Application and Analysis of Modern Information Technology in Fine Management of Hospital Medical Insurance

Quan xunqi, Dai Fangli (correspondent)
China 901 Hospital of the People's Liberation Army, Hefei 230001, Anhui Province

Abstract: with the continuous development of science and technology and the arrival of the information age, modern information technology is more and more widely used in the fine management of hospital medical insurance. The importance of hospital medical insurance fine management can solve the problems and shortcomings of traditional human management hospital medical insurance and realize the fine management of medical insurance control fee. Therefore, it is necessary to pay more attention to the application of modern information technology in the fine management of hospital medical insurance, clarify the problems and shortcomings in the current application of information technology, and take targeted measures to solve them. Give full play to the role and value of modern information technology carrier, promote the sustainable and stable development of hospitals. Modern information technology has been continuously applied, which plays a key role that can not be ignored and greatly improves the overall quality of hospital medical insurance. This paper objectively analyzes the importance and effective way of applying modern information technology in the fine management of hospital medical insurance from different angles.

1. Introduction
The medical insurance fund involves many contents and sections. The management of medical insurance is directly related to the development and progress of the hospital. Therefore, it is necessary to strengthen the scientific management and correct understanding of the medical insurance fund, to realize the correct and reasonable use of medical insurance, to avoid inducing contradictions between doctors and patients, and to promote the delicacy management of hospital and medical insurance. The effective application of modern information technology in the management of medical insurance can further enhance the management level and accuracy of medical insurance in hospital through rational construction of information systems, avoid the occurrence of management errors, and reduce the use of human resources and management costs.

2. The Role of Modern Information Technology in the Delicacy Management of Medical Insurance in Hospital

2.1 Enhancing the Core Competence of the Hospital
With the rapid development of the social economy and the continuous progress of the medical industry, hospital services are required to improve their quality and effectiveness. Medical insurance system in China is also constantly improving. Hospitals are the main carries of medical insurance services and the main executors of medical insurance policies. The development of the times requires the management of medical insurance to be more delicate and scientific, which can better serve patients and the public. Therefore, it is essential to strengthen the introduction of information technology, maintain the comprehensive competence of the hospital with the development of the times, improve the quality and
accuracy of the management of medical insurance in hospital through the application of information technology, reduce the risk of medical insurance management, improve the core competence of the hospital, and promote the hospital’s core competitiveness, so as to promote the sustained and stable development of hospital. Meanwhile, the application of modern information technology can also improve the level of delicacy management of medical insurance, and control various management processes through information technology, so that each section of medical insurance execution can be digitalized and delicate. It is also very important to improve the efficiency and execution of medical insurance management, standardize each part of medical insurance management and comprehensively enhance the level and quality of medical insurance management\(^1\).

2.2 Implementation of Assessments and Monitoring
With the gradual improvement of the medical system and the gradual progress of the medical security system, the management of medical insurance in hospital has changed from the original passive inspection to the quality control and active management. The continuous improvement of medial reform policies and the influence of hospital’s own conditions make many hospitals in China have great differences in staff composition, information construction and service level\(^2\). Firstly, under the background of medical reform, there exist many problems and deficiencies in the coordination of work with each hospital, and there are many risks in the design and implementation of hospital medical insurance management. For example, there is a conflict of rights and responsibilities in the division of responsibilities in nursing department, medical department and pharmaceutical department, which leads to the lack of effective carrier and good environment for the implementation of hospital medical insurance management measures. Secondly, many hospitals in China are relatively open in medical insurance management and the decisions they made are lack of effective supervision and management, which results in many illegal and criminal acts. It is difficult to improve the quality of medical insurance management in an all-round way, which can’t provide reliable services for people \(^2\). For example, during the period of medical insurance management, there are no quantitative management mechanism of medical consumables and random problem of auxiliary drug management, so it is difficult to carry out the monitoring and evaluation effectively. The delicacy management of medical insurance can optimize the medical insurance management process and management plan from the angle of detail, elaborate the medical insurance organization process though accurate data reference and scientific calculation method, strictly control the related deviation of medical insurance management, and make clear the inspection, adjustment and management method and management goal, so as to solve the problems existing in medical insurance management in hospital under the new situation. The introduction of modern information technology and science and technology can assist hospital medical insurance managers in carrying out the delicacy management of hospital medical insurance reasonably, implementing the modern management policy of hospital medical insurance, and giving full play to the role of hospital medical insurance to improve the service function of hospitals \(^3\).
2.3 Improving the Efficiency of Medical Resources

The application of modern information technology in medical insurance management can also be reflected in the process of medical archives information management. Using computer technology to transform the original paper medical archives into information electronic archives, and to establish a systematic and perfect data database can help medical staffs to carry out timely data search and inspection, construct the whole medical archives management system, and realize the real-time and reliable sharing of medical archives. In the process of establishing the file management system, the query system of the data will be configured which is convenient for each department to obtain the required data information through the shared platform in time, and to carry out the reasonable classification management of medical archives. It takes less time to retrieve data through keywords, improving the comprehensive utilization efficiency of medical archives resources [4]. The internal process mainly includes: the recruitment process, the business process, the training process, the question escalation and the report process and so on.

