

# Discussion on the Implementation Path of DRG Payment Reform in Public Hospitals

Hai Xing

The Third Affiliated Hospital of Naval Medical University, Shanghai, 200438, China

## Abstract

With the continuous advancement of the deepening medical reform policy, China's payment system faces major challenges. In recent ten years, according to the development trend of international payment system, the payment of medical services has gradually changed from the post payment system based on "payment by project" to the packaged prepayment system based on "payment by disease". In other words, from payment by project to payment by single disease, payment by bed day, payment by head and other payment methods, it has gradually transitioned to a composite medical payment mode in which Diagnosis Related Groups(DRG) coexist with other payment methods. Under this mode transformation, the hospital will face the transformation of the overall operation process and management from doctor diagnosis and treatment to fee settlement. Therefore, public hospitals need to explore a set of implementation paths under the DRG payment mode to adapt and improve the hospital's diagnosis and treatment services and management effectiveness under the new mode.

## Keywords

DRG Payment Method; Public Hospitals; Implementation Path.

## 1. Introduction

In recent years, China's medical insurance expenditure has continued to rise. Affected by the sharp rise of medical insurance expenditure, the payment capacity of medical insurance balance funds has decreased rapidly. It has become a long-term task to implement medical insurance cost control on the premise of ensuring medical quality. Therefore, the reform of DRG payment mode should be carried out under this background. In June 2017, the general office of the national health and Family Planning Commission issued *The Notice on Carrying out the Pilot Reform of Collection and Payment by Disease Diagnosis related Groups*, and determined the "three + 3" pilot.[3] In May 2019, the four ministries and commissions jointly issued *Notice on Printing and Distributing the List of National Pilot Cities Paying by Group for Disease Diagnosis*, which identified 30 cities as national pilot cities for DRG payment, and the DRG collection and payment reform was fully launched nationwide. [4]

## 2. Characteristics of DRG Payment Method

DRG payment method is a pre payment and packaging method that divides inpatients into a certain number of disease groups according to clinical similarity and resource consumption similarity (i.e. according to the patient's disease severity, complexity of treatment methods and resource consumption), and formulates medical expense standards by group. [1]

DRG grouping usually includes four levels: first, it is divided into diagnostic categories (MDC) according to the medical standards of anatomy or etiology. Then divided into different treatment methods, such as surgical treatment, non-surgical treatment group and so on. In each type of treatment, the basic group classification is determined according to the matching of main diagnosis and main treatment. Finally, a DRG group for payment was allocated in

combination with other resource consumption factors, such as other diagnosis, complications, age, nursing grade, etc. DRG group payment amount = DRG group weight × Hospital basic rate × Rate adjustment. [2]

DRG payment is applicable to acute hospitalized patients, not to non acute patients with mental and psychological diseases, rehabilitation patients and patients with chronic diseases. It mainly has the following typical characteristics: first, full coverage. The DRG system needs to classify all inpatients and try to include all eligible inpatients into DRG payment. Avoid the transfer of cost risk due to non "DRG" patients. Second, cost consistency. Each DRG group has a weight, which is the relative cost points calculated from the average cost of Regional Cases calculated based on the medical record bill and cost data of the sample hospital compared with the cost of all cases. If the cost of a certain type of DRG is exactly equal to the average cost of all cases, the relative weight is set as 1. The weight reflects the relative cost relationship between DRG groups. The final payment price is obtained by multiplying the relative weight by the rate of each point weight. In this way, the two concepts of cost and unit cost price are clearly defined. Third, dynamic regulation. By adjusting the payment rate, we can realize the flexible regulation of hospital payment. The adjustment of payment rate is based on the hospital case Portfolio Index (CMI). It can effectively reflect the complexity of hospital cases and become an indicator of hospital treatment, so as to delimit different payment rates. It can also adjust the rates according to whether it is a teaching hospital, whether it includes high consumption treatment units (burns, transplantation, newborns, etc.), and whether it provides social assistance and public health services. This is more scientific and reasonable than the current direct classification by level. Fourth, comparability. Since the use of DRG payment system must use the same tools and have the same standards, multiple comparability is realized. [5] The cases divided into the same DRG group have clinical similarity and resource consumption similarity, which provides a comparison standard.

