

Study on Standardized Management of Hand Hygiene of Hospital Patients and Accompanying Personnel

Xiufeng Chen

*The First Affiliated Hospital of Anhui University of Science and Technology, Huainan, Anhui,
232001, China
694916767@qq.com*

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Abstract: This article analyzes and explores the impact of standardized hand hygiene management for hospital patients and caregivers on reducing hospital infections. This article selects 50 clinical inpatients and nursing staff from a certain hospital in our district as the research subjects, and is randomly divided into OG (observation group) and CG (control group), with 25 people in each group. OG conducts standardized management of hand hygiene, while CG conducts routine care procedures. Compare the hand hygiene hospital infection status of two groups of patients and their caregivers. The results showed that out of 25 patients with CG, 12 (48%) developed hospital acquired infections. Among the 25 patients with OG, 4 (8%) developed hospital acquired infections. The hospital infection rate of OG was significantly lower than that of CG ($P < 0.05$), and the qualified rate of hand hygiene testing among OG nursing staff was 84%, which was significantly higher than CG (52%). From this, it can be seen that standardized hand hygiene management for patients and their nursing staff has to some extent reduced the hospital infection rate, with good results and is worth promoting.

1. Introduction

Strengthening hand hygiene is the key to prevent hospital infection. Hospital infection rate is high; Doing a good job in hand hygiene prevention and control can effectively avoid infectious diseases among medical staff. Good hand hygiene is of great significance to prevent and control hospital infection and ensure the life safety of patients and medical staff [2-3].

As we all know, there are many factors that cause hospital infection. A large number of epidemiological investigations show that about 30% of hospital infection is caused by bacteria transmitted by medical staff. Hand pollution is one of the important transmission routes that cause hospital infection. Hand hygiene is a major event related to the safety of doctors and patients, medical level and medical quality. Seriously “washing hands” not only protects yourself but also protects others [4]. At present, the importance of hand hygiene for medical staff has been recognized by everyone, but the importance of hand hygiene for patients and their caregivers in hospitals is far from enough, and some hospitals even ignore it completely. In order to accumulate experience and share it with peers, 50 patients and their accompanying staff in our hospital are selected for retrospective analysis, and the report is as follows.

2. Materials and Methods

2.1 General Materials

50 clinical hospital patients and their caregivers in a hospital in our district were selected as the research objects, and they were randomly divided into OG (observation group) and CG (control group), with 25 people in each group. The OG was 21-45 years old. The CG was 21-43 years old. There was no significant difference in age and sex between the two groups ($P>0.05$).

2.2 Methods

The OG carried out a hospital-wide hospital infection activity week, in which hand hygiene related activities included hand hygiene exhibition board display, teaching video playback, prize-winning knowledge quiz and cultural program performance. By direct observation, hand hygiene was observed by trained full-time infection control personnel. During the hand hygiene intervention, inform, remind, supervise the main problems existing in the hand hygiene behavior of patients and caregivers, and feedback the monitoring results.

In the CG, the routine nursing process was implemented, and each patient was washed and put on gloves first, and gloves were changed in time according to the patient's situation, and the occurrence of nosocomial infection in patients was observed and recorded.

2.3 Observation Index

Refer to the five hand hygiene moments recommended by WHO's hand hygiene guidelines: before contact with patients, before aseptic operation, after contact with patients' blood or body fluids, after contact with patients and after contact with patients' surroundings [5]. The monitoring period of hand hygiene is 30 min after the shift change of medical staff every morning.

2.4 Statistical Treatment

Using SPSS26.0 software to process data, the measurement data is represented by $\bar{x} \pm s$, the counting data is represented by rate (%), and the test of T and χ^2 is used, with $P<0.05$ as statistically significant difference.

3. Result

3.1 Comparison of Infection Rates

Of the 25 patients in the CG, 12(48%) developed nosocomial infection. Of the 25 patients in the OG, 4(8%) developed nosocomial infection. The nosocomial infection rate in the OG was significantly lower than that in the CG ($P<0.05$). (See Table 1).

Table 1: Infection Situation Of Two Groups of Patients [n(%)]

group	n	skin	conjunctivitis	respiratory tract	alimentary canal	urinary tract	incidence rate
CG	25	1(4)	2(8)	4(16)	2(8)	3(12)	12(48)
OG	25	0(0)	0(0)	1(4)	0(8)	1(4)	4(8)

3.2 Comparison of Qualified Rate of Hand Hygiene Inspection

The qualified rate of hand hygiene test of nursing staff in the OG was 84%, which was significantly higher than that of the CG (52%), and the difference was statistically significant ($P < 0.05$) (see Table 2).

Table 2: Comparison of Qualified Rate of Hand Hygiene Inspection

group	n	Qualified number	percent of pass(%)	χ^2	P
CG	25	13	52	56.398	<0.001
OG	25	21	84		

4. Discussion

Hospital is a special public place where patients and pathogens gather. Preventing and controlling hospital infection has become one of the key tasks of the hospital. In practical work, medical staff in China generally lack the awareness of hand washing, the rate of timely hand washing is low, or hand washing is not standardized and does not meet the requirements. Hand hygiene refers to the collective name of medical staff washing hands, sanitary hand disinfection and surgical hand disinfection [6]. Among them, “washing hands” means that doctors use soap or soapy water to clean the dirt on their hands and some germs that cause diseases.

