Optimization Plan for the First Diagnosis in Public Internet Hospitals in the Post-epidemic Era—Take the Internet Hospital of Jiangsu Provincial People’s Hospital as an Example

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Abstract

Different from private hospitals, public hospitals have the characteristics of public welfare. They should not overemphasize income generation, always put patients in the first place, and think from the perspective of the people. This article based on the outbreak of era perspective, for the public Internet hospital first diagnosis currently analyzes the disadvantages and difficulties, from the mode, subject requirements, conduct form, diagnosis and treatment scope, laws and regulations to explore the Internet hospital optimization scheme, is conducive to further improve the public Internet hospital service system, and to avoid related risks.

Keywords

First diagnosis, Internet hospital, Public health

Foreword

With its convenience of breaking through time and space, the public Internet medical treatment has effectively relieved the pressure of offline medical treatment during the outbreak of Novel Coronavirus, but if it want to become an important part of health China strategic goals, also need to further enhance the ability in daily medical service and public health emergency system reserves, continue to play a role of the advantages of public Internet medical [1].

The Internet hospital must rely on the entity medical institution, which is the extension of hospital services. The Internet hospital shall be set up by the entity. The Internet hospital and the service provider is the medical institution; the Internet hospital established by the third party institution and the service provider is the third party (it must rely on the offline entity to make the Internet hospital record) [2]. On the afternoon of December 19, 2022, according to the press conference of the Beijing Epidemic Prevention and Control Office, Beijing can carry out the Internet first medical diagnosis of COVID-19 symptoms, and provide price and medical insurance policy support, to promote the online payment function of medical insurance. Before this, the National Health Commission issued The Administrative Measures for Internet Diagnosis and Treatment (Trial) in 2018, which clearly stipulated that "Internet diag-
nosis and treatment activities shall not be carried out for the first diagnosis of patients." However, due to the new rise of the Internet first diagnosis, there are still many problems that need to be rectified in the application. In this paper analyzes the optimization scheme related to the Internet first diagnosis in public hospitals.

1. Current status of public Internet healthcare

Affected by the COVID-19 epidemic, patients have gained a new understanding of Internet hospitals from the side, and medical institutions at all levels are also very enthusiastic about building Internet hospitals, but at the same time, they have also encountered some development bottlenecks [3]. Internet medical applications are mainly divided into three types according to different operating entities. First, Chunyu Doctor, Ping An Good Doctor, mainly by online consultation and online drug sales; second, the operation management of public hospitals themselves, mainly by the registration, medical treatment and payment services of the hospital; third, the joint venture mode between the two parties, mainly third parties and medical institutions jointly build, maintain and operate the Internet hospitals or regional medical Internet platform [4]. The object studied in this paper is the second category. For public hospitals, Internet hospitals are an organic supplement to physical hospitals, and they are the continuation and expansion of offline medical services. How to use Internet tools to optimize outpatient services and realize the precise sinking of high-quality medical resources in physical hospitals is the direction of exploration in public hospitals today. In Jiangsu province people's hospital Internet hospital, for example, patients after appointment, generally within 1 day and doctors began to communicate, because doctor-patient online communication time is not consistent, so see time is longer, but patients can consult in 48 hours, the doctor must also reply within 24 hours after receiving, so special time is relatively abundant [5]. However, at present, many Internet doctors are faced with the problems of "built but not shipped", "ineffective" and low participation of medical staff [6]. The service objects also have certain limitations, mainly in two categories:

(1) Patients with chronic diseases with clear diagnosis and stable condition, and patients after surgery and patients after discharge;

(2) Patients who need health consultation. Emergency patients and critically ill patients should still go to the offline outpatient clinic as soon as possible. If the patient is the first diagnosis on the Internet, the accuracy of symptoms and medical history data and the requirements of doctors will be higher, which is much higher than the existing Internet diagnosis and treatment management standards.

In addition, the cost of registration, prescription, examination and other Internet hospitals are all at their own expense, do not support medical insurance or new rural cooperative reimbursement. Special drugs (toxic drugs), special anti-tumor drugs, hormones, inhaled drugs, injection drugs, drugs, cold chain drugs, drugs to determine blood concentration and other drugs shall not be opened. At present, there is a shortage of drugs related to fever and cold, which cannot be issued in Internet hospitals temporarily. Not only that, the registration, prescription, examination and other Internet hospital costs are all at their own expense, do not support medical insurance or the new rural cooperative reimbursement. All these factors, to varying degrees, dispel the enthusiasm of patients to go to the Internet hospital for the first diagnosis.