2.4 Control of Growth in Medical Costs

The most frequently payment methods used in the process of delicacy medical insurance management are total control, pay by head and pay by single disease. These three payment models also play an active role in balancing medical data, which can efficiently use limited medical information and medical resources to provide good medical services for people. Through the delicacy management of medical insurance control fees, it can also effectively standardize all kinds of medical behavior, clarify the overall medical insurance management objectives, ensure the quality and safety of medical services, promote the process of rehabilitation of people, and effectively control the growth of medical expenses. The application of computer technology and modern information technology in controlling the growth of medical expenses can not only further promote the process of medical insurance delicacy management, but also solve the problem of unreasonable loss and growth of medical expenses as a whole, improve people's satisfaction with treatment results and expenses, and avoid the occurrence of doctor-patient accidents [5].

3. Problems in Medical Insurance Management

3.1 Lack of Uniform Standards for Health Care Management

According to the actual development of hospital medical insurance management in China, there are some differences in the payment standard of medical insurance funds in different regions. Generally, payment is made on a monthly basis of 8% of the payment base, of which 6% and 2% are required for employers and individuals respectively. If the total monthly salary of the employee and the average monthly salary of the employees in the previous year in this city are more than 300%, the basic monthly payment of 300% of the employees in the previous year shall be used as the payment base. If that is lower than 60%, then 60% of the average monthly salary of the employees in the city in the previous year shall be regarded as the payment base. The medical insurance payment method usually adjusts
reasonably in accordance with the development of the local economy and the medical condition, but such medical insurance calculation method itself has certain defects and deficiencies, which leads to natural defects and problems in the delicacy management of hospital medical insurance, which affects the orderly advancement of delicacy of medical insurance in the hospital [6].

3.2 Lack of Systematic and Perfect Medical Insurance Management Mechanism
At present, most hospitals in China lack an effective management system of medical insurance, which leads to many loopholes and problems in the management of medical insurance funds. It is difficult to complete the formulated management goals in time. The overall level of medical insurance fund management is insufficient. This is mainly due to the lack of awareness and attention of the relevant management personnel on the medical insurance management. The hospital medical insurance management system is not sound and unscientific, which is difficult to implement the medical insurance management in hospital, affecting the orderly development of hospital services [7].

3.3 Unreasonable Application of Medical Insurance Fund
In order to obtain higher economic benefits, some medical institutions usually mixed reimburses the medical insurance fund and other expenses, resulting in unreasonable use of medical insurance funds. In general, some medicines and many health products can’t be directly paid through the medical insurance fund. Many non-compliant enterprises which is not fit the rule of treatment institutions will draw a lot of funds in the process of medical insurance, not only reducing the available funds in the public medical insurance account, but also affecting the normal enjoyment of medical security services by the masses. Relevant staff are lack of correct understanding and control of the medical insurance fund, short of corresponding legal awareness, professional accomplishment and responsibility awareness, which seriously affects the normal operation of medical insurance funds and stable development of the hospital.

4. Relevant Strategies for the Application of Modern Information Technology in the Delicacy Management of Medical Insurance in Hospital

4.1 Strengthen the Scientific Processing and Rational Application of Information Data
With the rapid development of the social economy and the comprehensive arrival of the information age, computer technology and all walks of life have been widely used, greatly changing people's lifestyles and production methods, and making people's lives have undergone earth-shaking changes. In the field of medical security, the application of computer technology and modern information technology can better help people to carry out the supervision and management of the medical security fund and to use it correctly, avoid the drawbacks and problems of traditional artificial management, and improve the scientific, accurate and reasonable use of the fund. The construction and development of modern hospitals will inevitably promote and apply a variety of modern information technologies, which is also an inevitable requirement of the development of the times for hospital. The application of information technology in the field of delicacy management of medical insurance allows a reasonable and scientific analysis of the large amount of medical insurance data generated by the daily operation of the hospital, so that the data information can be processed in a timely manner, and the rapid identification and processing of data information can be achieved to improve work. The work efficiency of the staff facilitates the delicacy development of control fee management of medical insurance.
4.2 Establish a Connection System for Medical Insurance Fund Management Institutions

In the process of delicacy management of the hospital's subsistence allowance, the relevant designated medical institutions need to establish an effective doctor post duty system in accordance with the actual situation, strictly review the identity of all patients, and insist on fair and open handling of various tasks. If the patient's procedures are not complete, the medical institutions need to help the patient to actively improve various procedures, and do a good job in the patient's file management to ensure the accuracy and completeness of the file information. Secondly, medical insurance fund management institutions need to carry out irregular supervision and inspection of medical institutions, and timely discover the problems existing in the use of medical funds by medical institutions, and require timely rectification to make a horizontal evaluation of designated medical institutions. If the medical institution repeatedly fails to comply with the regulations, it can cancel the qualification of the designated medical institution and increase the punishment for the violation of the unit, so as to ensure that the hospital medical insurance service can be promoted normally and steadily, and to prevent the medical insurance funds from being used illegally.

