ARTICLE

The Guiding Role of Pharmaceutical Care in the Rational Drug Use of Bronchial Asthma

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ABSTRACT

Objective: To investigate the guiding role of pharmaceutical care in the treatment of bronchial asthma. Methods: Eighty patients with bronchial disease admitted to our hospital from November 2008 to December 1818 were enrolled in this research. The computer program was used to generate random numbers. The method was divided into two groups: control group and observation group, 40 cases respectively. 40 patients in the control group were treated with normal medication according to the doctor’s advice; 40 patients in the observation group were enrolled in the pharmacological care on the basis of the control group, and the rational drug use was compared between the two groups. Results: The incidence of adverse reactions in the observation group and the control group were 5.00% and 17.50%, respectively, and the difference was statistically significant (P<0.05); the incidence of medication error events in the observation group was 7.50%, which was significantly lower than that of the control group, which was 25.00%, and the difference was statistically significant (P<0.05). The medication errors mainly include improper administration, incorrect dosage, and unscientific administration. Conclusion: The guiding role of pharmaceutical care in bronchial asthma rational drug use can reduce medication error events and ensure rational drug use, which is worthy of popularization in clinical practice.

1. Introduction

Bronchial asthma is a common chronic respiratory disease in the clinic. In recent years, it has been affected by the living environment, and the number of people with the disease is increasing. There is no cure at all, but long-term medication can control acute asthma attacks [1,2], improve performance symptoms and prevent irreversible airflow limitation. There are many types of drugs for clinical treatment of bronchial asthma, and there are differences in the way of administration.

The wrong way of using drugs can not only alleviate the condition, but also delay the treatment of patients. Pharmaceutical care mainly refers to providing patients with direct and responsible care related to pharmacy [3,4]. In bronchial asthma, clinical pharmacists participate in the treatment of asthma, and guide patients to more rational drug use. To further accurately evaluate the guiding role of pharmaceutical care in the rational drug use of bronchial asthma, this research selected 80 patients with bronchial asthma in our hospital, as reported below.

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2. Data and Methods

2.1 Clinical Data

This paper selected 80 patients with bronchial asthma treated in our hospital. All cases were diagnosed by pathological examination, which showed symptoms such as cough and wheezing. The computer program was used to generate random numbers. The method was divided into observation group and control group, 40 cases in each group. The observation group patients ranged in age from 22 to 73 years, including male to female ratio of 22:18 and average age of (60.72±2.63) years old. The control group was 21 to 72 years old, with a male to female ratio of 23:17 and an average age of (60.48±2.71) years old. Exclusion criteria: (1) those who are allergic to selected drugs; (2) those with abnormal organs such as heart, liver and kidney; (3) women during pregnancy and lactation; (4) those who did not sign the informed consent form. There was no statistically significant difference between the two groups (P>0.05), which was comparable.

2.2 Methods

The patients in the control group were given normal medication according to the doctor’s advice; the patients in the observation group were added pharmacological care on the basis of the control group. The specific operation methods are as follows:

(1) Inquire About the Patient’s Past Medical History and Do a Physical Examination

The doctor and the pharmacist understand the patient’s body condition based on the patient’s medical history and allergic history, comprehensively analyze the patient’s liver and kidney function test results, and formulate a reasonable medication plan to ensure rationalization and compliance with the “Bronchial Asthma Diagnosis and Treatment Guidelines”.

(2) Pharmaceutical Care during Treatment

Patients taking glucocorticoids should pay attention to adverse reactions such as increased blood pressure, hypokalemia and osteoporosis, and patients with hypertension should reduce the dose of the drug appropriately; inhaled glucocorticoid therapy Chinese pharmacists should guide patients to master the inhalation method, and then gargle in time to prevent pharyngeal infection of Candida; doxofylline can directly act on the bronchus, so the pharmacist should pay attention to the infusion rate of doxofylline injection. If the drug is administered too fast, patients may easily develop nausea, vomiting, arrhythmia and other symptoms, therefore, nurses are expected to be reminded that the initial infusion rate should be slowed down, and the blood concentration of theophylline should be monitored to avoid theophylline poisoning.

(3) Do a Good Job in the Publicity and Education of Rational Drug Use

The pharmacist should take the initiative to explain to the patient the dosage, usage and time interval of the drug, to ensure the scientificity of the drug, and to use the drug according to the standard time, so that the patient understands the importance of correct drug use, especially the drug in the inhalation device, and the patient should master the correct method of use. In the treatment of bronchial asthma, closely monitor the patient’s body state, and check the blood pressure, blood sugar and other indicators. If there is any abnormality and contact with the attending doctor in time, the patient will come to the hospital for regular review and adjust the dosage according to the change of the symptoms of bronchial asthma.

2.3 Observation Indicators and Judgment Standards

The adverse reactions of the two groups of patients and the incidence of medication errors were compared.

2.4 Statistical Processing

The data collected by the specialists were collected and processed into the statistical software SPSS17.0. The standard deviation (±) represents the measurement data, t-test; % represents the count data, verification, P < 0.05 means statistically significant.

3. Results

3.1 Comparison of Adverse Reactions between the Two Groups of Patients

The incidence of adverse reactions in the observation group and the control group were 5.00% and 17.50%, respectively, and the difference was statistically significant (P<0.05), see Table 1 for details.

