



# Analysis on the Current Situation of Information Construction of Blood Glucose Management for Diabetic Patients in Primary Hospitals

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**Abstract:** To explore the effect of informatization construction of diabetes mellitus inpatients' blood glucose management in basic hospital. Methods: 300 cases of diabetic patients in a primary hospital were randomly divided into experimental group and control group with 150 cases in each group. The control group used traditional blood glucose monitoring system and monitoring instrument; the experimental group used blood glucose management information system and intelligent blood glucose monitoring instrument. The blood glucose value, time, target rate and other monitoring indicators were recorded. Results: the accuracy rate of patients' information recognition and feedback information was higher than that of the control group, the differences were statistically significant ( $P < 0.05$ ); the blood glucose monitoring value of the experimental group was more accurate than that of the control group, the difference was statistically significant ( $P < 0.01$ ); the detection time and standard time of blood glucose in the experimental group were significantly lower than those in the control group, and the differences were statistically significant ( $P < 0.05$ ). Conclusion: the informatization construction has a very important significance for the blood glucose management of diabetic patients, which can reduce the blood glucose value of patients, improve the blood glucose compliance rate of patients before discharge, self blood glucose monitoring ability, work efficiency and level of medical workers.

**Keywords:** Primary Hospital; Diabetic Patients; Blood Glucose Management; Information Construction

Diabetes is a kind of non infectious chronic disease. With the continuous increase of the number of diabetic patients, the proportion of patients hospitalized and the mortality rate also increase. It is very urgent to strengthen the prevention and treatment of diabetes. In the prevention and treatment of diabetes, we must integrate various factors such as drugs, diet, self-control and so on, in order to achieve the best treatment effect. In other words, in addition to using drugs to control the treatment of diabetes, the more important thing is to strengthen management. In the current medical system, patients are generally self-management or employment, management is not standardized, blood glucose management is still not ideal. The blood glucose information management system is included in the clinical information system, just facing the market. It can realize the automation and intellectualization of blood glucose data detection, transmission and management, improve the efficiency of work and the effect of clinical diagnosis, and provide the guarantee of tracking service for patients' treatment and medical treatment.

## 1. Object and method

### 1.1 Objects

300 cases of diabetic patients in a primary hospital were randomly divided into experimental group and control group with 150 cases in each group. The differences between the two groups were statistically significant ( $P < 0.05$ ).

### 1.2 Method

#### 1.2.1 Control group

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The traditional blood glucose monitoring system and monitoring instrument were used to monitor the blood glucose of patients. ① To record and verify the basic information of patients; ② to monitor and record blood glucose; ③ to feed back the blood glucose monitoring value of patients to doctors; ④ doctors to give drugs to patients according to the feedback data, and formulate scientific treatment and management plan for diabetes.

### 1.2.2 Experimental group

The experimental group used blood glucose management information system and intelligent blood glucose monitoring instrument. Firstly, the information of inpatients was obtained from the hospital information management system and downloaded to the blood glucose information management system. Before the formal monitoring of blood glucose, nurses can use the intelligent blood glucose meter to confirm the patient's identity information. After completing the blood glucose detection, the blood glucose monitoring data can be synchronized to the blood glucose information management system, and all kinds of data detected can be stored and filed <sup>[1]</sup>. In the blood glucose information management system, we can query the patient's case information, medication information and blood glucose waveforms at various stages, and intuitively understand the fluctuation trend of blood glucose of patients. These information can be synchronously transmitted to the doctor's ward round system, which is convenient for doctors to query and analyze <sup>[2]</sup>.

### 1.3 Evaluation index

Identification of patient information; blood glucose data value; blood glucose detection time, blood glucose target time, etc.

### 1.4 Statistical methods

SPSS16.0 statistical software was used to analyze the data, and the data was represented by the mean C standard deviation (), and the comparison between the two groups was conducted with t test; the comparison between the two groups was conducted with x2 test, with (P < 0.05) as the difference, which had statistical significance.

## 2. Results

After 6 months of treatment, the accuracy rate of information recognition and feedback information in the experimental group was higher than that in the control group, and the time of blood glucose detection and reaching the standard in the experimental group was significantly lower than that in the control group (P < 0.05 or P < 0.01). See Table 1.

Table 1 Comparison of evaluation indexes between two groups of diabetic patients

| group                       | Accuracy rate of patient information recognition[n(%)] | Accuracy of blood glucose detection[n(%)] | Blood glucose detection and recording time,h, $\bar{x} \pm s$ | Time of blood glucose reaching standard,d, $\bar{x} \pm s$ |
|-----------------------------|--|---|---|--|
| control group<br>(n=150)    | 135  | 138                                       | 3.6 ± 0.3   | 15 ± 4   |
| experience group<br>(n=150) | 150(100)   | 150(100)                                  | 2.0 ± 0.2   | 12 ± 3   |
| P 值                         | <0.05  | <0.01                                     | <0.05   | <0.053 discussion  |

### 2.1 Information management of blood glucose improves the level of doctors' diagnosis and treatment

First, the blood glucose information management system can help the department system, accurately grasp the changes of blood glucose of patients, and accurately evaluate the treatment level of the Department, especially for the prompt of blood glucose change frequency of patients in a special time interval.

Second, doctors can check the feedback information of patients' blood glucose at any time in the blood glucose information management system, update the treatment plan according to the blood glucose situation of the patients, so as to keep the blood glucose in a stable state or lower the blood glucose, and formulate the corresponding treatment and management plan according to the actual situation of each patient, and track the blood glucose changes of patients in real time, and give targeted treatment <sup>[3]</sup>.

Third, nurses can also use the blood glucose management information system to master the patient's activity status and some factors that may affect the patient's blood sugar, so that patients can better cooperate with the treatment and

do a good job in the corresponding management work <sup>[4]</sup>.

## 2.2 Be able to realize cooperation within and between hospitals

The blood glucose information management system can connect the blood glucose data of all departments through the hospital's medical information management system. It can be monitored in real time, and can store blood glucose data, automatically analyze data, timely master the changes of blood glucose, medication information and other aspects of the situation, which provides a reference for clinical treatment in the hospital <sup>[5]</sup>.

## 3. Conclusion

The construction and application of blood glucose management information system can effectively improve the work treatment and efficiency of medical staff, and link their work pressure. At the same time, it also enables patients to change from passive blood glucose management to active blood glucose management with targeted guidance from doctors, which improves the cooperation degree and satisfaction of patients with treatment, and improves the compliance rate of blood glucose of patients <sup>[6]</sup>. In addition, the storage of medical history information, blood glucose data and other information in the blood glucose information management system provides important reference data for clinical diagnosis and prevention, and lays a foundation for future academic research.

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