of answer from nurse assistants and medical treatment assistants (N=27)