Lack of hand hygiene awareness/knowledge is the main reason why many medical staff have low hand hygiene implementation rate or incorrect hand washing/hand drying methods in their daily work. The investigation suggests that some medical staff do not wash their hands frequently because they think their hands are not dirty and have little or no influence on patients [7]. The way to dry hands is wrong. After washing hands, patients are given medical care without drying or drying. Some medical staff even dry their washed hands on white coats. Another survey shows that people who don't want to wash their hands think that soap and disinfectants are irritating to the skin, and frequent hand washing can make the skin epidermis lose moisture, especially in winter, which can cause skin dryness, chapping and even damage to cause dermatitis or allergies [8].

The carrier can pass the pathogen to the contact person and live in the contact person's hands for several hours. This contact spread is an important factor leading to nosocomial infection. Epidemiological investigation shows that hand pollution of medical staff, patients and their families is an important cause of pathogen transmission [9]. Therefore, the hand hygiene of medical staff is of great significance for clinical diagnosis and treatment, which has been paid enough attention to, but the hand hygiene of patients and their accompanying personnel is poor. The staff in the Disinfection Supply Center mistakenly thought that they could not wash their hands by wearing gloves, so they formed the habit of working by wearing gloves. They not only wore gloves when recycling instruments and articles in clinical departments and articles with special infection, but also wore gloves when distributing sterile articles, and neglected to wash their hands after taking off gloves, which not only failed to protect themselves, but also brought the hidden danger of cross infection [10]. You can't rely on wearing gloves at work, but you must wear double gloves when touching contaminated items and wash your hands after taking off gloves; At the same time, you must wash your hands when you leave the supply room. Sterile distributors and disinfectors only need to use quick hand disinfectant to unload sterile items, which not only eliminates the loopholes of nosocomial infection, but also prevents waste [11-12].

The results of this study showed that of the 25 patients in the CG, 12(48%) had nosocomial infection. Of the 25 patients in the OG, 4(8%) developed nosocomial infection. The nosocomial infection rate in the OG was significantly lower than that in the CG ($P < 0.05$). The qualified rate of hand hygiene test of nursing staff in the OG was 84%, which was significantly higher than that of

the CG (52%), and the difference was statistically significant ($P < 0.05$). This shows that the standardized management of hand hygiene for medical staff is conducive to significantly improving the hand hygiene compliance of patients and caregivers, reducing hospital infection rate, benefiting patients' health and improving patients' satisfaction.

At present, the basic care of patients in China is mostly carried out by their relatives, and each ward is basically 2 ~ 3 beds or even more; In addition, patients and their families help and communicate with each other, so it is inevitable that patients and their caregivers will contact each other in the same ward or adjacent wards. Infections that did not occur at the time of admission, did not exist latent, and only occurred during hospitalization, including infections that occurred in the hospital but after discharge [13]. This kind of infection is mainly caused by invasive operation and treatment, as well as bacterial translocation caused by hand contact between patients and medical staff. It can not only affect the quality of medical care, but also cause an important reason for the increase of medical expenses and mortality, so hand hygiene should attract the attention of the majority of medical workers. In this study, a combination of hand hygiene related activities, formal hand hygiene training, regular information feedback, and gradual supervision and management was adopted, and certain results were achieved [14].

We should strengthen the hand hygiene education of medical staff, organize lectures on hand hygiene knowledge by each department, hold relevant training courses for new comrades, advanced nurses and interns, and give them guidance training on hospital infection theory, hand hygiene awareness and the requirements of hand hygiene standards for medical staff in medical institutions before taking up their posts, so as to achieve the purpose of popularizing hand hygiene knowledge. Hospitals should increase the investment in facilities and equipment related to hospital infection management, put the safety of patients in the first place, and at the same time pay attention to the self-interests of nursing staff, provide hand skin care products to avoid the harm caused by cleaning products to nursing staff. Controlling the hand hygiene of medical staff is conducive to reducing the hospital infection rate. In the busy medical and nursing work, it is necessary to complete a series of medical activities through the hands of medical staff. If we don't pay attention to the cleaning and disinfection of hands, it will cause cross-infection between medical staff and patients. Among the many measures to control hospital infection, cleaning and disinfection of hand skin is an important, basic, simple and effective means to prevent and control the spread of pathogens.

5. Conclusions

Hand hygiene is an important means to prevent and control nosocomial infection, and it is also an important means to ensure the safety of patients and medical staff. After the standardized management of hand hygiene for patients and caregivers, the correct rate and compliance of hand hygiene for patients and caregivers have been significantly improved, which can protect the self-protection of patients and medical staff to a certain extent, thus reducing the infection rate in hospitals, with good results.

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