

# Application and Effect of Nursing Risk Management in the Care of Patients with Acute Exacerbation of Chronic Obstructive Pulmonary Disease in Respiratory Department

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**Abstract:** *Research objective:* To study the clinical effect of nursing risk management on patients with acute attack of chronic obstructive pulmonary disease in respiratory department. *Methods:* Patients with chronic obstructive pulmonary disease admitted to our hospital between January, 2023 and December, 2023 were enrolled. Patients in the control group were treated with routine nursing methods, and patients in the observation group were treated with nursing risk management on the basis of the control group. The nursing management score, the incidence of nursing accidents and disputes, and nursing service satisfaction were compared between the observation group and the control group. *Results:* The nursing satisfaction of the observation group was significantly better than that of the control group, and the difference was statistically significant ( $P < 0.05$ ). The nursing management score of the nursing group was higher than that of the control group, and the incidence of nursing defects, nursing complaints and disputes was lower than that of the control group, and the difference was statistically significant ( $P < 0.05$ ). *Conclusion:* The application of nursing risk management in the daily nursing of patients with chronic obstructive pulmonary disease in respiratory department can reduce the occurrence of nursing adverse events and promote the improvement of nursing service level, which is worthy of clinical promotion and reference.

**Keywords:** Nursing Risk Management, Department of Respiratory Medicine, AECOPD, Nursing Services, Satisfaction, Incidence of Disputes

## 1. Introduction

Nursing risk management refers to the selection of appropriate disposal process by nursing staff and patients, identification and assessment of potential risks that may occur [1]. In general, patients with acute exacerbation of chronic obstructive pulmonary disease (AECOPD) face many risks because of their urgent condition, heavy nursing workload, rapid changes in condition, and irritable mood of patients and their family members [2]. How to ensure the nursing safety of patients needs to strengthen the nursing risk management for them, which has become a difficult and hot spot for managers [3].

The clinical effect of nursing risk management on patients

with acute exacerbation of chronic obstructive pulmonary disease was analyzed in the following. 100 patients with acute exacerbation of chronic obstructive pulmonary disease admitted to our hospital were taken as the observation object, and the clinical effect of nursing risk management on patients with acute exacerbation of chronic obstructive pulmonary disease was analyzed, which is now reported as follows.

### 1.1. Materials and Methods

General information.

A total of 100 patients with acute exacerbation of chronic obstructive pulmonary disease admitted to the respiratory department of the hospital from January 2023 to December 2023 were selected as the research objects.

Inclusion criteria: patients can achieve normal communication, with perfect language function and no dysfunction. The enrolled patients agreed to the survey, and their family members were fully aware of the study, and signed the informed consent form.

Exclusion criteria: patients with pulmonary encephalopathy and psychiatric symptoms were unable to cooperate with the study.

The patients were randomly assigned to the observation group ( $n = 50$ ) and the control group ( $n = 50$ ).

There were 31 males and 19 females in the observation group, with an average age of ( $74.4 \pm 3.72$ ) years.

There were 29 males and 21 females in the control group, with an average age of ( $72.3 \pm 3.67$ ) years.

This study was recognized and approved by the ethics committee. After analysis of the general data such as gender and age of the two groups of patients, the index information was similar, and the difference was not statistically significant ( $P > 0.05$ ), so the comparative study could be carried out.

## 1.2. Methods

### 1.2.1. Establish a Nursing Risk Management Working Group

Head nurses, general nurses and key nurses formed a risk management working group to comprehensively evaluate the nursing risks of patients participating in the study, formulate a nursing management work plan, review the nursing work of patients with acute exacerbation of chronic obstructive pulmonary disease at any time, record the deficiencies exposed in nursing work and formulate countermeasures immediately, and study the nursing risks of nursing staff in the department in time. Take effective methods to solve it in time [2].

### 1.2.2. Training of New Nurses

We focus on training and learning. All new nurses were trained together.

Training content: nursing risk management theory, risk management key content, risk management plan, etc., all nursing staff must achieve a comprehensive grasp.

Techniques in patients with acute exacerbation of chronic obstructive pulmonary disease, such as creating artificial airway technology, mechanical ventilation technology, ECG monitoring technology, blood pressure monitoring technology, consciousness assessment technology, blood gas detection arterial puncture technology, etc.

Hierarchical training: highly educated nursing staff, training of acute exacerbation of chronic obstructive pulmonary disease, the use of new equipment technology, the latest research results, etc. Such nurses are encouraged to strengthen self-study and choose their own interests to strengthen research.