2. Problems existing in the first diagnosis in public Internet hospitals

2.1 Information supervision issues

After the outbreak of novel coronavirus, the first medical treatment in public Internet hospitals has been gradually opened up. However, there are still problems in the consultation time, subject requirements, accuracy and other aspects. Patients who are first diagnosed in the Internet hospital of Jiangsu Provincial People's Hospital only need to register a medical card number on the WeChat official account of Jiangsu Provincial People's Hospital before they can consult on their Internet hospital. The author of this article registers by this step, and then goes to do other work. The appointment is 14:00-16:30 p.m., but then due to the busy work, the time interval of communication with the doctor is up to 2 hours. In this case, the doctor will answer the questions of other patients at the same time, and then looking back at the author's questions in this article, the doctor needs to review the patient's condition again, which is a waste of time. If there are more patients online at the same time, information deviation may occur, resulting in misdiagnosis. At the same time, efficient doctor-patient communication depends on high-speed network support. In the process of telemedicine, network delay and unclear picture often occur, which often occur on the patient side, leading to low efficiency of doctor-patient communication and waste of time and energy of both sides [7]. This requires Internet hospitals to build a unified medical platform, patient platform and management platform.
to ensure the interactive communication of text, pictures, voice and video information between medical staff and patients and the storage of medical process records in the process of Internet medical treatment [8].

The digitization of regulatory tools can not only transform the original regulatory relationships, but also reconstruct new regulatory relationships. The former can be called the Internet medical supervision digitalization, while the latter is the Internet medical digitalization supervision. Of Internet medical "digital" and "digital regulation" to distinguish, contribute to the depth of the combination of digital and regulation is diversified and multi-level, and the combination is a gradual exploration process, its value is not only to improve the efficiency of the Internet medical regulation, more important is to change the basic way of survival and development. However, as a "bridge" connecting the regulatory targets and regulatory subjects, regulatory tools have their own weaknesses in the stage of "Internet medical supervision digitalization" and "Internet medical digitalization supervision", leading to the practical dilemma of Internet medical supervision: the combination of virtual and real and the disconnection between online and offline [9].

2.2 Problems of online drug supervision

On the home page of the Internet Hospital of Jiangsu Provincial People's Hospital, you can see a conspicuous announcement: The List of Drugs Prohibited by Internet Hospitals, which explains in detail the drugs that are explicitly prohibited by policies and regulations and other drugs prohibited from online retail, which can avoid the risk of patients to a certain extent. But excluding these drugs, some drug patients can still get prescriptions through fake conditions. For example, for a cold and cough, users can register multiple accounts at the same time when the first treatment is allowed. This is also one of the ways for some users to store drugs during COVID-19. However, this approach is easy to lead to the uneven distribution of drug resources.

2.3 Affect the improvement of the hierarchical diagnosis and treatment system

Once the first diagnosis of Internet diagnosis and treatment is open, the higher the level of the hospital, the greater the number of doctors. It is more convenient for the public to access medical services in tertiary hospitals. For example, in Nanjing, Jiangsu Province, many patients with common diseases are not willing to go to community hospitals and other grassroots hospitals, but rather go to the Internet hospital of Jiangsu Provincial People's Hospital for treatment, which is bound to affect the overall operation efficiency of the medical system.

2.4 Business scope is not defined

The scope of diagnosis and treatment in Internet hospitals is limited to the return visit of common diseases and chronic diseases, but the current definition of this concept is not clear enough, which requires further standardization at the policy level, otherwise it will affect the long-term standardized development of the industry.

There is still some controversy about the restriction of the first diagnosis. The scope of diagnosis and treatment on the Internet limits its value, and it is controversial whether some diseases need compulsory offline first diagnosis. Some disease types are characterized by intuition, easy to relapse and high incidence rate, and more diagnosis and treatment activities are carried out based on patients' symptoms and doctors' experience. Therefore, some experts believe that moderate liberalization of Internet diagnosis and treatment restrictions can reduce the number of patients in offline hospitals and improve the quality of patient diagnosis and treatment [10].

3. Optimization plan for the first diagnosis in public Internet hospitals

3.1 Establish stratified and classified economic performance incentives

According to the amount of Internet medical services such as the team of experts and professors, special specialties, popular Internet doctors, Internet rapid dispensing, and night dispensing, the economic performance incentive is given, the performance intensity is higher than 50% of the offline outpatient department at the same price, and the contribution of doctors' online diagnosis and treatment is fully recognized [11]. Due to the low efficiency of Internet diagnosis and treatment and some drugs cannot be prescribed, doctors get low income. It is necessary for public hospitals to change the previous salary system and give considerable incentives to doctors who participate in online consultation. Take the Internet Hospital of Jiangsu Provincial People's Hospital as an example. Although the hospital attaches great importance to the construction of the Internet hospital and has set the incentive of doctors, it is still exploring at present, and the specific amount setting needs to be further studied. Especially for the doctors who receive the first diagnosis, they need to spend more time and energy to establish patient files and understand the specific conditions of patients, and more incentives should be given.
Under the background of "Internet +", the management system of public hospitals has changed. While optimizing the process of patients' medical treatment, FMA should reform both methods and content. At present, the reasons for the low quality of FMA in public hospitals are backward methods, lack of perfect FMA, slow process of system and financial informatization construction, etc. Strategies such as innovating FMA methods, improving FMA system and accelerating the construction of financial informatization are put forward, so that public hospitals can not only return to public welfare, but also promote the stable development of hospitals [12].

