

## ARTICLE

# Application of Seamless Nursing Management in Emergency-ICU Patient Safety Transfer and Handover

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### ABSTRACT

**Objective:** To analyze the application effect of seamless nursing management in the safe transfer and handover of emergency-ICU patients. **Methods:** A total of 160 patients admitted to the emergency department-ICU from November 2017 to July 2018 were randomly divided into the control group and the observation group, with 80 patients in each group. Among them, the patients in the control group underwent routine nursing management mode, and the patients in the observation group were treated with seamless nursing, comparing the transfer of the two groups of patients and the satisfaction score of the emergency-ICU nursing staff. **Results:** The transfer status of the observation group and the satisfaction score of the emergency-ICU nursing staff were significantly better than those of the control group. **Conclusion:** Seamless nursing management can improve the overall efficiency of transshipment.

## 1. Introduction

In the hospital, the ICU is a special department. During the emergency-ICU transfer process, factors such as information communication, equipment operation, and medical personnel handover often have adverse effects on the overall quality of transshipment handover, which can easily lead to nursing risk accidents.<sup>[1]</sup> The application of seamless nursing management in emergency-ICU patient safety transfer and handover mainly analyzes the existing transshipment handover process, finds the problems in the process of transshipment handover, and adopts measures such as mechanism innovation and human resource opti-

mization to achieve seamless integration of various tasks. Based on this, the article was conducted in conjunction with 160 patients admitted to the emergency-ICU from November 2017 to July 2018, as detailed below.

## 2. Materials and Methods

### 2.1 General Information

A total of 160 patients admitted to the emergency-ICU from November 2017 to July 2018 were randomly divided into two groups, the observation group and the control group, with 80 patients in each group. Among them, the

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age of the observation group patients ranged from 22 to 71 years old, and the average age was (55.61±6.97) years old; the control group was aged from 23 to 72 years, and the average age was (56.24± 5.86) years old. There was no significant difference in the general data between the two groups ( $P>0.05$ ), and there was some comparability.

## **2.2 Methods**

### **2.2.1 Establish an Emergency-ICU Integrated Nursing Management Mode**

The hospital rationally adjusted and optimized the nursing structure of the emergency department and ICU department, improved the management mode of emergency-ICU departmental nursing integration, and set up the head nurse of the emergency-ICU department to construct a comprehensive integrated nursing management structure.<sup>[2]</sup>

### **2.2.2 Improve the Transfer Process**

In the emergency-ICU patient transfer handover, the hospital should assess the risk before the patient is transferred, and arrange the emergency department nurse and the attending doctor to assess the rationality of the transfer. The assessment contents mainly include the patient's vital signs, respiratory conditions, medication status, and safety problems easily caused by the road; and arrange for transfer equipment, such as multi-function monitors, portable oxygen bags, etc. In the transfer process of critically ill patients, at least one doctor and one nurse ensure that the nurse's working life is more than five years, and he has strong sense of responsibility, judgment, and ability to deal with emergencies. In addition, in the transfer process, the medical staff should ensure the safety of the patient's position, keep the patient warm, protect the patient's privacy, ensure the patient's respiratory tract is smooth, and closely observe the patient's condition changes, and do emergency treatment.

### **2.2.3 Make Handover Contents Standard**

The medical staff should design a transfer and handover order for critically ill patients according to the actual situation. The main contents include the patient's name, gender, age, and time of arrival in the emergency department, time of leaving the emergency department, type of disease, consciousness, pupil, vital signs, blood oxygen, blood sugar, medication, emergency treatment, emergency doctors and nurses, escort nurses, etc. Confirm the integrity of patient-related data, mainly medical records, wristbands, inspection reports, etc.<sup>[3]</sup> At the same time, after the patient arrives in the ICU department, the emergency

department nurse should fill in the arrival time and fix the bed together with the ICU nurses. Move the patient to the hospital bed and connect and set the parameters such as oxygen, ventilator, monitor, etc. The nurses in the emergency department handed over the venous passages, pipes, skin, outpatient medical records, examination results, medications and other actual conditions to the ICU nurses to measure the vital signs of the patients. The emergency department nurses filled out the records and the signatures were confirmed by both parties. When filling out the record sheet, you should use carbonless copy paper in duplicate (the original is handed over to the emergency department and the copy is handed over to the ICU department for preservation).

### **2.2.4 Conduct Regular Training Activities for Nursing Staff in the Emergency Department and ICU**

In order to realize the rational use of seamless nursing management in the emergency transfer-ICU patient transfer handover, the hospital conducts relevant training activities for the nursing staff of the emergency department and ICU department before the implementation of the seamless nursing management mode. Ensure that each nursinggiver can understand and master the transfer-handling process of emergency-ICU patients, and use and fill out the transfer-transfer records of emergency-ICU patients.<sup>[4]</sup> At the same time, in the process of carrying out training activities, the hospital should simulate the transfer of emergency-ICU patients. Ensure that each nursinggiver clearly identifies all aspects of the transfer process, and formulates relevant cases to incorporate relevant content in the actual work, such as the patient's condition, medical order, emergency department and ICU department's rescue coordination, etc. Through the training activities, improve the comprehensive quality, nursing ability and emergency treatment capacity of medical staff, and ensure that the seamless nursing management work is effectively implemented.