### 3. Implementation Path of DRG in Public Hospitals

DRG operation system mainly includes four links: process transformation, data collection and grouping, platform verification and simulated settlement. Grouping is the core link of payment reform system, and its accuracy determines the overall cost.

#### 3.1. Hospital Preparation

As the ultimate goal of payment system reform, DRG collection and payment reform is different from the traditional charging method because of its complexity, professionalism, particularity and accuracy. [6] It needs the cooperation of all staff to complete it efficiently. Therefore, when introducing DRG payment, public hospitals should first carry out publicity and training in the whole hospital. In this way, relevant personnel (especially medical filling personnel, medical insurance, medical records, finance, information and other auxiliary operators) can truly master the operation principles and methods of DRG, and carry out the transformation of corresponding medical record home page, doctor workstation, settlement module and other information systems. Then realize the upgrading of medical insurance hospital interface program, establish a network environment interconnected with DRG provincial platform and medical insurance handling system, improve the timeliness, integrity and accuracy of data transmission, and make preparations for the reform of DRG payment method.

#### 3.2. Data Collection Grouping

The accuracy of DRG grouping depends on the filling quality of the first page and its attachments of inpatient medical records. In particular, the "discharge main diagnosis" option is the primary basis for grouping diseases. The filling personnel classify some diseases into a basic group through "discharge main diagnosis" and "main surgical operation", and further classify these

diseases into sub groups according to "other diagnosis" and relevant additional information. DRG grouping is the basis of the reform of DRG payment method. It not only requires that the filling personnel have high medical business knowledge literacy, but also needs to be guaranteed by a perfect medical record quality control supervision system.

### **3.3. DRG Grouping Platform Verification**

After checking and confirming the correctness of the relevant disease grouping, the filling personnel shall upload it to the national unified DRG grouping platform. The DRG grouping platform will match the uploaded data with the national unified specifications (including cchi codes and diagnostic terms). Those who successfully match will enter the next payment link, and those who cannot match will be returned. The core task of this link is to establish a term set that can fully match the country to avoid the situation that localized terms cannot be checked in hospitals. At present, public hospitals are constantly revising and running in.

### **3.4. DRG Simulation Settlement**

The DRG grouping platform will feed back the approved grouping results to the hospital settlement system.[7] For self funded patients, the hospital settlement system will directly conduct DRG settlement. For Medicare patients, after the system identifies the medical insurance type and hospitalization times of patients and the corresponding preferential policies enjoyed by this admission, the DRG grouping platform uploads the grouping results and information of Medicare patients to the medical insurance center, and returns it to the hospital settlement system after review and confirmation, so as to complete the DRG settlement of Medicare patients.

## **4. Suggestions of DRG Payment Reform in Public Hospitals**

First, increase policy publicity and training, and improve the docking and unification of local terms and codes. The competent health department and the provincial medical insurance department shall strengthen the promotion and training of DRG payment method reform in public hospitals, and organize large-scale training regularly to make medical personnel and relevant personnel better master and use DRG. In addition, the provincial medical insurance department should further sort out the local cchi code library and continuously improve the docking and unification of local terms and national standard terms. Carry out the docking between the provincial medical service price project and the classification and coding of medical service operation projects in China, fully realize the "two codes in one" of service operation and project charging, facilitate the standardization of diagnostic terms and service operation on the first page of medical records, and pave the way for the full coverage of DRG in public hospitals in the future. [8]

Second, strengthen the quality control audit of medical records and improve the medical quality control supervision mechanism. Doctors are encouraged to write medical records carefully to improve the authenticity of data. The medical department and quality control department regularly dispatch medical records for inspection, timely solve the errors in the medical records, irregularly hold medical quality control meetings, report the quality control of medical records, link the quality control of medical records with the performance of the Department, and strengthen the audit and supervision of the quality control of clinical medical records by the medical department and medical record department.

