Impact of Diagnostic-Related Groups Healthcare Payment Reform on Public Hospitals

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Abstract: The increasing reform of diagnosis-related groups (DRG) healthcare payment plays a crucial role in the reform of the medical and healthcare system, accelerating the high-quality development of public hospitals and serving as a critical path for their reform. The innovation of DRG healthcare payment methods can balance the financial income and expenditure of public hospitals, while also achieving a more harmonized balance of interests among hospitals, patients, and health insurance. This reform effectively controls the operating costs of hospitals, strictly regulates medical behaviors and quality management, and optimizes the patient treatment process. To quickly adapt to this reform trend, public hospitals need to seize the opportunities of healthcare system reform, adopt corresponding strategies to address the impact of DRG payment reform and achieve their own sustainable development goals in health.

Keywords: Healthcare payment; Diagnostic-related groups; Public hospitals; Development path

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1. Introduction

In the process of achieving high-quality development, public hospitals in the medical field need to actively transform their development concepts while reforming and innovating [1]. This entails transitioning existing management and development models, nurturing professional talents, and promoting innovative technologies. By fully utilizing refined management models, the goal of improving quality and efficiency can be achieved, thereby optimizing the quality and efficiency of medical services [2]. Against the backdrop of deepening reforms in the medical and healthcare system, the imperative for high-quality development of public hospitals is evident. Such development aims to provide patients with higher quality medical and healthcare services that align with diverse healthcare needs, thereby comprehensively enhancing patient satisfaction. In this context, the reform of diagnosis-related groups (DRG) payment plays a pivotal role in the high-quality development of public hospitals. It clarifies the hospital’s basic functional positioning, enhances its status and social responsibility, standardizes hospital management, and lays a solid foundation for the optimization
of regional medical resource allocation \[5\]. Thus, it is evident that in-depth research and analysis of the path to high-quality development of public hospitals under the background of DRG healthcare payment reform holds significant practical significance.

2. Healthcare insurance payment methods and reform history

The term healthcare insurance payment methods refers to the actions taken by medical service institutions to collect medical expenses from insured patients or institutions after providing medical services. Currently, there are three common healthcare insurance payment methods worldwide: prepayment, post-payment, and mixed prepayment. Each method has its advantages and disadvantages, leading to varying degrees of impact on the behavior of medical institutions in actual applications \[4\].

Post-payment refers to healthcare insurance institutions settling payments based on the actual medical expenses incurred by insured patients. Payments can be made per service unit or item, which makes accounting less complex, and the flexibility in payments is more prominent. However, it is important to note that this payment method primarily induces consumption, as many medical service institutions may provide unnecessary services to insured patients, making it difficult to scientifically control medical expenses \[5\].

Prepayment, on the other hand, involves healthcare insurance institutions paying a predetermined total amount for various services or per capita medical expenses in advance. This method includes various payment means, such as payment per disease type, per capita, or per service unit. It allows for the control of actual medical expenses by referring to predetermined prepayment standards or per capita medical expenses, thereby imposing rigid constraints on medical budgets and strictly regulating the behavior of medical service institutions \[6\]. However, this payment method cannot control processes, which means that the quality of medical services may be affected.

Mixed prepayment is a hybrid payment method based on total budgeting and integrated with payments per service unit, disease type, or per capita. Under different budget forms, medical service institutions bear certain economic risks, thereby playing a role in controlling medical expenses \[7\]. In the deepening reform of healthcare expense payment methods, post-payment methods will gradually be replaced by various forms of prepayment. In the United States, for example, to effectively curb the rapid growth of medical expenses affecting government fiscal payments in 1983, the payment of medical expenses shifted from payment per service item to prepayment, with the comprehensive implementation of diagnosis-related groups (DRG). Under this payment method, medical service providers are responsible for controlling a portion of medical expenses by paying a fixed amount for medical services, referring to international standards for disease diagnosis, and calculating corresponding treatment costs based on evidence-based medicine \[8\]. As a result, the corresponding fees are paid to medical service institutions in advance \[9\]. In the process of applying DRG payment methods, the actual payment of medical expenses is no longer based on the actual expenses incurred by patients, hence, patient medical expenses are no longer included in determining medical service institution revenues. The decisive factors are the conditions of individual cases and diagnoses. After the comprehensive implementation of DRG in the United States, significant effects were achieved. Many countries such as Canada, France, Brazil, Germany, the United Kingdom, and Australia began introducing DRG payment methods gradually after the mid-1980s and gradually developed case grouping systems that suited their conditions, while also improving disease classification groupings,
medical costs, and fee pricing schemes \[10\]. In addition, many countries have incorporated disease grouping theories into their healthcare systems, assisting with the promotion of prepayment in medical expenses.