Table 1. Comparison of adverse reactions between the two groups of patients (Cases, %)

| Group         | Number of Cases | Nausea and Vomiting | Arrhythmia | Syncope | Incidence Rate |
|---------------|-----------------|---------------------|------------|---------|----------------|
| Observation   | 40              | 1 (2.50)            | 0          | 1 (2.50)| 5.00           |
| Group         |                  |                     |            |         |                |
| Control       | 40              | 3 (7.50)            | 2 (5.00)   | 2 (5.00)| 17.50          |
| Group         |                  |                     |            |         |                |

3.2 Comparison of the Incidence Rate of Medication Error Events between the Two Groups of Patients

The incidence of medication error events in the obser-
The guiding role of pharmaceutical care is increasingly valued by clinical research, especially in the treatment of bronchial asthma patients, because of the complexity of the mode of administration and dosage. Therefore, it is prone to the phenomenon that the patient does not have a rational drug use and affects the therapeutic effect. Therefore, the pharmacist should strengthen the knowledge and education of the drug before the patient receives treatment \[7,8\], detail the knowledge about bronchial asthma attack, improve the patient’s medication compliance, let the patient prepare psychologically, and adhere to long-term regular drug treatment, and effectively control the progress of the disease. Pharmaceutical care can guide patients to treat children with diseases and reduce their psychological burden. Information such as the type of bronchial asthma, severity of illness, and level of control can affect rational drug use. Therefore, according to the changes in the condition, the drug selection in the drug treatment plan is upgraded or lowered, and a single treatment plan and form are avoided \[9,10\], and the graded treatment plan is made clear. At the same time, the pharmaceutical care executive pharmacist should check the patient’s general information and past medical history in advance, and consider the patient’s personal situation when selecting the treatment drug, such as whether to combine chronic disease, cardiovascular disease, etc., whether there is any possible adverse reaction after using the drug. The pharmaceutical care focuses on the consultation of patients with medication, so the clinical rational drug use is the goal of the pharmacist to perform pharmaceutical care, to minimize the use of medication errors, and to guide the combination of medication, mode of administration and dosage of bronchial asthma patients.

The results of this research showed that from the ad-

verse reactions and medication errors, the observation group was lower than the control group, the difference was statistically significant (P < 0.05), confirming that pharmaceutical care plays an active role in guiding the rational drug use of bronchial asthma patients. Pharmacists provide comprehensive and thoughtful services to patients through pharmaceutical care, timely discover the unreasonableness of patients’ medications, and deepen their familiarity with drugs \[11,12\], therefore, clinical pharmacists should have a high level of professionalism and systematic expertise, and be able to introduce patients and their families with disease knowledge and medication problems in detail, not only to enhance the knowledge of patients and their families on disease knowledge, but also to reduce medication errors. Bronchial asthma is an allergic disease characterized by long-term, recurrent episodes. If there is an infection, it is necessary to combine antibiotic treatment. It is necessary for the clinical pharmacist to remove unnecessary antibiotics according to the patient’s personal situation and improve the patient’s ability to respond to adverse drug reactions, and explain in detail the treatment of bronchial asthma patients often used in the type of drugs, usage, precautions, effects and adverse reactions \[13,14\], to ensure the effective control. In the results of this research, the observation group was enrolled in pharmaceutical care under the doctor’s advice, and the incidence of adverse reactions to the doctor’s routine in the control group was lower, and the medication error event was reduced. In the diagnosis process of bronchial asthma, the patient’s lung function is taken as the standard, and the patient’s lung function is reviewed regularly to better understand the changes of lung function at any time, so as to provide reference for clinical treatment. The physician and the pharmacist adjust the patient’s treatment plan according to the changes of the patient’s lung function, to ensure the rationality of medication.

4. Discussion

The guiding role of pharmaceutical care is increasingly valued by clinical research, especially in the treatment of bronchial asthma patients, because of the complexity of the mode of administration and dosage. Therefore, it is prone to the phenomenon that the patient does not have a rational drug use and affects the therapeutic effect. Therefore, the pharmacist should strengthen the knowledge and education of the drug before the patient receives treatment \[7,8\], detail the knowledge about bronchial asthma attack, improve the patient’s medication compliance, let the patient prepare psychologically, and adhere to long-term regular drug treatment, and effectively control the progress of the disease. Pharmaceutical care can guide patients to treat children with diseases and reduce their psychological burden. Information such as the type of bronchial asthma, severity of illness, and level of control can affect rational drug use. Therefore, according to the changes in the condition, the drug selection in the drug treatment plan is upgraded or lowered, and a single treatment plan and form are avoided \[9,10\], and the graded treatment plan is made clear. At the same time, the pharmaceutical care executive pharmacist should check the patient’s general information and past medical history in advance, and consider the patient’s personal situation when selecting the treatment drug, such as whether to combine chronic disease, cardiovascular disease, etc., whether there is any possible adverse reaction after using the drug. The pharmaceutical care focuses on the consultation of patients with medication, so the clinical rational drug use is the goal of the pharmacist to perform pharmaceutical care, to minimize the use of medication errors, and to guide the combination of medication, mode of administration and dosage of bronchial asthma patients.

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5. Conclusion

In summary, the guiding role of pharmaceutical care in bronchial asthma medication use can reduce medication error events and ensure rational drug use, which is worthy of popularization in clinical practice.

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