Third, continuously optimize and improve the clinical path and standardize the diagnosis and treatment process. Clinical pathway is an important basis for DRG collection and payment reform. We should scientifically and reasonably formulate an intelligent and efficient clinical pathway according to the pathogenesis of the disease, incorporate it into the medical quality control supervision system, regularly evaluate and continuously improve the implementation

quality, so as to form an effective closed-loop management. A scientific and reasonable clinical path can not only restrict and standardize the diagnosis and treatment behavior and eliminate the randomness of doctors' examination, but also effectively improve the cost control efficiency of the hospital and promote the efficient utilization of medical resources.

Fourth, strengthen disease cost accounting and speed up the application and approval of new technologies. In terms of internal management, the reform of payment mode forces the hospital to strengthen the connotation treatment benefit management of diseases, strengthen the cost accounting of diseases, cooperate with the cost performance assessment, gradually change from project cost accounting to disease cost accounting, promote the application of full cost accounting in the hospital and improve the economic benefits of the hospital. In terms of external policies, the competent health department and the provincial medical insurance bureau should speed up the application and approval process of new technologies, appropriately relax the access threshold for some new technologies, and guide medical institutions to make rational use of new medical technologies, methods and means to meet the growing medical service needs of patients.

Fifth, establish a risk emergency mechanism and formulate a risk emergency plan. First, a standby grouping device should be installed in the hospital to deal with the abnormal situation of the national grouping platform and ensure the real-time settlement of patients. Second, establish an emergency working group for DRG collection and payment reform of departments and pilot hospitals. According to the requirements of rapid response, performing their respective duties, collaborative linkage and stable disposal to ensure real-time settlement, strengthen the review of medical records in the policy implementation stage, deal with the abnormal cases fed back to the hospital by the provincial platform, and do a good job in the coordination and disposal of sudden problems.

Sixth, strengthen the top-level payment policy design and effectively deal with the problems of hierarchical diagnosis and treatment. DRG is essentially based on medical value. Under the premise of the current hierarchical diagnosis and treatment pattern, it is suggested that on the one hand, the idea of hierarchical pricing of different medical institutions should be abandoned and the payment principle of "same disease, same quality and same price" should be implemented uniformly. On the other hand, we should strengthen the preference for grass-roots medical institutions in policy-making, so as to prevent the change of payment mode from bringing a greater impact on grass-roots medical institutions to a certain extent.

## References

- [1] Busse R. Diagnosis-Related Groups in Europe[M], NewYork: MacGraw-Hill, 2011:93-115.
- [2] Fetter R, Shin Y, Freeman J, et al. Case mix definition by diagnosis related groups[J]. Medical care, 1980,18(2):1-53.
- [3] Zhang Yanhong Impact of DRG payment reform on hospitals and policy suggestions [J] Financial circles, 2021 (29): 191-192.
- [4] Wei Yuying Practice of cost control in public hospitals under DRG payment [J] Assets and finance of administrative undertakings, 2021 (04): 41-42.
- [5] Zhu Peiyuan, Wang Shan, Liu Lihua Discussion on the implementation path of DRG payment reform in public hospitals [J] China health economy, 2018, (5): 32-35.
- [6] Zhang Jing, Wang Fuzhen, Zhang Peigang Review on the existing problems and Countermeasures of DRGs in China [J] Modern hospital management, 2018, (4): 25-28.
- [7] Li Shunfei, Liu Yang, Cao Xiutang, etc Study on adjustment method and application of case combination index based on disease composition and spatial price index [J] China Medical Herald, 2017, 1 (14): 68-71.

- [8] Zhang Wenliang Study on the impact of implementing DRGs PPS on hospital cost management [J]  
Modern hospital management, 2016,14 (2): 84-86.