Since the establishment of the People’s Republic of China, medical service institutions at all levels have always adopted a fee-for-service model based on service items \[11\]. However, this payment method easily leads to over-checking and treatment of patients by medical service institutions and medical personnel in pursuit of profits. Therefore, there is a clear trend of increasing national medical expenses, which is closely related to healthcare insurance payment methods. The existing payment methods significantly hinder the development of medical insurance and are difficult to adapt to the requirements of medical and health management. Coupled with the imperfection of incentive mechanisms, it is difficult to ensure the rational use of medical insurance funds, which may even affect the efficiency of medical services. To fundamentally control medical expenses, it is necessary to reform healthcare insurance payment methods.

In 2004, the Ministry of Health organized pilot projects for disease-based fee management to alleviate the burden of medical expenses on patients, selecting provinces and cities such as Shandong, Qinghai, and Tianjin as pilot areas. In April 2011, the Ministry of Health, in conjunction with the National Development and Reform Commission, made clear requirements for standardizing clinical pathways and effectiveness in common and prevalent disease areas nationwide, playing a crucial guiding role in the pilot work of disease-based fees. In the same year, in May, the Ministry of Human Resources and Social Security issued the “Opinions on Further Promoting the Reform of Medical Insurance Payment Methods,” which clarified the reform goals of healthcare insurance payment methods \[12\].

3. Overview of DRG healthcare payment

3.1. Definition

DRG utilizes various factors such as patient age, disease diagnosis, clinical treatment, severity of illness, and complications as the basis to select patients with similar medical resource consumption and treatment plans into corresponding groups for standardized management \[13\]. It represents a new system of disease diagnosis classification and grouping. Essentially, this payment method focuses on patients and possesses multiple management functions such as budgeting and payment. Therefore, it has been incorporated into the modern management tools of hospitals and is widely used in areas such as performance management, cost control, and healthcare insurance payment in long-term clinical practice. After classifying different disease diagnoses, DRG can determine the payment standards for different case groups and implement standardized management in medical practice, greatly assisting in optimizing the allocation of existing medical service resources.

3.2. Characteristics

Unlike payment methods based on per capita, per item, or disease type, DRG payment methods consider and analyze factors related to patients comprehensively during the process of grouping, especially factors such as age, diagnosis and treatment plans, severity of illness, and medical resource consumption. Based on this, different groups’ payment standards are determined to objectively evaluate the quality and efficiency of medical services in public hospitals \[14\]. This payment method emphasizes resource consumption and clinical processes to ensure that patients within the same DRG
have similar clinical processes and resource consumption\textsuperscript{[15]}. Therefore, disease diagnosis is used as the basis for classification, while the determination of treatment methods is based on “surgery or procedures,” and relevant factors such as patient gender, age, occupation, and complications are fully utilized to describe their individual characteristics.

3.3. Significant roles

Under the leadership of the National Healthcare Security Administration, a series of documents related to DRG payment have been issued successively, providing strong support for the comprehensive promotion of this payment method and confirming that the reform has entered the right track and been put on the agenda.

The deepening reform of DRG payment methods significantly reduces the occurrence of problems such as excessive examinations, treatments, and unreasonable medication use, while also facilitating the consolidation of the dominant position of public hospitals\textsuperscript{[16]}. It helps them to form a correct understanding of their responsibilities and functional positioning, thus assisting in the implementation of disease treatment work. Additionally, public hospitals have effectively innovated their existing management concepts and rigorously managed medical payment costs during the DRG payment reform, thereby improving the actual efficiency of fund operation to some extent. Most importantly, based on the background of DRG payment reform, the security of healthcare insurance funds has significantly improved, enabling more standardized fund utilization and stricter constraints on clinical diagnosis and treatment behaviors. Throughout the process of DRG payment reform, the characteristics of refined hospital management will gradually become prominent, leading to continuous improvement of internal management mechanisms within hospitals. Similarly, it can optimize the salary structure of medical workers and provide strong support for the coordinated development of regional medical services. The DRG payment reform aims to balance the relationship between public hospitals and healthcare insurance payment methods, making the relationship among hospitals, patients, and healthcare insurance more harmonious\textsuperscript{[17]}.

4. Impact of DRG healthcare payment reform on public hospitals

4.1. Performance assessment

During the implementation of relevant management work, public hospitals generally use performance assessment as the main management tool. The DRG payment reform can guide public hospitals reasonably, enabling the unified management of case groups with similar costs and clinical process consumption. This encourages hospitals to quantitatively manage service efficiency, quality, and medical technology. By adjusting performance assessments appropriately, the deepening reform of DRG payment is facilitated, and hospitals can promptly obtain data content related to assessment indicators. Against the backdrop of continuously improving performance assessment management mechanisms, better safeguards are provided for the management and control of medical service costs, thereby assisting public hospitals in obtaining benefits\textsuperscript{[18]}.

4.2. Level of informatization

In the process of DRG payment reform, public hospitals must fully utilize information technology to achieve their high-quality development goals. This involves continuously optimizing information system modules and laying the technical foundation for the creation of regional medical health data...
platforms. During the actual operation of the platform, medical institutions and relevant departments within different regions can access valuable data and information, promoting collaboration and resource coordination within the region.