4.3 Change the Calculation Method of Medical Insurance Payment Base

The medical insurance management unit carefully calculates the total fund expenditure after combining the hospital and the development of the times. The unit also make a comprehensive judgment of the medical insurance fund in accordance with the local average salary to ensure the balance of the medical insurance fund. Meanwhile, according to the actual living standards of the insured personnel and the correct judgment of employees' medical insurance income in the case of rising prices, the unit ensures that the payment of medical insurance will not have a significant impact on the normal life of the insured personnel. At the same time, it is also necessary to carry out the optimization and reform of the medical payment management model, establish and improve the financial management system, and strengthen the management of expenditure costs and overall costs. The use of information technology to establish a systematic and complete fund management platform enables the finance department to track and manage the use of the fund in a timely manner and clarify the main orientation of the fund. The inspection department can also understand the specific use of the medical insurance fund through the management platform, to achieve the purpose of mutual restraint and mutual restraint, and to make the use of medical funds more scientific and standardized.
4.4 Speeding up the Specific Construction of Information Management of Medical Insurance
The hospital expects to further accelerate the construction of information management of medical insurance. It can properly complete the collection, storage and management of patients’ diagnosis and treatment information on the basis of network communication equipment and computer technology, and set up a scientific and perfect specific hospital information system. In this way, in the process of diagnosis and treatment in the next department, there will be certain diagnosis and treatment data, which is compatible with the specific functional needs of each department, so that a series of work such as drug management, medical expenses, and clinical work for patients with medical insurance can be more smoothly implemented, so as to guarantee accurate and standardized management of medical insurance.

4.5 Strengthen the Deep Excavation of Patient Treatment Data
The application of modern information technology in the process of delicacy management of medical insurance can also be realized through the Hospital Information System (HIS). With the diversified advantages of the HIS, the scientific data of patients’ diagnosis and treatment can be systematically excavated, so that all aspects of patients’ diagnosis and treatment can be detailed. Other medical insurance-related work can be carried out smoothly and steadily through mastering and establishment of targeted patients’ diagnosis and treatment statistical reports, creation good conditions for the subsequent analysis and processing of massive data. Hospitals need to use the HIS to strengthen the delicacy management of medical security services. The business management department can use the HIS to keep abreast of all aspects of patients, including the use of medical insurance funds, medical insurance policies, and cost accounting. The work can be carried out in an orderly manner, so that the information and data can be more reasonable and scientific, which can systematically guide a series of practical work. In addition, the hospital can also use the HIS to develop and improve scientific medical reports under the background of evacuating all aspects of patient data, simplifying the workflow of medical insurance-related staff, improving work quality and efficiency, and making medical security services more effective and higher quality, which provide more delicate management of medical insurance services.

4.6 Clear Medical Insurance Policy and Work Objectives
In the process of hospital management, the hospital can use the information management system to scientifically regulate patients and the scope of medical insurance payment, strictly investigate and punish the diagnosis, treatment and hospitalization of non-medical insurance fund payment scope, to achieve scientific declaration and reasonable charges. In the process of cost settlement, the hospital medical insurance agency needs to accurately review the medical records of patients, and refuse to pay part of the expenses and fees that violate the regulations and the law. With the improvement of the social welfare security system and the gradual deepening of the medical reform system, higher requirements have been put forward in various aspects such as functional transformation, cost control, reasonable charges, and standardized diagnosis and treatment. The original medical security service management system has been unable to meet the needs of the current work, so it is necessary to improve and optimize the medical insurance policy in conjunction with the development of the times, improve the hospital cost management mechanism, improve the level of medical security service quality supervision, and optimize the diseases declaration process, charging and various other aspects.

5 Conclusion
In summary, the rational application of modern information technology in the delicacy management of medical insurance in hospital can effectively solve the problems and deficiencies in the current management of medical insurance services, avoid the unreasonable use of medical insurance funds, realize the delicacy of medical insurance, and improve the medical insurance management quality and efficiency. Therefore, it is necessary to strengthen the emphasis on the application of modern information technology in medical insurance management, clarify the problems and deficiencies in medical insurance management, and take effective measures to solve and optimize it.
Authors
First author brief introduction: Quan Xunqi (1987-11), male, Anhui Province Hefei, undergraduate, engineer, now mainly engaged in medical information system technology operation and maintenance management work.

Brief introduction of correspondence authors: Dai Fangli (1986-1), female, Anhui Province Hefei, undergraduate course, now mainly engaged in hospital related medical insurance settlement policy management work.

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