Nurses with low education were trained in basic nursing procedures, the rescue methods of patients with acute exacerbation of chronic obstructive pulmonary disease, the

use of various instruments, communication skills, etc. Nurses with nursing work experience are encouraged to guide young nurses so as to achieve the purpose of mastering professional skills as soon as possible [4].

## 1.3. Observation Indicators

The nursing management score, the incidence of nursing accident disputes, and the satisfaction with nursing service were compared between the observation group and the control group. The satisfaction with nursing service was divided into very satisfied with nursing service, dissatisfied with nursing service, and generally satisfied with nursing service. Total patient satisfaction result (total number of patients - number of dissatisfied patients)/total number of patients  $\times 100\%$ .

## 1.4. Statistical Methods

The online statistical software (<https://hiplot.cn/>) was used to analyze the nursing risk management data of patients with acute exacerbation of chronic obstructive pulmonary disease in the Department of respiratory medicine. The score of nursing management was analyzed by t test and expressed as (mean  $\pm$  standard deviation). The incidence of nursing complaints, defects and accident disputes, and nursing service satisfaction were tested by  $\chi^2$  test, which were expressed by (n%), and were statistically significant, otherwise it was meaningless.

# 2. Results

## 2.1. Nursing Management Score

Nursing management took ward management and disinfection management as the scoring criteria. The disinfection score and ward management score of the experimental group were higher than those of the control group, and the difference was statistically significant ( $P < 0.05$ ), see Table 1.

Table 1. Nursing management scores (mean  $\pm$  S; Points).

	Disinfection score	ward management score
Observation group	87.8 $\pm$ 1.7	95.3 $\pm$ 3.2
Control group	78.8 $\pm$ 3.1	83.4 $\pm$ 6.7
t	16.0996	14.7659
p	0.0000	0.0000

## 2.2. Comparison of Nursing Satisfaction Between the Control Group and the Observation Group

Research result-Comparison of patient satisfaction between the control group and the observation group, the nursing satisfaction of the observation group was significantly better than that of the control group, and the difference was statistically significant ( $P < 0.05$ ). The experimental data were statistically significant, and the patient nursing satisfaction data. See Table 2.

Table 2. Comparison of nursing satisfaction between the control group and the observation group [n (%)].

	Very satisfied	generally satisfied	not satisfied	Overall satisfaction
Observation group	22	25	3	47/50, 94%
Control group	18	20	12	38/50, 76%
t				8.5678
p				0.0054

3. Discussion

Risk management in the department of respiratory medicine is a positive risk assessment. It should be carried out according to the actual clinical situation of patients, analyze the potential risk factors that may occur, reduce the occurrence of risk events, and carry out corresponding preventive measures early. In the process of nursing intervention, continuous exploration of clinical problems, timely establishment of relevant professional teams, and development of emergency plans and treatment methods can greatly improve the quality of nursing [5-7].

Because ecological environment pollution, smoking and other conditions have not been effectively treated. The number of patients with respiratory diseases is increasing, and most of the patients' conditions develop rapidly after entering the respiratory medicine treatment, and it is difficult to effectively control the patient's condition. The family members of patients also have great psychological fluctuations. Once adverse phenomena occur in the nursing work, it is easy to cause dissatisfaction of the family members of patients. These are the risk factors for the nursing work of patients in the Department of respiratory medicine [8-10]. The study showed that the nursing satisfaction of the observation group was significantly better than that of the control group, and the difference was statistically significant ( $P < 0.05$ ). The disinfection score ( $87.8 \pm 1.7$ ) and ward management score ( $95.3 \pm 3.2$ ) of the observation group were higher than those of the control group. The incidence of nursing complaints was 6%, the incidence of nursing disputes was 6%, and the incidence of nursing defects was 0% in the observation group, which were lower than those in the control group. The clinical application of nursing risk management in the Department of respiratory Medicine can effectively reduce the occurrence of risk events, ensure the health and safety of patients, reduce the occurrence of nurse-patient disputes and nursing complaints, and effectively improve the treatment compliance of patients [11-15].

4. Conclusion

We explored the clinical effects of risk management in nursing care for patients experiencing acute exacerbations of chronic obstructive pulmonary disease (COPD). Results: The nursing satisfaction in the observation group was significantly better than that in the control group, with statistically significant differences ( $P < 0.05$ ). The nursing management scores in the nursing group were higher than

those in the control group, and the rates of nursing defects, nursing complaints, and disputes were lower than those in the control group, with statistically significant differences ( $P < 0.05$ ). The application of nursing risk management in patients with acute exacerbations of COPD has practical significance, reducing complaint rates and improving patient satisfaction. This positively impacts the hospital's image enhancement. All such studies are meaningful and valuable, providing a basis for our future research and learning.

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Conflicts of Interest

The authors declare no conflicts of interest.

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