**4.3. Quality of medical records**

The content of medical records plays a crucial role in evaluating the diagnostic and treatment capabilities of public hospitals and medical personnel. It also ensures finer grouping within DRG schemes. For the hospital’s medical system, the quality of medical record headers directly affects the effectiveness of DRG implementation. A bad system not only lowers the accuracy of medical information classification but also affects the trustworthiness of patient payment standards in hospitals. Therefore, the DRG payment reform improves the accuracy and completeness of medical record header information to a certain extent. Additionally, disease coding becomes more precise. Medical records serve as the primary means of reflecting the medical service capabilities of public hospitals and play a critical role in controlling quality in their future comprehensive and sustainable development.

**4.4. Management aspects**

Affected by the DRG payment reform, the medical and health system undergoes changes, especially in the existing medical treatment model, which successfully transitions to healthcare insurance medical treatment. In this scenario, patients have greater autonomy in choosing where to seek medical treatment, leading to increased competition pressure for public hospitals. To maintain a dominant position in the region, public hospitals need to continuously improve their operational management. Management is focused on enhancing the level of medical technology within the hospital, innovating existing medical service models, optimizing the layout of medical resources based on new service concepts, and minimizing the occurrence of medical disputes. This comprehensive improvement aims to enhance medical service efficiency and improve the patient experience.

**5. Development path of public hospitals under DRG healthcare payment reform**

**5.1. Strengthening hospital management efforts**

The operational role of public hospitals is significant in their high-quality development process. Therefore, hospitals need to establish an operational management department internally and assign professionals to manage related operations scientifically. The operational management department, focusing on human resources, research, medical services, finance, and education, actively constructs an operational management decision support system, making the relevant work of the management more systematic and refined. Furthermore, the comprehensive construction of smart hospitals can significantly enhance the medical technology level of public hospitals. It also promotes the realization of goals such as cost control, quality improvement, and strict management, further optimizing the quality of management work in public hospitals under new circumstances.

**5.2. Effectively harnessing the leadership role of party building**

To better achieve development goals, public hospitals must emphasize the leadership role of party building and demonstrate their public welfare characteristics. Amid the DRG payment reform, the most crucial path is to adhere to the leadership of the Communist Party. Therefore, public hospitals
need to actively respond to and implement health policies and guidelines, demonstrating the leading role of the party committee in the process. It is essential to establish grassroots party organizations in various departments of the hospital, conduct ideological work among medical personnel, fully leverage the vanguard role of party members, and create a workforce of medical personnel who are proficient in medical expertise and well-versed in party theory. By integrating medical technology with party building, the hospital’s sustainable development can be promoted.

5.3. Creating hospital branding

To accelerate the development of public hospitals, cultural construction is essential. Therefore, hospitals need to position themselves according to the new situation and stipulate corresponding regulations for medical technology levels, hospital development, and the development of various disciplines. Integrating excellent traditional culture into the hospital’s cultural resources system can create distinctive hospital cultural brands. Through methods such as networking and free clinics, hospitals can publicize their brand characteristics while achieving considerable benefits, and better meeting the healthcare service needs of the public. Additionally, public hospitals can establish staff recreation centers to improve the working environment for medical personnel. By organizing various cultural and sports activities, communication among medical staff can be strengthened, gradually fostering confidence in hospital culture and promoting the integration of cultural construction with clinical business development to achieve development goals through brand culture.

5.4. Attention to medical records management

On one hand, it is essential to comprehensively standardize the clinical diagnosis and surgical operation catalogs for patients, generally based on international standards, and refer to guidelines for various specialized diseases to ensure the standardization of disease diagnosis. Furthermore, it is necessary to promptly input the above catalogs into the electronic medical record system and ensure the standardized uniformity of surgical catalog entries across various hospital departments.

On the other hand, there is an emphasis on systematic management of patient medical record quality. Targeted management of the medical records of all patients visiting the hospital is necessary, especially the content of the entire treatment process. Quality management of medical records should be prioritized to ensure timely diagnosis. The first page of the medical record must be completed within eight hours of the patient’s admission, and surgical records must be completed within a day after the patient’s surgery. Failure to complete these tasks promptly may hinder subsequent operations. The archival time for patient records should be reduced to within three days of discharge, with a fine of 20 yuan per day for delays. Additionally, quality control of terminal medical records is crucial, and strict inspections should be carried out using methods such as cross-departmental checks and post-event random sampling to ensure the completeness and quality of operational medical records. Several new department medical records and archived department medical records should be randomly selected for inspection every month.

6. Conclusion

In summary, the importance of DRG payment reform in the healthcare system reform is becoming increasingly prominent. Public hospitals should seize development opportunities, closely follow the trends of the times, and under the leadership of the party, clarify their concepts of health development.
Simultaneously, while improving the internal management system, they should actively manage the effectiveness of operational work, further restrain clinical treatment behaviors, and effectively improve the quality of medical services provided. Public hospitals should also make continuous efforts in the process of DRG payment reform to achieve multi-level and all-around high-quality development goals.

**Disclosure statement**

The author declares no conflict of interest.

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