

Discussion on the practice of standardized management of small and medium-sized medical institutions under digital empowerment —— Take "Smart Cloud Clinic" in Yiwu as an example

Can Ding

China Jiliang University, Zhejiang Hangzhou, 310018

ABSTRACT

In the digital age, the information system management of medical institutions has become an important part of modern hospital management. This paper briefly introduces the present situation of standardization management of small and medium-sized medical institutions in our country, and in yiwu city, for example, the city of the public medical network development difficult two problems as a whole to plan, development using "wisdom cloud clinic" system to carry out the innovation of small and medium-sized medical institutions, explore its role mechanism and effectiveness, for the government part in other areas of governance.

KEYWORDS

small and medium-sized medical institutions; standardization; digital

As our country continues to encourage the society in recent years, and from the central to local relevant support policy, around small and medium-sized medical institutions have sprung up, including society for western medicine, Chinese medicine, medical beauty, oral and other medical institutions and public village clinics of medical institutions, etc., and become an indispensable part of the medical and health service system. Chinas medical and health standards are also developing rapidly in the process of constantly adapting to deepening the reform of the medical and health system, but the application effect in small and medium-sized medical institutions is still not satisfactory. With the advent of the digital era, all walks of life are actively applying big data, Internet, artificial intelligence, 5G, blockchain, Internet of Things and other emerging information technologies to improve the efficiency and quality of management. In view of this, it is also necessary for relevant departments and medical institutions to strengthen the standardized management of medical institutions in the digital situation.

1 Current situation of standardized management of small and medium-sized medical institutions in China

1.1 Existing standards

In January 2022, the NHC issued the Notice of the NHC on the Issuance of the Health Standardization Work Plan of the 14th Five-Year Plan Period (No.2,2022), which pointed out that it should "lead the high-quality development of medical and health services with standardization". In order to improve the scientific hospital management, standardized and refined level. Established on June 21,2021, the eighth national health standards committee consists of health information, health construction equipment, infectious diseases, parasitic diseases, 21 standard professional committee, but also encourage local health standardization technical committee, the current effective national standards more than 1 000, more than 2500 industry standards^[1]. Widely used in supervision and law enforcement, business guidance, technical services, security guarantee. Among the standards related to medical institutions, in addition to the standards issued by the Health Standards Committee, more than 40 standards involving medical devices are by the competent authorities. The National Medical Products Administration, A small part of medical sewage and waste are classified as the Ministry of Ecology and Environment, and there are hundreds of local standards related to medical institutions.

1.2 Standardized management situation

The purpose of formulating and issuing health standards is to apply practice in order to better serve the current economic and social development and the health of the people^[2]. From the perspective of the supervision and inspection of the health administration department, the application of relevant health standards in small and medium-sized medical and health institutions is not ideal. Many institutions have problems such as inconsistent personnel qualification, fuzzy diagnosis and treatment process, operation beyond the scope, excessive use of antibiotics, unmatched drug purchase and sale list, and price confusion. Many medical institutions integrate some standards through digital means, so as to

improve medical services, optimize the diagnosis and treatment process, and improve the management efficiency^[3]. Through digital, information means can not only improve the quality of medical services, tap the potential of medical personnel, but also more conveniently and accurately mobilize resources, especially for the guarantee of medical safety is of great significance^[4].

However, on the whole, it is different from the sufficient capital investment of large hospitals, the government support and the rush of various talents, because of the lack of professional talents, the unbalanced allocation of resources, the shortage and waste of resources, the lag of software construction and other reasons^[5]. Small and medium-sized hospitals are still not smooth enough in the process of promoting medical informatization^[6].

2 Yiwu carries out the innovative practice of standardized management of small and medium-sized medical institutions

Yiwu launched in 2020 "wisdom cloud clinic" scenario, the integrated use of big data, chain blocks, artificial intelligence technology, fully integrated business flow, technology flow, data flow, throughout the city to carry out medical service diversification, standardization supervision, further reduce the operating cost of medical and health institutions, improve the quality of health services, improve the efficiency of overall operation and supervision. Complete the whole process reengineering of self-management, diagnosis and treatment activities, and supervision and early warning of medical institutions, build a diversified supervision platform for medical services integrating the functions of basic information management, industry self-discipline, comprehensive service and intelligent supervision, and support a health protection network benefiting all citizens.

2.1 Informational data standardization

Centering on the whole process of diagnosis and treatment in medical institutions, the digital barriers are broken, and the design of data sharing through health statistics indicators (WS / T 598-2018), electronic medical record sharing documents (WS / T 500.1-2016), basic data of hospital human and property operation management (WS 599.4-2018) are unified, and the structure design of each data source is unified, so as to ensure the consistency in the data sharing process. On the basis of public hospital HIS system, medical institutions, doctors, nurses electronic registration system, administrative law enforcement platform in Zhejiang province, Zhejiang province health supervision and management system, basic public health service management system, rational drug use management system (centralized prescription review system) and information such as docking integration, build "cloud clinic" service platform nine big item module.

2.2 Standardization of the service processes

Standardize and reengineering the access, internal management and external supervision process of small and medium-sized medical institutions. According to the clinic basic standard ", " basic standard of traditional Chinese medicine clinic "; " cosmetic medical institutions, medical cosmetology department (room) basic standard (try out) "; " basic standard of medical institutions (try out) ", etc., reduce the approval process, automatic market approval system to the approval information, according to the record information submitted progress, and timely to carry out the on-site verification. Set up face recognition and other identity authentication before the operating system of medical institutions, to ensure that the same with the practice registration database personnel, real name, real person login operation. Eliminate handwritten medical records is not clear, writing phenomenon, unified use of standardized electronic documents and medical templates for medical document entry, standardize machinery purchase and marketing management and the traceability, and into the family doctor signing, fever patients declare module, at the same time with the data of rational drug use management system, automatic prescription review for institutional reference, from the source governance not standard diagnosis and treatment, unreasonable drug use.