## **2.3 Observation Indicators**

First, compare the transfer and handover status of the two groups of emergency-ICU patients, mainly including the number of inter-unit electrical connections, the number of disputes between the two parties, and the number of missed handovers; second, compare the nursing work satisfaction scores of the two groups of emergency-ICU patients. Use the self-made nursing satisfaction survey to calculate the satisfaction of the nursing staff, including the transfer equipment, telephone inquiries, vital signs, valu-

ables, handover time and other indicators; the higher the satisfaction, the higher the score.

### 2.4 Statistical Analysis

In this research SPSS20.0 statistical software was used to process the data. Among them, the count data was represented by %, and the  $\chi^2$  test was used for comparison between groups. The measurement data were expressed by ( $\bar{x}\pm s$ ), and the t-test was used for comparison between groups. The data were statistically significant at  $P<0.05$ .

## 3. Results

### 3.1 Comparison of Transfer and Handover Status between Two Groups of Emergency-ICU Patients

**Table 1.** Comparison of transfer and handover between the two groups of emergency-ICU patients [ $n(\%)$ ]

Group	Number of Groups	Telephone Contacts between the Departments	Number of Liability Cases between Both Transfer Sides	Missed Handovers of Patients
Control Group	80	11(13.75)	7(8.75)	4(5.00)
Observation Group	80	2(2.50)	1(1.25)	1(1.25)
$\chi^2$ P	—	4.924 <0.05	4.236 <0.05	3.911 <0.05

As can be seen from Table 1, in the emergency-ICU patients in the observation group, the incidence of telephone contacts between the departments was 2.5% (2/80), the number of liability cases between both transfer sides is 1.25% (1/80), The incidence of missed handovers of patients was 1.25% (1/80); while in the control group, the incidence of telephone contacts between the departments was 13.75% (11/80), the number of liability cases between both transfer sides is 8.75% (7/80), The incidence of missed handovers of patients was 5.00% (4/80). The transfer and handover status of the observation group is significantly better than that of the control group. The incidence of telephone contacts between the departments, the number of liability cases between both transfer sides and the incidence of missed handovers of patients of the two groups were compared, and the data were statistically significant ( $P < 0.05$ ).

### 3.2 Comparison of Nursing Work Satisfaction Scores between Two Groups of Emergency-ICU Patients

As can be seen from Table 2, the satisfaction scores of the nursing staff in the emergency-ICU patients in the observation group (95.04±0.57) was significantly higher than that in the emergency-ICU patients in the control group (79.36±0.31). The data of the two groups were statistically significant ( $P<0.05$ ).

## 4. Discussion

Seamless nursing management mode is a new type of nursing management concept, which is based on routine nursing, comprehensive and effective nursing management of quality gaps to improve the overall quality of nursing work.<sup>[5]</sup> The effective application of seamless nursing management mode in emergency nursing work makes the relationship between emergency department and ICU department closer, and can timely feedback and solve the problems in the process of patient transfer and handover, and provide guarantee for the smooth development of nursing work to achieve standardized management of transshipment and handover content, effectively avoid the occurrence of unsafe accidents, and provide guarantee for the seamless handover of emergency department and ICU department.<sup>[6]</sup> The research showed that 160 patients who were admitted to the emergency department and transferred to the ICU patient data were analyzed. In the process of transshipment and handover, a seamless nursing management model was implemented to record the transshipment status of the two groups of emergency-ICU patients and the satisfaction score of the nursing staff. The results showed that, the transfer and handover status, such as the incidence of telephone contacts between the departments, the number of liability cases between both transfer sides and the incidence of missed handovers of patients of the two groups, of the observation group is significantly better than that of the control group; the satisfaction scores of the nursing staff in the emergency-ICU patients in the observation group were significantly higher than those in the control group. The data of the two groups were statistically significant ( $P<0.05$ ). Therefore, the application

**Table 2.** Comparison of nursing work satisfaction scores between the two groups ( $\bar{x}\pm s$ )

Group	Number of Groups	Transfer Equipment	Telephone Enquiry	Vital Signs	Valuables	Handover Time	Satisfaction Scores
Control Group	80	3.12±0.32	3.68±0.34	4.05±0.53	3.98±0.32	2.96±0.35	79.36±0.31
Observation Group	80	4.69±0.37	4.96±0.43	4.89±0.57	4.68±0.39	4.82±0.29	95.04±0.57
P	—	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

of seamless nursing management in the emergency transfer-safety transfer of ICU patients has significant effects and is worthy of promotion.<sup>[7]</sup>

## 5. Conclusion

In summary, with the development of society, China's medical conditions are constantly improving, and the nursing management model has improved. The use of seamless nursing management in the emergency transfer-safety transfer of ICU patients has effectively improved the overall quality of transshipment and delivery, and has gained more rescue time for patients.<sup>[8]</sup> At the same time, the application of seamless nursing management mode effectively integrates high-quality nursing and holistic nursing mode, forming an integrated high-quality nursing model, which greatly improves the comprehensive quality and nursing ability of nursing staff.

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