### 3.2 Improve the online drug inventory and list

After consultation in the Internet Hospital of Jiangsu Provincial People's Hospital, the author's request to prescribe iron supplements for children was rejected, indicating that more drugs cannot be prescribed online than the drug administration. On the one hand, doctors have their own concerns; on the other hand, Internet hospitals. If the majority of patients gradually get used to and accept the Internet hospital, it is bound to make the first diagnosis more smooth. "No medicine" often affects the experience of online consultation, and the poor effect of the first consultation can easily lead to the loss of users. From this point of view, timely improvement of online drug inventory and list is crucial to whether the first visit can be converted into a return visit.

With the development of the "Internet +" era, more and more new equipment has been used in the logistics industry, which greatly improves the service efficiency of the logistics industry. Hospital cold chain logistics, a new logistics distribution business, can learn from the advanced experience of other logistics industries at home and abroad, such as the use of drug storage cold chain supervision (RMS) system, drug on-board cold chain supervision (VMS) system and drug small batch zero cold chain supervision (PMS) system to realize the seamless supervision of the whole cold chain. By establishing the two-stage model of drug cold chain logistics, reduce the complexity of data access and search of enterprises and enterprises and hospitals through information sharing, integrate the resources of hospital pharmacy, Internet hospital, social pharmacy, community medical institutions, improve the construction of regional "Internet + pharmaceutical care" system, and build an efficient, coordinated and unified cold chain logistics distribution mode [13].

### 3.3 Publicity and expression of Internet hospitals should be in place

Strong publicity can increase the number of patients who come to Internet hospitals for consultation, especially those who are first diagnosed, who often have not come into contact with doctors and are unable to go to Internet hospitals at the advice of doctors. For example, the Internet Hospital of Jiangsu Provincial People's Hospital promotes its Internet hospital through various channels. The official WeChat official account, official website and other platforms. The publicity of Internet hospitals should not only let the audience know the Internet hospital, but also inform the audience of the specific operation methods, matters needing attention and possible risks. The publicity method also needs to be diversified, such as simple online publicity, the main target may be young people. In fact, many elderly people need Internet hospitals more than young people because of the inconvenience of their legs and feet. But at the same time, due to the slow cognition of new things and the limited reserve of Internet knowledge, they need to see the publicity and science popularization of Internet hospitals. If the elderly group does not have access to more Internet hospitals, they are likely that when young people take them to the public hospital, they will think that this is the behavior of some private enterprises and will not believe that this is the online system of public hospitals, thus increasing the difficulty of the first diagnosis.

### 3.4 The transformation of the first diagnosis should be completed in time

At this stage, it is not a matter of a short time to fully realize information interconnection and mutual sharing. We can move forward step by step and realize interoperability within the region. Relying on the construction of medical association, medical community and specialized alliance, information sharing among medical institutions within the organization can be realized. Through the implementation of the "Internet + medical" model, we can guide coordinated development and effectively divert patients in medical associations and medical community, which can not only make full use of high-quality medical resources to serve more patients, but also further promote the implementation of hierarchical diagnosis and treatment from a practical level [14].

Different from the offline outpatient diagnosis and treatment, patients often fail to get the drugs they need in time after the first diagnosis in a public Internet hospital. They also need to register to the offline hospital to buy medicine again, or buy medicine in the pharmacy. If the online doctor does not follow up and return visit in time, it is likely that patients feel that it is not necessary to go to the Internet hospital for the first diagnosis, and will not return to the clinic, that is, the transformation fails. The author received an evaluation reminder after the test and
consultation in the Internet hospital of Jiangsu Provincial People's Hospital. The author consulted Dr. Li from the Department of Child Health Care, who answered 15 questions before and after, and was more patient. However, because the drugs the author needed, such as iron and vitamin D, to some extent, the author thought that he had to go to an offline hospital to be effective. It is assumed that when patients go to the offline hospital again, they can directly take the prescription of the online doctor to avoid repeated visits, and it can also increase the patient's recognition of the online first medical treatment.

In terms of medical association, the data between medical institutions is independent, and the information database of the community and superior hospitals has not been connected. If the unified health records of the whole city are established, it is more conducive to the referral of patients. However, these work needs multi-department coordination, the cost is high, and can not be completed in the short term.

In the author thinks can draw lessons from the northwest of Jiangsu province venture health committee, their application of the family doctor service mobile workstation as the platform, in Jiangsu province health committee signed the family doctor service project library, signing innovation first option service mode, adjust measures to local conditions, no form, not go through the motions, from improving the medical service quality and improve the efficiency of doctors, in order to improve patients treatment compliance and control rate as the key point, adhering to the "sign a patient, do forever friend" work philosophy [15]. Public Internet hospitals should have the determination to be "forever friends" with patients.

References