2.3 Standardization of the management system

In addition to integrating some of the existing national, local and health industry standards, some of the systems have been reshaped to address the needs of multiple scenarios. Establish a four-color management system, conduct a four-color rating of "red, orange, yellow and green" from low to high, and apply the evaluation results in various aspects; establish basic medical treatment in clinics insurance The designated access system can realize the medical insurance reimbursement in clinics; establish the family doctor contract access system by purchasing services. Establish the pharmaceutical equipment management system to manage the whole process of purchasing and selling pharmaceutical equipment; establish a closed-loop management system for fever patients to strengthen the

management of epidemic prevention and control of infectious diseases; establish the evaluation system of public satisfaction with medical treatment, and associate the evaluation results with the four-color management; establish the public reporting reward system without the “cloud clinic” supervision platform to enhance the acceptance and recognition of the use of the standardized platform.

2.4 Standardization of the evaluation indicators

According to the main tasks, centering on the reform objectives, 17 indicators were set, including the complete rate of licenses, the qualified rate of prescription, the utilization rate of antibiotics, the follow-up completion rate of fever patients, the safe disposal rate of medical waste, the satisfaction rate of medical treatment, the management rate of contracted patients, and the completion rate of continuing education. Collect market supervision bureau, environmental protection bureau, health bureau and other relevant departments of administrative punishment information and complaint report information and four platform grid patrol information, by setting the weight proportion, to carry out the four color rating, as a medical signing of small and medium-sized medical institutions, health care access, community incentives, key regulation, closed basis. Institutions can also view and report their own relevant information in the corresponding modules, and appeal about the results.

2.5 Standardization of supervision and management

Break the traditional regulators every door, random inspection mode, real-time prompt small and medium-sized medical institutions of examination and approval of cancellation, personnel registration changes, implementation institutions and personnel qualification automatic comparison: set up unreasonable drug use, beyond business, three days not normal use risk warning items, read the clinic personnel electronic medical documents, convenient fixed evidence and verification. Dynamic display of four-color management information provides a reference for the frequency of on-site supervision to achieve off-site accurate law enforcement.

3 Main results

3.1 We will improve the capacity and level of government governance

Standardized system platform construction, Transforming the single government supervision into industry self-discipline, social supervision and multi-department collaborative management, To promote the transformation of the government from management to governance; Comprehensive and real-time data analysis and intelligent early warning of information and data such as legal practice, medical waste disposal, rational drug use, and epidemic report of infectious diseases can bring timely prevention and intervention.

Efficient and collaborative digital application means, Change from online and offline supervision to integrated online and offline supervision, Change the post-supervision to the whole process supervision before, during and after the event, Change from extensive regulation into precise and fine regulation, Avoid human law enforcement, random law enforcement to improve the efficiency of law enforcement; While breaking the regulatory restrictions, it can also save the cost of administrative law enforcement to a large extent.

3.2 We will create a fair and just environment for development

The standardized means and the improvement of various systems, simplify the access links and strengthen the follow-up supervision, create a standardized business atmosphere in the medical service market, and avoid the phenomenon of bad money driving out good money. The standardized internal management and digital system help medical institutions implement the core system of medical quality and safety management, improve the quality and management level of small and medium-sized medical institutions, and enhance the internal power of the growth of institutions. The improvement of management services and the guarantee of relevant policies also promote the sustainable development of small and medium-sized medical institutions.

3.3 To meet the multi-level and diversified medical needs of the masses

By standardizing the diagnosis and practice of small and medium-sized medical institutions, we provide safer medical services for the masses; increase the contents of medical insurance payment, effectively integrate and utilize medical resources, promote the equalization of public services, and enable the public to enjoy more convenient public services, and the application of digital reform opens up the "blind spot" and "blockage" in the whole life cycle.

4 Conclusion

Through digital reform and standardization construction, Yiwu promotes the standardized, market-oriented and balanced development of small and medium-sized medical institutions, and promotes the healthy competition between public medical institutions and socially run medical institutions. It is a long-term, meticulous and continuous work to improve the standardization level of small and medium-sized medical institutions, which runs through the whole process and the whole link of diagnosis and treatment management. It needs continuous improvement and improvement, so as to cover all links as far as possible and meet the needs of new development. In the context of the current digital era, the government should fully tap its own potential in view of the existing problems, improve the construction of the standard system, and pay close attention to the overall intellectual governance and the coordinated management among multiple departments.

References

- [1] Wei Pengyan. Review of the development of Health standard system and System in China[J]. China Health Standards Management, 2019,10 (14): 168.
- [2] uo Xiaojun. Review of the development of the Chinese health standard system[J]. China Health Standard Management, 2013,4(1): 4-7.
- [3] Huang Xiang, Qiu Yonggui. The practice of optimizing the outpatient process based on the standardization construction of information system[J]. China Health Industry, 2022,19(3): 148-150,154.
- [4] Luo Yining. On the development trend of medical informatization service mode[J]. Information record materials, 2018(10): 103-104.
- [5] Huang Yuping, Guo Zhiming. Research on the problems and measures in the standardization construction of primary medical and health institutions[J]. Standardization in China, 2022, No.603(6): 102-104.
- [6] Xia Qianqian. Research on medical informatization construction in some small and medium-sized hospitals in China[J]. China Management Informatization, 2022,25 (22): 223-225.